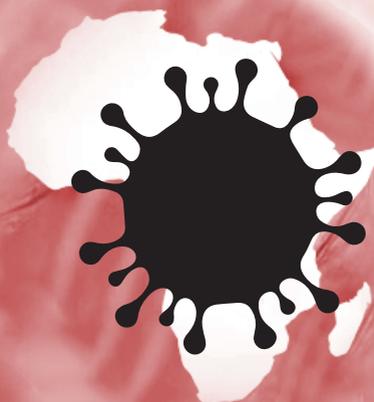


THE FUTURE OF AFRICA IN THE POST-C^{COVID-19} WORLD



INTER REGION ECONOMIC NETWORK
A PEER-REVIEWED PUBLICATION

Edited by NASHON JUMA ADERO and JOSEPHAT JUMA

ABOUT THE IREN BOOK PROJECT

The Future of Africa in the Post-COVID-19 World is a signature book project of the Inter Region Economic Network (IREN), a private think tank which has since 2001 been promoting progressive, bold, Afro-centric development ideas and ideals through incisive scholarly debates and publications.

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The Future of Africa in the Post-Covid-19 World

Inter Region Economic Network
A Peer-Reviewed Publication



ISBN 978-9914-708-80-6

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Acknowledgements

The Future of Africa in the Post-COVID-19 World as a timely book has benefitted from the contribution of various organisations and persons, who volunteered their support in different appreciable ways. The Inter Region Economic Network (IREN) spearheaded the book publication project under the leadership of the Founder, James Shikwati. Nashon Juma Adero developed the required templates for standardisation and quality control.

Inter Region Economic Network acknowledges the partnership with the Friedrich Naumann Foundation that made the 10th IREN East Africa Thought Leaders Forum that led to the publication of this book a great success.

The in-house IREN team: Zaina Shisia and Everlyne Liviala are recognised for their logistical support.

We highly acknowledge all the authors, without whose contribution this book could not have been realised. The speakers and panel of experts at the forums leading to this publication are highly acknowledged too.

The following reviewers made it possible to produce papers that meet the requirements for today's recognised standards of research outputs.

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1. Prof. Christine Onyango – Taita Taveta University, Kenya
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Preface

“Organised thoughts, when reviewed for veracity and compelling philosophy, then immortalised in books, present humanity the timeless opportunity to pass on knowledge and share experiences while influencing a mindset change – intergenerationally,” Nason Juma Adero on the priceless value of good books.

Anno Remedio. COVID-proofing. Doomscrolling. Infodemic. Panic shopping. Pandemic versus plandemic. Pandemic fatigue. Post-pandemic resilience. Recovery roadmap. Reimagination. Reinvention. Remotopia. Social distancing. Super-spreaders. Vaccine equity. Vaccine hesitancy and scepticism. Vaccine nationalism. The COVID-19 global pandemic has made these keywords rise to the top of popular discourse since it began ravaging the world in early 2020. Organised thoughts, when reviewed for veracity and compelling philosophy, then immortalised in books, present humanity the timeless opportunity to pass on knowledge and share experiences while influencing a mindset change - intergenerationally. ***The Future of Africa in the Post-COVID-19 World*** is such a timely book, now in your hands.

The COVID-19 pandemic has a singular message for Africa and her future. For her undisputedly weaker infrastructure and health systems by world standards, Africa has posted a performance streak that goes against the previous grim expectations. Africa’s 17% share of the global population but only 3.3% of the global COVID-19 cases and 3.5% of the global death cases by December 11, 2020 add weight to the continent’s reported fair performance record. Africa’s multilateral response to the pandemic has involved the African Union, Africa Centres for Disease Control and Prevention (CDC), the Africa Joint Continental Strategy for COVID-19 Outbreak, the Partnership to Accelerate COVID-19 Testing (PACT), and the African Union COVID-19 Fund.

Africa must not mistake this relative escape from the worst hit by the pandemic for a final victory. A peek at the continent’s lost school calendar, for example, confirms how the pandemic has shoved the continent’s education sector to the dark side of the digital divide. A growing challenge, therefore, remains in building institutions and systems that can assure adaptive resilience to similar emergencies and disasters, which are bound to be more frequent in a connected world experiencing increasing pressures from human activities, urbanisation, and population growth. Africa’s post-pandemic future cannot be divorced from the data-driven digital transformation wave and the accompanying generational succession by youthful digital natives embracing a borderless worldview. It is a future increasingly demanding of institutional strengthening and a collaborative systems approach to solving common and foremost challenges, such as: healthcare, quality education focused on employability skills and job creation, infrastructure development, food security, energy security, and water security. The chapters of this book have explored the key thematic areas Africa needs to focus on for competitiveness and

post-pandemic resilience. The authors were drawn from universities, industry, government, and civil society. The papers, from different disciplinary backgrounds and affiliations, were double-blind peer-reviewed to ensure the quality standards of modern authorship and scholarly debates. Papers sharing mostly independent but informed author opinions were also accepted after the review process and allocated their own section as opinion articles in the book. The 10th East Africa Thought Leaders Forum held virtually on August 26, 2020, added another layer of review as the authors shared their topics for scrutiny in a laboratory of democratic criticism. Universities demonstrated leadership by participating actively in the generative debates and subsequent contributions that led to this publication.

We appreciate the assiduous teamwork that yielded this book, within IREN and beyond. It is our hope that you will find this book a liberating elixir loaded with empowering messages for a recovering and rising continent.

Nashon Juma Adero and Josephat Juma
Editors of *The Future of Africa in the Post-COVID-19 World*

Foreword

The Inter Region Economic Network (IREN) is a leading independent African Think tank that promotes ideas and strategies geared towards causing prosperity in Africa through free enterprise and sound public policy. The Vision of IREN is to convert Africa's potential to reality through sound public policy. The mission is to be a leader in improving living standards in Africa through free enterprise. Our philosophy is that a free human mind is the ultimate capital.

We hold a series of thought-leadership forums for cross-fertilisation of innovative ideas that need to be matured into impactful solutions for the African continent and society.

On August 26, 2020, we held our flagship thought-leadership series virtually, the 10th IREN East Africa Thought Leaders Forum. COVID-19 was central to the debates that ensued, being the century's outstanding disruptor. The global pandemic has introduced a reset moment for Africa as well, changing the traditional context for development dialogue and cooperation on issues of political, social, environmental, technological and economic significance.

To do justice to the novel and energising discussions at the forum, which brought together top minds from Africa and all over the world, this book project was conceived. The Future of Africa in the Post-COVID-19 World was found a fitting title for the heartbeat of this era, when Africa finds itself at a historic but reassuring crossroads dotted with second chances. The authors of the multidisciplinary and peer-reviewed chapters were drawn from the speakers at the forum as well as writers and scholars from Africa and other parts of the world. This rich diversity has given the book the top quality and confidence of appeal that comes to life off every page.

To manage the peer review, editing and quality control process, the IREN team partnered with academics from Kenyan universities. The realisation of this book is, therefore, a solid delivery on the much-desired university-industry collaboration. IREN appreciates this diligent collaboration and is committed to the furtherance of the same through subsequent book publications.

It is my pleasure to welcome your readership of this book, whose contents have been peer reviewed for quality and relevance. The chapters address a wide cross-section of key development issues in Africa, a region seeking out a viable post-pandemic recovery roadmap. Decision makers, researchers, and students alike will find this book a resourceful and relevant reference for advancing Africa-centric development dialogue and studies.

James Shikwati
Founder & Director, Inter Region Economic Network (IREN)



James Shikwati is Founder and Director of Inter Region Economic Network (IREN Kenya), a think tank that focuses on developing ideas and strategies to enhance the quality of life for people in Africa. He is also the founder and CEO of The African Executive, a leading online opinion magazine that focuses on African issues and Country Director of Enactus Kenya, an entrepreneurship and business programme present in 33 Kenyan universities. A self-taught Kenyan economist, his main area of focus is development economics in Africa. He is driven by a firm belief: A Free Human Mind is the Ultimate Capital. He serves on a Pan Africa Select Committee that networks African Think Tanks, Research Institutes and Scholars keen to evaluate Africa's engagement

with China and other emerging economies. Mr. Shikwati has authored several books and hundreds of commentaries on public policy, economic development, environment, trade and agriculture. He co-edited a book with Prof. Jurgen Runge on "Geological Resources and Good Governance in Sub-Saharan Africa" and edited a book on "China - Africa Partnership: The quest for a win-win relationship." He was named among 100 most influential Kenyans in 2007 by the Standard Newspaper, and recognised as a Young Global Leader by the World Economic Forum in 2008. He is also The Walter - Scheel - 2015 Laureate.



Josephat Juma is the current Managing Editor of Inter Region Economic Network's flagship online magazine *The African Executive* and Coordinator of the IREN Think Tank Platforms. He also updated agriculture-related news on Syngenta's Stewardship Community Website for 6 years. His edited works feature in numerous local and international journals. He was instrumental in editing the book: *Agricultural Investment in Eastern Kenya*, by Inter Region Economic Network (IREN); *China-Africa Partnership: The Quest for a Win-Win Relationship* (IREN & China Embassy in Kenya); *Women and the Informal Economy in Urban Africa-From the Margins to the Centre* by Africanow (2014); *African Markets and the Utu-Ubuntu Business Model: A Perspective on Economic Informality in*

Nairobi by African Minds, Cape Town (2019). As Coordinator of the IREN Think Tank Platforms, Juma has successfully brought together high-profile participants and facilitators drawn from Africa, Europe, Canada and America for IREN's Think Tank Forums.



Nashon Juma Adero, a geospatial engineering and systems modelling expert, has for over two decades acquired rich cross-sector experience in the surveying and mapping industry, public service, and academia. Besides publishing on geospatial technologies and applied system dynamics models for governance and environmental sustainability, he is active in thought leadership and networking across several expert groups such as the System Dynamics Society (SDS), The Global Academy (SDGs), Elsevier Researcher Academy, The Future of Research Communications and e-Scholarship (FORCE11), DAAD Alumni, The International Association for Mathematical Geosciences (IAMG), among others. At the time of writing this book, he was a lecturer of Mining

& Engineering Surveying and Geospatial Information Systems (GIS) at Taita Taveta University, Kenya, and a PhD candidate at Freiberg University of Mining and Technology, Germany. Nashon is Founder of the Impact Borderless Digital (IBD) youth mentorship programme and also doubles as a volunteer youth mentor under Kenya's Presidential Digital Talent Programme and Enactus Kenya. Among the international awards he has won are the 2020 ACCESS Idea Competition for African academia on Employability Promotion at Higher Education Institutions in Africa and the 2008 Barry Richmond Award (STELLA license) for System Thinking.

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The views expressed in this publication do not necessarily reflect those of The Inter Region Economic Network. While individual authors take responsibility for the arguments espoused, IREN takes responsibility for any typographical errors that may be detected and welcomes suggestions for improvement. IREN shall in no event be liable for any loss or damage arising in connection with the use of information in this publication.

Why this Book is Compelling

Off the hundreds of pages of this book are key messages from fourteen authors whose revised contributions were accepted for publication after blind peer reviews. The authors represent various universities, research institutes, industries and independent voices from Eastern Africa, Southern Africa, and North America. The chapters are grouped under six matching thematic areas. The themes range from critical lessons at the interface of science and policy that COVID-19 presents African leaders, addressing agri-food systems and climate change, geopolitics and geoeconomics, to the urgency of a new economic order for Africa.

The opening section covers disaster-governance lessons from multiscale COVID-19 models. The editor shares key lessons on disaster governance from the COVID-19 experience in the first chapter. The lessons accrued from a year-long study and modelling of COVID-19 trends at scale across thirty-two representative countries, from Africa (16) and the rest of the world (16). These models have been shared at scientific forums and in the public media including Citizen TV, the key emphasis being on ensuring data integrity and efficient testing, tracing, timing, trust building, transparency, training, and transdisciplinary research to effectively contain the pandemic. The chapter advances scientific thinking to give context to the book, challenging African leaders to the new thinking required for improved governance in a post-pandemic world. The author positions human capital and technological development at the core of the systemic change essential to achieving a healthy science-policy interface to propel African countries to higher ranks of global competitiveness.

The second section covers post-pandemic agenda for education, skills development and youth. The opening chapter has a compelling message on talent management, borderless engagement of Africa's highly skilled diaspora in skills transfer, and targeted skilling of the African youth to enhance employability and solve the growing unemployment problem on a continent with a youth bulge. The chapter draws on the diverse cross-country and cross-sector experience gained while mentoring and interacting with African youth on education and skills development, climaxing in a youth-centric education and mentorship project conceived in 2018 under GraFA's EMPOWER Good Governance and Social Entrepreneurship Programme for doctoral students at Freiberg University of Mining and Technology, Germany. The need to train African youth in ways that can equip them with adaptive resilience for career security as digital transformation and constraints of the pandemic-threatened world reshape the labour market stands out. A mind transformation map to promote impactful and sustainable youth-centric innovation ecosystems is shared as well. In the third chapter, Elizabeth Obura draws on a Kenyan example to call the attention of education administrators and other education stakeholders to a transition from "spatial classrooms" to "borderless classrooms" as a post-pandemic coping strategy. She refers to the Diffusion of Innovations Theory to argue for

an informed transition process, rolled out through stages aimed at ensuring an inclusive online learning experience across Africa.

The third section addresses geopolitics and geoeconomics. Theo Neethling explores the post-pandemic future of an Africa highly indebted to China due to the more attractive Chinese loans (compared to Western lenders). The loans are used to finance capital-intensive (infrastructure) projects. He notes that China is an emerging world superpower and Africa's largest bilateral creditor. Sitati Wasilwa then examines the possible trajectory that the Sino-African relations may assume in the post-COVID-19 era. He presents a mutual basis of engagement as the better option for Africa, hence the compelling need for the continent to enhance its bargaining power by implementing new integrated initiatives, such as the African Continental Free Trade Area (AfCFTA). Not to be overlooked under this thematic area is the governance of traditional knowledge systems as embedded in various cultural traditions of regions and local communities. Ethan Mudavanhu explores why traditional knowledge communities have not gained a competitive edge across international markets. He argues that indigenous-knowledge-centred licenses should demonstrate adequate suppleness so that, in a post-COVID-19 Africa, intellectual property standpoints of traditional communities can be effectively assimilated into a more commonly accepted legal charter.

The fourth section throws the spotlight on multilateralism, a topic of growing interest especially due to the political philosophy of *Trumpism* and how it played out in the USA during the pandemic in 2020. Paul O. Odhiambo and Nashon J. Adero together assess the success of Africa's multilateral and multi-pronged approach to containing COVID-19. The multilateral approach promises the collective bargaining power needed for debt relief arrangements and empowering the continent's post-pandemic economic recovery. Investment in enabling governance and technologies for collaborative engagements driven by knowledge, quality research, and data is a critical outlook for a thriving Africa in the post-pandemic recovery period, given the foreseeable uncertainties in foreign direct investments (FDI) if the pandemic persists. The subsequent chapter under multilateralism is authored by Cynthia Chigwenya. She shares a different perspective that decries the fragmented approach to COVID-19 witnessed in Africa despite the emergence of multilateral organisations during the pandemic. She cites Tanzania and Madagascar as examples of non-conventional country responses to COVID-19. She further cites pre-existing trade wars between the USA and China among the factors that have worked against multilateralism.

Food security, environmental sustainability and natural resources is the theme of the penultimate section of the book. Maurice Juma Ogada, Christine A. Onyango, and Nashon Juma Adero examine post-COVID-19 strategies for revamping agriculture and food systems in sub-Saharan Africa. They observe that the restrictions prompted by COVID-19 would adversely affect agricultural production and trade due to reduced availability of inputs, farm labour and markets. Compromised food

safety standards would also accompany the dwindling demand for food items due to reduced income. The raft of measures they recommend are: enhancing public health surveillance to ensure compliance with public health and food safety protocols; entrenching freer cross-border trade in food staples to enhance transfer from countries of surplus to countries of deficit for the benefit of both producers and consumers; providing economic stimulus to the agriculture sector to facilitate quick recovery; and implementing e-commerce among the smallholders. Ultimately, the post-pandemic future of agriculture and food systems in sub-Saharan Africa owes much to interventions in policy and technology, a fact they have emphasised while calling upon African governments to support agricultural transformation and broad-based food security through joint initiatives, such as the African Continental Free Trade Area (AfCFTA).

Climate change has been with us before COVID-19. It remains a major threat to humanity and all other forms of life on the planet. Omondi R. Owino and Nashon J. Adero together discuss climate change in the next chapter as a wicked problem, which exhibits non-linearity, interconnectedness, and complexity. They hence call for a systems approach, with dedicated research and development (R&D), and further critique the efficiency of R&D spending, a critical factor in enhancing research outputs to address climate change and similar complex problems in Africa. The authors state that the observed reduction in carbon dioxide emissions by about 17% by early April 2020, mainly due to the global travel restrictions imposed after COVID-19, is not sustainable without giving climate change the urgency of resolve and gravitas comparable to the response COVID-19 has elicited globally. They assert that climate change remains a key long-term threat to humanity and the planet, hence deserving unwavering attention in Africa's post-pandemic sustainability agenda. To reinforce their arguments, the authors introduce expanded pillars of sustainability, 7Ps instead of the traditional 3Ps. Tightly woven into the same fabric of environmental sustainability is forest conservation, forests being critical carbon sinks and climate regulators. Charles A. Khamala delves into what he terms "crimes against forestry" using the example of the Mau Forest ecosystem in Kenya. Referring to anthropocentrism and ecocentrism, he discusses the nagging case of the victims of forest destruction and forcible displacement in light of the law, stated as at February 2021. The pandemic, he avows, has worsened the consequences facing the displaced communities and made more urgent the need to address the intertwined environmental and human-rights problems in the Mau ecosystem.

The final section presents free thoughts and informed opinions on COVID-19. Mary Njeri Kinyanjui starts off this section with an incisive piece on why Africa must strive for a new economic order. The COVID-19 pandemic gives Africa an opportunity to rethink its approaches to poverty and development models. She maintains that Africa must rethink its subscription to a skewed global economic order and financial prudence. The flow of thoughts on the urgency of rethinking and reinventing Africa's approach to solving her own problems proceeds to the next

chapter by Sebastiano Rwengabo. He interrogates, at length, the topic of rethinking African security strategy amidst recurrent pandemics. He expounds on complex public health emergencies (CPHE) in the form of recent pandemics such as Ebola, Marburg, and COVID-19, which have exposed Africa's soft underbelly. He argues that pandemics have acquired the destructive potentiality of conventional security threats and ought to be given as much policy and technical preparedness and attention as conventional security threats. He proposes a deliberate repositioning of Africa's security calculus to offer solutions to a continent more threatened by pandemics than conventional security threats. In supplement to Rwengabo's notion of rethinking Africa's strategic threats, Charles Mwewa shares a firm message: the post-Covid-19 Africa should be a revolutionary Africa, an Africa ready to harness people's talents, at home and abroad, to build an Africa ready to fight for its dominant place in the community of nations. His summative message is captured under the title: *The Re-Engaged Africa: Ushering in an Equal, Dependence-Free and Economically Self-Sufficient Africa*.

The respective chapters carry the authors' contacts and profiles. Welcome to engage the chapters and authors for accelerated delivery on Africa's development agenda, including Agenda 2063, as we usher in the post-COVID-19 era.

The Editors

Recommended citation of this book or its chapters

To cite the book:

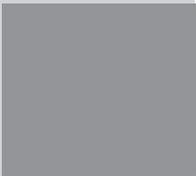
Adero, N.J., & Juma, J. (Eds.). (2021). *The Future of Africa in the Post-COVID-19 World*. Nairobi: Inter Region Economic Network.

To cite a chapter in the book (example):

Obura, E. J. A. (2021). Breaking Classroom Walls: A 'New Normal' in Kenya's Higher Education Landscape. In N. J. Adero, & J. Juma (Eds.), *The Future of Africa in the Post-COVID-19 World* (pp. 45-60). Nairobi: Inter Region Economic Network.



**Disaster Governance Lessons
for Africa from Multiscale
Covid-19 Models**



Multiscale Modelling of COVID-19 Curves: Insights and Implications for Disaster Governance in Africa

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The Science-Policy Interface in Disaster Governance

Scientific thinking is rational, treating models as working hypotheses that should be improved adaptively over time with new knowledge. Policy should be calibrated with science to provide sound direction, coherence, and continuity. In Africa, the traditional approach to calibrating policies and strategies in response to disasters has for too long assumed reactionary and linear thinking in silos, with little consideration for structured and long-term engagements with researchers, scientists, and think tanks. The urgent and sweeping global effects of the COVID-19 pandemic have challenged this limiting culture, making a compelling case for new governance models informed by systems thinking and a close working collaboration between researchers, scientists, policymakers, citizens, and the business community. The traditional thinking is not sustainable anymore and must give way to new thought leadership in the post-pandemic era.

Effective decision support for policy, planning, and long-term strategies requires reliable models for simulating scenarios and gaining insights into the most effective intervention points, known as high-leverage points. COVID-19 has demonstrated to health ministries the high value of generating a compact bandwidth of the most likely scenarios, with a view to informing effective governance of the pandemic. The pandemic closely followed the recent locust invasion that ravaged parts of Africa, adding to the growing list of disasters the continent must confront from data-driven, well-informed, and well-researched perspectives. The rise in the number of confirmed COVID-19 cases globally from just one million at the beginning of April 2020 to more than 115 million cases globally by March 2021, more than 3.9 million cases being in Africa, gives disaster governance a well-deserved position in the top list of the continent's post-COVID-19 concerns.

Models as Guides for Navigating Uncertainties

COVID-19 will for long be remembered as a disruptive pandemic that pushed “modelling and simulation” from the lonely margins reserved for the academic elite to the mainstream of everyday public and political discussions. Though they cannot replicate reality, models are important decision-support tools for policy and planning. Models selectively abstract reality to help reduce uncertainties into quantifiable risks amidst the divergent scenarios which accompany the pervasive and non-linear occurrences of disasters. Models should be as simple as possible and as complex as necessary. The rule of thumb in modelling is to generate a range of possibilities to guide decision making, not to engage in the wild goose chase of trying to accurately predict the (uncertain) future. The axiom attributed to the British statistician, George E.P. Box, applies, “All models are wrong, but some are useful.”

Models can be deterministic or stochastic depending on the law governing the level of uncertainties they handle. In terms of knowledge and data, we have two main categories: mechanistic models and statistical models. Mechanistic models are

useful where we have good knowledge or hypothesis of the mechanisms driving the system despite limited data availability, with just a bit of some historical data. Agent-based models and system dynamics come in handy in this respect. Statistical models are applicable where we have sufficient data on system behaviour over time and can use algorithms to create a model of dependencies.

In terms of purpose, we use prediction models for forecasting with some measure of prediction error; narrative models are aimed at transforming mental models through the persuasive power of sharing a convincing storyline of likely outcomes; and inferential models are used to test hypotheses using a measure of p value for statistical significance. In terms of the finiteness of intervals in data or events, we classify models into discrete models and continuous models.

In a complex chain of causality like the case of coronavirus across different countries and cultures, it is important to note that the assumed relationships between independent variables (x) and dependent variables (y) get modified significantly by moderating variables inherent in culture and attitudes and intervening variables such as health systems and environmental variables. For practical simplicity, reliable model outputs can still be obtained using sufficient infection data as inputs – in an exercise where the modeller doesn't have to be overly concerned with intricate mechanisms within the imaginary "black box". Against this background and given the growing data on COVID-19 cases, it is possible to use statistical models for decision support. The application of such statistical models to modelling COVID-19 trends over the last one year provided the key insights that have been shared in this editorial.

In this study, the abundant COVID-19 data generated since early 2020 justified the choice of statistical modelling to conduct data-driven mathematical simulations based on the best-fitting equations (R^2 of at least 0.995). The models were calibrated using time-series COVID-19 data for selected countries that were already exhibiting notable trends in their COVID-curves from January 2020 onwards. Sixteen indicator countries were selected from outside Africa and sixteen indicator countries from Africa, Kenya included. Informed by parameters based on modelling theory and assumptions based on the observed COVID-19 growth trends as well as sociocultural characteristics, pessimistic and optimistic growth curves were generated and adjusted adaptively every three to four weeks as new insights came in from the developing COVID-19 scenarios in the countries of interest. Population-normalised daily average COVID-19 testing rates were computed and compared across the countries to inform the likely future scenarios of COVID-19 cases.

As early as the March – April 2020 period, the model results already showed early signs of fast-rising COVID-19 curves with high daily exponential rates in the following countries: USA (26%), South Africa (26%), Cameroon (23%), Spain and the UK (20%), Kenya (18%), and Egypt (14%). The models projected the end-month COVID-19 cases within 10% margin of error for more than 90% of the instances. In the case of Kenya, the range was 0.1% to 13.8%, the highest difference of

13.8% applying to September, after a 50% reduction in the testing rates observed after August 16, 2020. The model further estimated that Kenya's new COVID-19 curve emerging from November 15, 2020 would theoretically peak at 103,188 cases on January 14, 2021. Between January 1 and January 14, the simulations assuming the curve would peak on January 14 remained within 4.6 – 5.5% above the actual cases. Kenya confirmed 89,771 total cases on January 14, 2021 (4.6% difference). These projections remained within 10% margin of error, which is within the boundary recommended for most policy and planning purposes.

Disaster Governance Lessons: The 7Ts for a Revitalised Post-COVID-19 Africa

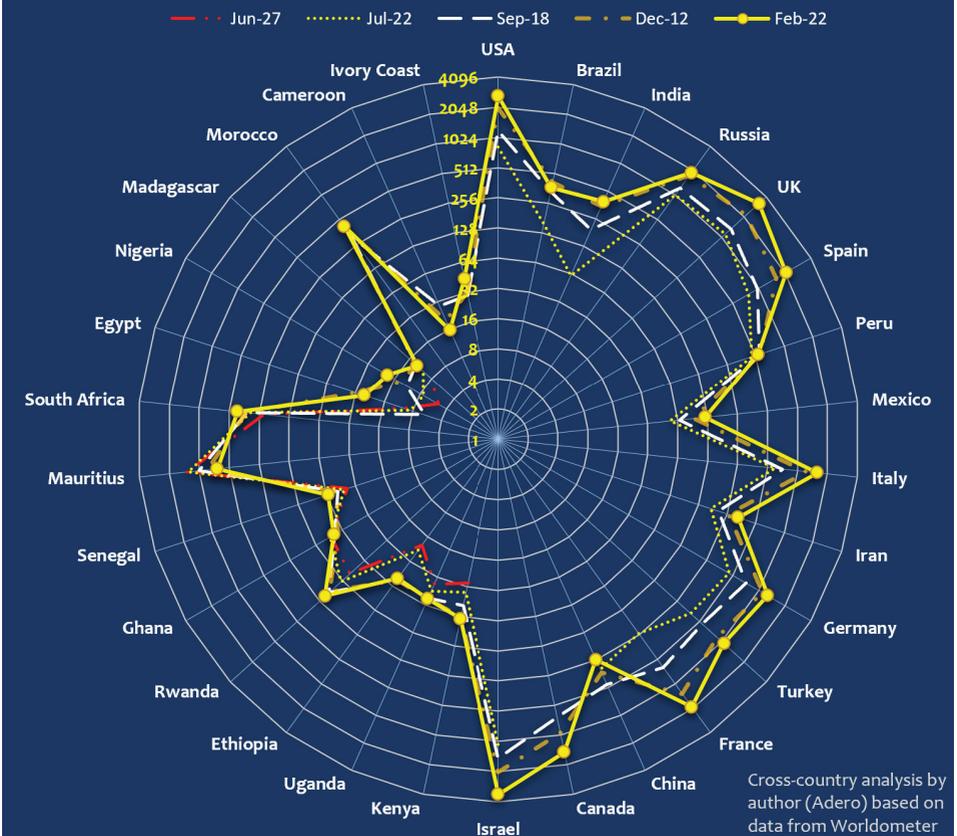
A premortem of the emerging post-pandemic era and a postmortem of the pre-pandemic period together provide key lessons for Africa on disaster governance. The lessons have been summarised into a list that has been referred to here as 7Ts, as they all start with T.

Timing, Testing, Tracing

Timely responses are key to effective disaster governance, hence the deployment of technology and adequate data. Adequate testing and tracing together provide the much-needed data to generate actionable intelligence for disaster governance. Spatial technologies add the critical layer of location-based intelligence across geographies. The tracing of the first case of COVID-19 in Germany to a saltshaker in a restaurant in Bavaria is exemplary of the pinpointed triumph of applied geospatial technologies. COVID-19 has demonstrated the power of data in supporting quality and evidence-based policy advice.

Using a list of thirty countries to compare COVID-19 testing rates that have been normalised for population differences and the days over which different countries have been testing, 14 from Africa and 16 from outside Africa, the limited COVID-19 testing and tracing capacity in Africa becomes evident in the figure displayed.

Trends in population-normalised daily average COVID-19 tests for 30 countries: measured in tests/million people/day - natural logarithmic scale



Across Africa, increasing COVID-19 testing rates were only noticeable over the June – September 2020 period before mostly stagnating or reducing thereafter towards February 2021. Mauritius and Cameroon are examples here of such a reduction in testing rates over time. African countries with large populations must confront the COVID-19 testing challenge more drastically to score better on the normalised testing indicator, hence the visible case here of Nigeria and Egypt. Ethiopia, for being almost at par with Kenya and Uganda on this normalised measure despite being one of the most populous countries on the continent, deserves some applause.

Israel, the USA, and most of the European countries have demonstrated consistently high and increasing normalised COVID-19 testing rates. Holding positivity rates constant, the significant differences in the population-normalised daily average COVID-19 testing rates should explain a major part of the key differences realised

in the total COVID-19 cases reported across African countries by the end of 2020. The recent resurgence of the leading European countries to their former top positions in the global COVID-19 cases has followed their more aggressive testing rates of late.

As observed, the population-normalised COVID-19 testing rates remained much lower and slower in progression in the African countries making up the study group. Mauritius, Morocco, South Africa, and Rwanda were the few African countries that had average scores of more than 185 tests per million people per day by December 12, 2020. Israel, the UK, and the USA had by this date scored above 2000 tests per million people per day, followed by more than 1000 tests per million people per day for most of the European countries in the study group, such as Russia, Italy, Spain, France, and Germany. India, Brazil, and China still had scores of less than 415 tests per million people per day by December 12, 2020, and their testing rates were reducing with time towards the new year. A similar receding trend towards the year 2021 was also observed in Cameroon, Ethiopia, and Egypt. Kenya's normalised testing rate was only 65 tests per million people per day on December 12, 2020, a rate that had only increased marginally to 66.6 by January 19, 2021. The progression in the normalised testing index between December 12, 2020 and January 19, 2021 was a daily increase of 29 in Israel and 14 in the UK, far ahead of the Africa's leading incremental case of only 1.5 in South Africa.

Transparency and Trust Building

Data integrity and effective communication with participatory approaches that engage stakeholders in co-owned processes help to enhance the transparency of government efforts in containing disasters. Building public trust in government processes and projects is supreme if citizens are to be motivated and active participants. Disaster taskforces need to ensure inclusivity across the vast stakeholder profiles. Modern scientific concepts, such as citizen science, empower the public to be active participants in generating the crowdsourced data crucial to calibrating decision support models and systems. Raising awareness among sceptical citizens would help turn them into active change agents. Citizen science in this case provides an inclusive and cost-effective route to enhancing participatory scientific research and securing public trust for effective disaster governance.

Countries that have ensured that their COVID-19 taskforces include behaviour-change agents and communication experts may attest to increased levels of citizen compliance with the pandemic containment rules. With the first batch of COVID-19 vaccines reaching African countries in early March 2021, such agents and experts will be critical to addressing the emerging issues related to vaccine hesitancy, pandemic fatigue, and vaccine equity.

Training and Transdisciplinary Thinking

Disaster governance thrives on the quality of produced capital of which critical disaster-management infrastructure is key, and the integrity of life-support

systems as reflected in sustainable natural capital. Human capital, including the highly skilled African diaspora, is undisputedly a critical part of Africa's overall capital without which the other forms of capital cannot be developed and managed in efficient and sustainable ways. This fact makes quality training and transdisciplinary collaborations critical to Africa's overall progress and the Agenda 2063. In this respect, Africa's learning institutions have the inescapable duty of nurturing thinkers with the right leadership skills for collaboration on key projects focused on common and public good. Government and industry support in this direction will help boost disaster governance as well.

Examples of transdisciplinary thinking will suffice here. Like the presently ravaging COVID-19 pandemic, many diseases and disasters display a close nexus between people, place, and time. Geomedicine utilises the spatial intelligence extracted from the environment using technologies such as terrestrial, airborne and satellite-based navigation and mapping to enhance solutions to individual and public health. Epidemiologists and clinicians should benefit from access to the expanding pool of location-based intelligence they need to tap into for a more precise clinical understanding of the links between patients' health and where they live, work, and play. Where we live determines the air, water, soil, and the communities we interact with routinely. As already written about widely by Bill Davenhall of Esri on the importance of geomedicine as a transdisciplinary field, there exist certain chronic health conditions that are far removed from genotype and lifestyle, leaving environmental factors as the most convincing explanation. Effective disease and disaster governance, therefore, features strong spatio-temporal dimensions. Modern disaster risk mitigation measures must, consequently, draw actionable intelligence from Geographic Information Systems (GIS) to combat disasters and protect communities against exposure risks. Using modern information technology to map at scale and deliver spatial informatics and intelligence on citizens' potential exposure risks to disasters in the living environment will improve the quality of strategic interventions to combat the disasters.

Disaster governance is too important an issue to be left out of Africa's mainstream discussions on post-pandemic policies, programmes, and innovations. COVID-19 only makes this call more compelling. The future of disaster governance on the continent should grow brighter with predictive mapping, supported by the Internet, sensors, big data, automation, robotics, and artificial intelligence (AI). Analysis-ready data from continental Earth Observation services such as Digital Earth Africa (DEA) and cutting-edge space research by space agencies in Africa, such as Kenya Space Agency and its ongoing operational space weather project in collaboration with three Kenyan public universities, are sterling examples of the rich resources African governments should utilise to enhance disaster governance.



Acknowledgements

This article used the publicly available data from Worldometer and Kenya's Ministry of Health to calibrate the models shared. Ideas from third parties have been acknowledged appropriately within the writing.





Post-Pandemic Agenda on Education, Skills Development and Youth



Youth Unemployment in Africa: Post-Pandemic Perspectives on Skills Development

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Abstract

Youth unemployment is a growing global problem. According to the International Labour Organization estimates, more than 73 million youth aged 15–24 were unemployed in 2015. The number continues to rise. Home to the world's youngest and fastest growing population, currently rising at 2.49% annually, Africa faces a serious and escalating burden of youth unemployment in the post-pandemic era. The flagship programmes of the African Union's Agenda 2063 require a highly skilled workforce, hence a skills revolution. The existing structural deficiencies and wide digital divide across Africa aggravate the shortcomings and shortage of work-ready skills among African youth. Skills proficiency has been shown to be critical to robust socioeconomic development across countries, manifested in lower unemployment rates and income inequality and higher per capita GDP. This finding motivates more emphasis on skilling Africa's dominant youthful demographic for post-pandemic recovery and resilience. The study applied a combination of hands-on information from youth mentorship sessions conducted over a period exceeding five years, cross-country key informant interviews, data analysis on skills gaps, spatially varying digital divide deduced from mobile GPS data on community mobility trends during the COVID-19 pandemic, and published unemployment statistics at global, regional, and national scales. The main objective was to share informed perspectives on the key skills development needs Africa should prioritise to ensure a just and youth-inclusive transition into the post-pandemic labour market. The study found that despite ambitious plans for skills-based training, challenges of delivery on education models across Africa create an oversupply of academic qualifications but an undersupply of work-ready skills. Scientific inquiry, systems thinking, talent management, spatial intelligence, and communication skills have mostly received sub-optimal emphasis in basic education, further aggravated by structural disparities that lead to inequalities in access to quality education. In a rapidly changing labour market influenced by digital transformation, the resulting skills gap and the rapid reduction in the half-life of skills compound the rising youth unemployment problem. The COVID-19 global pandemic has increased the urgency of innovative skills development models that can equip the youth with adaptive, market- and future-ready skills to exploit the promises of the post-COVID-19 digital economy, gig economy, green economy, circular economy, and virtual collaboration opportunities. The findings support broad-based curriculum development to equip university graduates with adaptive resilience. Technical and vocational education and training needs enhancement to increase the stock of skilled workers, who must make up the broad base of the upright pyramid of labour market demographics. Pedagogical re-engineering is needed to help boost skills-focused, digital, and borderless education and training programmes. Multi-agency and multilateral partnerships with the active involvement of industry stakeholders, entrepreneurs, and highly skilled African diaspora are key to enhancing the quality of teaching and teacher training in Africa while advancing peer-to-peer knowledge exchange, mentorship, and skills and technology transfer.

Keywords: digital transformation, Education 4.0, gig economy, labour market demographics, market- and future-ready skills, quality education, TVET

Introduction

First reported in Wuhan, China, in December 2019, the novel coronavirus disease of 2019 (COVID-19) has not spared Africa. The World Health Organization (WHO) declared COVID-19 a global pandemic on March 11, 2020. By December 2020, Africa was already home to 1.34 billion people or 17% of the world's population, and also the world's fastest growing population at 2.49% annually (Worldometer, 2020). Much less than Africa's share of the global population was her 3% share of the total confirmed global COVID-19 cases in December 2020. Arguably, the education sector rises to the top of the list of the sectors worst hit by the ravaging pandemic. Though dampened a bit by the smartphone revolution, the wide digital divide across Africa has aggravated the outcomes for the majority of learners and workers on the continent, who could not enjoy the privileges of remote learning or remote work. This observation advances the urgency of realising the strategic objectives of the African Union's 2016–2025 Continental Education Strategy for Africa (CESA 16–25), especially the third objective of harnessing the capacity of ICT to improve the access, quality and management of education and training systems.

The definition of youth adopted in statistics by the United Nations refers to the 15-24 age bracket, which was endorsed by the General Assembly in its resolution 36/28 of 1981. Currently, about 40% of the global population is aged under 25 and in Africa the same percentage is aged under 15. The International Labour Organization (ILO, 2015) estimated that more than 73 million youth aged 15-24 were unemployed while 75% of youth workers were in informal employment and 50% of young people were either overeducated or undereducated for their employment. Seasonality in agricultural employment and inadequate data on informal employment make measuring unemployment challenging yet these are the principal features that characterise Africa's labour market. Socio-cultural and structural barriers contribute to age-related and gender disparity in employment across Africa. Unemployment in the strict sense is, however, estimated to be the share of the labour force without work but available for, and seeking, employment (Our World in Data, 2020). The International Labour Organization (ILO) established in 2005 the Youth Employment Programme (YEP) as a response to the growing global youth unemployment problem. The ILO (2020) has estimated that young people account for 23.5% of the 38.1% estimated total working poor in sub-Saharan Africa.

The 2020 Global Skills Index established that of the 200 million higher education students whose studies were disrupted by COVID-19, 80% were located in countries with emerging or lagging skills (Coursera, 2020). The largest share of the African continent is constituted of such countries. The flagship programmes of Africa's Agenda 2063 require a highly skilled workforce. The programmes include exploiting the space economy, the Pan African E-Network, the Annual African Consultative Platform, and the establishment of the Virtual University (African Union, 2015).

The youthful demographic in Africa, with a median age of only 20 compared to 30-40 and above in emerging and advanced economies, makes skills development for the African youth and their meaningful labour market participation urgent and important public policy issues. Increasing the labour participation rate among youth ranks among the key issues, especially in Africa, where national unemployment rates can reach beyond 30% of the labour force. The gig economy is gaining traction as the new normal for the current youthful generations. In an era when the millennials and Generation Z easily trade in the erstwhile highly valued job security and loyalty to one employer for career security based on transferable skills, the modal time of stay on one job has reduced to 2-3 years (World Employment Confederation, 2016).

On a continental scale, key development agenda include the African Union's Agenda 2063. This is the 2013-2063 blueprint and master plan for transforming Africa through citizen-driven approaches, especially the first aspiration of a prosperous Africa based on inclusive growth and sustainable development and Goal 2 on "Well-educated citizens and skills revolution underpinned by Science, Technology and Innovation (STI)" (African Union, 2015, p.7). Universally, these agenda have key linkages with the Sustainable Development Goals (SDGs), especially SDG 4 and SDG 8 (United Nations, n.d.).

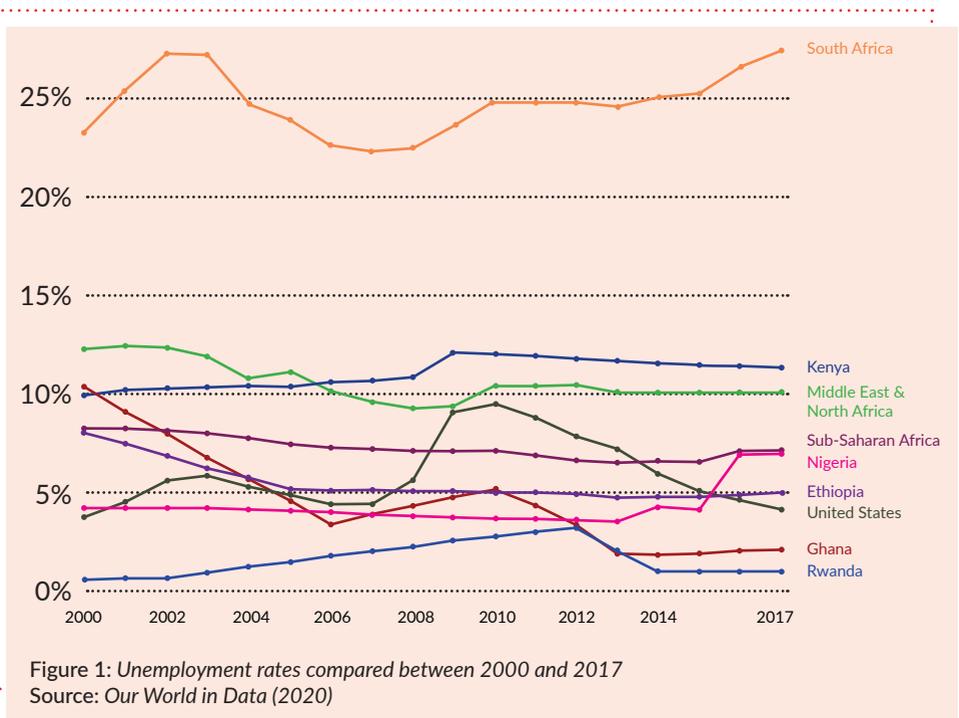
Through a novel mix of cross-country surveys of key informants, lessons from hands-on youth mentorship experience, and a review of contemporary literature on the digital transformation and skills for the future of work, this chapter aims to share informed perspectives on the key skills development needs that Africa should prioritise to ensure a youth-inclusive and just transition into the post-pandemic labour market. The second section explores the status of youth unemployment and skills development in Africa. The third section sheds light on the emerging issues on youth engagement in the post-pandemic workplace. The methodology used to design the study and generate the results addressing the study objective is presented in the fourth section. The key findings and discussion are shared in the fifth section, leading to the final section on the conclusions and recommendations arising from the study.

Youth Unemployment and Skills Development Challenges in Africa: Status and Actors

The youth unemployment challenge

The International Labour Organization (ILO) established the Youth Employment Programme (YEP) in 2005 as a response to the growing global youth unemployment challenge. The Global Employment Trends for Youth 2015 report estimated that more than 73 million youth aged 15-24 were unemployed, 75% of youth workers were in informal employment, and 50% of young people were either overeducated

or undereducated for the employment they were holding (ILO, 2015). The ILO (2020) has further estimated that young people account for 23.5% of the 38.1% total working poor in sub-Saharan Africa. These statistics confirm the grim reality facing today's youth, especially in Africa, home to the world's fastest growing population. As shown in Figure 1, unemployment rates in South Africa, Kenya, and North Africa have been above the average rate for sub-Saharan Africa. The youth are the main victims in these demographics. In Kenya, the overall unemployment rate in the strict sense rose from 4.7% in 2019 to 10.4% in 2020. In the relaxed sense, which includes those who were not looking for work but were available for work, the unemployment rate rose from 11.6% to 22.6% over the same period. The age group 20 – 29 was the most affected over the July – September 2020 period with an unemployment rate of 22% in the strict sense and 29% – 40% in the relaxed sense (KNBS, 2020).



The ILO has been addressing youth unemployment through technical assistance (policy advisory services on legislation and mainstreaming decent work – SDG 8 into youth-centric national and regional programmes as well as action plans; skills development in Technical and Vocational Education and Training (TVET), training, and employment services; job creation including the promotion of entrepreneurship and business development; labour-based public works; access to finance; and

collaboration with national agencies on protecting labour rights for vulnerable and disadvantaged groups); advocacy (partnerships with development partners to address youth unemployment at regional and national levels in Africa, e.g. Youth Employment Network (YEN), networking with think tanks and capacity building institutions); knowledge development and dissemination (“Decent Work Indicators for Africa” report, youth employment policy reviews, knowledge dissemination forums, and surveys to generate labour market intelligence with youth-centric indicators for cross-country performance monitoring) (ILO, 2020).

The youth unemployment challenge in Africa can be discussed comprehensively based on the global sustainable development priorities and aspirations for 2030 as reflected in the SDG 4 and SDG 8 targets that deal with the business themes on capacity building, skilled workforce, and youth employment (SDG 4.4, SDG 8.3, and SDG 8.b; GRI, UN Global Compact, & WBCSD, 2015). The goals match the first African Union Agenda 2063 aspiration of a prosperous Africa based on inclusive growth and sustainable development, particularly Goal 2 on “Well-educated citizens and skills revolution underpinned by Science, Technology and Innovation (STI)” (African Union, 2015, p.7).

Youth unemployment has been regarded as an existential threat to nations, a drain that wastes away rich potential and denies developing regions with a youth bulge the demographic dividend they so much desire. Inayatullah (2016) has contrasted the negative effects of the youth bulge in the Middle East and North Africa (MENA) region through unrest by unemployed and disempowered youth with its positive effects in Kenya as the “silicon savanna” through digital inclusion, empowerment, and technological innovations. Findings by the World Employment Confederation (2016) reinforce the position that quality education and decent work will remain timeless sources of social identity, social inclusion, economic independence, and personal fulfilment. These key result areas are critical to recovery from the pandemic’s disruption of the society’s health and socioeconomic fabric and a futuristic reinvention of aspirational development trajectories. In this respect, the achievement of Africa’s long-term development goals depends heavily on the education sector and how skills development paradigms prepare graduates for the world of work.

Youth unemployment is tightening its grip on many parts of the world as a major threat to lives and livelihoods. Unemployment also adversely affects social identity, social inclusion, and self-esteem. Based on statistics from Worldometer (2020), Africa has been home to the world’s fastest-growing population, estimated in 2020 at 1.34 billion and increasing at 2.49% annually. With the world’s lowest median age of 20, Africa’s population constituted 17% of the global population of 7.79 billion with a higher median age of 30.9 and growing at a lower mean rate of 1.05% annually. In 2019, Africa’s population was 43% urban, far below the estimated global rate of 55% then or 56% in 2020. These statistics position Africa as the continent of interest when it comes to the future of labour market demographics.

The Global Skills Index 2020 Report has acknowledged that progress in a post-COVID world must draw on market-relevant skills and a skills development model that empowers graduates to take on more diverse pathways into the dynamic labour market (Coursera, 2020). The report has also determined that 80% of the 200 million higher education students whose studies have been disrupted by COVID-19 were located in the countries with emerging or lagging skills. Contemporary global economic discourse has recommended incentives that can boost market-led investments in creating the jobs of tomorrow, safety nets, and progressive education and training to achieve SDG 4 and market-ready skill sets (World Economic Forum, 2020).

The skills development challenge

“Today’s labour markets are undergoing fundamental change: we are facing less a job crisis than a work revolution” (World Employment Confederation, 2016, p.1). The World Employment Confederation’s 2016 white paper on the Future of Work rightly foresaw the disruptions to the modern labour market being driven by digitalisation, internet connectivity, and changing demographics in increasingly democratised workplaces (physical and virtual) and societies that embrace the freedom of choice. The need for a “skills revolution” has been echoed in the African Union’s 2063 Agenda, Goal 2 – promoting a continental STI-driven revolution by choice and design (African Union, 2015).

The finding by Davison (2012) that 65% of learners entering elementary school then would be engaged in jobs hitherto non-existent and would have been unprepared for the new jobs by their education is instructive to progressive educational policy and planning. The increasing pace of technology adoption is advancing innovations at rates unimagined in the 19th and 20th century, periods over which it used to take decades for inventions to reach even 30% diffusion rates in society. For example, the telephone took more than 50 years to reach half of American homes and radio took 38 years to attract 50 million listeners. Social media and virtual meeting platforms now exceed such targets in a day.

Human knowledge also continues to double at rapidly reducing time spans, from 100 years in 1900, 25 years in 1945, 13 months in 2017, and soon to be every 12 hours according to IBM’s prediction (Schilling, 2013). As a result, the half-life of skills is also reducing rapidly, fronting a new challenge to developing skills and achieving Sustainable Development Goals (SDGs) in a post-COVID-19 world experiencing an increasing uptake of digitalisation. The 2019 Global Skills Index by Coursera (2019) identified business skills, technology, and data science as the fundamental skill domains of the future. While Europe was the most highly skilled region according to the report, two-thirds of the global population was still falling behind in critical skills, including 90% of developing economies, hence Africa as well.

Higher average skills proficiency has been found to correlate positively with higher Internet access, less COVID-19 disruption to industry, lower income inequality, higher per capita GDP, and higher labour force participation rates. For example, Switzerland has an average skills proficiency of 98% and a labour force participation rate of 84%, while Greece has an average skills proficiency of 56% and a labour force participation rate of 68% (Coursera, 2020). The same data indicates that every percentage point gained on a country's mean skills proficiency (across domains) is associated with an increase of 600 USD in per capita GDP. The difference between the average skills proficiency of Kenya (26%) and Egypt (27%) has reflected in a difference in their per capita GDPs of approximately 700 USD.

According to a recent skills mismatch survey report by the Federation of Kenya Employers ([FKE], 2018), vacancies have been hard to fill because of the lack of skills, accounting for 22% of the cases, and the lack of experience accounting for some 19%. Inadequate skills development in college has been cited as one of the key reasons. The survey found that retraining fresh graduates has been necessary with employers spending 200 – 1000 USD per capita over the retraining period. The employers have made top recommendations to higher learning institutions on enhancing the impartation of technical and practical skills, supported by attachment and internship programmes, and curriculum reviews with the active involvement of industry stakeholders to match the labour market needs. The interventions recommended include having joint industry-faculty forums and direct linkages between faculty and employers. For learners, soft and interpersonal skills were identified as the key areas needing much improvement (FKE, 2018).

Key actors in addressing youth unemployment and skills development in Africa

Research findings show that today's youth prefer job engagements that offer adequate compensation, career growth and career security with freedom of choice and flexible work, and a sense of purpose and impact in society. Skills-based training in well-staffed and well-equipped technical and vocational education and training centres empowers the youth, the major demographic in Africa, to be more meaningfully engaged in the marketplace than the mere acquisition of qualifications from academic curricula (Hope, 2012; World Economic Forum , 2019).

Besides universities and the government agencies in charge of education and training, there are various actors that have been promoting international exchange to enhance innovations by youth, quality education and research, and lifelong skills development in various ways. The World Bank and the German Academic Exchange Service (DAAD) have been supporting African centres of academic excellence and academic exchange. Several organisations and programmes have also been empowering young Africans through innovations, academic coursework, leadership training, mentorship, and networking. In this category are the Mandela Washington Fellowship of Young African Leaders Initiative (YALI), Enactus, Mastercard, Equity

Group Holdings, and the Inter Region Economic Network (IREN).

With funds from the Federal Ministry for Economic Cooperation and Development (BMZ), the DAAD-funded Higher Education Excellence in Development Cooperation has been supporting networking for development between university and non-university actors. Under the Excellence Centres for Exchange and Development (exceed) programme started in 2009, the African Centre for Career Enhancement and Skills Support (ACCESS) is singularly significant for addressing Africa's skills development needs through higher education curriculum improvement. ACCESS works in four thematic areas: capacity building for the promotion of employability in higher education, promotion of higher education, employability research in the African context, and the African German Entrepreneurship Academy.

The United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Economic Forum, McKinsey Global Institute, Coursera, and the International Labour Organization (ILO) have been key actors in training, activating generative dialogue, and availing researched metrics on jobs, skills, as well as youth and employability agenda. These organisations demonstrate the crucial role of multilateral multistakeholder partnerships in promoting international dialogue for decent work and skills development, in a world that is becoming increasingly borderless and globalised.

Emerging Work and Skills Development Issues for the Post-COVID Marketplace

The post-COVID marketplace challenges African educators and policymakers to negotiate a radical departure from equipping graduates with rigid qualifications for linear career growth trajectories with limited jobs, to imparting adaptive skills for multidisciplinary collaboration in an environment of complex problem-solving leveraged by technology. Multidimensional and non-linear career paths in a dynamic, democratised, and globalised labour market are gaining relevance in the post-pandemic world of work. Universities, think tanks, and promoters of international cooperation and exchange in education, science, culture, and socioeconomic development have been key drivers of contemporary discourse on the post-pandemic world of work and education. The following areas have come out strongly from the recent policy debates and conferences on the post-pandemic future of work.

- i. **Global megatrends:** digital transformation, automation, globalisation, Industry 4.0, climate change, socio-demographic dynamics including migrations/e-migration, sustainability with respect to the green economy, gig economy, and circular economy.

- ii. **Education and skills development:** lifelong learning, curriculum development for skills and career enhancement, STEM education, climate-adaptive curriculum, talent management, TVET, creative and entrepreneurial skills, education and networking for global awareness and global citizenship (including the diaspora agenda).
- iii. **Innovation ecosystem governance:** how to advance new frontiers through enhanced and efficient research spending and the inclusion of all the key players for synergy – universities, research institutes, industry, funders and venture capitalists, and protectors of intellectual property.

The 2020 Future of Jobs Report by the World Economic Forum has confirmed that the top-ten skills for 2025 that employers seek are encapsulated in four broad categories: **problem-solving** (i.e., analytical thinking and innovation; complex problem solving; critical thinking and analysis; creativity, originality and initiative; reasoning, problem solving and ideation), **self-management** (i.e., active learning and learning strategies; resilience, stress tolerance, and flexibility), **people skills** through leadership and social influence, and **technology use and development** (i.e., technology use, monitoring and control; technology design and programming).

The global megatrends informing the future of work and workers

The future of learning must consider the emergent post-COVID dynamics as well as demographic shifts including migration and the diaspora agenda. The African academic diaspora forum on the role of the African diaspora in higher education and innovation in Africa held in Addis Ababa, 13 – 14 November 2019, observed that the African academic diaspora have not had any specific long-term policy framework dedicated to enabling their consistent contribution to revitalising higher education and research in their home countries. China and Germany have been cited as top examples in incentivising their academic diaspora to enhance their contribution to homeland development (Oloruntoba, 2020).

Work will continue to play a central role in social identity and inclusion, economic independence, and personal fulfilment (World Employment Confederation, 2016). The future of work and workers, both the current young and upcoming graduates, retains its centrality as a subject of the moment and the future. In the pre-pandemic era, climate change, technology, demographics, globalisation, new production patterns, on-demand economy, new job and career expectations have already been key global discussion points in the generative dialogue on the future of our world (World Employment Confederation, 2016). From early 2020, COVID-19 has effectively joined this list of the structural shifts reshaping global discourse on the future of work and effective inclusion of the youth in national development agenda.

Key global megatrends have been shaping policy and technology in the world of work. To deliver on the aspirations and goals of Africa's Agenda 2063 and the SDGs, nations need to confront the disruptions caused by COVID-19 by fostering collective responses with accelerated timelines. The key issues identified under the global megatrends above have informed the context used to review the following facts and figures. As observed at the 2021 World Economic Forum, COVID-19 is accelerating the adoption of technology, compelling organisations to support the development of a workforce proficient in digital skills.

As extensively discussed at the World Economic Forum, the wave of digital transformation is creating a borderless future featuring a globalised marketplace and competition for talents. Labour mobility and talent migration are increasingly becoming compelling and unavoidable. The emerging regional blocs within and across Africa demonstrate the interconnected nature of the new post-COVID space for conducting business. The commencement of the African Continental Free Trade Area (AfCFTA) in January 2021 is a key example of economic integration, which promises new value creation in the digital economy. Similar integration in education, training, and research is also urgent so as to achieve the African Union's skills revolution targets and technology transfer opportunities towards a knowledge- and technology-driven transformation.

New policies are shifting to acknowledge the diversity of the post-COVID workplace. The new workplaces and collaboration environments are expected to be blended, both physical and virtual spaces with expanded flexibility and freedom of choice. As a result, the gig economy is expected to raise its share of work engagements in Africa as new labour market demographics favour the emerging youthful and digital natives or their upskilled and reskilled seniors. Gig workers may account for up to 40% of the workforce by 2025. As witnessed in the recent high court ruling in the UK in November 2020, a regulatory shift in favour of the growing gig economy is crucial to ensuring that the rising share of gig workers is considered in the normal employee protection benefits, which have hitherto been a reserve for regular workers in the traditional work hours and work days within four walls. More individuals, especially the millennials and subsequent generations, will be engaged in multiple work assignments in a democratised post-COVID space which is not fixed to a physical workstation.

Recent research has established that automation would lead to net job creation as opposed to the feared consequence of net job losses and that by 2025, 50% of all employees would need reskilling with 40% of workers to reskill for six months or less (Coursera, 2020; World Economic Forum, 2020). By 2022, 50% of the existing jobs might be lost to automation and 54% of the existing employees would be required to upskill or reskill. A shift in skill sets and a reduction in the half-life of existing skills are, however, expected due to the influence of automation of routine

tasks and the progressive blurring of disciplinary boundaries. The post-COVID implication is an accelerated push for reskilling and upskilling to sustain relevance in the emerging dynamic labour market.

Lund et al. (2021) have observed that COVID-19 has accelerated the existing trends in automation, remote working, and e-commerce. By January 2021, the need to switch occupations had been estimated to go up by 25% to match the workforce skills that resonate with new labour market models, a workforce transition that is likely to affect more of the younger demographic. Demand is projected to rise for instructors, gig workers, and healthcare workers who take care of mental health and the world's growing share of old people. They include nurses and hearing aid workers. As mass rapid visual communication gains currency and prominence among modern generations over traditional scripts, the demand for skilled workers in photography and videography is also projected to rise (Lund et al., 2021; Manyika et al., 2017; Roy, 2018).

Lund et al. (2021) have further discussed the disruption caused by COVID-19 to jobs that require close physical proximity between people and indoor operations. This disruption is supposed to give a new lease of life to jobs in outdoor production and maintenance. Countries such as India and China, determined in their study to have 35-55% of their workforce in this area, are likely to benefit from this disruption. High-wage jobs and jobs that demand STEM workers as well as high technological, social and emotional skills are also projected to grow at the expense of the low-wage jobs with lower demands on these skills, which will have their lateral freedom of movement limited.

Climate change has major implications for the future of work, hence affecting the dominant youth demographic as well. Rising global temperatures increase the number of manual working hours per unit of labour output due to heat stress, lowering labour productivity as a result (ILO, 2018). For Africa, this implies a greater burden on the workers engaged in labour-intensive and non-mechanised activities. Agriculture and artisanal mining are key examples. Manual labour risks reduced productivity due to climate change. Energy and transport sectors are better positioned to contribute more towards a greener low-carbon and climate-resilient economy, environment, and society.

Quality and decent work, addressed under SDG 8, is a key issue for the post-COVID labour market demographics. The main labour market issues encountered in contemporary reviews include labour market integration, labour market intelligence, and how to lower the barriers to entry for disadvantaged groups. Poor people are known to rely more directly on the provision of ecosystem services for their livelihoods and well-being, as the direct consumption of natural resources sustains livelihoods and prevents households from falling further into poverty.

With technological innovation, the green and circular economy models could lead to a higher number of jobs created than jobs lost. The need to increase labour market

participation rates among African youth through TVET is growing in importance and urgency. According to the International Labour Organization's Flagship Report of 2018 on environmental sustainability in the world of work, a just transition to a greener economy and society would open up 24 million jobs and prompt the need for skills development for about 1.2 billion existing jobs. While 18 million jobs would be lost due to the shift to cleaner renewable energy, energy efficiency and low-carbon industries, six million jobs could be created by transitioning towards a circular economy model: recycle, repair, rent, and remanufacture - replacing the traditional and linear cradle-to-grave economic model of extracting, manufacturing, using, and disposing (ILO, 2018).

Rethinking pedagogy and training delivery

"Drops of skills in an ocean of academic qualifications" is how this research series has been figuratively expressing the skills deficit facing the world as more and more learners transition into higher education systems that are disproportionately heavy on academic qualifications but lean on practice-oriented skills. It has been predicted that skills-based occupational shifts would replace the shifts based on academic degrees, hence the need for more practice-oriented collaborations actively bringing together educational institutions, businesses, and policymakers (Lund et al., 2021). So was the case at the Inaugural Pacific Skills Summit held at the University of the South Pacific Laucala Campus in Fiji, June 25-26, 2019 (APTC, 2019). The Plenary Session 5, focusing on developing skills adaptive to the digital future, challenged the traditional context for formal education in most developing countries since they leave graduates ill-prepared for the labour market. Attention has lately been shifting to TVET as a means to increasing the stock of work-ready skills among youth. There is evidence that TVET has helped reduce youth unemployment to half the OECD average for countries such as Switzerland, the Netherlands, Singapore, Austria, Norway, and Germany (McKinsey, 2013).

COVID-19 has accelerated the digital transformation wave, and how this change shapes the education sector must be of key interest in the post-pandemic era. Education 4.0 is currently a trending global topic, drawing increasing attention in the era of the Fourth Industrial Revolution (Industry 4.0). Mainstreaming internet-enabled technologies and digital platforms into modern personalised and learner-centred training models is a key aspect of Education 4.0. Future-ready education is a timely topic for Africa and her youth.

Education 4.0 is in line with the ongoing technology convergence, the so-called Convergence 2.0, whereby engineering innovations are deliberately made to mimic the functional efficiencies of biological systems. Convergence 1.0 has so far produced solutions that seamlessly integrate physics and engineering. Research in universities and research labs has made a critical contribution to these developments. Active involvement of young African researchers and innovators

in projects at universities and research organisations is expected to continue directing the course of this convergence while creating employment opportunities.

Africa's key issues in quality education and training have been identified in (ii) above. The International Labour Organization's Global Commission on the Future of Work, keen on ensuring social justice in the 21st-century labour market, has singled out universal entitlement to lifelong learning as its foremost recommendation. The current global megatrends position climate-adaptive curriculum improvement as a timely and relevant issue for modern education and training approaches geared towards producing African graduates with transferable and resilient skill sets.

The skills revolution envisaged in the African Union's Agenda 2063 requires basic education in Africa to enhance transition rates into STEM disciplines at tertiary levels. The Next Einstein Forum has also been championing STEM-driven innovations and transformation in Africa with youth as the prime change makers feeding the much-needed stock of African researchers, scientists, engineers, and technologists. The need to develop spatial and critical thinking abilities from the early childhood education levels, at home, and through children games has been widely discussed in literature. Integrating content development into both formal and informal instruction has been recommended, with Newcombe and Frick (2010) championing the early development of spatial thinking or mental spatial transformation abilities through education using visual maps.

Trainers are the key agents in achieving the desired talent management, practice-oriented training, and adaptive skills development models that can effectively match talent development with the changing labour market needs. The advent of intelligent systems in the emerging Fourth Industrial Revolution era, with artificial intelligence (AI) and automation, continues to disrupt the modern labour market. The threat this 21st-century trend poses extends beyond the manual workers engaged in menial, labour-intensive tasks, through the blue-collar workers engaged in routine tasks, to today's white-collar workers engaged in routine decision making in knowledge industries (Selingo, 2016). The implication of this trend for the education sector is critical, challenging trainers to ensure that curricula and training models are focused on developing market-ready and future-ready skill sets. Meeting this need calls for a sound and well-informed mix of theory and practice, with a keen and consistent impartation of creative and entrepreneurial skills for adaptive resilience in a dynamic and unpredictable labour market.

Selingo (2016) has further surmised that the ability to navigate ambiguity in a world economy facing many disruptions and unknowns is the most important skill higher education should equip individuals with in the 21st century. This position agrees with the school of thought that education should not be tied to jobs, but should rather equip learners to be open-minded with the social skills, critical thinking, and adaptive skills needed to handle uncertainty. This emerging reality challenges the

long tradition and established paradigmatic assumptions about higher education, which have been in favour of a narrow deepening into technical disciplinary majors. A growing body of modern educators tends to critique this old trend since it encourages chronic in-breeding in viewpoints when addressing common, complex and cross-cutting problems in society. Horizontal cross-disciplinary collaborations are gaining currency, as was demonstrated at the 18th IREN Africa Resource Bank Forum, held on November 25, 2020.

Innovation ecosystem governance

Governance of innovation ecosystems is growing in importance with the rapid technological advances being witnessed across the globe. Research spending and the efficiency that needs to accompany its management have been key factors and differentiators in research and development (R&D) outcomes across nations. For Africa's share of 17% of the world's population, the estimated 2% contribution from Africa to global scholarly outputs in terms of authors of key articles is disappointing. The invisibility of African intellectuals at both the bleeding edge and the cutting edge of productive knowledge and creative technology megatrends reflects the lackluster per capita research spending by African governments, which has remained below 1% of the GDP in most countries in contrast to 3-4% of the GDP in Europe and similar advanced economies. Research spending in Africa only rose from 4 USD per capita in 1996 to 42 USD in 2017, below the global change from 100 USD to 300 USD per capita over the same period. In advanced economies, the increase was substantial over the same period, from 450 USD to 1,064 USD per capita (North, Hoyer, & Hastie, 2021).

Research findings concur that technological innovation capacity is the primary engine for wealth creation and the means by which increasing development demands can be met against the limited carrying capacity of the planet. Lessons from Brazil, Russia, India, China, and South Africa (BRICS) as emerging economies challenge African governments to prioritise wealth and job creation goals in their development policies. While this challenge invokes measures to enhance innovation capacity, it also evokes questions on how well a country's education curriculum empowers youth to become critical thinkers, innovators, and hence job creators. The inclusion of all the key stakeholders is essential to achieving this goal, hence universities, research institutes, industry, funders and venture capitalists, and protectors of intellectual property, as already identified in (iii) above.

The large population of African countries draws a close attention to the key human resource metrics for appropriating labour abundance. The UNESCO-recommended ratio of one engineer to 2,000 citizens, for example, can guide the projection of country needs for engineers. The training models should also ensure that the resulting pyramid of skills matches the recommended demographics,

which directs that a country needs more technicians than technologists (4:1), and more technologists than engineers (3:1). For a country population of 60 million, this would translate into a requirement of 30,000 engineers, 90,000 technologists, and 360,000 technicians. The upright pyramid here reinforces the key role of TVET in addressing the realistic training needs of the masses for robust labour market demographics. Strict university degree qualifications in this case would meet only 6% of the technical labour force requirement in this model, the major share of 75% to be met by technicians, who are TVET products. Overproduction of university-level qualifications and underproduction of technical and vocational skills, which has been the trend in most African countries such as Kenya, inverts the pyramid and leads to instability and skills mismatch in the labour market.

The World Economic Forum (2020) has published the Future of Jobs Report 2020, which states that despite the pandemic's disruptions, the pace of technology adoption is expected to remain undiminished and may accelerate in some areas. The Future of Jobs Research has reported that technology adoption would kill 85 million jobs and create 97 million more by 2025. The report has identified that cloud computing, big data, and e-commerce still continue to be high priorities for business leaders as interest also rises for encryption, nonhumanoid robots, and artificial intelligence. The pandemic recession has been seen to be worse than the Global Financial Crisis of 2008 and more likely to deepen inequalities. The report also estimates that by 2025, the time spent on current tasks at work by humans and machines will be equal. Forty-three percent of businesses surveyed indicate that they are set to reduce their workforce due to technology integration, 41% plan to expand their use of contractors for task-specialised work, and 34% plan to expand their workforce due to technology integration. Eighty-four percent of employers are set to rapidly digitalise working processes and expand remote work (remotopia). As a result, there is a potential to move 44% of the workforce to operate remotely (World Economic Forum, 2020). Remote working is predicted to cause a shift in the preferred spatial locations of workplaces, from the cities to the outskirts and smaller towns as talents, skills, produced capital, and opportunities become more widespread with digital transformation (Lund et al., 2021).

Towards 2025, the surveys by the World Economic Forum have found that the top skills and skill groups employers see as rising in prominence include critical thinking and analysis as well as problem-solving, and skills in self-management such as active learning, resilience, stress tolerance, and flexibility. On reskilling, companies estimate that around 40% of workers will require reskilling of six months or less. A departure from 65% in 2018, the survey in 2020 found that 94% of business leaders expect employees to pick up new skills on the job.

Study Methodology

Besides the review of expressed topical issues and secondary data on youth unemployment, the study involved online cross-country surveys of key informants over the years 2014 and 2015. Further data collection and research into how basic education can be improved to ensure gender equity in transition rates to STEM-oriented higher education were conducted between 2018 and 2020 under GraFA's EMPOWER Good Governance and Social Entrepreneurship Programme for international doctoral students at the Technical University of Bergakademie Freiberg, Germany. More recently in 2020, benchmarking of youth training and engagement models complemented the youth mentorship experience acquired under the Impact Borderless Digital (IBD) youth mentorship programme, Enactus, and Kenya's Presidential Digital Talent Programme.

Discussions with youth, mainly young university students and innovators, provided a key source of information on the mind transformation map required to enhance youth engagement in jobs and innovations. Among the key youth meetings were the convention of university student leaders under Enactus Kenya held in Nairobi on December 14, 2020; physical and virtual youth forums, fourteen in total including live TV sessions at Kenya's Talanta TV held under IBD between 2019 and 2020; and interactive sessions with youth during class lectures and conferences spanning the period 2014–2019 in Ghana, Ethiopia, Kenya, Uganda, Fiji, Finland, Germany, Slovakia, South Africa, and Uganda.

Over the period January 3 – April 26, 2020, a spatial analysis of GPS-based community mobility patterns from Google following the COVID-19 outbreak was conducted to give a picture of the digital divide across selected countries, Kenya included. The baseline was the median value for the corresponding day of the week over the period January 3 – February 6, 2020. The baseline was used to compare the community mobility reports from March 15 to April 26, 2020 (Google LLC, 2020).

The online cross-country survey conducted in 2014 and 2015 collected the views of key informants drawn from countries across Africa, Asia, Europe, and the Americas. The principal focus was on how the basic education and training systems in the representative countries have been preparing students to be innovative problem solvers. The key questions were:

- i. Is Africa, and Kenya in particular, placing emphasis on the right areas that basic education needs to develop in order to enhance innovation capacity?
- ii. What do students mainly consider when choosing courses to take at higher learning institutions?

Based on what most experts in education and training consider critical to producing innovative graduates, eight key areas that basic education should address to produce the brand of graduates who can sustain the innovation momentum the dynamic 21st-century marketplace requires were identified as follows:

- i. Literacy
- ii. Numeracy skills
- iii. Communication skills
- iv. Creative arts
- v. Spatial intelligence
- vi. Scientific inquiry
- vii. Systems thinking skills
- viii. Talent management

The online questionnaire was used to collect views on the degree of emphasis the basic education curriculum of the respondent's country places on each of the eight areas above. Again, the respondents were required to rate each of the eight areas on its potential to enhance innovation capacity, on a scale ranging from **1** (least important) to **4** (most important). Besides questions that test independent perceptions on impact factors, there were questions allowing for flexible responses depending on country-specific situations. Adding their informed views to the discussion were participants at the 12th IREN Africa Resource Bank Forum, held in Nairobi over 19-22 November, 2014, to brainstorm on Africa's productivity in the 21st century. Most respondents were drawn from Kenya. For a balanced view on location-independent ratings such as how important a skill is in promoting innovation, other respondents were drawn from Tanzania, Burundi, Indonesia, China, Brazil, Germany, Britain, and the USA. A weighted-average analysis of the ranked views exposed key policy issues in pedagogy and curriculum orientation. The weighted scores were normalised into a percentage scale for an easier comparison of the views expressed. For ease of visualisation and comparison, the synthesised results were plotted with the x-axis showing the potential of each of the eight focal areas to stimulate innovation, and the y-axis showing the degree of emphasis the training in each of these eight areas receives. The size of the bubble for each focal area was made proportional to the importance rating of its perceived influence on innovation capacity, as rated by the respondents.

Key Findings and Discussion

The systems change needed has to focus on policy, provision, and the practices for a capacity development model that can help trainers deliver on new skill sets. The major challenge of the post-pandemic education and training landscape is clear-cut: To produce creative and adaptive graduates who can stay ahead of the rising technology curve, effectively making technology a servant of their dynamic and innovative ideas, not a master of their otherwise static and outdated qualifications. If not, the wave of digital transformation and automation will render the graduates redundant and readily replaceable in the post-pandemic labour market. From this perspective, it becomes evident that education and training for an adaptive future workforce are key to the future of work and workers. Both formal and informal education are key here, observing the rich cultural heritage of societies, which cannot be delinked from the deep-seated traditional context for tacit knowledge and passing on knowledge intergenerationally.

Skewed emphasis on crucial areas of training for innovation capacity

A total of 36 key informants completed the online questionnaires. The graph in Figure 2 plots the weighted results consolidated from the responses received in the years 2014 and 2015 on the eight identified areas of training at the basic education level.

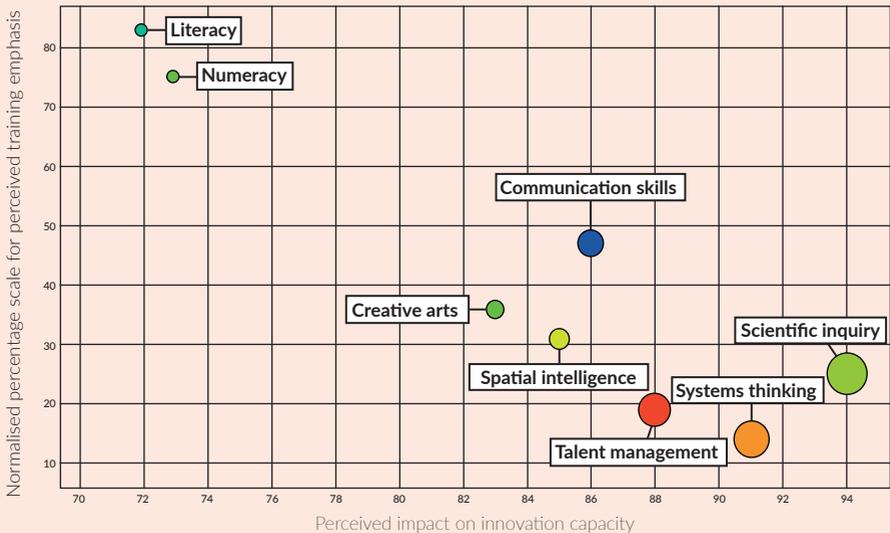


Figure 2: Normalised percentage scale for the perceived impact of a skill on innovation capacity
Source: Cross-country online survey conducted by author over 2014 - 2015

The key message from Figure 2 is that:

- i. Generally, the basic education curriculum still places more emphasis on developing literacy and numeracy skills, estimated at 83% and 75% respectively. These two areas, however, are rated the lowest of all the eight areas in boosting innovation capacity – with their weaker innovation scores in the x-axis being at 72% and 73%, respectively. They, therefore, plotted as the smallest balls. Assuming 50% as the pass mark, it is evident that only these two areas pass the mark in terms of receiving adequate pedagogical attention. “Communication skills” follows a distant third at 47%. The worst casualties of neglect in training emphasis are systems thinking (14%), talent management (19%), and scientific inquiry (25%). “Spatial intelligence”, defined by Howard Gardner as the human computational capacity to solve the spatial problems of navigation, visualisation of objects from different angles and space, faces or scenes recognition, or to notice fine details (31%), and creative arts (36%) are also still below the required level of training emphasis.
- ii. Scientific inquiry scored the highest (94%) as the most important attribute for innovation capacity, followed closely by systems thinking skills or the ability to see the big picture or connections in whole systems (91%), and talent management (88%). Communication skills (86%), spatial intelligence (85%), and creative arts (83%) also have high importance rating in boosting innovation capacity. Evidently, there is a wide gap in the x-axis: between literacy and numeracy, and the rest of the skills that basic education must address to nurture a culture of innovation from the basic education level.

The synthesis shows that there has been skewed emphasis in the prevailing mode of delivering basic education and training, with the areas holding the key to enhanced innovation capacity receiving the least attention, far much below 50% according to the average rating on a percentage scale. This has been the general case in Africa’s education sector, largely deprived of training infrastructure and workforce against the fast-rising learner populations at the basic school level. Over time, the graduates of these challenged education systems find themselves ill-prepared for the fast-changing job market needy of industry-relevant skills. This outcome exacerbates the problems hindering sustainable job creation and employment for the youth.

Country-specific findings on the quality of basic education

Respondents from Asia gave examples of socialisation and games for learners that help to develop their problem-solving skills through peer-peer learning and mind puzzles. It is notable that such activities extend the critical thinking capability of learners beyond the classroom into the real world of applications. In the USA and

Europe, there were cited examples of activities included in the basic education curricula that expose learners to learning by self-discovery. Germany stood out for a basic education system that identifies the talents of learners and clusters them into training groups commensurate with their capabilities, hence setting an early stage for clear separation of learners for practice-oriented training in tertiary institutions (*Fachhochschule*), vocational training colleges (*Berufskolleg*), or in academically oriented tertiary institutions/universities (*Universität*). After elementary education, the learners in Germany are ready, based on their aptitude, to join any of the three types of secondary schools: *Gymnasium* (for academic preparation to join universities); *Realschule* (for preparation towards vocational training in colleges); or *Hauptschule* (for learners who want to join vocational training courses and gain an early entry into the workforce).

Map-reading skills, a key part of developing spatial intelligence, were noted by respondents from the USA and Germany as part of the regular exposure students receive right from the primary school level. Such extra-curricular activities are recommended for developing spatial intelligence, seeing the big picture, and scientific inquiry. In urban settings, the situation was worse because learners lack meaningful interaction with the environment of adventure that can offer natural lessons through role-playing, seeing live examples such as a clear night sky, and applying numeracy skills to real-life problems.

Practical exposure has been lacking in the basic education systems that are fully occupied with classwork and exams, leaving little room for independent exploration by learners. In the Kenyan scenario, for instance, the respondents noted exam-oriented training as a key characteristic of the education system students have been exposed to right from primary school, thereby suppressing the freedom of creative thought and imagination. The heavy workload of classwork even among pre-primary and lower primary pupils was presented as a major hindrance to creativity and joyful learning – with private academies as the greatest culprits. The new competency-based curriculum (CBC) Kenya unveiled in 2021 to replace the old 8-4-4 education system that has been in place since 1985 has been recommended as a fit-for-purpose intervention to address the limiting exam-oriented approach. The recent promise by the President of Kenya to dedicate a fully-fledged State Department for Curriculum Reforms to oversee the implementation of the CBC is exemplary of the political goodwill quality education enhancement needs on the continent (Githinji, 2021).

In deciding which courses to pursue at higher learning institutions, the cost of the programme was among the leading factors students in Kenya consider. Acquiring skills for employment outweighed acquiring skills for self-employment as the decision variable Kenyan students have been considering when choosing training programmes. The influence of mentors was noted to be a significant factor in the choice of courses. The objective position from the worldwide survey, however, placed the highest value on acquiring skills for self-employment (83%); followed by

the reputation of the college (76%); the technology and innovation opportunities offered by the programme (74%); and recommendation by mentors (74%). Peer influence came out to be the weakest influence factor, scoring a weighted mean of 43%.

These findings are key to informing the early training policy direction and strategies African countries need to embark on so as to skill the youth for a more rewarding engagement in the future of work. Addressing the revealed factors early presents a timely opportunity to tertiary training institutions by enrolling well-prepared learners whose talents have been identified, developed, and properly aligned to their most suitable career growth trajectories. As such, the youth of the post-COVID marketplace can be empowered with the future-ready skills they need for sustainable competitiveness.

Evidence of the limiting digital divide using a Kenyan example

The rural-urban digital divide across Africa is evident. An analysis of the changes in community mobility data in Kenya generated by Google from civilian satellite-based (GPS) services confirmed the situation over the period of January 3 – April 26, 2020. The period covered before COVID-19 was reported in the country and after enforcing movement restrictions. Only twelve (12) out of the 47 counties in Kenya showed a fair to good level of technological readiness in terms of sufficient mobile connectivity to generate remotely sensed data towards boosting location-based intelligence in the fight against the community spread of COVID-19 over this study period. Again, only five counties out of the 47, three of them in the more urban Nairobi metropolitan region and then Mombasa and Nakuru – also mainly urban, generated enough data over the three-month study period to support reporting on all the six community mobility categories.

The datasets provide insights into the level of mobile digital access to expect across the vast country with a wide urban-rural inequality in technology infrastructure, among other indicators. Nationally, Kenya realised a decrease of 50% in community mobility trends around retail and recreation including restaurants, 47% around transit stations, 39% around grocery and pharmacy including farmers markets, 33% around parks including beaches and gardens, and 19% to workplaces. Residential areas registered a boost with an increase of 20% in community mobility trends. These results communicate a proxy measure of the rural-urban digital divide still prevalent in Africa despite the smartphone revolution. The implication for youth employment is that African governments need to invest in the infrastructure and policies that can narrow the wide digital divide to empower youth to be more effectively engaged and productive in the post-COVID digital space. The accelerated pace of digital transformation that has come out of the pandemic's disruption means that long delays or failures in addressing the growing role of the youth in the gig economy and digitally enabled sharing platforms will result in rising unemployment.

Mindset transformation map into the post-COVID innovation ecosystem

In Davos at the 2021 World Economic Forum, Prof. Klaus Schwab avowed that the world of the future would not be pegged on capitalism, but on “talentism” as human talents supersede capital as the most important factor of production. This observation reinforces the timeless value of quality education and skills development to any society. Quality education cannot thrive in isolation. However much any government invests in education, schools remain a model of reality. Schools, therefore, will not be able to replicate the real marketplace where practical skills are the main requirement. The end of quality education must not be about graduation or good grades, but rather the graduates’ lifelong and disciplined engagement with the real world thereafter, and their ultimate concrete and positive impact on society.

Legacy thinking has emerged as a greater barrier to progressive change in the education and innovations sector than legacy systems. There is a compelling need for a new mindset transformation to adapt education and training delivery to today’s evolving labour market needs. Based on the youth-centric discussions and mentorship meetings so far conducted between 2014 and 2020 across the ten countries mentioned earlier as well as the virtual youth forums held over the period of COVID-19 restrictions in 2020, key areas of mindset transformation came out. The aspirations for a more innovative and engaging post-pandemic era for African youth and diaspora require the shift in mind preparedness as summarised in Table 1.

Table 1 Mindset transformation map into a more promising post-COVID innovation ecosystem. Based on lessons from accomplished cross-country youth forums and mentorship sessions (2014 – 2020)

Limiting legacy mindset	Transformational post-covid mindset
Costly, hi-tech, sophisticated, and problem-oriented pitches by young innovators	To seek out affordable, high-impact, user-friendly, and solution-oriented deliverables
Academic and exciting perspectives that serve the exclusive minority and individual interests	To pursue pragmatic and inclusive citizen-driven solutions in service of humanity
Forums acting as a cemetery for burying the brilliant ideas never actualised	Forums to act as a seedbed for germinating impactful solutions through co-created and co-owned innovations
In-bred scholarly discourse for cross-pollination of budding ideas that hang on slim hope for survival and maturity into outputs	To embrace multistakeholder, participatory, and interdisciplinary generative debates for cross-fertilisation of ideas towards producing viable and sustainable outcomes

The growing acceptance of remote work or remotopia as the next normal should be an opportunity to involve the youth more meaningfully across various training, mentorship, and work engagement platforms. Blended delivery, which involves both physical and virtual collaboration sessions, is headed to be a key feature of the post-pandemic education, mentorship, work and networking landscape. The post-COVID remote collaboration momentum should help advance the active involvement of highly skilled Africans in diaspora in skills transfer programmes to help equip youth to innovatively face emerging development challenges in a new world, irrespective of separation distance. The digital transformation can be seen to be lowering the barriers to entry into the global arena of knowledge- and technology-led influence. While this observation gives hope for societal transformation through quality education and skills development for the post-COVID future, it challenges governments to enhance efforts to bridge the wide digital divide across Africa.

Conclusions and Recommendations

This chapter aimed at reviewing the status and trends of youth unemployment in Africa, engaging stakeholders to identify the high-leverage intervention points, and recommending measures that would promote well-targeted lifelong skills development models to empower youth with market- and future-ready skill sets for positive employment outcomes in the post-COVID era. This aim has been met by engaging a multidimensional approach involving cross-country case reviews and interview of experts, data analysis, and the hands-on evidence generated from youth forums and mentorship sessions over a span of more than five years between 2014 and 2020. The conclusions drawn and accompanying recommendations focus mainly on the lessons showing how transformed education and skills development models can help produce a skilled post-COVID workforce of actively and productively engaged youth. As such, the growing African youth population will be better equipped to avoid the traps of mass unemployment occasioned by the mass shortcomings and shortage of work-ready skills. Since skills proficiency has been shown to be critical to robust socioeconomic development across countries, manifested in lower employment and income inequality and higher per capita GDP, African countries need to lay more emphasis on skilling their dominant youthful demographic, especially in STEM, for post-pandemic recovery and resilience.

The disruption COVID-19 has brought about has accelerated the practical timelines for preparing African youth to be active participants in the emerging borderless digital economy, gig economy, green economy, circular economy, and remote working in an era of increased labour mobility and rapid labour market changes. Discovering and developing creative talents right from primary school is a critical intervention point for nurturing young thinkers and innovators towards solving real-world problems and impacting society through productive work engagements with adaptive, market-ready, and future-ready skill sets. African countries need to

take a fresh look at the quality of their basic education systems, critique how they interface with socio-cultural settings and marketplace needs, and come up with revised structures and policies that will help produce the right graduates for the local development needs in an evolutionary manner.

Governance issues are gaining in urgency and importance. National labour policy innovations, for example, are needed to help remotely involve the diaspora in skills transfer programmes at home, beyond their traditional contribution through remittances. Perspectives will have to change as talent migration and circulation become routine. Governments will have to engage new perspectives and enabling policies on the academic diaspora and brain drain so as to tap into their rich skills and talent pool irrespective of physical distance. In a similar regard for gig workers, governments must regard the diaspora as a legitimate component of any robust homeland development equation, their influence amplified by innovative engagement models. Governments need to establish institutions and policies which promote borderless collaboration and create viable incentives for tapping into the skills of the diaspora and gig workers.

The findings of the cross-country online survey offer Africa a key lesson on misplaced priorities in the education sector, which has further been battered and challenged by COVID-19. Though common discourse has been skewed in favour of the quality of higher education and training institutions, this study showed that most of the weaknesses exposed among learners at the higher education levels can be explained by the quality of the basic education that has shaped their thinking earlier in life. Scientific inquiry, systems thinking, talent management, and spatial intelligence are the most neglected areas in many basic education curricula. The prevailing emphasis of curricular activities at the basic education level has not been favourable to building national innovation capacities, hence retarding the attainment of the goals of job creation and wealth realisation for many developing economies. As shown, even communication skills remains an area in great need of enhanced training emphasis under the prevailing circumstances. The reviewed Asian examples show that the socialisation of the learning process is critical, since the sound integration of social and cultural aspects into the learning cycle facilitates the absorption of scientific concepts by learners.

Researchers concur that discussions and decisions on the future of work will have to focus on workers, not just job holders; being jobless in the post-COVID technology marketplace will mean anything but being workless. The era of permanent jobs within permanent office buildings is fading away, as evidenced in the modal time of only 2-3 years on one job by the current millennial generation. The digital, gig, circular and green economy routes provide broader opportunities as a model for active and productive youth engagement in work, resource use, and sustainable consumption. The report by the World Economic Forum that there would be parity by 2025 in the time spent on current tasks at work by humans and machines is instructive as far as automation is concerned. New jobs involving human-machine

matching will come to the fore even as old routine jobs get decimated. Ultimately, automation is likely to lead to net job creation as opposed to a net loss in jobs. Dynamic adaptation of skill sets, labour mobility, and changing labour market demographics are critical points to address in the face of these new realities.

Agility, flexibility, and adaptive resilience in skill sets are together forming the critical axis of influence in the emerging post-COVID digital economy. The implication for modern pedagogy is to inculcate in young learners the skills needed for critical, exploratory and broad-based awareness to match the needs of the emerging labour markets. There is ongoing technology convergence and continuous blurring of self-imposed subject boundaries. The trend of narrow specialisation in training runs against the grain of cross-disciplinary collaboration, which is required for viable cross-fertilisation of ideas within modern innovation ecosystems. Since the post-pandemic era is likely to expedite new personalised business models within a sharing economy running on hyperconnected online sharing platforms, the labour market demands will identify more with flexible graduates who possess transferable and adaptive skill sets.

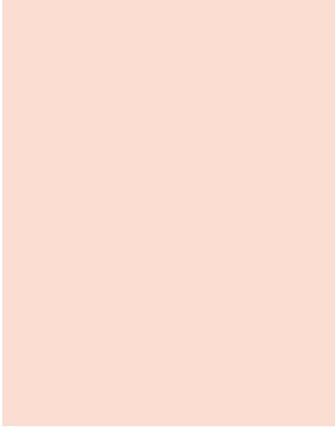
Quality education for the digital future must, therefore, equip youths with work-ready skills which are also adaptable and transferable. To be viable and sustainable, skills development models must assure youths of active participation in decision-making, long-term partnerships, and self-determination. Anticipatory skills development should be a key strategy of modern educational governance models. There is an urgent need to institute a new culture of regular, participatory, adaptive, strategic and predictive skills development models to replace the old culture of sporadic, exclusivist, rigid, short-lived and reactive responses to changes in the global technology marketplace.

An understanding of the labour market trends and a projection of the same should, however, be the basis for estimating the anticipated demand for new skill sets. Similarly, career development models need to be regularly updated to inform adaptive pedagogical approaches as opposed to administering static curriculum contents. To increase job creation and youth employability, African governments need to place an increasing emphasis on collaboratively developing innovation capacity with educational institutions and industry while supporting talent management from early basic education levels, so that the lifelong skills development needs can match talents and the changing post-COVID labour market. The implication for addressing youth employment is that African governments need to invest more in the technology infrastructure and policies that can narrow the wide digital divide and empower youths to be more effectively engaged in the post-COVID digital space. Supporting an increase in the number and quality of trainers, improving the training infrastructure, and coming up with fiscal incentives in favour of the digital economy are among the measures needed.

If African countries continue the overproduction of university-level qualifications

and underproduction of technical and vocational skills, the labour market will suffer what can be referred to here as an “inverted pyramid effect” – producing more of what is needed in lower quantities and less of what is needed in higher quantities. African governments should, therefore, give priority to supporting adequate broad-based curriculum development to inculcate adaptive resilience into university qualifications and practice-oriented (TVET) training infrastructure complete with highly qualified trainers for enhanced production of technical and vocational skills. Pedagogy needs to be re-engineered to boost skills-focused, digital, and borderless education and training programmes. The implementation mode should involve multi-agency and multilateral arrangements with the active participation of industry stakeholders, entrepreneurs, and highly skilled Africans in diaspora, for enhanced peer-to-peer knowledge exchange, mentorship, and skills and technology transfer.

The COVID-19 global pandemic has been a disruptive watershed redirecting the course of post-pandemic skills development regimes and landscape. Not spared the repercussions, Africa has to address the growing problem of youth unemployment by going digital and borderless in education and skills development, a challenge that requires active partnerships between learning institutions, public agencies, and the private sector. The advent of increasing interest by various investors and multilateral agencies in promoting skills development in Africa has lowered the barriers to skilling the African youth in a rich environment of international and intercultural exchange. Key public policy questions remain on ensuring a just, inclusive and sustainable transition into the fast-evolving post-COVID labour market of the 21st century. As a ready outlook, nation-states in Africa will need to work towards achieving coherence in policies and standards for skills development, knowledge exchange, and labour mobility so that a critical mass of youth can be sustained as active participants in job creation, labour productivity, and meaningful employment.



Acknowledgements

The author is grateful for the coordinating and facilitative role of the Inter Region Economic Network (IREN), the entire Impact Borderless Digital (IBD) team, the mentees and university students who have been engaging with IBD and Enactus Kenya, the discussants at the 2020 East Africa Thought Leaders Forum, and all the peer reviewers, who together helped to improve the quality of the chapter for this publication. All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately.

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The author has acquired more than fifteen years of consolidated cross-sector experience, drawn from the geomatics industry as an engineering surveyor, from public service as a policy analyst in a governmental think tank, and currently in the academia as a lecturer of engineering and geoinformatics. His community service has for long been in mentoring youth in career development under his youth mentorship programme (IBD) and also under Kenya's Presidential Digital Talent Programme. In November 2020, he emerged a continental winner of the **ACCESS Idea Competition on Employability Promotion at Higher Education Institutions in Africa** (DAAD/"exceed" competition for African academia).



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Breaking Classroom Walls: A 'New Normal' in Kenya's Higher Education Landscape

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Abstract

Education has been hit particularly hard by the COVID-19 pandemic with over 1.57 billion learners worldwide forced out of school and 191 countrywide closures. The pile-on-effect of the pandemic is that interruptions to education can have long-term implications especially for the most vulnerable. Traditionally, Kenya, like most African nations, has over-relied on confining learning to the precincts of the four walls of the classroom. However, with the sudden outbreak and continued widespread transmission of COVID-19, nearly all schools closed their physical activities.

This chapter is a result of extensive and intensive literature review on breaking the classroom walls. While remaining cognizant that, too often, educational technology is developed to change, the chapter argues that as nations rethink their management models, the education sector should embrace different educational methodologies. In order to fit into the 'new normal,' the education sector should break the classroom boundaries and integrate the borderless classroom technology where learning can take place anywhere and at any time.

The chapter establishes that borderless classroom technology entails the ability of teachers to share their screens with their students and engage students on their assignments from their dashboard. On their part, students are able to take part in class from any physical location and remain part of the classroom. While re-thinking and re-imaging education, borderless classrooms should be brought to the fore for the future and teacher education on the approach rolled out.

Bearing in mind that the 'new normal' is a recognition that the coronavirus will be around for some time, lasting interventions are necessary for the educational sector to move on. The borderless classroom technology takes the classroom to the students where they are, especially those who cannot have physical access. As a result, the challenges emanating from wide technological divide and questions of inclusivity can be a thing of the past for learners.

Keywords: Borderless Classroom Technology, Borderless Higher Education, COVID-19 Pandemic, Diffusion of Innovation, New Normal

Introduction



*We will not go back to normal.
Normal never was.
Our pre-Corona existence was not normal other than,
We should not long to return, my friends...
We are being given the opportunity to stitch a new garment.
One that fits all humanity and nature.*

Brene Brown (n.d).



The emergence and spread of coronavirus disease-2019 (COVID-19) has imposed unprecedented effects on world economies and all sectors of development. The education sector has been among the hardest hit sectors, with over 1.725 billion learners not receiving education. In Kenya, the closure of all educational institutions affected 15,257,191 learners countrywide (UNESCO, 2020).

COVID-19 pandemic has spread to most countries of the world, forced the closure of institutions of higher learning and disrupted learning for over 220 million higher education students globally. Out of these, Kenyan students are roughly over half a million. The pandemic presents a wake-up call for Africa and the entire world to re-think and re-image itself in nearly all aspects including higher education. Higher education has been hit hard by the pandemic.

Historically, education has been the primary vehicle for upward mobility because it is perceived to play a role in determining how one spends their adult life. It is due to this that Ngigi and Obura (2019) argue that fluency in information technology is a central pillar of higher education. Considering that higher education is a terminal programme for most individuals before entering the job market, it is imperative that the learners at this level are exposed to using technology to execute educational activities such as teaching and learning, registration, application, writing examinations, paying fees, attending lectures and receiving results, among others. The long-term effect will be graduates who are technosavvy, capable of working in any environment.

Kenya's Education Sector Disaster Management Policy (Ministry of Education, MOE, 2018) details a framework guideline for coordination, collaboration and management of emergencies in the education sector. Although the policy does not capture pandemics such as COVID-19, the prevailing situation is no doubt an emergency whose continued spread has dramatically changed the higher education landscape.

One primary research question was addressed in this paper: What pedagogical option does higher education have in the post-COVID-19 era in Kenya? In order to handle the research question exhaustively, extensive and intensive review of literature related to borderless classrooms was conducted. During the review, multiple sources of information were consulted in order to attain source triangulation. The key sources of information presented in this paper include news bulletins, documentaries, pertinent literature, and social media platforms for corroboration.

Borderless Higher Education and the “New Normal”

Borderless higher education encompasses developments which cross and/or have the potential to cross traditional borders of higher education conceptually and/or geographically (Bjarnason, Davies, Farrington, Fielden, Garret, Lund, Middlehurst, & Schofield, 1999). Adopting borderless classroom technology would enable students to take part in the class and/or teaching and learning process from any physical location. COVID-19 is a barrier to quality, inclusive and equitable education. The ultimate objective of the fourth Sustainable Development Goal (SDG) is to ensure that member countries embrace changes for overcoming barriers to learning processes, access, participation and quality education.

Students across the higher education sector have been dramatically impacted by the spread of COVID-19 and the resulting health protocols in place such as quarantine, isolation, social distancing, travel restrictions and campus closures. Due to these COVID-19 health guidelines issued by World Health Organization (WHO, 2020) such as physical distancing, institutions of higher learning may not be adequately prepared to resume the face-to-face mode of knowledge delivery. Going by the high student population in most universities against the overstretched facilities such as accommodation hostels, lecture halls, libraries and eateries, embracing borderless classroom technology is justifiable.

Massive shifts to online learning seem to have convinced many that it is the “new normal” for higher education. For instance, some Kenyan universities have successfully conducted virtual graduation(s) while others have taught and successfully administered examinations to students online. Additionally, orientation of new students and defences of research work have and continue to be done virtually. Online learning is the best alternative since nobody knows when the pandemic will come to an end. The overriding questions by UNESCO, UNICEF, World Food Program, & World Bank (2020) in the framework for reopening of schools are: How will learners cope at school during and after the COVID-19 pandemic? What are the other viable options available apart from online teaching and learning?

Many versions of the 'new normal' are being tried, experimented on and disseminated as the world slowly re-emerges and education is leading the pack in defining the 'new normal.' The traditional practice of confining education within physical space is gradually becoming a thing of the past. In Kenya for example, the Cabinet Secretary for Education decreed that basic education should be organised in homes along the 'nyumba kumi' initiative (Swahili for a cluster of ten households). Obura (2020) opines that modelling education under the proposed initiative will increase interaction and teamwork besides guaranteeing continued engagement by learners during the pandemic. Universities and colleges were given the greenlight to carry on with online teaching and conduct their graduation ceremonies virtually. Could these be the early stones laying the foundation for a borderless higher education in the country?

New technologies have had and continue to have significant impact on changing the roles of tertiary teachers. In essence, the benefits of technological advancements and their integration in education outweigh the limitations. For example, McConnell (1999) advanced that institutions that have introduced broad and sophisticated technology solutions have had their pedagogical practices permanently changed. During and after this COVID-19 pandemic, universities and colleges should embrace the opportunities offered by interactive media techniques to capitalise on technology-based solutions to the dilemma of disrupted learning in Kenya.

According to Ngigi and Obura (2019), technology presents endless possibilities for access to education as well as learning by demystifying the notion of classroom confinement through the development of new pedagogical approaches such as online learning. This implies that even with the physical space of classrooms shut, technology presents a chance for continued construction, distribution and reconstruction of knowledge thereby building a strong case for online learning.

Successful implementation of technology solutions in higher education to address the prevailing dilemma posed by the COVID-19 pandemic calls for strategic technology integration into administration, communication, examination and the teaching and learning processes. This will ensure that any technical limitations especially those related to bandwidth are amicably addressed. Once this is done, the higher educational institutions can be sure that they are on track to a smooth transition into the online knowledge delivery mode.

Nonetheless, online learning may not be a panacea but the use of technology stands out as the most recommended approach to provide education during this crisis. According to Impact Borderless Digital (2020), the most outstanding setback to online learning is the wide digital divide between the privileged few and the underprivileged majority. Another setback would be that some lecturers may never have been trained in the development of materials and/or resources for non-face-to-face delivery. The situation can grow worse considering that most

university lecturers in Kenya are individuals who joined academia as a second option, having served in other sectors at different levels. With COVID-19 posing a major threat to persons over fifty years old, most university lecturers would be at a higher risk with face-to-face learning. Without breaching any of the laid-down health protocols, online learning is the better option.

Review of Related Literature

A review of literature on the trends in higher education such as globalization, virtualization and borderlessness and their impact in light of the management of education was carried out by Wood, Tapsall and Sourtar (2005). The paper discussed the implications of higher education trends for curriculum, teaching and administration. One of the three areas addressed in the review was significant changes in Information Communication and Technology (ICT) and their support for enhanced distance and online learning opportunities.

According to Porter (2014), the integration of ICT in developing course materials, delivery and sharing course content, encouraging pedagogical innovation, conducting research, lecturing and making presentations and providing administrative and management services has been gaining a steady momentum in the recent past. Kenyan universities are no exception. Therefore, embracing virtual approaches to content delivery may bear fruit if universities could enter into protective and developmental alliances such as “virtual alliances” to help cushion the universities without adequate technology infrastructure to support online learning during and after the COVID-19 pandemic period. Such an arrangement would also lead to the development of common quality standards, benchmarking good practice, and extending access to educational opportunities for learners while maintaining competitive advantage within the higher education landscape.

The proposal to carry out online classes by Kenyan universities has received an array of questions, some of which touch on quality assurance. During the first global forum by United Nations Educational, Scientific and Cultural Organization (UNESCO) on international quality assurance, accreditation and the recognition of qualifications in higher education, Middlehurst (2002) pointed out levels and types of education as one of the crossed boundaries in borderless education in order to create seamless lifelong learning opportunities. Considering that a larger proportion of African university students are used to the face-to-face mode of delivery, efforts by respective universities to convert them to online students would be appropriate in the face of COVID-19 whose prevalence period is still unknown. This would be the only viable alternative to keep the university students learning during and after the COVID-19 pandemic.

An inter-university study conducted within eight universities drawn from six countries presented feedback from the tutors engaged in a borderless education project (Poulova & Simonova, 2015). Tutors questionnaire with fifteen items focusing on the process of teaching, process of online course organisation and technical support was administered to 82 tutors. The findings of the study established that tutors' interests, experience and benefits were key to the success of online learning as new positive professional experiences requiring special didactic preparation before the online course begins was vital. The study conclusion alluded to the fact that latest developments in borderless education are being shaped by a number of factors. This implies that a global pandemic such as COVID-19 is among the factors that can shape online learning and overall operations in the higher education context(s).

Kenya, like other sub-Saharan nations, was already integrating the use of ICT in higher education through blended learning and e-learning to meet the rapidly increasing demand for higher education among the citizenry. A study by Ngigi and Obura (2019) investigated blended learning in higher education in Kenya in one of the universities where blended learning was piloted by the Kenya Education Network (KENET). The purely qualitative exploratory case study grounded within interpretivist epistemology used purposive and complete samples in a class of Masters in Education students. The study used the Innovation Diffusion Theory (IDT) by Rogers (2003) to categorise the students according to their adaption rate to blended learning. The key findings of the study indicated that over 75% of the students lacked internet connectivity while off campus and none of them advanced beyond the innovation category, pointing towards slow adaption to technology in learning among students. This could explain why in the wake of COVID-19 in Kenya, online learning has continued to attract resistance from both students and faculty alike. In order to address this, proper induction and orientation through online training ought to be done before teaching and learning begins.

Theoretical Review

Diffusion of Innovations Theory (Rogers, 2003) was deemed most appropriate in this review of literature related to adoption of technology in higher education in Kenya. The theory used technology and innovation as synonyms. Higher educational institutions can apply the diffusion of innovations theory to assess the level of preparedness and readiness to fully roll out online learning among higher education students in Kenya. According to Kenny and Newcombe (2011), explanation(s) on acceptance and rejection of the use of technology to deliver knowledge online can be done accurately using the theory as a powerful tool.

Under the diffusion of innovations theory, when it comes to the use of technology to deliver academic content, users are categorised according to their pace of

adoption of technology. According to Rogers (2003), adopters can be described as innovators, early adopters, the early majority, and the late majority and/or laggards. No matter the category of respective individual(s), the key components of the theory: innovation, communication channel, time and social system come in handy to ensure that adaptation is smooth.

Differences in certain attributes in adopters can pose a major challenge in using the diffusion of innovations theory to implement an exclusive online learning mode in the higher education sector in Kenya. However, the higher education sector can rely on communication channels and social systems to ensure that this is averted especially at the onset through training for all.

Conclusions and Recommendations

The future of higher educational institutions in Africa is likely to be determined by how well the continent re-thinks and re-imagines the transition from spatial classrooms to the borderless classrooms. In other words, how the lecture hall walls will be broken in each university will define how the “New Normal” will look like within the landscape of higher education during and after the COVID-19 era. Significantly, educational administrators should lead other educational stakeholders in putting in place the necessary system changes. They should formulate the relevant policies to guide online learning without losing sight of educational objectives and their role as developers and disseminators of knowledge.



Acknowledgements

The author thanks the IREN Team for the book project and the reviewers for their useful insights. I am grateful to Mr. Charles Onyango for finding time to proof-read this paper before submission, my family members, colleagues and friends for shared insightful experiences. God bless you all.

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Geopolitics and Geoeconomics Perspectives



The Rise of China and Debt in Africa: What does the future hold?

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Abstract

During the 1980s and 1990s, the foreign debt of African countries increased so rapidly that the threats of bankruptcy compelled many African states to turn to the International Monetary Fund (IMF) and the World Bank for financial bailouts. Bailouts came with strict so-called 'conditionalities' pertaining to internal structural reform. In recent years, many African states and leaders started to believe that Chinese loans would solve Africa's economic problems as Beijing took a radically different approach to the conditionalities set by the IMF and the World Bank. China has always prided itself on focusing largely on financing infrastructure and that they only consider the viability of projects. In other words, the basis of China's lending practices in Africa (and beyond) offered African countries the opportunity of a 'no conditionality' funding arrangement as opposed to those of Western actors where lending coincided with demanding conditions. Against this background, in recent years, many African countries, in need of boosting their infrastructure and economic activity, have increasingly looked to China for loans and aid of various types. China has also involved Africa in its massive Belt and Road Initiative (BRI) by providing funding for infrastructure. In this regard, it should be understood that most of the BRI-related projects undertaken by the Chinese government are capital-intensive projects, such as ports, railway lines, roads and even airports. On the downside, debt levels in Africa have accumulated and in 2019, African countries made up half of the top 50 nations most indebted to China, measured as a percentage of GDP. Today, it is widely anticipated that many African countries are heading for a debt emergency as they are vulnerable to the ripple effect of the Covid-19 pandemic and this could consequently result in default on debt repayments. A pressing question is: where will this leave the African continent in the new world order, especially in view of the fact that China is an emerging superpower and also the continent's largest bilateral creditor?

Keywords: Belt and Road Initiative (BRI), debt relief, global recession, zero-interest loans

Introduction

Between 2000 and 2010, the African continent achieved strong economic growth, but between 2010 and 2015, the growth slowed down somewhat. Since 2015, political and economic turbulence has weakened but not derailed the African growth path. From 2017 onward, Africa's economic growth has strengthened, but the improvement has not been sufficient to make a dent in unemployment and poverty.

The question arises: what are the prospects for political and economic progress in Africa? Put differently, what are the prospects and challenges in managing Africa's future from a governance perspective? In an article authored in 2015, Seyi Bickersteth, a Nigerian economist, identified the following variables or indicators as critical towards the shaping of Africa's future up to 2030:¹

- i. the empowerment and rise of the individual;
- ii. new and enabling technology;
- iii. continental demographics;
- iv. continental economic interconnectedness;
- v. public debt in Africa;
- vi. global economic power shifts;
- vii. urbanisation and resource stress in African states; and
- viii. the effects of global climate change in Africa.

This chapter specifically focuses on two of the above-mentioned variables: firstly, the rise of China in a landscape of ongoing global economic power shifts; and secondly, public debt management in Africa.

Background

Since 1965, many African states achieved satisfactory economic growth. However, since 1973, economic growth had been derailed by oil price shocks and the fact that most African states had to turn to international financial institutions for balance-of-payment assistance. During the 1990s, after a decade and a half of stagnation and economic decline, many African states have begun to show signs of economic improvement.

Overall, the economic growth and performance in Africa until the end of the millennium (2000) can be sub-divided into five distinct periods:²

- i. 1965–1973, the immediate post-independence period, which was a period of rapid economic expansion, until the first oil shock, which coincided with the global energy crisis and recession;

- ii. 1973–1980, a period of adjustment to the oil shock and global recession;
- iii. 1980–1985, the period of adjustment to the second oil shock and related setbacks that constrained Africa's performance, such as contraction of the world economy, high world interest rates, and cutback in external financing;
- iv. 1986–1995, the period of structural adjustment, marked by structural economic reforms relating to external support and financing by the International Monetary Fund (IMF) with various stabilisation programmes steered by the World Bank (starting in 1986) and the African Development Bank (starting in 1986); and
- v. 1995–1999, a phase of fragile economic recovery following the wrenching external shocks of the 1980s, with a number of states showing promising signs of progress.

In 2010, McKinsey & Company, an American worldwide management consulting firm, described the progress and potential of African economies as “lions on the move”. Their observation was based on a continental average real GDP growth of 5.4 per cent between 2000 and 2010. However, growth slowed down to 3.3 per cent between 2010 and 2015.³ Despite the potential of African economies, African leaders and policymakers were challenged, especially by low oil and commodity prices, and hence the financial position of the continent deteriorated. To this end, several African states entered into negotiations for international financial assistance or bailouts with the IMF and a ‘new financier’ – China. While most African economies were booming since 2010, and 25 of the 30 economies had accelerated their growth from the previous decade, the continent generally faced slowing growth since 2015. In fact, in 2016, the number of countries that sustained their growth paths had decreased to 13.⁴

More recently, growth in sub-Saharan Africa was estimated at 2.3 per cent for 2018, which is slightly down from 2.5 per cent in 2017. What remains highly problematic is that since 2015, economic growth on the continent has remained below population growth. The slower-than-expected overall economic growth coincides with ongoing global uncertainties, but is also increasingly linked to continental macroeconomic instability in view of poorly managed debt, inflation and deficits, as well as political and regulatory uncertainty.⁵

Against this background, two factors are of great importance to Africa's future political-economic trajectory: a surge in Chinese finance on the continent since the 2015 Forum on China–Africa Cooperation (FOCAC) summit;⁶ and what Kishore Mahbubani from the National University of Singapore calls a “more China-centric globalisation”.⁷ These two matters are under review in the section below.

Before these matters are explored, one question should be addressed, namely: why do so many African countries choose loans from China? After all, African countries are in a position to obtain loans from the IMF, the World Bank, the African Development Bank, private banks and even wealthy states, such as the United Kingdom. The reasons are essentially twofold: first, lowest-interest loans go to the poorest countries. This means that countries such as Kenya, Nigeria and Côte d'Ivoire are unable to qualify for loans. China is, however, willing to assist such higher-income countries with zero-interest loans, as they do not consider the income level of any country. China only considers the value of a project, and hence countries such as Nigeria, which is Africa's biggest economy, are in a position to qualify. Second, approval for loans from the above-mentioned entities (i.e., the World Bank) usually takes several years, mostly in view of procedures relating to environmental and societal scrutiny of the relevant countries, while the approval of Chinese loans is much quicker.⁸ Today, Beijing can be regarded as the single largest creditor to Africa. According to the Jubilee Debt Campaign – a coalition of organisations in the United Kingdom dedicated to debt relief for developing countries – as of 2018, around 20 per cent of all African government debt is owed to China.⁹

China's Emergence as a Superpower and Africa's 'New' Debt

In a recent analysis, conducted by *Foreign Policy* magazine, twelve leading global thinkers were asked for their predictions on what the world might look like after the Covid-19 pandemic. One of the experts, a well-known international relations scholar from Harvard University, Prof. Stephen M. Walt, argued that Covid-19 would “accelerate the shift in power from West to East”. Obviously, much of this relates to China's emergence as a global power, a future superpower.¹⁰

Already several years ago, the United States Intelligence Council argued in a landmark report, *Global Trends 2030*, that the reinvention of the international system will be among the most important factors in the future shape of the global order. Coinciding with the relative decline of the United States (and the West in general) vis-à-vis emerging powers in the developing world (especially China and India), by 2030, Asia will be firmly on track to return to its pre-1500 status as the world's powerhouse. The pressing question is where this will leave Africa in the unfolding new world order.¹¹

It is commonly known that during the 1980s and 1990s, many African states had to turn to the IMF and the World Bank for financial bailouts, which came with strict conditionalities pertaining to internal structural reform. In recent years, many African states and leaders started to believe that Chinese loans would solve Africa's economic problems as Beijing would be taking a radically different approach to the conditionalities set by the IMF and the World Bank. China has

always prided itself in financing infrastructure in developing countries on the basis of a ‘no conditionality’ policy, instead of applying conditionalities or lending funds with demanding conditions.¹² In view of the above, veteran South African journalist Peter Fabricius strikingly reports that the twenty-first century “introduced a significant new banker – China ... [and that] ... Beijing has been pumping money into Africa”.¹³ Although international institutions have an incomplete picture of how much individual countries owe China due to a lack of data and transparency,¹⁴ the fact is that China has become a major global lender to developing countries, including Africa.

In addition to inter-governmental zero-interest loans to African states and other forms of aid, which amounted to 143 billion USD from 2000 to 2017,¹⁵ China has also involved Africa in its massive Belt and Road Initiative (BRI) by providing funding for infrastructure. Against this background, debt levels in Africa have accumulated and in 2019, African countries made up half of the top-50 nations most indebted to China, measured as a percentage of their GDP.¹⁶

What is also of interest is that in 2014, before the surge in Chinese funding, 15 African states had IMF loans. By 2018, this figure had risen to 20 states. In this regard, falling commodity prices and rising interest rates on loans had pushed several states into unaffordable debt.¹⁷ In the words of Fabricius, “because of increased Chinese funding to Africa over the past few years, the IMF is back in business [in Africa]”.¹⁸ In short, a substantial portion of sub-Saharan African countries had slipped into a (new) debt crisis, with about 40 per cent of states in the region facing a high risk of so-called ‘debt distress’.¹⁹

It should be understood that most of the BRI-related projects undertaken by the Chinese government are capital-intensive projects, such as ports, railway lines, roads and even airports. The Chinese loans are big, and when countries are defaulting on the loans, the Chinese government can reclaim and run the assets for profit. In other words, a cost-benefit conundrum underlies the terms of the collateral on loans, specifically with regard to BRI-related projects. This is sometimes referred to as a long-term collateralisation of assets and resources.²⁰ The crux of the matter is that several African states have become indebted to China and this could lead to the handing over of assets or resources to China in some instances. Angola is most often cited as an example of an African oil-producing country that has “mortgaged its future” by now repaying some of its debt in the form of oil shipments to China’s state-owned oil firms.²¹

Since March 2020, the Covid-19 pandemic has brought about new and additional challenges to the African continent. The pandemic has especially exacerbated the pressure on public health systems in Africa while the economic outlook of African countries has also become increasingly unstable. In April 2020, the IMF projected that Africa’s growth would shrink by an unprecedented 1.6 per cent in 2020,

coupled with severe disruptions to economic activity and a sharp decline in key export prices.²² Against this background, Jalloh observes, “[m]any African countries could default on debt payment costs, precipitated by weak currencies, a ripple effect of the pandemic.”²³

Although several African states were already facing serious financial challenges before the Covid-19 pandemic, a number of African economies were on the move with high economic growth. In fact, five African states – Côte d’Ivoire, the Democratic Republic of Congo, Ethiopia, Tanzania and Rwanda – counted among the world’s fastest-growing economies with real GDP growth of 7 per cent or more.²⁴ Since April 2020, much has changed in the international community and, in general, the economic and financial position of the continent has been weakened by the pandemic – something that is not Africa’s fault. At the same time, African actors can rightly argue that in many instances, decreasing growth and escalating levels of debt on the continent do not originate from poor policies or governance on the continent.

Since early 2020, support has been growing for debt relief to assist the world’s poorest and most indebted countries. Several sovereign countries, especially France, international organisations and even think-tanks have appealed for debt relief programmes for African countries. Ultimately, they all suggested a pathway of partial debt cancellation and the remainder converted into long-term low-interest loans. In April 2020, the IMF decided to cancel six months of debt payments for 25 countries, of which 19 are African countries. Political actors in various settings have often linked the source of the pandemic to China and the point has rightly been made that China should be willing to soften Africa’s latest financial challenges. Appeals for debt relief have put Beijing in a difficult position as China is a developing country itself with an annual per capita income of 10 153 USD in 2019, placing it below the average of 45 447 USD of the top-seven major economies. With its own economy expected to contract for the first time in three decades, China initially did not signal any enthusiasm to come up with debt relief for debt-distressed African countries. Beijing probably also felt that, in 2018, Chinese President Xi Jinping already announced Beijing’s forgiveness of all Chinese intergovernmental zero-interest loans for least-developed African countries.²⁵

However, China clearly does not want to lose out on the reputational front, and on 16 April 2020, Chinese Finance Minister Liu Kun indicated, “China supports the suspension of debt repayment by least developed countries and will make its necessary contributions to the consensus reached at the G-20.”²⁶ This being considered, any discussion on debt should be clear on the kind of debt that is under review. Zero-interest loans from China do not actually make up a large portion of Africa’s debt to external actors. In this context, Beijing has rightly pointed out that China is not the largest creditor, as multilateral financial institutions and private

financiers are actually the largest creditors since that they own 35 and 32 per cent of Africa's debt respectively.²⁷

What should thus be clear is that debt also relates to bilateral loans that are directly or indirectly associated with China's BRI to build infrastructure projects. Be that as it may, Beijing's borrowing practices have come under criticism in recent years with critics arguing that this could encourage dependency and entrap nations in debt.²⁸ It is even sometimes cited as a form of neo-colonialism.

If debt relief to Africa is to be provided, China will have to go beyond zero-rated loans and should focus on individual African countries on a case-by-case basis. The example of Ethiopia is particularly instructive. In 2018, China agreed to a restricting of debt pertaining to a 4 USD billion loan for the Ethiopia-Djibouti railway. In this particular case, there was an agreement to extend the repayment period by 20 years. Debt negotiations between China and Ghana, Zambia and Angola have also been conducted. Angola, in particular, has been hit badly by a drop in crude oil prices, which has an effect on the repayment of some of its debt in the form of oil shipments to China.

Debt relief would not come cheap or easy and could resemble the case of the Hambantota Port in Sri Lanka, where China turned the debt into a 99-year lease of the port. It could likewise be something like the case of the suspended Myitsone Dam in Myanmar where the Burmese government could not afford to pay, after which Beijing proposed to turn the disbursed investment into equities in new dams in the country. In the final analysis, Sun seems to be arguing correctly that the future will be one of "yes to relief, no to blanket forgiveness".

Conclusion

From the above discussion, four matters should finally be highlighted. First, Africa's debt of recent years has increased, largely because of falling commodity prices and rising interest rates on loans – something that has pushed several countries into levels of debt last seen in the 1980s and early 1990s. Towards the end of 2019, twenty African countries (specifically in sub-Saharan Africa) had "government debt that is at or near distressed levels" and "Africa is borrowing like it's the 1990s".²⁹

As explained above, Chinese loans are different in the sense that they are without the conditionalities of the Bretton Woods institutions, more easily available and they do not consider the income of a country. The downside is that the collective African debt has been growing and, ironically, several highly indebted African countries, including Angola, Mozambique, the Republic of Congo, have returned to the IMF in recent times in an effort to source funds from their old banker. These

developments have sparked debates on whether China has led African states into a debt crisis with big loans, or whether this is a narrative relating to sour grapes among Western actors.

Second, it can be anticipated that the post-Covid-19 landscape will see more great power competition between the United States and China in international relations. This study concurs with observers who argue that, far from weakening China's position, the United States tends to be leaning towards isolationism, while Pres. Xi Jinping will push even harder towards superpower status. Beijing will also increasingly put more political and diplomatic weight behind its BRI, which is involving several African countries.

Third, the global recession brought on by the Covid-19 pandemic is certain to be far deeper and more protracted than the recession that followed the 2008 global financial crisis. Many African countries are poor with limited resources and little means for recovery. The economic outlook for many African countries is currently bleak, and hence, debt relief for poor countries worldwide, including many on the African continent, is once again on the agenda. Although there is an incomplete picture of how much African countries owe China, the latter is a most important creditor. To China's credit, Beijing has recently supported the suspension of debt repayment. At the same time, where loans are linked to infrastructure projects, debt negotiations will have to be dealt with on a bilateral basis. Again, this is likely to be a matter of debt relief, but no blanket forgiveness.

Lastly, the Covid-19 pandemic and its aftermath in Africa do not leave Africa in a position to play many cards vis-à-vis China, but an important aspect is certainly the fact that the continent has 54 votes in the UN General Assembly. African states can also make life difficult for Chinese companies operating on the continent. Africa is thus not helpless, after all. Whatever the future holds is open to discussion and interpretation, but it should be crystal clear that China will be a towering entity in the political-economic future of Africa. After all, China is now the continent's largest bilateral creditor and most African states will in all probability suffer the dire consequences of shrinking economies for some time in the post-Covid-19 landscape – leaving them politically and economically vulnerable in the changing international landscape.



Acknowledgement

This work is based upon research supported by the National Research Foundation in Pretoria, South Africa.

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Sino-African Relations: Post-COVID-19 Possibilities

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Abstract

China's growing presence in Africa is a microcosm of her puissant global geopolitical ambitions. The COVID-19 pandemic is a critical juncture set to redefine China-Africa relations. This chapter examines the possible trajectory that the Sino-African relations may assume in the post-COVID-19 era. It also examines how historical events (Cold War, African debt crisis, the end of the Cold War, and the Great Recession), perceptions and the fate of the Belt and Road Initiative (BRI), restructuring of the Chinese debt, and the trade war between the United States of America (USA) and People's Republic of China (PRC) could influence Sino-African relations in the post-COVID-19 period.

China regarded Africa as her strategic partner during the Cold War, the African debt crisis, the end of the Cold War, and the Great Recession. Beijing has lined up debt suspension, relief and cancellation programmes to help African countries economically recover from the COVID-19 pandemic. This could come at a cost that could force African countries to surrender larger shares of their markets and natural resources to China. To avoid negative perceptions about the BRI, China could offer debt relief to the African countries overburdened by debt. The BRI could be rebranded as a special purpose vehicle for digital infrastructure with Africa expected to play a key geostrategic role. The USA-China trade war presents an opportunity for the growth of intra-African trade in the post-COVID-19 era. Such growth could prompt China to consider Africa a powerful strategic front, though this is an optimistic view.

An expected increase of China's engagement with Africa in the post-COVID-19 era means that African governments and institutions should come up with strategies and policies that enhance mutual relations with Beijing to provide room for the growth of African initiatives such as the African Continental Free Trade Area (AfCFTA).

Keywords: Belt and Road Initiative, BRI; China-Africa; geopolitics; intra-African trade; trade war.

1. Introduction

A re-imagination of Sino-African relations in the post-COVID-19 era is fundamental towards understanding Africa's future in the wake of China's increased presence on the continent. Thereby, exploration of the possible trajectory of the China-Africa relations post COVID-19 is instrumental in informing the domestic and foreign policy frameworks of African countries.

This chapter has four objectives: to examine how historical events such as the Cold War, the African debt crisis, the end of the Cold War and the Great Recession influenced Sino-African relations; to describe how perceptions of BRI could affect China-Africa relations in the post-COVID-19 era; to identify effects of restructuring Chinese debt on Sino-African relations post COVID-19; and to examine the influence of the USA-China trade war on the post-COVID-19 Sino-African relations.

The key questions answered in this chapter include:

- How did historical events such as the Cold War, the African debt crisis, the end of the Cold War, and the Great Recession influence Sino-African relations?
- How will perceptions about BRI affect China-Africa relations in the post-COVID-19 era?
- What are the possible effects of restructuring Chinese debt on Sino-African relations in the post-COVID-19 era?
- How will the USA-China trade war influence Sino-African relations in the post-COVID-19 era?

2. Sino-African Relations: A Historical Perspective

Historical events such as the Cold War, the African debt crisis, the end of the Cold War and the Great Recession influenced China-Africa relations. Formal relations between China and Africa can be traced to the Asian-African Conference held on April 18th to 24th 1955 in Bandung, Indonesia. This was at the earlier stages of the Cold War and set pace for establishment of the Non-Aligned Movement in 1961 and the South-South Cooperation. In 1956, China established formal diplomatic relations with Egypt before extending the same to about ten African countries including Sudan, Algeria and Morocco.

It is important to note that the PRC's engagement with African countries after the historical Bandung Conference was ideological in nature and resulted in Beijing's support for independence movements across the continent (Mawdsley 2007). PRC's foreign policy was driven by the need to marshal support against the Republic of China especially at the United Nations and offer an alternative to the

growing influence of the Soviet Union and the West in Africa. The PRC, with help from twenty-six African countries, secured UN membership thereby replacing the Taiwan-based Republic of China.

In the 1970s until Mao Zedong's death, China's engagement with Africa was manifested through awarding of educational scholarships, provision of military equipment, and offering technical assistance and infrastructure development that resulted in the construction of the Tanzania-Zambia railway line (Mawdsley 2007). At its formative stages, Deng Xiaoping's administration prioritised domestic policy and its foreign policy maxim largely concentrated on building economic relations with USA, Japan and Britain. This negatively affected China-Africa relations at a time when African countries were experiencing the debt crisis. Notably, though, in 1984 China advanced aid worth \$258.9 million to African countries and ranked as the continent's sixth largest donor (Brautigam 1998). During the debt crisis of the 1980s, Beijing also facilitated debt-equity swaps eventually leading to debt write-offs for some countries such as the Democratic Republic of Congo (Brautigam 1998). This policy aimed at firming up relations between Beijing and strategic African states.

Following the Tiananmen Square massacre of 1989, China renewed her interest in Africa due to fears of being globally isolated. This marked an upward trajectory of Sino-African relations. Notable developments in the post-Cold War period in relation to Beijing's engagement with Africa include the establishment of the Forum on China-Africa Cooperation (FOCAC) in 2000, formation of the China-Africa Development Fund in 2007, formulation of China's African policy in 2006 and drafting of China's second Africa policy paper in 2015.

During the Great Recession of 2008/2009, China pledged concessional loans worth \$10 billion and offered a \$1 billion loan to small and medium-sized enterprises in Africa and accelerated her 2005 debt relief programme to thirty-three African countries (Gu & Schiere 2011). This enhanced the China-Africa relations as Beijing proved to be Africa's friend indeed and China has since become Africa's largest trading partner.

3. The Debt Question

Before COVID-19, a debt crisis was projected to ravage African countries reminiscing memories of a similar catastrophe in the 1980s and part of the 1990s. The COVID-19 pandemic prompted calls for debt relief, suspension and cancellation to accelerate the economic recovery of African countries after the crisis.

3.1. Beijing's Strategy and Africa's Position

Africa's relevance in Beijing's geostrategic ambitions in the wake of the COVID-19 pandemic was exemplified by the Extraordinary China-Africa Summit on Solidarity Against COVID-19 event held in June 2020. There are notable considerations from the Summit's joint statement. First, China's position on non-interference of Africa's internal affairs is emphasised with African countries expressing support for Beijing's position on Hong Kong and Taiwan. Second, China highlighted the importance of addressing debt concerns of African countries through several platforms; the G20 Debt Service Suspension Initiative (DSIS) and the FOCAC framework. According to President Xi Jinping's remarks, the FOCAC framework would enable China to cancel the debts of some African countries originating from interest-free government loans set to mature in 2020 to help them navigate the difficulties arising from the pandemic (Xinhua 2020). Additionally, President Xi used the Summit to re-emphasise China's role in the international community in terms of rallying multilateral institutions and developed economies to fast-track debt relief and suspension for Africa as a follow-up to his remarks during the 73rd World Health Assembly in May 2020.

On June 11th, 2020, Africa's Heads of State and Government made a call for cancellation of debts, debt relief and debt moratorium, to help African countries recover in a sustainable manner post COVID-19.

3.2. Debt and Sino-African Relations: Post-COVID-19 Prospects

As indicated, China intends to speed up debt relief programmes and the debt cancellation of interest-free government loans as post-COVID-19 recovery measures for African countries. But what is not being discussed are the expected trade-offs for Beijing's debt relief and cancellation initiatives. China is Africa's largest trading partner and certainly the latter's markets and natural resources inform Beijing's approach to enhance debt relief and cancellation. Therefore, debt relief and cancellation are opportunities for Beijing to increase its engagement with African countries in the post-COVID-19 era, *quid pro quo*.

In fulfilment of its debt relief promises made in 2020, in January 2021, the Chinese government postponed Kenya's debt repayments worth 27 billion KES that was due mid-2021 (Herbling 2021). Beijing also extended debt relief to the Democratic Republic of Congo (DRC) in January 2021, under the DSIS framework, of which the Chinese government seeks to offer a relief package worth 2 billion USD with other African countries such as Djibouti, Zambia, Ethiopia and Angola set to benefit (Al Jazeera 2021; Africanews 2021). Furthermore, in February 2021, China advanced debt forgiveness worth 13 million USD to the Congo Republic (Reuters 2021).

It is important to note that Beijing's increased foothold in Africa post-COVID-19 could rekindle the debt-trap diplomacy narrative especially if terms and conditions for debt relief and cancellation entail the affected African countries giving up large shares of their natural resources to China. Beijing could also demand for unfettered access to African markets, thus escalating the deindustrialisation process on the continent.

Despite the persisting view about China's debt-book diplomacy in Africa, the Beijing Consensus attracts a favorable view among Africa's political elite (Walsh & Kinkoh 2020). Fundamentally, this is due to the central tenets of the Beijing Consensus as proclaimed by former Chinese Prime Minister Zhou Enlai during his African tour in 1963-1964, emphasising non-interference of internal affairs of recipient countries (Enlai 1964). This favorable view is unlikely to change in the post-COVID-19 era.

4. The Belt and Road Initiative and Other Areas of Cooperation: Implications for Sino-African Relations Post-COVID-19

The eventuality of China's geopolitical masterstroke, the BRI, in the post-COVID-19 era will influence Sino-African relations. Its eventuality rests on perceptions created by media, think-tanks, governments, research institutions and other entities, and Beijing's domestic and foreign policy priorities post COVID-19.

Before COVID-19, the BRI was highly criticised by Western media, think-tanks and governments as a mechanism purposed to enhance debt-trap diplomacy. For instance, a report by the Center for Global Development branded BRI as an initiative aimed at increasing economic dependence on China and listed eight countries as having a high debt risk due to BRI projects including Djibouti, (Hurley et al. 2018). Post COVID-19, Beijing will opt to offer debt relief to highly indebted countries as a result of BRI projects to maintain a positive image about it hence not souring relations with them.

There are contesting views about BRI's trajectory in the post-COVID-19 period. Sidhu (2020) contends that heavy debt financing associated with BRI projects could be an impediment towards economic recovery of highly indebted countries post-COVID-19 and this could draw backlash from various quarters and may halt the initial BRI strategy. On the other hand, Calabrese (2020) notes that there is no likelihood of Beijing flipping its initial BRI strategy due to the vibrancy of its economic and political drivers such as availability of domestic resources and political support.

Moreover, in the post-COVID-19 era, there is a looming possibility of a more inward-looking China set to prioritise health infrastructure and economic recovery (The Economist 2020). In the process, reallocation of resources could hamper

advancement of BRI projects and slow down the BRI externally. China has set aside about 1.4 trillion USD to build her digital infrastructure as a recovery measure for the Chinese economy (Yang 2020). This could affect the progress of BRI projects in Africa to a certain degree but is unlikely to dampen China-Africa relations.

Sino-African relations are unlikely to dampen due to the scaling down of BRI projects post COVID-19 with Beijing eyeing other strategies and areas of interest or cooperation such as debt relief, debt cancellation and development of Africa's digital economy in view of 5G, big data, tele-education and tele-medicine (FMPRC 2020). Therefore, Beijing could rebrand the BRI to focus on digital infrastructure and less on physical infrastructure. This could still see Africa maintain its position as a strategic partner in such a move.

Moreover, a strategic area of cooperation is the production and distribution of the COVID-19 vaccine. Accordingly, President Xi Jinping's speech at the Davos Agenda organised by the World Economic Forum (WEF), denotes Beijing's ambition to shape the global geopolitical discourse in the post-COVID-19 era. According to President Xi, China, as at January 2021, had assisted "over 150 countries and 13 international organisations, sent 36 medical expert teams to countries in need, and stayed strongly supportive and actively engaged in international cooperation on COVID vaccines" (CGTN 2021). It is worth mentioning that African countries have benefited from this vaccine diplomacy.

Egypt, for instance, seeks to partner with China to construct a COVID-19 vaccine manufacturing firm, a strategic move aimed at enhancing distribution of the vaccine in African countries (Zaid 2020). Beijing is also establishing a cold-chain air bridge that will run from Shenzhen, China, to Ethiopia (Nyabiage 2020). Additionally, in February 2021, China pledged to donate about 100,000 doses of the COVID-19 vaccine to the Congo Republic (Reuters, 2021). The Ethiopian Airlines is also expected to play a central role in Beijing's vaccine diplomacy in Africa. As at February 6, 2021, the Airline had already delivered the first batch of the COVID-19 vaccine from China with the support of Alibaba Group's, Cainiao Smart Logistics Network (Tekle 2021).

5. USA-China Trade War: Effects on Sino-African Relations Post-COVID-19

The escalation or de-escalation of the USA-China trade war will influence Sino-African relations in various ways post COVID-19. Before embarking on what lies ahead for Africa in the event of intensification or a slowdown in the USA-China trade war post-COVID-19, it is chiefly important to paint a picture of the effect(s) of this geopolitical issue in pre-COVID-19 period. Accordingly, the trade war was bound to shrink the global Gross Domestic Product (GDP) by 600 billion USD

(about 0.6%) by 2021 (Cazares n.d.). Cazares (n.d.) further observes that by 2021, resource-intensive and oil exporting African countries would have their GDPs contracting by 2.5% and 1.9% respectively, with Africa's GDP set to decline by 1.5% in the same year. The situation could worsen if the trade war escalates post COVID-19.

It is worth noting that the COVID-19 pandemic disrupted global supply chains prompting commentaries on possibility of deglobalisation, regionalisation and localisation in the post-COVID-19 era (Yang 2020). Escalation of the trade war means Africa faces certain possibilities including a decline in economic growth due to decreased trade and a spike in intra-African trade. Of great interest, however, is the possible course of Sino-African relations in light of the stated possibilities. Why China? First, it is due to the primacy of this chapter and second, because China is Africa's largest trading partner. Table 1 below shows a comparison between China-Africa trade and USA-Africa trade from 2002 to 2018.

Table 1: China-Africa Trade versus USA-Africa Trade in US\$ Billion

Year	China's Exports to Africa	China's Imports from Africa	China-Africa Total Trade	USA's Exports to Africa	USA's Imports from Africa	USA-Africa Total Trade
2002	7	5	12	10	10	21
2003	10	7	18	10	16	26
2004	14	14	27	13	23	36
2005	19	19	38	15	34	49
2006	27	27	53	19	56	65
2007	37	34	71	23	54	77
2008	51	51	102	28	72	100
2009	48	40	88	24	48	72
2010	60	60	120	27	70	97
2011	73	74	147	32	95	126
2012	85	79	164	31	97	128
2013	93	81	174	34	96	130
2014	106	80	186	37	92	129
2015	156	48	203	26	26	52
2016	92	41	133	21	27	48
2017	94	60	155	21	34	55
2018	105	80	185	25	36	61

Source: China Africa Research Initiative 2020

China surpassed the USA as Africa's largest trading partner in 2008 and in 2018, China-Africa trade was three times that of the USA-Africa trade. This was marked by Beijing's increased engagement with African countries in other areas of cooperation.

Intensification of the trade war leading to deglobalisation in the post-COVID-19 era offers an opportunity for African countries to enhance intra-African trade through the AfCFTA framework. Currently, intra-African trade makes up 16% of total African trade while China accounts for about 14% of total African trade (Qobo & Mzyece 2020). Implementation of the AfCFTA in the post-COVID-19 era will have ramifications on China-Africa trade thus influencing Sino-African relations. Tremendous growth of intra-African trade post-COVID-19 could force China to engage with Africa on a more highly mutual basis than the current arrangement skewed in Beijing's favour.

What are the possibilities of the escalation of the USA-China trade war? The defeat of Donald Trump and election of Joe Biden as President of the USA means that there is a high possibility of de-escalation of the trade war between the world's two biggest economies in terms of GDP size. Trump's administration was non-committal in supporting the AfCFTA, and fashioned inking free trade agreements (FTAs) with strategic African countries. A good example of this is the Kenya-USA FTA which is still in its formative stages. President Biden, while addressing African leaders during the African Union Summit 2021, endeavored to promote US-Africa relations "By focusing on Africa for Africa's sake, Africans for Africans' sake" (Widakuswara 2021). This, coupled with Washington's recent support for multilateralism, are signs of de-escalation of the trade war, and America's support for the AfCFTA. But, China has been steadfast in advocating multilateralism especially during the COVID-19 period, and this is firmed up by President Xi's remarks during the World Economic Forum meeting in January 2021: "...China will continue to promote trade and investment liberalization and facilitation, help keep the global industrial and supply chains smooth and stable, and advance high-quality Belt and Road cooperation..." (CGTN 2021). De-escalation of the trade war means that China will remain Africa's largest bilateral trading partner in the post-COVID-19 period, but this will certainly have both positive and negative effects on the implementation of the AfCFTA.

6. Conclusion

China proved to be Africa's strategic partner during the Cold War, African debt crisis, end of the Cold War, and the Great Recession. This will not change with the COVID-19 pandemic. Sino-African relations are expected to firm up in the post-COVID-19 era with China set to offer debt suspension, relief and cancellation programmes through the FOCAC and DSIS frameworks. In effect, extension of debt relief to African countries will be crucial in avoiding negative perceptions

about BRI, and also enable them recover from the ravaging effects of the pandemic. This will go a long way in firming up Sino-African relations in the post-COVID-19 era.

The USA-China trade war presents an opportunity for African countries to fully implement the African Continental Free Trade Area in the post-COVID-19 era. As a result, this could force China to engage with Africa on a highly mutual basis. More importantly, de-escalation of the trade war, following the election of President Joe Biden, implies that China will still remain Africa's leading bilateral trading partner post-COVID-19, and this could either enhance or emasculate the implementation of the African Continental Free Trade Area.



Acknowledgement

Special acknowledgement is made to the Inter-Region Economic Network (IREN) for engaging me in the zoom discussion and this book project.

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**Why Traditional Knowledge Communities have
not gained a Competitive Edge across International
Markets: Finding the Middle-Ground Post-COVID-19**

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Abstract

This chapter argues that IK-centred licenses should demonstrate adequate suppleness so that, in a post-Covid-19 Africa, intellectual property standpoints of traditional communities can be effectively assimilated into a more commonly accepted legal charter. The chapter seeks to give expression to the post-Covid-19 crucial knowledge set in the emerging technology policy areas in Africa. It further exposes the confines of conventional IP frameworks by evaluating its interface with ethnic knowledge structures. It not only suggests how to better define IP in the African context but goes on to posit a new unorthodox 'some-rights-reserved' licensing system which satisfies both the canvassed IK and OP needs. The analysis this chapter accordingly tries to poise, affords these movements the appropriate understanding and bonds the apparent rivalry. It is the creation of an international marketplace for the distribution of new thoughts and novel expressions and, at the same time, providing one authoritative voice. It is facilitating instant entree to an entire array of ethnic assortment versus reducing all customs to a sole hypermarket. Instead of vending its lands, it is affording even the smallest civilisation the opportunity to make a living by vending its designs, yet it is also dissolving the privacy of ethnic societies' utmost sacred information.

Keywords: African Technology, commercialisation, intellectual property, metadata

Introduction

Africa needs informed, critical consumers and producers of knowledge. The question driving this chapter is on how she could utilise technology to get there. Technological innovation can be defined as the use of knowledge, skills, values, and resources to meet people's needs and wants by developing practical solutions to problems, taking social and environmental factors into consideration. As the definition suggests, sociological factors play a significant role in the realisation of technological innovation. However, Africa has been pelted with digital inclusivity problems such as access, affordability, gender bias and critical infrastructure: making it hard to compete on the global stage. Accordingly, this chapter seeks to give expression to the post-Covid-19 crucial knowledge set in the emerging technology policy areas in Africa.

In the early 1990s, the United Nation's instruments of Human Rights started to dedicate noteworthy consideration to the civil liberties of traditional societies. From an intellectual property (IP) outlook, this was too late as 'recognized' conditions for protection excluded Traditional Knowledge (IK). Equally, traditional societies themselves did not approve of IP's individualistic proprietorship rubrics (Dutfield, 2001). Since then, the security of IK by means of the IP system raises apprehensions which Africa, having more than three thousand indigenous tribes, will need to address post-Covid-19. Two such concerns form the basis of this chapter and will accordingly be answered.

Firstly, does the existing IP system satisfactorily safeguard IK? If not, then what means can be implemented to solve this? In particular, African millennials face new-fangled discussions designed at framing how culture is created, possessed, and disseminated. While 'open knowledge' (OP) rights activists strive for more autonomy, 'Indigenous Knowledge' (IK) rights activists, conversely, campaign for stronger safeguards from appropriation and recognition.

Inadequate Safeguards

Public Domain: Definitional Misconceptions

Correa, a leading expert in IK, posits that the main 'hurdle' facing progressive deliberation is contradictory interpretations of the public domain (Correa, 2010). This chapter agrees with the view and submits further that what leads to IK misconceptions is a western ideological inclination to narrow down definitions the furthest they can. This incredible multiplicity known as IK is not only different amid nationalities, but also different amongst the various tribes within these nationalities. Therefore, it is perhaps ill-advised to define IK, unless its articulation is fairly broad.

Legislative proof of this definitional misconception can be seen in the 1971 Amendment to the Berne Convention on Copyright that sanctioned members to implement *sui generis* processes for the security of indigenous 'folklore' and in the model statute then drafted by UNESCO and WIPO. This 'ideal' law, as an important definitional instrument, mistakenly regards folklore as state property instead of pronouncing it as that of the folks, and thus proves my point. To this end, it will be difficult for most indigenous groups to establish themselves as 'authors': a mandatory copyright law requirement. A less trickled-down definition could well have avoided this folklore misunderstanding.

When 'outsiders' are the key players in the bodies determining IP norms, it flows naturally that any attempt to determine the nature and scope of a foreign concept to them will more likely result in a clutch of the commercial import of IK than its authentic meaning. Consequently, IK is presumed to fall under the public domain. In the pursuit of adequate safeguards, IP should not only look within its norms and rules but show flexibility by integrating outside sources for a more informed understanding. Pineda states an encouraging viewpoint that data is not in the communal-pool merely by its free-good characteristic but as a consequence of a web of "formal and informal social arrangements, embedded in common law and in the ethos of a community." (Pineda, 2004, p. 38) The relevance of this submission is, as I contend, that knowledge must not solely be deliberated as defined by the IP system, but ought to heavily consider the common law and customs of IK communities when outlining material that forms part of the public domain.

One school of thought scrutinises the wording itself on how the use of 'traditional' hints at an absence of newness (Posey, 1999). The chapter is of a contrasting view. IK has methodical and pragmatic, and thus, scientific processes in their own right. In order to adequately address IK, it must be accurately classified. The question then becomes if indigenous societies truly practise science, how then is IK distinguishable? To briefly answer this the chapter turns to Johnson, an anthropologist who undertook a survey that shows how IK is created, chronicled, and communicated like western scientific (WS) data, while concurrently distinguishing them. Several of Johnson's findings were that IK:

- Is noted and communicated through oral practice;
- Is instinctive in its approach to thinking (while ws is diagnostic);
- Is primarily qualitative (while ws is primarily quantitative);
- Is founded on information compiled by resource consumers (while ws is gathered by expert researchers who incline to be more selective in the amassing of findings);
- Develops its descriptions of environmental occurrences from aggregate, shared and frequently spiritual involvements. Such accounts are tested, corroborated, and reviewed seasonally (johnson, 1992).

In reality, someone proficient in IK and another in WS may both identify cutting from a quinine bark as a remedy for malaria, however, they will simply pronounce what they know in dissimilar means. Essentially, IK is scientific even if the custom followed may seem otherwise to many.

This section makes it evident that misclassifying and narrowing the IK definition has left hallowed knowledge deserving of spirited protection, left often undeservingly in the public domain and vulnerable to opportune exploiters. The inquiry the chapter undertakes demands adequate safeguards; hence, it is vital to fully understand and appreciate what it is you purport to guard. The current IP structures fall short in that regard.

Databases: An Exposure Risk

The World Bank has sponsored the notion of an international database of IK and has initiated the development of an African prototype. There is a need to objectively scrutinise this initiative. If components of information are sacred and private, how does globally disclosing them concurrently keep them safe? Knowledge database advocates argue that such an approach will notify potential exploiters of its prior art nature and resultantly prevent them from pursuing patent claims (Daes, 2001). Nevertheless, as the following case studies will show, this is misguided.

Momentary Successes

India is the first case study as, in 2001, it commenced a database scheme with the aim of offering knowledge on IK in understandable languages and layouts for patent assessors at International Patent Offices. India's Traditional Knowledge Digital Library (IKDL) has had some degree of success in showing that databases using IP structures can thwart unjustified use of IK (Andanda, 2012).

The intention of the chapter is not to go into the specifics of figures, which can be found in Jeevan's report (Jeevan, 2004), but to draw the reader's attention to two facts. The first being, that so far IKDL data has indeed been used to successfully contest requests for patenting and secondly, several IPOs have resolved numerous access-to-IKDL contracts.

Venezuela provides the second case study with its Biozulua database. Twenty-four indigenous communities have offered their information on remedial plants and nutrition (Andanda, 2012). By pushing prospective companies towards interaction with database commissioners rather than dealing straight with the traditional communities, the Biozula scheme seeks to curtail bio-piracy. Data can be sought by 'species, geographical location, ethnic group or ailment' and thus the system encourages obtaining informed approval and realising comprehensive engagement with IK societies. Put into perspective, this section outlines three positives from databases – it protects data; prior consent encourages engagements with IK societies; and its use of prior art helps prevent the approval of wrong patents.

Shortcomings

One cannot fault the intention behind the afore-outlined measures, but the question one needs to ask is: Do they adequately protect IK? The answer is again no, here.

Admittedly, databases do protect data, however, the main drawback is that the databases may be given IP protection, but the knowledge itself is not. This shortcoming is evident in the EU statement on IK emphasising that “the sui generis protection of databases covers the database itself, but not the actual info compiled therein.” (Directive 96/9/EC, 1996, p. 20).

Admittedly, prior consent encourages engagements with IK societies. One such example is Article 8j the Convention on Biological Diversity, which reads: Subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices. (Article 8j, 1992).

The Fifth Meeting of the Conference of the Parties also adopted this provision (Decision V/16, 2000). However, this is cause for concern because it clearly does not demand engagement with, nor the participation of, IK societies. In fact, shortcomings of such poor drafting are evident in numerous traditional communities, including some in Venezuela, raising distresses over failures in obtaining prior informed permission (Lapena, 2004).

Lastly, the conception that it is a database that gives ‘prior art’ status, which in turn deters businesses from pursuing patent claims, is inaccurate. It would help in serving as evidence to prove the claim, but the chapter humbly submits that traditional communities would still have *loci standi* to bring a prior art action irrespective of them formerly divulging the subjects of their information (Dyer, 2001).

Most importantly, I would argue, a universal database cannot satisfactorily address and redress the principal impediment confronting traditional communities. Upon discovery of IK violations, traditional communities, especially in actions intersecting domestic borders, do not have the funds for appropriate legal representation in nation-wide benches.

The Enforcement Problem

Statistics show that ninety-five percent of traditional communities populate

developing states (Daes, 2001). The following section will argue that the economic muscle garnered by researchers and/or organisations in developed states vastly overpowers these communities in disputes arising out of IK piracy.

The State

The toughest new legal organisation to surface is indisputably the World Trade Organisation, yet its core applicants are opulent states with enough economic muscle to pay its levies and, ironically, afford non-compliance penalties. Suppose the San and Khoi community of South Africa discover rooibos and develop medicinal methods for numerous ailments and illnesses with it. Then a French scientist attains their revered knowledge and is successively granted copyright or patent in France. By what means would the San and Khoi pick up on the IK violation? Would they meet the expense of a legal challenge in France? Can they bank on the Republic of South Africa to burden their ethical and legal interests and, suppose there is an applicable South African statute, will French courts implement it? Practically, these are quite poignant questions that the global IP community has neglected in the discourse.

At this point, the chapter momentarily turns to the afore-submitted model folklore law. As specified, the model provision reposes mythology as government property, rather than conferring ownership to the traditional communities themselves. The implication of this is traditional communities must trust politicians to avert breaches and to provide these communities with their fair stake in any compensation or royalty awards. Furthermore, it denotes that government control granting of research permits, and select license uses affecting IK. Thus, in effect determine the criteria and procedures in which traditional communities can practise, acquire, and demonstrate their own knowledgeable customs.

Intellectual property structures should not be solely state-centered, as this puts faith, and priceless information, on the shoulders of a fragile core. Irrespective of personal allegiance, it is undeniable that the current political climate in South Africa and history itself, at the domestic and international levels, has shown that a partisan majority can use selfish motives to arrogate the rule of law to its private gain. Soviet-Russia and Nazi-Germany sentenced societies to atrocious deaths by neutral, lawful, courses under state law (De Vos, 2014).

In order to establish effective IK protection, as pleaded by these vulnerable communities, safeguards must be explicit and categorical. Moreover, transparent access to courts and administrative processes ought to be guaranteed to such communities, otherwise the IP community risks merely reinforcing prevailing injustices and inequalities.

Balancing Solutions

In this section, the chapter suggests a promising process for developing licensing methods to best effectively balance the tensions discussed above. To frame the submission, the chapter will first introduce a metadata-founded approach capable of achieving what the database formulation failed to, as discoursed above. Also, as expansively discussed, the two concerns of enforcement and the public domain, will re-emerge as the conflict between IP and IK movements collide again in finding effective solutions. In view of that, the chapter will framework how the 'some-rights-reserved' approach of intentional licensing can be established as a durable and comprehensive solution.

Database versus Metadata

The chapter has established that databases try to manuscript IK and use current regulations to establish that the information insinuates 'prior art'. As a solution, they admittedly serve as advantageous implements in certifying IK rights. Nevertheless, as also established, their effectiveness as mechanisms to safeguard such information has proved inadequate.

The chapter then turns to submit a program that can provide that adequacy if more attention and resources are dedicated to it - the Indigenous Collections Management Project (ICMP). This initiative made novel metadata criteria and data-safety software for the distribution of delicate customary information (Sledge, 2002). By definition, metadata is 'data about data' (Buca, 1998). Academics are accustomed to metadata from library data structures: where consumers are able to look up journals or cases based on the title, keywords or writer - which are all metadata describing precise pieces of information.

The objective of the ICMP was to answer how this metadata system can provide different results from the pure databases developed and discussed as failing above. It is evident that their programmes were intentionally designed around a critical analysis of database weaknesses. One of those weaknesses being a lack of sufficiently flexible structure to incorporate most of, and ultimately all, custom-particular rules concerning IK. Documentation structures work best if extensively adopted as they enable interoperability amongst diverse systems. The metadata system achieves extensive applicability across varied IK settings by proposing various mechanisms including: 'tagging' consents and rights to pieces of content; tailoring schemes to satisfy differing needs; as well as licensing codes that let the software identify use conditions and rights (Buca, 1998).

The ICMP approach to licensing also anticipated budding implementation complications wherein societies challenge rules prevailing within and between them. What distinguishes this approach over previously tried strategies and thus

makes it operative, is licensing flexibility. This is utilised in how conditions are negotiated and hence used to: adapt safeguards and terms on distribution; outline the appropriate IK custom; and capitalise on licensing's worldwide recognition, as an enforcement tool. (Nicholas & Bannister, 2004).

For these and many other qualities, metadata would be much welcome aid as perhaps, given their similar nature, the 'perfect database' scheme.

Enforcement as a Solution

There have been various measures to safeguard IK suggested by scholars in order to counter the IP system enforcement discrepancies discussed.

The main one which numerous states have been pressed to develop – is a distinct sui generis classification of their own. The word sui generis is used to label legitimate protection subsisting outside the normal legal processes (Wanjiku, 2016). Accordingly, advocates argue that what has obstructed enforcement is the reliance on the same system, whereas sui generis does not derive its validity from IP (Noble, 2007).

However, if the goal is to have lasting solutions, the chapter submits that solutions cannot be repeatedly premised on this 'all-or-nothing' framework. Analysis of state-specific security laws, such as sui generis laws, and intercontinental treaty proposals, show unsettling drawbacks. Firstly, they are increasingly challenging to manage as they are vastly variable and secondly, they merely afford geographically restricted defenses. Consequently, this alone results in little or no enforcement.

To substantiate, 'all-or-nothing' solutions are adamant about their sole correctness that they fail to adopt constructive methods of opposing movements. The chapter submits that in actuality, even if lawful enforcement is feeble in a particular country, preventive copyright practices have relevant upshots. I submit two parts, to illustrate this. Firstly, when it comes to enforcement within domestic borders, copyright laws can marque any unlicensed consumer as 'thief' or 'pirate' of knowledge, and in so doing lessen the prospect of any substantial conception borne out of it, to be acknowledged as intellectual. Secondly, even when domestic laws are not applicable in specific jurisdictions, communication advancements themselves frequently enforce limiting mechanisms over data, and these constraints normally work worldwide.

Hence, there is a need for a solution that can effectively balance out both ends of the spectrum, and I submit below, the 'some-rights-reserved' model that does so.

Some Rights Reserved

Both OK and IK rights advocates are motivated towards a future with satisfied shareholders in varied interests (Kansa, Shultz & Bissell, 2005). Yet, the ad hoc and incongruent efforts, in these camps, as briefly juxtaposed above, prompt confusion for consumers and originators alike – which ultimately, does not fix the currently broken system. The chapter submits the ‘some-rights-reserved’ model as so far, the smartest converging resolve for OP and IK.

Public Domain and Enforcement

‘Some-rights-reserved’ licenses do not place knowledge into the public domain (Kansa, Shultz & Bissell, 2005). IK advocates would welcome its approach as the communities can select numerous constraints and requests for particular usages of their knowledge. A few of what it considers are: stipulations to credit the innovative source of IK; constraints on profitmaking usage; and, meaningfully for OP advocates, requesting any copied works be publicly shared on identical licensing conditions they acquired with. The last request mentioned is coined a ‘share alike’ proviso. Quintessentially, it guarantees that an explicit body of information and its by-products, mutually stay openly accessible. (Kansa, Shultz & Bissell, 2005). Even, without going into minute detail, it is clear that the system aims to take the best of both movements to create enduring solutions.

In looking to solve the enforcement issue, this model incorporates the metadata system discussed above. The chapter is of the view that enforcement will in practicality be far easier and more effectual with a wider distribution of protected property. As already carefully established, metadata uses an expansive approach to documenting diverse cultural systems. Therefore, merely because there will be more persons competent to notice IK encroachment and be acquainted with varied IK. Consequently, lawful enforcement actions by activism groups, government, or even IK societies themselves can be systematically acted on.

In addition, for inclusive application, the model licenses in device-readable metadata, lawful terminology, and basic languages (Kansa, Shultz & Bissell, 2005). The three features are vital to make sure that the licensing specifications are logical and widely understood, for users and makers of knowledge alike.

The pertinent issue then turns to be if such a wide distribution approach is assumed, how will the societies ensure their IP is not mismanaged? In Crafting licenses, the model fashions a theoretically powerful tool, which duplicates permits whenever IK is reproduced and used to generate derivative property (Kansa, Shultz & Bissell, 2005). In effect, this viral duplication of licenses can empower traditional communities to lawfully profile how IK is communicated and applied outside the societies and outside separate websites or databases.

The chapter then closes by assembling two keys that the ‘some-rights-reserved’ movement should in the development of its IK licenses:

- a) Broad-centred, shareholder-focused procedure: envisions engaging with IK societies and interested groups such as academic communities and their ethnic teams, IP legal and museum delegates as a platform to explore and understand shared aims and concerns.
- b) Acknowledging communal authorship: authorship spread through several generations and communes lacks unambiguous acknowledgment in present IP, as mentioned in passing above. In such cases, apt licensing contracts ought to accredit these societies as perhaps the IK trustees and shareholders.

IK activists are apprehensive on the matter of secret information, for example, consecrated sites and closed ceremonies. Trade-secret regulations ought to be given due consideration on whether it affords a valuable outline for desirable defences. From a documentation take, perhaps one method would be to allow the right of use to certain parts of information founded on their intentions and personnel. To illustrate, consumers can complete a form on every occasion they set a search, which enquires into profitmaking intentions and accordingly grants entree as established by the license conditions. A privacy obligation assumes on acceptance of provision with breach either domestically enforceable or the licensee’s jurisdiction.

Conclusion

The fabric of traditional knowledge should and will always be jealously guarded, but mechanisms that allow us to re-examine and relay how the international market interacts with us, tailored to us, should be at the forefront of our debates. IK-centred licenses should demonstrate adequate suppleness so that, in a post-Covid-19 Africa, intellectual property standpoints of traditional communities can be effectively assimilated into a more commonly accepted legal charter.



Acknowledgements

I would like to earnestly acknowledge the sincere efforts and valuable time given by my colleagues Nelson Kandemiri and Allan Mpofu in proofreading this Chapter contribution. Their valuable guidance and feedback have helped me immensely. Also, I would like to mention the support system and consideration of my parents Pilot and Irene, sisters – Ruth and Christine, brothers Iddo and Lance, and my circle of friends who are always there by my side.

All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately.

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Multilateralism



Assessing Africa's Multilateral Approaches to Containing Global Pandemics: The Case of COVID-19

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Abstract

We demonstrate from available evidence that Africa has largely been successful in her multilateral approach to containing the novel coronavirus disease of 2019 (COVID-19) pandemic. The African Union (AU) has been engaging the G20 countries in the multilateral approach to containing the pandemic. The Africa Centres for Disease Control and Prevention (Africa CDC) has been central to this success through public health responses. The trends we modelled from April 2020 already showed early signs of exponential and fast-rising COVID-19 curves for South Africa, Cameroon, Kenya, and Egypt. The observed constraints on contact tracing, technology, COVID-19 testing capacity with the limiting effects of global supply chain disruptions, and sampling efficacy have proven to be key factors in exposing the true country COVID-19 curves and enhancing the performance of various countries in containing the pandemic. The adverse economic effects of the pandemic summon a multilateral approach so as to ensure a collective continental bargaining power for the economic recovery roadmap including debt relief arrangements. Investment in enabling governance and technologies for collaborative engagements driven by knowledge, quality research, and data is a critical outlook for a thriving Africa in the post-pandemic recovery period in the face of foreseeable uncertainties in foreign direct investments (FDI) if the pandemic persists.

Keywords: Africa CDC, Coronavirus, FDI, G20

Introduction

Multilateralism is gaining currency in a hyperconnected world appreciating the universal principles of interconnectedness and indivisibility, interdependencies and inclusivity, multistakeholder partnerships, and leaving no one behind (UNSSC Knowledge Centre for Sustainable Development, 2019). The 2020 US elections could well be a watershed moment for the contest of ideologies between inward-looking nationalism and multilateralism. Drawing on lessons from the novel coronavirus disease of 2019 (COVID-19) global pandemic, Africa can demonstrate the benefits of a multilateral approach to addressing borderless disasters.

COVID-19, so named by the World Health Organization (WHO) on February 11, 2020 for the disease caused by the novel coronavirus SARS-CoV2, has closely followed a disastrous locust invasion across Africa. These developments have compounded the problems facing a continent whose majority populations have been shoved to the wrong side of the digital divide at a time of increasing uptake of digitalisation to address complex and borderless development challenges. Based on the projections of Africa's COVID curves from the data-driven mathematical models we developed in April 2020, early signs of a rapid exponential rise in confirmed cases were evident for South Africa, Cameroon, Kenya, and Egypt. Testing capacity and sampling efficacy, however, remain key sources of the intelligence needed to contain the pandemic with timely responses to the real curves and waves of the resurgent pandemic.

Oxfam International has estimated that the COVID-19 global pandemic could see half a billion people sink into poverty globally. This will be a major setback to the progress towards the Sustainable Development Goals (SDGs). On a continental scale, Africa has demonstrated the merits of multilateral approaches to governing a global disaster, COVID-19 being a suitable case in point. African countries have deployed various containment measures to curb the spread of coronavirus across the continent since the first confirmed case was reported in Egypt on February 14, 2020.

In the early months of the outbreak, national governments in Africa enforced stringent restrictive guidelines and protocols including hygiene measures, physical and social distancing, a ban on social gatherings, closures of schools, a ban on international flights, closure of borders, cessation of movements into and out of hotspots, and a variety of lockdown measures (African Union, 2020; African Union and Africa CDC, 2020a, 2020b; Medinilla, Byiers, & Apiko, 2020). Even though some containment measures have been lifted, the pandemic has had adverse effects on productive and social sectors including trade, manufacturing, agriculture, tourism, health, education, and employment. Transport, infrastructure development, and cultural and religious activities have also been disrupted.

The purpose of this chapter was to assess the effectiveness of Africa's multilateral approaches to containing the global pandemic and provide an outlook on the continent's preparedness for similar disasters in future. The second section details the model COVID-19 trends we have studied across Africa to inform policy recommendations. The third section examines the effect of the pandemic on Africa's economy. The subsequent sections detail Africa's comprehensive multilateral approach to containing the pandemic through a series of political, institutional and organisational arrangements. The last section shares the main conclusions and recommendations arising from this evolutionary multilateral discourse.

Model Trends and Emerging Lessons from COVID Curves across Africa

When we modelled the data-driven trends of COVID-19 curves across Africa, we determined early signs of explosion in cases in some countries which by April 2020 were already displaying exponential COVID curves (Worldometer, 2020). In this group, with their daily exponential growth rates over this early period, were South Africa (26%), Cameroon (23%), Kenya (18%), and Egypt (14%). It is not surprising that these countries have been leading in total COVID-19 cases in Africa. By December 2020, all of them except Cameroon were already in Africa's top-six list of countries leading in total cases. Kenya was already commanding more than 2% of the continent's total serious and critical cases.

In terms of population-weighted daily average testing effectiveness, most African countries had lagged far behind the West on this normalised comparative index. For example, average scores of above 180 tests per million people per day could only be spotted in a few countries by September 2020: Mauritius, Morocco, South Africa, and Rwanda. By this time, Israel, the USA, and leading European countries had already registered a mean of much more than 1000 tests per million people per day on this normalised testing index. Technology has been critical to containing the pandemic through automation and robotics, remote solutions, and spatially intelligent contact tracing. It must be noted that inadequate testing leads to inadequate data, resulting in a misleading "flattening" of the COVID-19 curves. This trend can easily invite damaging laxity and normalcy bias among populations. This statement, informed by this COVID-19 modelling series, was also reiterated on national TV to champion cautious optimism about Kenya's apparently flattening COVID-19 curve in January 2021 under the limited needs-based testing the country had been conducting (Citizen TV Kenya, January 27, 2021).

Since sampling and testing efficacy constitutes a key source of the actionable intelligence governments need for effective governance of health emergencies and similar disasters, African governments must draw key lessons on the high value of scientific and data-driven research in calibrating strategic and policy

responses. Isolated research feats by African scientists and scholars or individual institutions need to give way to collaborative inter-agency research and well-funded partnerships. Political goodwill towards these partnerships is indispensable.

Underutilisation of human capital from African universities and research institutes was observed as a common weakness at various country levels, mainly due to incoherence and political systems that tend to shelve their meaningful inclusion in taskforces to provide scientific and evidence-based policy advice. Cases of leaders defying COVID-19 containment measures for the sake of political expediency, all against evidence-based advice from health experts, have also been commonplace in some African countries during the pandemic.

Effects of the COVID-19 Pandemic on Africa's Economy

Before the outbreak of COVID-19 in Africa, economic growth on the continent was forecasted to pick up to 3.9% in 2020 and 4.1% in 2021 (African Development Bank, 2020a, 2020b). In 2019, investment and exports played a critical role in economic growth. Similarly, the macroeconomic environment had improved in recent years. Though inflation remained high, it declined from 11.2% in 2018 to 9.2% in 2019. The prospects for 2020 and 2021 were dimmed with the coronavirus outbreak. If the COVID-19 pandemic persists, remittances and foreign direct investment (FDI) could plunge. Remittances have become a vital source of external financing in many African countries, accounting for more than 10% of the GDP of Cape Verde, Comoros, Liberia, Gambia, Senegal, and Lesotho. Threats to African Diaspora jobs and incomes could significantly affect the economies of many African countries. Similarly, FDI is expected to decline as investors either reduce or postpone their investments due to the uncertainties of the pandemic.

COVID-19 is likely to heighten sovereign debt crisis if debt is not managed properly. While several African countries were already facing a debt burden in the pre-pandemic phase, the pandemic could worsen the situation. It has also been projected that between 28.2 million and 49.2 million Africans could be pushed into extreme poverty. Though it had been projected that the number of people living in extreme poverty in Africa would reach 425.2 million, the numbers could rise to between 453.4 million and 462.7 million in the worse-case scenario due to the pandemic. The working poor, especially in the informal sector, have been adversely affected by the containment measures that are meant to curb the spread of the virus. It has been estimated that 25 to 30 million jobs could be lost. Employment in sectors including tourism, hospitality, aviation, trade, manufacturing, transport, finance, education, and entertainment have been severely affected by the COVID-19 restrictive measures.

The gaping digital divide across Africa has also compounded the problems facing the education sector as the majority of learners have not been able to tap into Internet-enabled remote learning. The delayed education calendar will have far-reaching implications for the deprived learners in Africa, especially in terms of meaningful entry into the fast-changing post-pandemic labour market that is likely to experience borderless competition for skills in a democratised environment of virtual collaboration. Multilateral partnerships aimed at dampening the digital discrimination and inequalities will be crucial for getting Africa past the pandemic with knowledge- and innovation-driven collaborative engagements.

Multilateralism as a Pillar of Africa's Engagement

African countries have recognised the integral role of multilateralism in fostering development, prosperity, and peace. The formation of the Organisation of African Unity (OAU) in 1963 and involvement in the United Nations, Non-Aligned Movement, and the G77 was a genuine desire to champion multilateralism. The African Union (AU) has embodied the conviction that international cooperation and regional integration are continental imperatives. The Preamble and Article 3 of the AU Constitutive Act (2002) articulate aspirations and ideals of the AU including unity, solidarity, cohesion, international cooperation, and promotion of cooperation in all fields of human activity to raise the living standards of African peoples. Africa's solidarity and multilateralism have been demonstrated in facilitating dispute resolution and mediation; participating in the United Nations and AU-sanctioned peace support operations; and fostering cooperation in finding lasting solutions to the challenges confronting the continent and the entire globe.

Since the outbreak of coronavirus in China in late December 2019, the AU has been at the forefront in spearheading policy coordination by bringing together ministers from all AU member states in early February 2020 to create a proactive and unified response (OECD, 2020). Similarly, the AU was able to inspire collective action by calling for international solidarity to contain the pandemic. On February 3, 2020, the Africa Centres for Disease Control and Prevention (Africa CDC) established an Africa Taskforce for Novel Coronavirus to oversee preparedness and response to the virus. On March 5, 2020, the AU issued the Africa Joint Continental Strategy for COVID-19. The Africa CDC is taking the lead on the technical aspects of curbing the spread COVID-19 across the continent. On the other hand, the African Union Commission takes leadership in diplomatic engagement within Africa and with the rest of the world.

Institutional and Policy Frameworks to curb COVID-19

1. *African Union*

The African Union (AU) has galvanised the entire continent in steadfast response to COVID-19 since early February 2020. The AU has been central to providing expertise; technical support through Africa CDC; public agenda setting; resource mobilisation; information and coordination to African governments and citizens on responses to COVID-19 (AU, Press Release, 2020a). The AU is an important convening power for coordination and joint standard setting for member states. This has contributed to crucial meetings including African health ministers who met in mid-February to develop a joint continental strategy for better preparedness and prompt response. In March 2020, African finance ministers held a virtual meeting and deliberated on COVID-19's likely fiscal consequences and intervention measures. The AU Bureau of Heads of State (South Africa, Kenya, Democratic Republic of Congo, Egypt, and Mali) held a virtual meeting at which they agreed to establish an African Coronavirus Fund in late March 2020. Since early March 2020, the AU has ensured weekly webinars for over 300 clinicians.

2. *Africa Centres for Disease Control and Prevention*

The Africa CDC is established as a specialised technical institution of the AU charged with the responsibility to promote the prevention and control of diseases on the continent (African Union, 2016). It has the mandate to support AU member states, in collaboration with the World Health Organization (WHO), in their efforts to effectively respond to disease threats. Africa CDC's guiding principles include leadership, credibility, ownership, delegated authority, timely dissemination of information, transparency, accountability, and value addition. In fulfilling its mandate, Africa CDC promotes partnership and collaboration among AU member states to address emerging and endemic diseases and public health emergencies.

The Africa CDC played a central role in the launching of the African Task Force for Coronavirus to coordinate surveillance, infection, prevention and control in healthcare facilities, clinical management of infected individuals, laboratory diagnosis, risk communication, and communication engagement. Further, Africa CDC coordinated and conducted regional workshops and training in order to strength the capacity of African countries to curb the spread of COVID-19. The continental health agency also developed accessible guidelines and information resources for governments and their citizens to acquire credible information about the novel coronavirus. The Africa CDC has also played a key role in resource mobilisation for public health systems in Africa and in the development of effective response systems.

3. *The Africa Joint Continental Strategy for COVID-19 Outbreak*

The African Joint Continental Strategy for COVID-19 Outbreak was formed by the African Union and Africa CDC and is being implemented through the Africa Task Force for Coronavirus (AFTCOR) and Africa's CDC Incident Management System. The two objectives of the Strategy are: coordinate efforts of AU member states, AU agencies, WHO and other partners to enhance synergy and minimise duplication; and promote evidence-based public health practice for surveillance, prevention, diagnosis, treatment and control of COVID-19.

The first objective is critical for collaboration with AU agencies, donors, private sector, and foundations; building partnerships with Regional Economic Communities; and enhancing multilateral cooperation with WHO and other multilateral institutions. The second objective aims at collecting, analysing and disseminating accurate and timely data about COVID-19; supporting AU member states to implement evidence-based intervention at individual and population-level to reduce COVID-19 transmission; strengthening capacity of healthcare facilities in AU member states; and establishing and maintaining supply chains for shared resources including Personal Protective Equipment (PPEs), laboratory supplies, medical equipment, among others.

AFTCOR is to be led by a Steering Committee headed by Africa CDC Director. The objectives of AFTCOR are to discuss and achieve consensus on complex technical and policy issues; promote coordination of data collection, conduct analysis and sharing; effectively transmit critical information to key decision makers in member states; and identify urgent needs for training or other capacities within member states. Africa's CDC Incident Management System (IMS) links the AU member states and provides weekly information on the epidemic. The IMS is supported by the African Volunteer Health Corps (AVoHC).

4. *Partnership to Accelerate COVID-19 Testing*

Partnership to Accelerate COVID-19 Testing (PACT) is an initiative to help in preventing transmission and deaths and minimise the social and economic harm due to the pandemic. It is an important component of Africa's response to COVID-19. The three goals of PACT are to scale up testing for COVID-19; to establish a platform for pooled procurement at Africa CDC; and to deploy one million community workers who will help trace the contacts of confirmed cases. The PACT works with existing supply chain systems to establish regional lab referral networks to assist African countries without diagnostic capacity find a suitable, timely option for testing (OECD, 2020).

5. *The African Union COVID-19 Fund*

The Fund was established by the African Union Commission Chairperson on March 26, 2020, with the objective of strengthening Africa's response to coronavirus and mitigating its socio-economic and humanitarian impact on African states. The goals of the Fund are to support the procurement and distribution of essential coronavirus medical equipment and supplies and to mobilise rapid response in African countries; mitigate the social, economic and humanitarian impact of the virus; and boost the capacity of Africa CDC to support response to public health emergencies across Africa. The governance of the Fund comprises a Board of Trustees, AU Commission Chairperson, and Africa CDC Director. The disbursement of the Fund is based on need and is largely guided by the principles of transparency, timeliness, effectiveness, independence, accountability, and equity. The AU Commission Chairperson ensures that the Fund is appropriately managed and is subjected to AU's internal and external audits.

Significance of International Cooperation

International cooperation is critical to confronting critical threats such as pandemics. The emergence of pandemics in the globalised world has shown that all people across the world belong to one human family hence cooperation is both an ethical and an existential imperative. The rise of nationalism and populism; inward-looking policies; great power competition and geopolitical frictions; economic nationalism and anti-globalism; a reduced confidence in multilateral institutions; and withdrawal from international agreements have all significantly undermined multilateralism in the past decade. COVID-19 has introduced yet another dimension to nationalism referred to as "vaccine nationalism" in the race to find effective vaccines and command a position of fame.

International cooperation assumes that each state's behaviour is directed towards some common goals. Secondly, it is assumed that multilateral cooperation provides countries with gains or rewards. In multilateral cooperative arrangements, gains are mutual, and each country helps others to achieve their goals by adjusting their (international/foreign) policies in anticipation of their own gains. Cooperation is, therefore, seen as a goal-directed behaviour that entails mutual policy adjustments in which participating countries in the international organisation end up better off than they would otherwise be (Milner, 1992). For the international community to tackle COVID-19, new ideas, enlightened leadership and positive-sum approaches are imperative. A cooperative international order is likely to influence states' behaviour and actions at continental, regional and sub-regional levels as they collectively respond to the resurgent COVID-19 pandemic.

Africa's Multilateral Responses to curb COVID-19

Africa's comprehensive strategy demonstrates that the AU places priority on regional cooperation and multilateralism. The AU has adopted a multi-pronged approach to respond to the pandemic through multilateral initiatives. The AU's strategy emphasises regional and continental cooperation and global solidarity to enhance the synergy of African states in the fight against the pandemic. The call for collective action includes working together with international institutions, private sector, non-state actors, foundations, and philanthropies.

The AU has deployed diplomatic tools for collective positioning of the continent on debt relief and access to finance from international institutions and foundations. The AU believes that multilateral fora give the continent a good opportunity to mitigate global power imbalance by ensuring that collective bargaining power of the AU member states is considered during global negotiations on COVID-19 response. Through international solidarity, the AU has continued to engage the European Union, China, the G20, the World Bank Group, the International Monetary Fund (IMF), and other regional and international institutions that have considerably contributed to Africa in the fight against COVID-19.

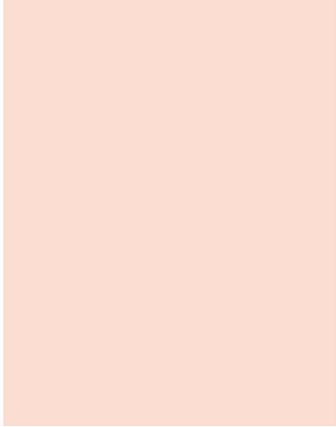
Conclusions and Recommendations

The main objective of assessing the effectiveness of Africa's multilateral approach to containing the COVID-19 global pandemic has been met by giving reference to the various political, institutional, and organisational arrangements so far successfully deployed. The multilateral approach and key contributions by Africa CDC have been effective in spearheading an informed discourse and support for a united international front against the pandemic. The collective continental bargaining power for debt relief to ease the burden of post-pandemic economic recovery is among the sterling benefits of the preferred multilateral approach.

At the national levels, however, there is still a great need to enhance the support for inter-agency collaboration, with strong inputs from health ministries, civil society, research and academic community, and the business community. Sharing transparent and objective decision models based on accurate COVID-19 data from effective testing rates and contact tracing should be a top priority so as to ward off any misleading flattening of COVID-19 curves and the damaging laxity or normalcy bias accompanying the trend. The sampling procedures need to be scientifically responsive to both the spatial and demographic diversity among African populations.

Africa's multilateral approach must, therefore, promote a key component of strengthening national responses and capacities to generate and share timely, well-researched and reliable COVID-19 data and decision models. Behaviour

change towards co-creating and owning citizen-driven processes that effectively help in containing the pandemic will gain from such integrated efforts. Investing in, and embracing, technological innovations to ensure resource-efficient collaboration, mapping, and spatially intelligent solutions for response and coordination together constitute a promising outlook to a future Africa which is well prepared for a quick and full recovery of her worst-hit sectors post COVID-19.



Acknowledgements

The authors are grateful to the editors at IREN, discussants at the 2020 East Africa Thought Leaders Forum, and all the peer reviewers, who together helped to improve the quality of the chapter for this publication. All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately.

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Author Contribution

The authors equally contributed to the discourse presented in this chapter.



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Multilateral Cooperation: A Conundrum Amid COVID-19 and Beyond

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Abstract

The COVID-19 pandemic has plunged economies across the globe into recessions of unknown depths. It has disrupted international trade and commerce, sent health systems across the globe into overdrive, and caused panic by altering human lives and livelihoods in unimaginable ways. Following these global circumstances, perhaps the call for globally coordinated efforts to address this multifaceted crisis has never been louder. Though multilateral organisations emerged during or immediately post-crisis conditions, existing literature evinces that there is fragmentation in response to COVID-19. To date, divergent national approaches to managing the pandemic have been witnessed, with reference to the World Health Organisations (WHO) guidelines. In the cases of Tanzania and Madagascar, criticisms were issued as their approaches to resort to religion and herbal remedies, respectively, strayed from conventional practices. Overall, even though the fight against COVID-19 is universal, states have adopted in-ward looking approaches thus eroding the potential of multilateralism. This erosion is exacerbated by pre-existing conditions such as the trade war between the United States and China (with widespread implications for other trading partners) and growing nationalist ideologies.

Keywords: Africa, G20, global governance, COVID-19, multilateralism.

Introduction

The World Health Organisation (WHO) on 11 March 2020, declared COVID-19 a global pandemic, making it the first declared pandemic since the 2009 H1N1 influenza, over a decade ago. The pandemic prompted several states to adopt various measures to reduce its potential of becoming a full-blown national crisis, bringing to a halt many economic activities under state-led lockdowns. The measures occurred at varying rates with some countries being tame and swift while others were slow and contradictory in approach. Nonetheless, COVID-19 has plunged economies across the world into recessions of unknown depths; it has disrupted international trade and commerce, threatened the stability of financial systems, and caused panic in every corner of the globe. The exponential spread of coronavirus sent health systems across the globe into overdrive, with many untold social and psychological impacts that have altered human lives and livelihoods in unimaginable ways.

As the COVID-19 crisis continues, governments, regional and international institutions are continuing their efforts in finding a solution either in natural medicines in Kenya's Zudepex herb (Kenyan Medical Research Institute (KEMRI), 2020) or in religion, in the controversial case of Tanzania, whose president declared that religion could cure the pandemic, as reported by the British Broadcasting Corporation (BBC, 2020). In international affairs, optimists are looking towards global governance and multilateral cooperation as the viable response; however, the status quo suggests the contrary. Blanco and Rosales (2020) opine that "the outbreak has laid bare divergent national approaches and exposed the broader structural weaknesses in the global governance system..." In a stark contrast to optimism, in line with Blanco and Rosales' assertion, developments in the 'global' response to COVID-19, or lack thereof, exhibit shortcomings of global governance in theory and practice.

This chapter unpacks multilateral cooperation amid the COVID-19 pandemic, making specific reference to global institutions and forums such as the Group 20 of Twenty (G20). Further, it identifies existing and perceived challenges to the concept and practice of multilateral cooperation. Lastly, the chapter offers insights to policymakers alike on how best they can foster cooperation between different countries so as to enhance the efficacy of a globally coordinated response to COVID-19.

The Underpinnings of Multilateralism

According to the Mario Pezzini, Director of the Organisation for Economic Cooperation and Development (OECD) Development Centre, coordinated response to COVID-19 “will not be possible without an open and supportive multilateral system” (OECD, 2020). Other organisations too, have called for multilateral cooperation. The word “multilateral” generally refers to an agreement or participation by three or more parties. In international relations, Kahler’s (1992) work is widely cited; he refers to multilateralism as global governance. For Kahler, a multilateral system encompasses an alliance of multiple countries coordinating policies in groups of three or more states while pursuing the same goal. For instance, the United Nations, with an almost global membership and countries across continents that are signatory to its instruments, including, the Sustainable Development Goals (SDGs) is multilateral in nature.

Pacts and groups such as the North Atlantic Treaty Organization (NATO) and the African Union (AU) share similar multilateral characteristics. Admittedly, multilateralism has been the key to the significant socio-economic successes post World War II. However, while the need for cooperation is apparent in the COVID world, obstacles to collective action have resulted in the triumph of inward-looking approaches in response to the pandemic.

Multilateral Cooperation in the COVID World

The international economy has prospered over the past decades an international capital system was established, supported by the Brettonwood institutions. As early as 2005, the world Gross Domestic Product (GDP), which is the monetary measure of the market value of all the final goods, had grown by more than 4% annually for four consecutive years (International Monetary Fund, 2006). Although the gains of such progress were not experienced evenly in countries, regions of the world shared in this growth both knowingly and unknowingly as part of the ripple effects. One cannot dispute that the world is a more affluent place than it was a half-century ago. Living standards, measured by indicators such as life expectancy, infant mortality, nutritional status, and literacy, have all improved. However, beneath the surface, there are causes for concern such as rising inequalities, environmental degradation, and violations of human rights, to mention a few.

Following pre-existing concerns and deficiencies in globalisation, authors including Allen, Burns, Garrett, Haass, and Ikenberry (2020) predict that a wave of deglobalisation and nationalism will follow the COVID-19 pandemic. Regardless of this prediction, multilateralism has faced its own challenges. While the fight against the pandemic is universal and all countries are facing immense challenges, developing countries face the greatest of them proportionally because they do not have the health-care systems and fiscal resources of the developed world.

Zimbabwe, for instance, was reported to have a dire shortage of equipment to fight against the coronavirus, months after WHO had declared the spread of the virus a pandemic (Al Jazeera, 2020). In light of COVID-19, the developed world responded by implementing precedent-shattering fiscal and monetary policy responses in their respective countries. The United States, for instance, announced its defunding of the WHO, which had implications for the ‘shared’ goal to cooperatively assist the rest of the world in responding to COVID-19. Figure 1 below shows the major contributors to the WHO within the 2018- 2019 period.



Figure 1: Major contributors to the WHO within the 2018- 2019 period. Extracted from BBC News (2020),
Source: World Health Organisation.

Fragmentation of responsibility in the COVID-19 world shown by a lack of the consensus among key players in global governance and the defunding of approximately 400 million USD from the leading health multilateral organisation, WHO, during a global health crisis does not only undermine international cooperation in fighting the virus but could be fatal. While countries including Germany, the United Kingdom, China, and Australia have denounced the allegations of the WHO being ineffective and ‘mismanaging United-States-given-funds’ thereby salvaging the multilateral corporation’s reputation (BBC News, 2020), the damage has already been done. Transcending this lack of consensus and unwarranted disrepute is an underfunded WHO, one from which nations across the globe still rely on amid and post the COVID-19 health crisis.

However, not all is doom and gloom in the COVID world. Gates (2020) commends the world leaders who pledged billions of dollars in a digital fundraiser as part of a new international alliance to fight COVID-19. Various innovations across continents evince a shared goal to mitigate the impact of the novel coronavirus. Senegal's trials to develop a 1 USD COVID-19 testing kit that produces results in less than 10 minutes made the headlines in May 2020, providing hope for vital home-made tool within sub-Saharan Africa. Yeung (2020) states that researchers at DiaTropix, an infectious disease testing facility run by the Pasteur Institute in Dakar, Senegal worked alongside a United Kingdom-based company called Mologic to manufacture the diagnostic kits. While this signals hope for collective efforts, such innovations spoke more to bilateralism than multilateral cooperation. In contrast, scholars referred to the 'race to find a vaccine' connoting a contest rather than teamwork.

Even though one could argue that the vaccine-race analysis might be preposterous or merely a matter of terminology, it would be remiss to disregard the politics surrounding the coronavirus pandemic. The Council on Foreign Relations (CFR) (2020) observed that developing a successful vaccine alone is not enough. Many countries face the looming challenge of producing quantities necessary to provide immunity to their citizens, and competition was already emerging (CFR, 2020). It follows that individual countries have begun clinical trials. The United States pharmaceutical giant Pfizer worked together with German firm BioNTech and Fosun Pharma on a vaccine. At the same time, the United Kingdom started human trials on a vaccine manufactured by AstraZeneca and a repurposed tuberculosis vaccine was being tested by the Murdoch Children's Research Institute in Australia (CRF, 2020). Again, this shows closed cooperation. Moreover, the participation of private firms in the race to find a vaccine could have potential implications for access and affordability since private markets are profit driven.

Changing Dynamics: Drivers and Impediments to Multilateralism

Much of the world's momentum is moving away from multilateralism. This assertion is substantiated by Brexit, the former US President Donald Trump's America First policies, and the United States' withdrawal from international agreements during his reign, including defunding the United Nations health organ, the WHO. It is justifiable to state that COVID-19 has thus far led to an increased risk of straying from assumption of responsibility and participation in the interconnected world system. Indeed, the immediate response of states across the globe to the spread of COVID-19 has been to close their physical borders, but impediments to multilateralism in a globalised and tech-advanced world transcend the closing of borders. While the World War and the economic crisis of 2008 led to the increased prominence of global governance, in the case of the G20, world leaders reinvented the purpose of this forum and widened their scope; there is little optimism for the same to happen in the post-COVID-19 world.

Several factors contribute to drivers and impediments to multilateral cooperation in the COVID-19 world and beyond. Bernes (2020) attributes the G20s insufficiencies to the forum's inability to shift from crisis-fighting to managing a forward-thinking agenda. Admittedly, the current crisis is greater but, Bernes, on the one hand, argues that the response of the G20 to date has been tepid and, unlike in the last crises, totally inadequate to the challenge, regardless of the magnitude. On the other hand, the G20 emerged as the principal forum for economic cooperation, replacing the Group of Seven (G7), because the latter was no longer able to dictate global policy (Jorgenson & Vu, 2013). Also, there was a need to incorporate China and emerging markets that had to be involved in global economic decision-making. Central to multilateral institutions then was the United States, which according to Bernes (2020) had remained the undisputed leader, thus providing the intellectual drive to craft the multilateral rules-based system that still governs the world today. However, the United States' policies changed with the election of Donald Trump as President in 2016. America first policies, accusing WHO of misusing funds and defunding it are just but some of the many cases that have contributed to the fragmentation of multilateral cooperation.

Tensions among permanent members of the United Nations were worsened by Russia's annexation of Crimea in 2014 and its enduring support for insurgents in eastern Ukraine (Treisman, 2016). Treisman comments that these tensions intensified mistrust between NATO and Russia, resulting in Russia's suspension from the Group of Eight (G8). The consequence was a significant reduction of cooperation on several global issues hence expecting heightened cooperation within the United Nations Security Council during COVI-19 might be unrealistic. The implications, of course, filtrate to decision making within this global institution.

Further, the refugee and migration crisis of 2015 was followed by a rise of mostly right-wing populism in many parts of Europe that champions nation-oriented policy ideas and is deeply suspicious of the liberal international order (Hogan & Haltinner, 2015). As though this is not enough, the United Kingdom's Brexit decision in 2016 polarised the country resulting in accelerated use of nationalism as a viable political strategy while weakening the European Union. The European Commission, the executive branch of the European Union, alongside the United Kingdom and the United States, make the top 10 donors list to the WHO, as shown in Figure 1. These changing dynamics have lasting impacts on the financial capacities of the WHO amid and beyond COVID-19.

In addition to changing dynamics within hegemonic nations, Pegram (2020) observes that "the WHO finds itself embattled – at the mercy of obstructive member states and saddled with dwindling resources." A critical impediment is WHO's capacity to fulfil its anticipated role of leading international antivirus efforts adequately. Administrative setbacks and deficient communication can cost

the world the valuable time needed to save lives. In the African context, over 10,000 health workers in 40 countries have been reported to be infected with COVID-19 and many countries still lack the capacity to implement measures aimed at reducing the spreading of the coronavirus (WHO, 2020). The WHO's report showed that only 16% of the nearly 30 000 facilities surveyed had assessment scores above 75%, many health centres across the African continent were found to lack the infrastructure necessary to implement key infection prevention measures, or to prevent overcrowding, only 7.8% had isolation capacities while only a third could triage patients (WHO, 2020). These statistics are telling. There is a great need for intervention and assistance in the entire Global South, making the task even more daunting. The even less political support from national governments and limited resources accentuate a global health leadership vacuum.

Opportunities to Rejuvenate Multilateral Cooperation

In the absence of effective multilateral coordination in a global pandemic, governments are increasingly obliged to rely on themselves, resulting in countries with limited health resources and capabilities being largely left to their own. Notwithstanding efforts that have been made by research institutes in Kenya, Senegal and South Africa, the reality is that still developing countries proportionately suffer the most. The recent WHO report on surveys across the African continent calls for urgent intervention. This article proposes the following for the reinvigoration of multilateral cooperation in the wake of COVID-19, as well as beyond COVID-19.

Firstly, a pandemic that has infected millions of people across the world cannot be mitigated using unilateral approaches. Even though governments are primarily responsible for their populations, with more developed countries having a better go at doing so in comparison to their less-developed counterparts, a global crisis calls for global solidarity. Countries too, should build their national health systems and promote medical research and innovation. Thereafter, they need to develop systems that share necessary epidemiological data, vaccines, and other medical countermeasures. Individual progress cited herein by scientific institutes including Senegal's DiaTropix, United Kingdom-based companies such as Mologic and AstraZeneca, the United States pharmaceutical giant Pfizer and German firm BioNTech among others cited by the Council on Foreign Relations (CFR) (2020), could play a key role in shaping scientific-based responses to COVID-19.

Secondly, COVID-19 has exposed vulnerabilities of the global health system without sparing even the most developed countries. This chapter proposes health security for all humanity, an idea that cannot be realised immediately but, could be one of the great takeaways from dealing with the coronavirus pandemic. This can be achieved through further capacitating organisations such as the WHO, as they already have a global presence, thus they could address COVID-like crises in

the future adequately. Pegram (2020) acknowledges that the WHO is essential but, broken [only globally coordinated efforts, accompanied by strong political can fix it]. Pegram (2020) adds that this is not merely a call for more funding to the WHO or other intergovernmental bodies. Its dysfunctions are symptomatic of a broken global political system; the panacea can be found in repurposing.

Conclusion

Coordinated global antiviral efforts are challenged by the pre-existing movement away from internationalism and multilateralism towards deglobalisation. This is evinced by Brexit, former President Donald Trump's America First policies, tensions between Russia and NATO, as well as the rise of right-wing populism in many parts of Europe. Further, institutions such as the WHO are embattled, firstly, by obstructive member states and secondly by limited resources. WHO's overall response to COVID-19 has the potential to broaden economic and social crises following the health pandemic. In Africa, impacts have been evident on health workers and COVID-19 front-liners being affected by the virus. In the current crisis, scientific knowledge and advice has been neither fully respected nor heeded. Political, economic and security considerations have led to suboptimal policies and caused immeasurable losses. At this crucial time, key players within multilateral institutions need to act with urgency. Even though the WHO might be broken, the pandemic is a global problem that requires a global resolution, which is multilateral cooperation. After all, the onus is on this generation to fix it.



Acknowledgements

The views and opinions expressed in this article are those of the author. They neither reflect the official policy of the affiliated think tank nor KAS as an organisation. All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately

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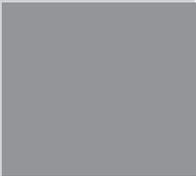
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**Food Security, Environmental Sustainability
and Natural Resources**



Post-COVID-19 Strategies for Revamping Agriculture and Food Systems in sub-Saharan Africa

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Abstract

The novel coronavirus disease of 2019 (COVID-19) has expedited the need to build resilient food systems for securing collective and sustainable food futures. It may be too early to accurately quantify the effects of COVID-19 on the various sectors of the economy in sub-Saharan Africa because the first case in Africa was only recorded on the February 14, 2020. The spread has, however, been fast and by May 13, 2020, cases had been reported in all the 54 African countries. Using evidence from the countries that experienced the pandemic earlier and the experiences from other pandemics previously affecting countries, regions or the globe, we highlight the possible effects of COVID-19 on agriculture and the food systems in sub-Saharan Africa.

We observe that COVID-19, through containment measures implemented by countries, is likely to adversely affect agricultural production and trade due to reduced availability of input, farm labour and access to output market. There are also possibilities of compromised food safety standards as demand for food items dwindle due to reduced income. To ameliorate these adverse impacts, countries may need to take the following measures: entrench freer cross-border trade in food staples to enhance transfer from countries of surplus to countries of deficit for the benefit of both producers and consumers; provide economic stimulus to agriculture sector to facilitate quick recovery; monitor food markets and prices closely and provide prompt information to sector player to curb panic; implement e-commerce among the smallholders to enable them sell their produce even with restricted opening of fresh product markets; enhance public health surveillance to curb circumventing of public health and food safety protocols; create food safety awareness among the consumers and effectively counter fake news on food safety with respect to COVID-19.

Keywords: agricultural transformation, digitalisation, resilient food systems, sustainable food futures

Introduction

The United Nations' Committee on World Food Security defined food security as a situation in which all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Reliability and affordability questions follow this definition and evoke critical discussion points, which are relevant to post-pandemic food security in Africa.

Increasing food production to meet rising demand for food and the anticipated dietary changes (Tilman and Clark, 2014) against the backdrop of climate change (van Ittersum et al., 2016) is a top priority for Sub-Saharan Africa (SSA). The central role of agriculture in most of the economies of the region implies that the sector will play a critical role, not just in improving food and nutrition security but also in enhancing household income, wealth and resilience.

On average, agriculture accounts for about 15% of the regional GDP and more than 50% of the employment opportunities, and among the smallholder households, which constitute 80% of all farm households, agriculture is the main source of livelihood (IMF, 2012). It is estimated that smallholder farms in SSA employ about 175 million people (Alliance for a Green Revolution in Africa, 2014), half of whom are women (FAO, 2015). However, smallholder agriculture, because of over-reliance on natural conditions, is highly vulnerable to adverse fluctuations in the ecosystem, such as droughts, floods, rainstorms, pests and diseases, leading to decline in agricultural yields (IPCC, 2014) and worsening food security and poverty indicators (Thornton et al., 2011).

Given the sensitivity of agriculture to shocks, we hypothesise that COVID-19, like any other pandemic, has had adverse effects on the sector in SSA, and that deliberate measures would be required during and after the pandemic to help the sector bounce back faster and more effectively. We review literature and draw lessons from the countries that experienced COVID-19 earlier to discern the pathways through which pandemics affect agriculture, and make policy suggestions for revamping the sector.

Post-COVID Issues and Priorities for Sustainable Agriculture and Food Systems

The novel coronavirus disease of 2019 (COVID-19) has expedited the need to build resilient food systems for securing collective and sustainable food futures. Globally, the following key issues have redefined priorities for a sustainable post-pandemic future of agriculture and food systems.

Recent expert discussions and projections at the World Economic Forum have dwelt on the urgent action needed to build resilience in global value chains and redesign the future of food in 2021 (de Cleene & Strauss, 2021; Lund et al., 2020).

We have consolidated the salient points emerging from the trending discourse as follows:

- i. Some seventy-three (73) million people were food insecure before COVID-19, and an additional 130 million people worldwide were facing acute food insecurity by the end of 2020. It is, however, projected that about 840 million people would be hungry by 2030 (from the World Food Programme's hunger map).
- ii. A people-centred and solution-oriented systems approach is needed to build post-COVID-19 "fit-for-purpose", resilience-ready, inclusive and sustainable food systems.
- iii. Organisational and business model innovations are needed to redesign food systems to be "fit for purpose".
- iv. Noting that current food and land-use systems cause up to 30% of greenhouse gas emissions, regenerative farming practices and companies operating on environmentally friendly principles, e.g. through incentives for healthier, nutritious and zero-waste value chains are essential to reducing the environmental impact of food production and achieving policy targets on decarbonisation.
- v. Data-driven digital transformation and Industry 4.0 have new opportunities to ensure the smart restoration and leveraging of modern food systems to advance e-commerce and logistics. Real-time digital solutions as well as spatial decision support systems based on geospatial data from satellites, drones, citizen science, and conventional ground surveys are key. Big data and artificial intelligence promise to enhance precision and climate-smart agriculture for improved efficiencies in the food production and supply enterprise.
- vi. Early warning systems and de-risking tools are urgently needed to support predictive and preventive management for resilient agriculture and food systems.

The following key issues and priorities can be explained further for deeper insights into the main topic.

Governance issues

Sustainability issues and labour are central to resilient agriculture and food systems. Environmental sustainability and skills development have emerged to be key areas of focus when discussing sustainable agriculture and food systems. Coursera (2020), for example, has emphasised the need for countries to invest in skills development as a way of counteracting economic decline as COVID-19

adversely affects global GDP by disrupting domestic consumption and services, global trade, and tourism.

A report by the International Labour Organization (ILO) entitled *World Employment and Social Outlook 2018: Greening with jobs* (2018) has also rightly stressed that environmental sustainability is critical to agriculture, fisheries, forestry, tourism, and pharmaceuticals and agroprocessing industries since they all need a healthy environment. This insight invokes an urgent need for sound governance so that governments can deliver on a greener economy, a key part of which is sustainable agriculture and food production systems. The ILO report has recommended macroeconomic and environmental policy, public programmes, worker protection, and skills development programmes as the key areas deserving increased attention. Africa's agriculture sector and food systems have strong linkages with all these recommended policies and programmes.

Cultural issues and food waste

Up to 40% of the people in rural poverty are directly reliant on food and land-use systems for their livelihoods. Food waste is a key issue as about 40% of the food produced goes to waste in regions such as the USA, especially in restaurants and through consumer behaviour or wasteful cultures. COVID-19 has caused an increased awareness of the hygiene and food safety of packaging, more so among the countries worst hit by the first wave of COVID-19, such as the USA, Brazil, China, Italy, India, Indonesia, and France (Eriksson et al., 2020). A clearly communicated sustainability benefit for packaging suppliers has consequently taken on a new strong value proposition. If sustained, such changes could lead to significant reductions in food waste.

Digitalisation for enhanced food supply systems

A report published in August 2020 by the McKinsey Global Institute on global value chains acknowledged that modern value chains have grown longer and more complex with the growing need to strengthen supply chain risk management and improve end-to-end transparency (Lund et al., 2020). The report acknowledged that changing cost structures, regionalisation of supply chains, and the increasing frequency and severity of supply chain shocks with disruptions lasting at least a month are expected to occur every 3.7 years on average across industries.

The report further analysed the levels of exposure risk of various industries to the supply shocks due to climate change, macroeconomic and financial crises, trade disputes, pandemics, cyberattacks, terrorism, and supplier bankruptcy. Medical devices and the food and beverage industry were ranked to be of lower exposure risk than mining, textiles, and communication equipment. Improving transparency and resilience deserves to be a major goal in food supply systems, supported by data-driven analytics, blockchain technology, digitalisation, artificial intelligence (AI), robotics, and the Internet of Things (IoT).

Effects of COVID-19 on Agriculture and Food Systems

In history, the world has witnessed a number of pandemics: Acute Respiratory Syndrome (SARS), Ebola, HIV/AIDS, influenza, Middle East Respiratory Syndrome (MERS) and the 1994 plague outbreak in India (Verikios et al., 2011). Whenever pandemics occur, they distort livelihood systems, and usually the poor rural households which depend on low productivity and low wage sectors are the most affected (Cabore et al. 2020; Phillipson et al. 2020). This is because pandemics weaken human, physical, financial and social capital which are important for human survival and development (Gatiso et al., 2018).

Agriculture and food systems are particularly vulnerable to pandemics. The effects are likely to be through labour shortages, reduced remittances and off-farm income, disruption of supply chains, import and export restrictions, and food price fluctuations. In the extreme case, pandemics erode labour supply through illness and death (Jayne et al. 2004; Loevinsohn and Gillespie 2003). For example, emergence of HIV/AIDS led to about 50% fall in the output of smallholder farmers in Zimbabwe due to labour shortages (Kwaramba, 1997). COVID-19, however, has had low deaths being recorded. Thus, labour supply is not expected to be affected through this path. However, through containment measures such as social and physical distancing, and self-isolation, shortage of farm labour is likely to be experienced as was the case with Ebola outbreak in West Africa (de la Fuente et al., 2019; Bowles et al., 2016). Labour-intensive agricultural activities such as planting, harvesting of fruits and vegetables and processing of meat, for example, are likely to be affected adversely by the resultant labour shortages. Such effects have been experienced in Brazil where grain production and agricultural processing have been affected and China where meat processing and supplies have been adversely affected by COVID-19 containment measures (FAO, 2020).

For agricultural transformation, farmers require improved technologies and innovation (Bachewe et al. 2018; Headey and Jayne 2014). More often, farmers rely on remittances and off-farm income to purchase or intensify the use of the improved technologies (Melesse, 2018; Diiro, 2013). Both remittances and off-farm income sources are, however, highly sensitive to pandemics (UNDP, 2014). For example, remittances into SSA are estimated to drop by 23% in 2020, courtesy of COVID-19 (World Bank, 2020). This is made worse by the fact that access to credit is drastically curtailed by the economic downturns associated with pandemics (Seven and Tumen, 2020; Awotide et al., 2015). This reduces the capacity of the farm households to purchase inputs such as fertilizers, improved seed, pesticides and herbicides, leading to decline in agricultural production and increase in food and nutritional insecurity. Decline in remittances and off-farm income may also affect food and nutrition security through eroded household ability to access food through the markets.

Because rates of infections during pandemics are directly proportional to the degree of exposure (Cabore et al., 2020), countries tend to resort to containment

measures such as curfews, closure of institutions and markets, and restriction of public gatherings and movement (Cabore et al., 2020; Nyenswah et al., 2016). These measures, however, may be quite disruptive to the supply chains. In agriculture, this may affect functioning of agricultural markets with far-reaching effects on input access and produce marketing (Kerr, 2020; Ngegba et al., 2015; Sumo, 2019; Boisvert et al., 2012). Reduced access to input implies that farm households have either to reduce scale of operation or incur high costs of production, affecting yields and income (FAO, 2016). Low yields are likely to affect food and nutritional security of the farm households. In China, for example, production of pesticides declined sharply when production plants were shut down following the outbreak of COVID-19 (FAO, 2020). For a region like SSA which relies on imported input, even if local infection rates are low, acquisition of imported input may be more difficult and more expensive due to the effects of COVID-19 in input-source countries. For example, transport cost of pesticides to East African countries has increased 3-fold and shipping is delayed due to low number of flights into the region, affecting the fight against locusts (FAO, 2020). This may, in the long run, increase the threat of food insecurity in the region. While it may be argued that SSA may not be heavily affected by disruption of supply of improved input due to low use of such input, they are likely to be gravely affected by disruptions to the output markets. Restriction of movements and closure of markets will reduce access to produce markets, leading to food waste. For example, farmers cannot sell their produce to schools, colleges and institutions of higher learning, restaurants, bars, hotels and other leisure institutions which are temporarily closed in many countries. Restrictions on international transport and travels has also affected exports such as horticultural produce, tea, coffee and fruits. A typical example is the recent suspension of tea auction in Mombasa, Kenya, which serves many eastern African countries. If this is prolonged, it is likely to have devastating effects on local, national and regional economies.

With output of major food staples declining and/or agricultural supply chain disrupted, food prices are expected to rise steeply. The situation may be worse for net food importing countries especially if countries resort to export restrictions to curb domestic food shortages. South Sudan, for example, already experienced steep food price spikes in March, 2020 in anticipation of spread of COVID-19 (East Africa Business Council, 2020). In Burundi, the prices of maize and beans have gone up by 23% and 17%, respectively, over the 2019 prices. In East Africa, cross-border trade has been slowed down by curfews and restriction of movements of goods and people. This is expected to impact negatively on trade in food staples, especially maize which is widely traded between Kenya and Tanzania, and Kenya and Uganda.

COVID-19 and Food Safety

The safety of foods has been a controversial issue due to its effects on human health and food security. Food safety is a fundamental dimension of food security as food has long been known to be associated with incidences of foodborne disease (FBD).

Such diseases arise from foods that are contaminated with poisonous substances applied during production, postharvest handling, processing, transportation, marketing and consumption. Some of the safety issues arise from poor hygienic conditions during any of handling stages leading to contamination with spoilage pathogenic micro-organisms. Such micro-organisms may also be endemic in livestock and are sources of zoonotic diseases that may affect man such as TB and possibly COVID-19. The WHO states that COVID-19 appears to be a zoonotic virus originating in bats but likely to have gone through an intermediate species to infect humans. Zoonotic diseases are infectious ailments caused by bacteria, viruses and parasites transmitted directly from animals to humans. Some 75% of emerging infectious agents are zoonotic (Galanakis, et al., 2020). Processing and preservation methods are designed to eliminate them, hence the development of various standards on various aspects including final products, processing systems, packaging and hazard control applied in the processing and handling of various products particularly meat, fish, poultry and milk (Cap 254 of the Public Health Act, KEBS Act, ISO Standards, HACCP/Codex Alimentarius Standards).

Regarding COVID-19, *The Codex Alimentarius* states: “COVID-19 is a respiratory illness primarily transmitted through person-to-person contact and direct contact with respiratory droplets generated when an infected person coughs or sneezes. There is no evidence to date of viruses that cause respiratory illnesses being transmitted via food or food packaging. Coronaviruses cannot multiply in food; they need an animal or human host to multiply. It is highly unlikely that people can contract COVID-19 from food or food packaging” (FAO, 2020; US-FDA, 2020; US-CDC, 2020; CFIS, 2020). The main concern of the food sector is therefore to protect the health of its customers and workers by adopting both long-established practices as well as new practices that ensure food safety. The pandemic provokes a shock to ‘the food system’, thereby triggering a chain reaction of negative events in other systems and sub systems that make up the path from farm to table.

Emerging issues in SSA show that in the agriculture and food sector, COVID-19 has led to widespread unemployment arising from closure of businesses. The Food sector is largely affected due to its heavy dependence on informal sectors for access to food. The supply chains have been hugely affected due to closure of hotels, restaurants, bars and education institutions leading to high loss of food as there is only limited transportation allowed amid the strict measures to control the pandemic. There has been fear by consumers and business concerning transmission through food and environments where food is purveyed. Thus, there is increasing demand for home deliveries from supermarkets, restaurants and “*mama mbogas*”. The pandemic has seen greater interest in requirements for enhanced levels of hygiene among food handlers. This has led to investment in handwashing stations in both formal and informal settings with concomitant use of hand sanitizers and requirements for wearing of masks. The sustainability of such infrastructure and availability of associated consumables in informal settings is questionable due to low financial abilities amid many competing needs that may be deemed more

essential although businesses are aware that without trust of the consumer they will not sustain. In the informal settings there is also lack of reliable and safe water sources, water being key in ensuring safety of foods or transmission of FBD. As the informal sector faces these challenges, consumers are showing greater trust in products from formal industries due to standardization of products, packaging and availability. These make products to be more expensive and out of reach of the low-income households. This depressed demand may affect fresh foods sector, leading to a lot of wastage, while some manufactured goods may be lost due to expiry dates for consumption. This may easily result into use of unorthodox preservation measures (e.g. use of unauthorised additives) to prolong the shelf life of food items, compromising food safety.

In short, the pandemic of COVID-19 poses unprecedented challenges to the food sector, especially when many people may need to be quarantined for at least a two-week period to prevent cross infections. However, the food industry with the help of food scientists and technologists can overcome these challenges and succeed in providing safe, nutritious and sufficient food to the populations of SSA. There is need to create awareness on immune-enhancing functional foods and how they may be obtained, as food bioactive compounds play an important and complementary role in reducing disease risk. SSA should build strong expert communities of practice and support relevant professional bodies and affiliates that are committed to assisting the entire food system, from farm to fork, achieve its objectives in assisting the food industry in its essential role in society.

Possible Intervention Measures

COVID-19 is a global health emergency which requires drastic containment measures within and across borders. While the containment measures may be successful in curbing its spread, they can easily turn the situation into a food security emergency. Thus, care must be taken to minimise adverse effects, both on the health and the economy fronts. All countries must work in concert and neighbouring countries must put in place complementary policies if the pandemic is to be overcome with minimal damage. Among the measure that the countries should consider include the following:

- i. Ensuring smooth flow of global and regional trade to ensure food supply. Export bans and/or restrictions will only worsen the supply chain of food products, increase panic and accelerate price fluctuations. Cross-border trade in food staples among neighbouring countries should be allowed to flow freely from areas of surplus (so that farmers and processors benefit) to areas of shortages so that harm on consumers is minimised.
- ii. Provision of economic stimulus to agriculture sector producers and traders to aid their quick recovery from production and export shocks.
- iii. Monitoring food markets and prices and providing accurate information to all sector players to avoid panic.
- iv. Accelerating the development of e-commerce for smallholders.

- v. Enhancing public health surveillance through the development of relevant bioanalytical tools. This approach may not only concern the screening of populations but also monitoring of foods, surfaces, and surrounding environments.
- vi. Developing and implementing tailor-made messages for food safety awareness campaigns to sensitise populations, both rural and urban, about food safety amid the COVID-19 pandemic to reach out to the targeted audiences through social media platforms. Targets along the food value chain include producers, transporters, traders, buyers and food handlers, both at home and while out shopping.
- vii. Fighting the dissemination of fake news in work environments will increase food safety along the system and enhance the trust of consumers.

Conclusion and Outlook

The post-pandemic future of agriculture and food systems in sub-Saharan Africa owes much to interventions in policy and technology. Achieving resilient and climate-smart agriculture and food systems is among the foremost focal points. The broader sector issues need to be further explored under the sub-themes of diversification, irrigation, multi-risk insurance, and agricultural technologies and innovations. Data remains key to decision support in the agriculture and food sector, with greater prospects for precision and efficiencies using big data, artificial intelligence, remote technologies, Earth Observation services for early warning systems, among others. How new initiatives such as the African Continental Free Trade Area (AfCFTA) can support agricultural transformation and broad-based food security on the continent must top the priority list of post-pandemic policy discussions.



Acknowledgements

The authors are grateful to the editors at IREN, discussants at the 2020 East Africa Thought Leaders Forum, and all the peer reviewers, who together helped to improve the quality of the chapter for this publication. All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately.

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The authors equally contributed to the discourse presented in this chapter.



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Virtual forums/ YouTube videos from local media engagements

1. Food Safety in Light of COVID-19 Virtual Forum aired on 21st May 2020
 - Part 1; <https://www.youtube.com/watch?v=-Y8r5ftB7-w&feature=youtu.be>

- Part 2; <https://www.youtube.com/watch?v=Yc959sx8b44&feature=youtu.be>
- 2. Why Food Safety is everyone's Business? (Virtual Forum celebrating World Food Safety Day on 7th June)
 - Part 1; https://www.youtube.com/watch?v=u_Or5Ni7FT0&feature=youtu.be
 - Part 2: <https://www.youtube.com/watch?v=RnDPO9dcaUg&feature=youtu.be>

Published articles in newspapers

- Articles published online on 22nd May focusing on Food Safety and role of stakeholders <https://www.farmers.co.ke/article/2001372308/food-safety-is-everyone-s-business>
- Publication on V4CP on the World Food Safety Day 7th June
- Publication from Sector Leader Agriculture Kenya 7th June 2020

Climate Change Interventions in Africa: Lessons from the COVID-19 Pandemic

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Abstract

Climate change is inherently a wicked problem. Wicked problems have been characterised as those social system problems which are ill-formulated with confusing information in addition to having many clients and decision makers with conflicting values, leading to confusing ramifications in the whole system. The COVID-19 pandemic fits this description. Comparatively, climate change remains a highly technical challenge due to the entrenched asymmetry of global economic incentives and disincentives involved in addressing it. Some differences between the two global challenges notwithstanding, several fundamental similarities merge the two challenges. For example, both challenges: precipitate critical junctures; are global in their reach; require collective action; accentuate economic, social and environmental capacity constraints in Africa; retain highly unpredictable evolutionary contours; and necessitate the adoption of a mix of elusive scientific and policy solutions. Because of the non-linearity and interconnectedness of the challenges, we have adopted a systems approach to interrogate and synthesise their characteristics on the African continent so as to draw useful heuristic conclusions. At its core, this chapter pursues the argument that COVID-19 presents a shock with immediate implications for effectively addressing climate change. This is because the economic and social disruptions witnessed due to COVID-19 are not far removed from scientific projections of the future consequences of climate change. Through the assumption that the two challenges are more similar than they are dissimilar, it is argued that how the world responds to the COVID-19 pandemic offers useful lessons for climate change response going forward.

Keywords: policy innovation, SDGs, research & development, stakeholder capitalism, systems thinking

Introduction

The novel coronavirus disease of 2019 (COVID-19), first reported in Wuhan, China, in December 2019, has been a ravaging pandemic with impacts extending far beyond the health fabric of society. The World Health Organization (WHO) declared it a global pandemic on March 11, 2020. Africa has not been spared its brunt, though the continent first reported COVID-19 much later in Egypt, on February 14, 2020. Read et al. (2020) used a transmission model at the time the novel coronavirus began spreading fast in China to estimate a basic reproductive number of 3.11, which ranks COVID-19 as a highly infectious disease. They further determined that 58-76% of transmissions must be prevented to stop the surge. As African countries strive with the short-term pressures of the pandemic amidst critical infrastructural and socioeconomic shortcomings, long-term imperatives of sustainable development remain, and they risk being neglected if policymakers, industry experts, and the scientific community do not heed the insights and implement the lessons brought about by the COVID-19 pandemic. The lockdowns and restrictions on human activities the pandemic has necessitated have raised new questions on climate change and environmental sustainability, making the lessons from the interconnected international experiences central to the post-COVID-19 global sustainability agenda.

While the finding that COVID-19 forced a reduction of 17% in carbon dioxide emissions by early April 2020 remains laudable, deliberate post-pandemic structural reforms and attitude change will be required to sustain the reduction in the long term. Conversely, the reduction in sulfur-based aerosols accompanying the lockdowns must have curtailed the cooling effects expected from them. From a systems approach, therefore, warming effects can pick up faster than before as economies reopen for a resurgence of major industrial activities. Climate change, as such, remains a key long-term post-pandemic threat to humanity and the planet.

In global policy and scientific discourse, Africa is of key interest as a continent contributing less to emissions but shoved to the more severe end of the scale of projected negative impacts of climate change. To date, scholars from outside Africa have been the more visible contributors to the dominant logical discourse on the science-policy responses African governments need to direct to climate change. We draw the motivation to reverse this narrative from our native African experience, research and educational background, and international engagement with the scholarly networks shaping emerging climate change debates. The purpose of this chapter is to make key contributions to the growing body of conceptual arguments as well as the global and country-level models that should inform a new resolve to addressing climate change related governance, scientific and technological questions. This is achieved by drawing parallels between the

impacts of COVID 19 on an unprepared continent and projected impacts of runaway climate change. Climate action and the related environmental targets are encapsulated in the Sustainable Development Goal 13 (SDG 13). Climate change is inherently a wicked problem. Wicked problems have been characterised as a 'class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing' (Churchman, 1967, B-141). A systems approach is suitable for capturing the big picture of the scale of such problems. The second section of this chapter reviews the nature of the climate change interventions adopted at various scales across Africa. It lays ground for drawing key lessons on reinventing approaches and solutions gleaned from demonstrated COVID-19 intervention approaches. The review explores the multifaceted nature of these interventions and reimagines them in a climate-change context to filter out useful lessons. The principal question is directed at identifying the proactive, pragmatic and futuristic interventions which can improve Africa's delivery on the climate change agenda. The third section explains the methodology applied to distil suitable Post-COVID-19 lessons for Africa. The ensuing lessons are analysed and discussed in the fourth section, giving way to the final chapter on the concussions and outlook.

Review of Climate Change Interventions in Africa

Africa ranks as one of the regions most affected by climate change globally (IPCC, 2014). The United Nations Environment Programme (UNEP) has underscored that Africa will suffer some of the most severe effects of climate change (AMCEN Secretariat, 2014). This fact is attributable to Africa's contextually vulnerable geographical position and her limited adaptive capacity due to poverty and economic deprivation. The situation is aggravated by the cross-cutting effects of climate transcending ecology, critical infrastructure, and the complex nexus bringing together health, utilities, education, food security, transport, among others. Climate change interventions on the continent assessed in light of the Sustainable Development Goals (SDGs) remain sub-optimal on several targets under SDG 13. Target 13.1 addresses the issue of strengthening resilience and adaptive capacity to climate-related hazards and natural disasters. On a global scale of comparison, several factors have pushed the resilience and adaptive capacity of Africa to the nadir as highlighted below.

First, climate change concerns are accorded less priority than the more pressing needs of food security, water security, poverty alleviation, access to quality healthcare, among others. Related to this fact, policy development and harmonisation of standards towards a united and systematic approach to addressing climate change in Africa have not received sufficient levels of political attention and support. Second, early warning systems for climate action are lacking because of the limited and severely underfunded research and development

(R&D). The share of the Gross Domestic Product (GDP) that R&D expenditure makes up in African countries has remained below 1% for years, fading in comparison to the global average of 2% as shown by the latest reports of the UNESCO Institute for Statistics. Statista (2020) listed the top countries on this measure of R&D expenditure in 2019 as South Korea (4.35%), Israel (4.04%), Finland (3.50%), Germany (2.84%), and the USA (2.84%).

Third, the apparent remoteness of climate emergency means that most African governments fail to institutionalise internationally agreed climate policy actions. Fourth, financial constraints impact climate actions at all levels beyond resilience and adaptive capacity. In highlighting Africa's weak resilience and adaptive capacity, the Institute for Security Studies (ISS) observed that:

Though development outcomes in Africa are improving, Africa's capacity to adapt to climate change is low and its vulnerable populations are growing. Low levels of development and generally weak state capacity, especially in sub-Saharan Africa, pose formidable obstacles to adapting to climate change. Extreme poverty, infrastructure deficits and poor state capacity remain pervasive issues and render millions of Africans highly vulnerable to climate change (Welborn 2018, p. 11).

Target 13.2 appeals to the political goodwill to integrate climate change into national policies, strategies, and planning. Several gaps and challenges generally afflict the implementation of national policies and strategic planning in Africa. Coupled with the interpretation of national climate change policies as obstacles to a government's economic pursuits, political goodwill tends to be weak at best. Consequently, seamless climate policy integration and elusive political goodwill continue to dog the achievement of this target among most African states. This is notwithstanding the fact that some progress at national integration of climate policies is discernible through the submission of Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC). The African NDC Gap Analysis Report underscores technology, finance and capacity as the three-pronged themes that constrain the implementation of NDCs (Africa Development Bank, 2018, p. 34).

Fifth, limited human and institutional capacity has been a chronic problem across Africa. Target 13.3 aims to improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. This chapter earlier underscored the weak scientific basis for climate change interventions on the African continent as well as the seriously underfunded research initiatives. These factors undermine this target. It has been observed that:

Evidence-based planning is essential for sustainable development and Africa's transformation. The 17 SDGs, with 169 targets and 232 indicators, require different levels of reporting – national, regional, and global. The huge demand for statistics to leverage effective planning and monitoring of SDGs has not been matched (The Sustainable Goals Center for Africa, 2019, p. 11)

These observations expose the urgent need for organisational, knowledge and innovation systems that can generate and analyse adequate data and statistics to address climate change and the required adaptive measures. Targets 13.A and 13.B further emphasise the role of developed nations towards developing nations in implementing the Paris Agreement 2015.

Overall, this review underscores the sub-optimal outcomes on climate action on the African continent. The nature of climate change as a wicked problem is exacerbated by the challenges highlighted above. For this reason, many African countries have not been able prepare adequately. The next section presents the methodological approach used to derive the main findings that have informed the conclusions and recommendations.

Methodology

The literature review reinforces the fact that COVID-19 has introduced a new global context for decision making on climate change. We emphasise here that climate change is inherently a sustainability challenge, hence summoning a targeted sustainability discourse that invokes an innovative and broadened framework of pillars in support of the evolving concept of sustainable development. Novel post-pandemic interventions need to integrate concerns for the planet, lives, livelihoods, principles and policies, technology, and models. For this complex and multi-stakeholder challenge of climate change, it is important to consider the role of new social contracts, energy policies and technologies, green growth including green procurement, the digital economy, and the mindset change needed to remodel travel, consumption, production and work towards reduced ecological footprints with environmental responsibility.

Systems thinking is preferred for such complex non-linear challenges which involve complex socioeconomic and political dimensions, as opposed to the deterministic nature of mechanical systems. 'System as cause thinking' or 'endogenous thinking' finds a ready application here, being a tenet of systems thinking which interrogates the level to which the internal actors within a systems boundary are responsible for the vulnerability of the system to external aggressions. In this light, we draw the systems boundary to match Africa's borders, then examine how Africa could be making herself vulnerable to climate change even before blaming external causes. Evidence has been drawn from

the manifest examples of compulsive adaptation to COVID-19, which African countries have demonstrated when the pandemic locked out global travel and the supply chains for items that used to be imported despite the resident local capacity to make them within Africa.

D'Alessandro and Zulu (2017) have reinforced the context-appropriate approach to development strategy and policy that Africa deserves, citing the 'context-specific nuance' befitting this non-homogenous continent rich in variety – as expressed in her geographical, sociocultural, economic, political and institutional, ecological, and historical settings. The approach adopted here recognises that enabling policy and technical interventions are key to ensuring an integrated approach to climate change in Africa. In Figure 1 is shown a summary of the expanded pillars underpinning the systems approach we have adopted here, for a more inclusive post-pandemic climate change agenda. The principle of subsidiarity encourages the growing contribution of local community structures and indigenous talents to overall delivery on the pillars.

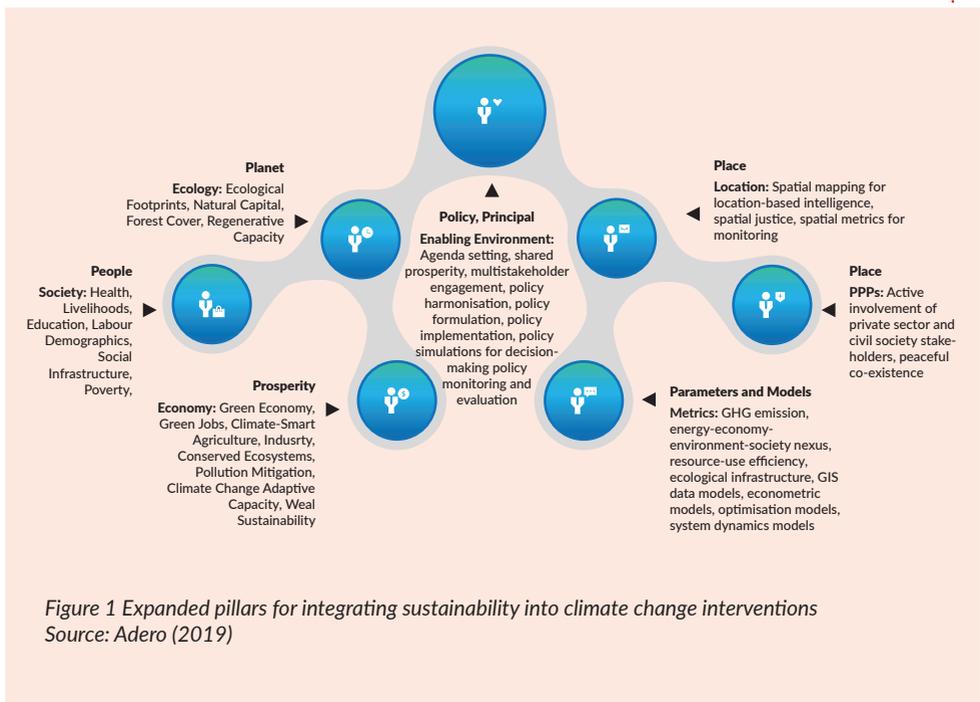


Figure 1 Expanded pillars for integrating sustainability into climate change interventions
Source: Adero (2019)

Lessons for Climate Change from COVID-19 Interventions

The COVID-19 pandemic has precipitated a crisis that invites a keen reflection on Milton Friedman's memorable words: 'Only a crisis - actual or perceived - produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around' (Friedman, 2009). Many good ideas in favour of decisive climate action are certainly lying around. However, the fallacy of remoteness of climate change emergency continues to undermine noble measures for addressing the escalating crisis. To this end, COVID-19 proffers some notable lessons. Were the urgency of addressing the pandemic to be transplanted into the realm of climate change, the world would witness decisive and expeditious climate action. Many measures adopted globally to address the COVID-19 pandemic would arguably have been the subject of protracted geopolitical debates had the luxury of time allowed it. However, the urgency to tackle the pandemic has made the 'politically impossible' become 'the politically inevitable'. Many useful lessons for climate change consequently emerge.

First, sufficient heed has not been paid to the warning of an approaching climate apocalypse. Climate change impacts, though gradual, are projected to be more disruptive than the effects of COVID-19. The urgent question that needs to be answered today particularly in the African context is, what would Africa do differently if climate change threatened to wipe out accrued economic gains and result in deaths beyond the scale witnessed due to COVID-19? Consequently, African countries should develop worst-case-scenario climate models that would be crucial in making visible what is presently invisible. Such models would then inform measures for climate change preparedness beyond conventional mitigation and adaptation approaches. COVID-19 modelling has helped nations to project evolutionary trends of the pandemic and take appropriate action to mitigate its impacts.

Second, climate change initiatives in Africa are mainly funded by developed countries. This means that most solutions to address climate-change challenges are imported into the continent in a way that undermines the development of the endogenous capacity to tackle climate change. Endogenous thinking as a tenet of systems thinking is a more potent approach to sustainable local solutions, since it inspires local creativity and a self-examination of the extent of internal responsibility for vulnerability to external factors. In the aftermath of COVID-19, many countries in Africa have been compelled to look more inwards than outwards. The focus on endogenous capacity to tackle COVID-19 has seen a quantum leap in innovative ideas to tackle the pandemic in ways previously unknown on the continent. In Kenya for example, the informal sector has been able to fabricate adjustable hospital beds barely three months after the first COVID-19 case was reported in the country. Several cottage industries sprang up to manufacture face masks, sanitizers, automated hand-washing points, among other novel innovations.

It is instructive that the potential for cutting-edge innovations to tackle climate change on the continent has barely been tapped.

During a discussion on African-European development cooperation targeting the role of academia and industry, organised by the Network of Africans in Freiberg at Freiberg University of Mining and Technology in Germany on June 18, 2018, an important observation was made on the efficiency of spending, which is key to a fair evaluation of any increase in R&D expenditure. The ongoing policy momentum in Africa to increase the share of R&D allocation must, therefore, be calibrated against the robust and transparent governance and regulatory measures put in place to harness and enhance spending efficiencies while stamping out systemic corruption.

Third, media campaigns and government initiatives have seen awareness and information sharing rapidly permeate the remotest parts in a way that climate change awareness and information has not. Widespread COVID-19 awareness means that a collective approach to tackle the pandemic has rapidly evolved. Collective buy-in by the citizenry to tackle the pandemic has complemented government action and recruited a formidable army of citizens to tackle the pandemic. If climate change concerns were able to galvanise similar support, Africa would set itself on a trajectory to cope better with projected climate change impacts. This means that the threat of climate change will be tackled using both top-down and bottom-up approaches where only top-down approaches have hitherto been prevalent. Cohesion and cooperation to tackle the pandemic has been experienced at both the national and international level in a manner unfamiliar in climate change initiatives.

Fourth, most countries have revised their budgets to prioritise COVID-19 related interventions. In Kenya, both national and county governments have focused on strengthening the capacity of health facilities to cope with an explosion of COVID-19 cases. Climate change impacts would be tackled better on the continent if climate concerns ranked higher in the government budgetary allocation process. Concomitantly, governments have given financial cushions to the citizenry and some business entities against the effects of the pandemic. Tackling climate change would benefit from similar financial investments.

To sustain effective climate change interventions, it is crucial to generate a high level of political urgency and goodwill towards rediscovering the importance and utility of innovations in policy and climate infrastructure to help co-create long-term solutions. During the pandemic, under the mainstream thematic area named The Great Reset, the World Economic Forum has been calling for a 'better capitalism and a better world' with new agenda centred on stakeholder capitalism. Stakeholder capitalism is a concept that resonates with the SDGs, by considering everyone as having an important stake in natural, social and economic systems.

This concept is a sharp contrast to shareholder capitalism, which is an exclusive model promoted by corporates.

While the finding that COVID-19 forced a reduction of 17% in carbon dioxide emissions by early April 2020 remains laudable, deliberate post-pandemic structural reforms and attitude change will be required to sustain the reduction in the long term. Conversely, the reduction in sulfur-based aerosols accompanying the lockdowns must have curtailed the cooling effects expected from them. From a systems approach, therefore, warming effects can pick up faster than before as economies reopen for a resurgence of major industrial activities. Africa must, therefore, sustain the momentum for addressing climate change as a long-term commitment.

Conclusions and Recommendations

This chapter aimed at drawing lessons for Africa's climate change agenda by examining the parallels between the global health emergency that has been COVID-19 and the long-term global problem that climate change has always been. An expanded framework of pillars that contextualises the broader post-pandemic sustainability questions, hence climate change agenda, has been shared. Post COVID-19, a rapid resurgence of emissions from human activities is likely, further entrenching climate change among the millennium's most intractable challenges.

It has been established that African states have a huge unexploited potential in local innovation capacity and community structures, as evidenced in the resilience and adjustments in production that the states demonstrated in the face of the ravaging pandemic. A coordinated win-win approach to climate action summons political goodwill and a sense of urgency among African states, complete with harmonised policies, standards and regulations. Technology and innovations within the mainstream digital transformation wave, though growing in uptake thanks to COVID-19, will still require an empowered and well-funded local human resource base for timely delivery on the equally borderless but more complex and compelling climate change agenda.

Human and institutional capacity development still remains a key item of policy innovation for the African Union, complete with enhancing the allocation for, and efficiencies of, research and development expenditure. A key pathway to achieving efficiency in addressing climate change, as shown, must include deliberate policy and technological interventions that eradicate systemic corruption, which has been defeating the noble aims of any positive changes in funding and public-private partnerships. A careful mix of top-down and bottom-up approaches informed by well-researched models is essential to achieving a productive balance between executive action and local action as inspired by awareness creation and the principle of subsidiarity.



Acknowledgements

The authors are grateful to the editors at IREN, discussants at the 2020 East Africa Thought Leaders Forum, and all the peer reviewers, who together helped to improve the quality of the chapter for this publication. All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately.

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Author Contribution

Omondi R. Owino contributed to the sections on introduction and review of climate change interventions in Africa. Nashon J. Adero handled the research and writing of sections of the chapter dealing with scientific and technological perspectives and models on climate change and sustainability.



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Post-Covid Prosecution of Crimes against Humanity in Kenya's Mau Forest Ecosystem

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Abstract

Neither Kenya's land-use law nor land reform policy effectively protects victims of forest destruction or forcible displacement. Yet, state officials continue deporting Mau Forest dwellers. Pursuant to the international community's responsibility to prevent mass atrocities, the Rome Statute establishes the International Criminal Court. Among other offences, it criminalises not only "forcible population transfer," "extermination," and "other inhumane acts," but also "deprivation of access to food and medicine, calculated to bring about the destruction of part of a population." Curiously, senior Kenyan officials call for selective international criminal prosecution of only some of these crimes against humanity. However, in October 2020 the United Nations General Assembly on COVID-19 pointed to growing inequalities and stresses to health, social, economic and democratic systems caused by the pandemic, calling for comprehensive, collective interest-driven responses. It specifically called for a sustainable recovery to include military ceasefires to reach populations in conflict areas. In this regard, this chapter considers allocation of individual criminal responsibility for environmental, socio-economic and cultural crimes arising from Mau Forest incidents. First, because the Kipsigis, albeit issued with title deeds, stand accused of logging within that water catchment resource. Second, since deforestation's effects impoverish the neighbouring Maasai, who in turn threaten to violently evict all the forest's settlers. Third, because despite the coronavirus' adverse socio-economic effect on the local economy, the government continues to indiscriminately displace the indigenous Ogiek community from their ancestral land, along with encroachers or developers. Altogether, failure to sustain community livelihoods around the Mau Ecosystem increases the propensity for ethnic conflicts. However, neoliberal approaches to environmental sustainability do not offer global sustainable development. These dominant ideals of justice do not take the role of international equity or redistributive justice seriously. Unlike ecocentrism which protects the forest itself, anthropocentric approaches conceive of the environment from the perspective of its utility to support human life. Take the Ogiek case. The African Court held, anthropocentrically, that Kenya breached its African Charter environmental and socioeconomic obligations owing to indigenous communities. Yet, since ecocentric-minded officials blame the notorious "shamba system" for depleting forest cover, no reparations have been made. Instead, this chapter concludes, that although the Maasai remain in their location, destruction of their adjacent habitat makes them victims of climate change, which has destroyed their life source. By responding to early warning signals, prosecutions for international crimes, including crimes against forestry, may prevent Mau ecosystem's looming destruction as well as avert ethnic conflicts, on awarding reparations to displaced communities and preserving livelihoods.

Keywords: anthropocentrism and ecocentrism, Covid-19, International Criminal Court, Ogiek, Maasai and developers' land conflicts, Responsibility to Prevent

Introduction

Mau Forest Complex in Kenya's Rift Valley central region, is Eastern Africa's biggest water tower. However, much of this tower's forest has been excised, attracting stringent measures from the Kenya government to limit its use by occupying communities who previously depended on it for their livelihoods (Omboto 2012). Directly defying a judgment by the African Court on Human and Peoples' Rights [2017], which upheld the Ogiek peoples' rights to their ancestral lands in the Mau Forest, the Kenya Forest Service (KFS) evicted over 1100 Ogiek people from forests located in Eastern Mau (Nakuru County) and from Maasai Mau (Narok County). Since 2 July 2020, it has demolished over 300 Ogiek homes, destroyed farms and crops and deprived livestock from grazing lands (International Work Group for Indigenous Affairs 2020; Minority Rights Group International 2020). The evictions were conducted during rainy seasons, at night, during the school term, and amidst the Covid-19 pandemic, whilst the victims were inside their homes isolating. The African Union insists that sustainable management of forests and trees outside forests is vital to the integrated implementation of the 2030 Agenda for Sustainable Development, including the achievement of the Sustainable Development Goals. In this respect, it recognises "impacts of COVID-19 on sustainable forest management, conservation activities including...livelihoods of forest-dependent people and local communities" (Attah 2020, 14). Thus, forest-based indigenous peoples and local communities in Africa are particularly vulnerable to the socio-economic and health impacts of COVID-19 (ibid. 26).

This chapter begins by tracing the evolution of ethnic tensions in Mau Forest to the practice of illegal land allocations during British colonialism, continuing into post-independent Kenya, which have precipitated deforestation over the past three decades. Using both ecocentric (environment-centred) and anthropocentric (market driven) approaches, the next section explores crimes against forestry. In key areas of development and social protection, pandemic responses have raised a new lens on the role and performance of the state versus the market. This chapter demonstrates the benefit of a third perspective, namely solidarity-driven community responses, supported by local state systems (Loewenson et al. 2020) failing which, section 4 shows, the 1998 Rome Statute provides a means of preventing ethnic tensions from escalating into conflicts. What emerges is that in the post-Covid recovery period, the socio-economic and cultural rights of communities deported or systematically deprived of their livelihoods as well as environmental destruction may each be construed as crimes against humanity. Various breaches of serious legal obligations attract the international community's concern. The fifth section examines the international community's dilemma in prioritising prosecutions among these competing interests through the prism of its responsibility to prevent. Section 6 depicts procedures by which the International Criminal Court (ICC) may authorise investigation of substantive offences. Section 7 concludes that failure of Kenya's Internally Displaced Persons Act (IDPA) 2012

to prevent the deportation of indigenous communities under the Land Act (2012) procedures may trigger the ICC's jurisdiction to respond to early warning signals, such as displacement, deforestation and deprivation, by issuing investigative warrants so as to induce reparations.

Ethnic Conflicts in Mau Ecosystem

Mau Forest Ecosystem's ethnic tensions are attributable to the Kenyan state's failure to enact effective legislation regulating land-use relations between various Rift Valley communities, and between communities and the resources themselves. Four factors combine to generate international crimes amid ethnic tensions. First since the early 1990s, the Moi government controversially issued title deeds inside the Mau to private developers, mainly Kipsigis, for land purchased from the Ogiek. Second, in 2009, the Kibaki government issued an eviction notice requiring the 35,000-member forest-dwelling Ogiek to vacate their East Mau ancestral home. Insisting that they lack title deeds, and ignoring restraining orders issued by the African Court in 2017, the Uhuru government continues to evict them. Now that that hunter-gatherer community want their land back, in 2018 the government commenced forcible eviction of everyone without compensation, unilaterally dismissing title deeds purchased by developers as fraudulent and worthless. Third, the developers have cleared 60% of the forest cover. The ensuing drought in Narok County to the south is apparently predicated on deforestation. Hence the neighbouring Maasai community is aggrieved by lack of rainfall, on being compelled to migrate through private lands in search of pasture for their livestock. Fourth, despite large tracks of Maasai land being preserved under the Land (Group Representatives) Act, it has been expropriated by the Narok County Council and sold to private settlers. Curiously, most international environmental declarations have not been backed up by the international community. Recently however, "the 2020 United Nations General Assembly (UNGASS) on COVID-19 pointed to growing inequalities and stresses to health, social, economic and democratic systems caused by the pandemic, calling for comprehensive, collective interest driven responses" (United Nations 2020). It "called for a sustainable recovery to include...military ceasefires to reach populations in conflict areas." Therefore, looming conflict between the displaced Kalenjin (Kipsigis and Ogiek) and the deprived Maasai now raises the question of whether holding perpetrators of forestry crimes accountable, whether for environmental destruction or gross violations of economic, social and cultural rights of indigenous peoples, may prevent an eruption of ethnic violence.

Forest Conservation through Criminalisation

Kenya's Land Law Regime

The Mau's ecosystemic ethnic tensions are predicated on land scarcity compounded by deforestation. An understanding of the three land categories under Kenya's

Constitution, namely, private, community and public, is useful. Colonial rule introduced private land holdings, hitherto unknown to traditional African societies. Received law's terra nullius doctrine construed unoccupied land as lying vacant. Furthermore, colonialists duped or forcibly displaced African natives into reserves. The Governor then issued freehold titles and 999-year leaseholds to British settlers. Despite attaining independence, landlessness persisted through an elaborate land registration system sanctifying formal title deeds, including fraudulent first registrations, with inalienability (Okoth-Ogendo 1991). Although under Kenya's 2010 Constitution freeholds remain sacrosanct, foreigner's rights have been truncated to 99 years. Importantly moreover, protection of illegal property acquisitions has now disappeared.

Recent recognition of informal collective land rights in the Australian Mabo case [1992] empowers marginalised indigenous groups, such as the Ogiek, to override terra nullius and reclaim their ancestral lands (Laher & Sing' Oei 2014). In Kenya, notwithstanding recommendations by the Truth, Justice and Reconciliation Commission Report (Kiplagat 2013), the state has yet to undertake comprehensive land redistribution. Instead, County Councils hold unregistered land in trust for communities. Nonetheless, post-colonial land policies continue to precariously promote the displacement of vulnerable communities for capitalist privatisation (Lynch 2018, 257).

Natural resources, including forests, are part of public land. The National Land Commission holds them in public trust. Therefore, without official de-gazettement, it is not possible to alienate forest land. Clearly, unprocedural allocation of land in Mau Forest to private cronies for political patronage purposes was illegal. While any state may compulsorily acquire land in the "public interest" (Khamala 2011), the Kenya government's Mau evictions ostensibly seeks to reverse deforestation. Nonetheless, the COVID-19 movement restrictions and measures to curb its spread "have had negative outcomes for sustainable forest management and forest protection efforts in Africa." They "have resulted in the postponement, and in some cases outright cancellation, of forest management activities that may have short term rather than long term effects" (Attah 2020, vi). Reportedly, "[t]he core problem lies in the Kenyan State's outdated approach to forest conservation." For one commentator: "It persists in the failed vision that guns and fences will save forests. If only it would learn from global experience that granting ownership where it is long overdue empowers customary owners to conserve and enables governments to hold them firmly to account" (Minority Rights Group International 2020). Therefore, whether officials should be culpable for deportation or encroachers for forest destruction and consequent deprivation of the livelihoods of neighbouring communities, depends on perspective.

The Ecocentric Approach

We owe responsibilities for “our common heritage” to future generations, so that they may enjoy equivalent benefits to our own. The Brundtland Report (1987) articulates the global sustainability concept and the steps required for its achievement (Okereke 2008, 150). Ecocentricism confers protection on the forest itself, in order to protect its intrinsic value (Gillet 2013, 75). Under international environmental law, states have stewardship. Hence some international instruments establish “green” crimes during peacetime. They punish, for example, clearing foliage for development, reckless misconduct at nuclear disasters, trading in endangered species, dumping of hazardous waste or ozone-depleting substances, intentional large-scale and illegal carbon emissions, etc. (ibid. 96). Proponents of the World Charter for Nature (1982) and Stockholm Declaration (1972) advocate that “we should give legal rights to forests, oceans, rivers and other so-called ‘natural objects’ in the environment – indeed, to the natural environment as a whole” (Muigua 2019, 4).

The Anthropocentric Approach

The neoliberal economic regime of justice designs global environmental policies by emphasising free market and private sector-based solutions to environmental policies (Okereke 2008, 137). Thus anthropocentricism conceives of the environment from the perspective of its utility to support human life (Gillet 2013, 75). Its bottom-up strategy contends that rural people who are closer to nature are better placed to act as its custodians. This is because: “A protected area in the local context addresses sustainable livelihoods and ecosystem services for the people; it mitigates natural disasters and ensures food security, clean water, climate change resilience, mitigation and adaptation, and alleviates poverty” (Chimweze, Jideani & Abiola-Oloke 2013, 199). Historically, this approach has left much to be desired. Problematically, “before the mid-1980s, nearly 75 per cent of Mau’s land cover consisted of unchanged forest, with 12 per cent woodland while 13 per cent was under farming. However, since the late 1980s, large-scale deforestation and conversion of the forestland into cultivation and subsistence agriculture has substantially decreased Mau’s forest cover” (Shazia 2019, 58). Apparently, although the “shamba system” or “plantations establishment for livelihood improvement scheme” was “launched to improve forest cover, (it) is actually causing degradation of forests” (Chebet 2017). To overcome the “anthropocentric approach mostly adopted by most of the existing legal instruments in Kenya and indeed much of the sustainable development agenda debates” Kariuki Muigua (2019, 7) views that “a bigger emphasis should be placed on the ecocentric approach as the current trends in the country have been concentrating more on an anthropocentric approach with little or no regard for an ecocentric approach” (ibid. 8). He concludes that: “There is a need for more emphasis while coming up with laws to ensure that there are measures that are geared towards protecting the aspects of nature whose benefits

are not obvious to the human beings” (ibid. 7).

Crimes against Forestry

“The pursuit of war” according to Marcia Inhorn “precludes the possibility of ‘Health for All,’ which was the utopian goal of the Declaration of Alma-Ata (WHO 1978; cited in Inhorn 2008, 422). It is not contended here that Mau’s destruction attains the 1998 Rome Statute’s Article 7(1) widespread threshold. Rather, prevailing deforestation may fulfil the alternative systematic attack criterion, so as to constitute a crime against humanity (Khamala 2018, 185). This is so given that logging contributes to water scarcity in Narok area and causes devastation to the Maasai. Another aspect addressed below, is whether these cultural victims are targeted on the basis of their ethnicity. Historically, environmental damage has been deployed as a war crime. For example, the 1946-9 Nuremberg International Military Tribunals convicted the suppliers of poisonous gas to Auschwitz. More recently, although Saddam Hussein was not convicted for environmental crimes, while retreating he burnt Kuwaiti oil wells inflicting considerable harm estimated at 5% damage to its territory (Edgerton 1992). Nowadays therefore, the Rome Statute criminalises “widespread, long-term and severe damage to the natural environment” [Article 8(2)(b)(iv)]. Because international criminal law complements human rights through prosecution for environmental harms during peacetime (Nakhjavani 2013), therefore protection of the intentional destruction of forests is possible. “If the achievement of global health is to become a worldwide aspiration in the 21st century, then it behoves us” Inhorn (2008, 422) call us “to assess the health costs – as well as the political costs – of war, and to agitate for peace in the new millennium.”

International Prosecution for Violating Socio-Economic Rights

Remarkably, second and third generation human rights were protected in the landmark Endorois case [2010]. The African Commission on Human and Peoples’ Rights determined that the post-colonial Kenyan state had, on displacing the indigenous Endorois community from Lake Bogoria, breached several of its African Charter on Human and Peoples’ Rights obligations. These include rights to culture, property, religion, natural resources and development. Likewise, this chapter observes that the Maasai’s survival as pastoralists depends on maintaining fertile cattle-grazing grounds. Absence of sufficient annual rainfall is prejudicial to their physical existence. Without it, their livelihoods and cultural identity is unsustainable. In similar circumstances, United Nations Security Council Resolution 1593 referred the situation in Darfur to the ICC for investigation. It alleged that by “destroying food wells and water pumping machines, shelter, crops and livestock as well as any physical structures capable of sustaining life or commerce,” Sudan’s President Omar Al-Bashir committed genocide (Gillett 2010, 90). Arguably, the systematic character of the Mau water catchment area’s destruction by private

settlement, combined with its disruptive influence on socioeconomic and cultural activities of the Maasai, produces comparable secondary effects. Conversely: “Elected leaders from the Kalenjin community...threatened to sue the government at the International Criminal Court, over what they claimed was ‘deliberate abuse, torture, dispossession, humiliation and other atrocious crimes’ in the ongoing Maasai Mau eviction” (Wainaina 2019). From an anthropocentric standpoint, the forest’s evictees, demand prosecution of state officials and attackers for crimes against humanity.

The Responsibility to Prevent: Destruction or Deportation?

“[Most] forestry regimes are generally fashioned in ways that privilege the interests and ownership claims of states over ‘customary land rights’ of indigenous people inhabiting forested areas” (Okereke 2008, 22). Unsurprisingly, under Kenya’s liberal democratic constitution, market forces allocate resources. Yet for Muigua (2019, 9) “the only way that the challenges of wanton destruction of forests, rivers and other aspects of the environment currently being experienced in the country will be stopped” is by enacting laws with an ecocentric approach. Others add that “global commitments must translate into benefit for local communities for any recovery to tackle the inequalities and conditions that made society vulnerable to COVID-19” (Phumaphi, Mason, Alipui, et al. 2020). Consequently, Rene Loewenson, Lucia D’Ambruoso and Duong Minh Duc (2021, 1) propose “significant investment in universal, public sector, community-driven health and social protection systems to connect measures called for globally with those needed to ensure equitable recovery within communities.”

This chapter observes that given the fact that Kenya’s indigenous communities lack education and power, just as happened during colonialism, so also the post-colonial state neglects their informal landholdings. For example, by selling collectively-owned land which was held on trust, the Group Representatives of Maasai land have abused their trust. Under existing forms of group conservancy lease arrangements in Narok County” it has been shown that “group ranch subdivision and formal privatization have yielded a context in the Maasai Mara in which pastoralists retain both clear and secure rights to land. Yet this fact appears to have facilitated rather than inhibited the displacement of existing land use practices for conservation” (Cavanagh, Weldemichel & Benjaminsen 2020, 1609). Therefore, notwithstanding the new Constitution’s creation of community land, the Maasai complain that they lack pasture land. As a result, “Olarro Conservancy has been subject to ongoing, well-documented conflicts between landowners and investors and seemed to constitute a possible worst case of conservancy-community relations” (ibid. 1597). For example, to facilitate passage through private land and gain access to grazing grounds, pastoralists require easements. Instead, County Councils confiscate their stock for trespassing on conservancies or ranches. The authorities place their animals into “jail,” where on separation from

their parents, the calves die. Clearly, cultural violence is systemically exacerbated by structural violence. Thus, solidarity with local communities is required to enforce not only ecocentric, but even indigenous land claims. Both of these “group rights” receive international recognition for mutual reinforcement.

Internationally: “The Forest Principles recognise the rights of indigenous peoples and forest dwellers” and also the need to share “the profits of biotechnology products and genetic materials taken from the forests on mutually agreed terms” (Okereke 2008, 30). Therefore, early warning signals may indicate the onset of ethnic violence in pursuit of cultural survival and pre-empt perpetration of mass atrocities against other communities or perceived enemies (Göpal 2013). In 2018, Maasai leaders issued threats signalling to the Kipsigis occupants in Mau Forest to either vacate or face forceful eviction. Conversely: “The Kipsigis community...blame Narok Governor Samuel Tunai, Narok Senator Ledama Ole Kina and Environment Cabinet Secretary (CS) Keriako Tobiko for their woes.” Tobiko is accused of “using his position as the Environment CS to frustrate the Kalenjins in favour of his fellow Maasai community. He is behind the incitement of the Ndorobos and Maasai to forcefully evict Kalenjins from the forest” (Kahongeh 2018). Backing the Maasai claim:

Kenyan authorities have evicted more than 50,000 people from Mau Forest lands, including more than 40,000 in July 2018 and the rest between August and November 2019. At least 6,000 of the people evicted in 2020 are living in harsh conditions in makeshift camps in Narok county and have not been relocated or compensated as required under Kenyan law.

According to Human Rights Watch deliberately “failing to help them to relocate or supporting them during the Covid-19 pandemic is even worse” (2020). Previously: “The Kalenjin community had benefited from the allocation of land in the Mau under the [Moi] government.” However, resettling the displaced Ogiek remains a challenge because there were other forest beneficiaries too, including election violence’s internally displaced persons, who acquired land illegally and re-sold it to third parties (Nyukuri 2017, 269). Additionally, relocating hunter-gatherer Ogieks to agricultural land subjects them to vulnerability from governmental actions and even timber companies (ibid. 276). Culpably, the state makes no distinction between the Ogiek’s lawful occupation of their ancestral land as adjudged by the African Court on one hand, and possible unlawful encroachments, whether by Internally Displaced Persons (IDPs) or property developers, on the other. Therefore, the KFS’s blatant eviction of the Ogiek, including subjecting them to potential Covid-19 infections, attracts the international community’s responsibility to prevent.

International Prosecutorial Procedures for Deportation and Deprivation

In 2008, Kenya enacted the International Crimes Act, domesticating the Rome Statute ratified in 2005. The Statute's Article 15 empowers the Office of the Prosecutor to commence proprio motu investigations. It is unnecessary to await physical violence, whether precipitated by a pandemic outbreak or not, before obtaining ICC Pre-Trial Chamber warrants. Rather, the OTP may on its own motion request the PTC to authorise investigation of environmental crimes and/or violations of economic, social and cultural rights. Procedurally, if authorities are either unwilling or unable to genuinely investigate or prosecute, the ICC's Article 17 complementary jurisdiction supplements domestic courts. In 2017, the African Court ordered reparations for the Ogiek (ACTHPR letter 2020). Yet the Kenya government ignores that decision. Deportees have exhausted local courts and regional human rights institutions in futile attempts to secure reinstatement or reparations. Therefore, to the extent that the Rome Statute criminalises "forcible population transfer," "extermination" and "other inhumane acts," the ICC's jurisdiction accrues. It does more.

As part of marginalised communities, the Kenyan Constitution (Article 56) enshrines special protection to indigenous populations. It follows that there is a secondary systemic atrocity being inflicted on the Maasai, which also attracts a decision to prosecute. This follows from the Rome Statute criminalising "deprivation of access to food and medicine, calculated to bring about the destruction of part of a population" [Article 7(2)(b)]. If the Maasai's cultural survival is terminally jeopardised, and further if the state, having allocated title deeds to private individuals who destroyed the Mau, deliberately neglects or fails to provide food, shelter, and livelihoods to the Maasai who cannot access pastures for their cattle, then investigation and prosecution of the individuals responsible for such systemic "extermination" policy may also be pursued.

Ineffective Domestic Protection against Internal Displacement

"Two sets of contrasting tenure rules – statutory and customary – coexist in many pastoral areas. Conflict arises because in statutory law land is treated as a single resource, while in customary law it is not. However, government policy tends to promote privatization of land for cultivation" (Barrow 1996, 87). Moreover "the rights to timber, as asserted by timber traders and consumer and producer delegations, and the rights to land, as asserted by the alliance between indigenous peoples' groups and NGOs, have been...the most acute points of conflict within most forestry regimes" (Humphreys 1996, 226; cited in Okereke 2008, 22). Yet "[m]oral anthropocentrism has been challenged in the past four decades by environmental philosophy" (Cao 2014, 171). Nonetheless, before carrying out prescribed eviction operations, the government should enact effective land-use

regulations and engage the inhabitants in dialogue (Rodgers 2003, 242). Hence Kenya's IDPA prescribes modes of responding to arbitrary displacement, during displacement and finding solutions to displacement (Kälin 2014, 175). Its purpose is that "IDPs could be encouraged to pursue remedy through available regional and sub-regional rights protection mechanisms" (Juma 2013, 213). Nonetheless, internal displacement persists with impunity, as the refusal to reinstate or compensate the Ogiek indicates. Not only have state authorities failed to comply with section 152A of the Land Act which "contemplates safeguards to ensure evictions are not carried out in inhumane conditions that are contrary to human dignity" (IWGIA 2020), they are also unwilling or too underfunded to prosecute.

Interestingly, Kenya's post-election violence situation is pending before the ICC (Khamala 2019). Besides failing to prosecute violations those first generation rights to life, liberty and property, the state declines to make budgetary allocations towards reparations for the Ogiek. Violating second or third generation human rights, whether to food, housing or a clean environment are rarely prosecuted domestically, since states are merely obligated to realise such substantive positive freedoms progressively. The standard of assessing their violations seems subjective. Accordingly, it is a question as to whether the National Land Policy (2009), IDPA or Land Act have proven effective remedies against forced displacement. They have not.

Conclusion

A clear distinction exists between the Ogiek who lawfully occupied their ancestral land and illegal settlers who invaded Mau Forest. Yet, the KFS indiscriminately evicted both groups. Not only does the IDPA impose need for public participation, but the Land Act also provides eviction procedures. Neither of these laws were followed. Ignoring the global coronavirus pandemic outbreak, the Mau evictions escalated, most violently. Prioritising the state's triple responsibility to protect its forest, inhabitants and neighbouring communities, the ICC prosecutor has a responsibility to prevent conflicts by considering the Rio Conference (1992) goal. The Earth Summit declared "a new and equitable partnership through the creation of new levels of cooperation among states, key sectors of societies and people" (Okereke 30). Evidently, various collateral benefits obtain from prosecuting crimes against humanity. First, deterring deforestation. Thus, ecocentrics proffer charging the Mau's loggers, illegal land allottees, grabbers or private developers for forest destruction. From Mother Nature's perspective, deporting the Ogiek may represent a lesser evil. Nonetheless, as the African Court has ordered, fairness demands reparations as a second-best solution. Ultimately, failure to either restore the Ogiek to the Mau Forest or pay reparations for their mass displacement, constitutes forcible population transfer in violation of international criminal law. However, so far, ostensibly due to resource constraints which developing countries face, the Mau deportees remain uncompensated. Their suffering and misery is compounded

by the World Bank's projection that because of the novel coronavirus pandemic, conflicts and climate change, in 2021 extreme poverty shall increase for the first time in 20 years (World Bank 2020). One anthropocentric, criticizing a new report by the International Union of Forest Research Organizations (Miller, Mansourian & Wildburger 2020) as "the ecology of poverty" insists on promoting forest-based industries under UN Sustainable Development Goal no. 15 to "(p)rotect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss" to assist in "eradicating poverty" (SDG No.1) by 2030 (Mahapatra 2020). Instead, ecocentrics recommend, besides the greater good of preserving the Mau and compensating its ancestral owners, that prosecuting perpetrators of systematic extermination would, show solidarity with Maasai indigenous rights, by protecting against deprivation of their cultural livelihoods, and simultaneously prevent ethnic violence.



Acknowledgements

All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately. The law is stated as at February 2021. Responsibility for content is entirely mine.

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Covid-19 Opinions



COVID-19 Reinforces Africa's Quest for a New Economic Order

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Abstract

The coronavirus disease of 2019 (COVID-19) is a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans. Scientists think that the virus is zoonotic and spreads from person to person through infected air droplets that are projected during sneezing or coughing as well as contact with hands or surfaces that contain the virus. The first reported cases of the Novel Coronavirus came to the limelight from Wuhan in China.

The COVID-19 pandemic that has taken a heavy toll on Sub-Saharan Africa's socio-economic activities has exposed the continent's soft underbelly. It is estimated that the substantial downturn in economic activity will cost the region at least 115 billion USD in output losses forcing it to slide into its first recession in 25 years. Further, its GDP per capita in 2020 was projected to contract by 6.5 percent as a result of low domestic consumption and investment brought on by containment measures to slow the spread of the pandemic. The global pandemic might push about 43 million people in Africa into extreme poverty through job losses, collapse of stock markets, disruption of transport, reduced demand of goods, and reduced exports and imports. The United Nations estimates that African countries will need at least 200 billion USD to cope with the socioeconomic costs of the COVID-19 pandemic, in addition to emergency health spending.

The international community has stepped in to help the continent mitigate the effects of the pandemic. The World Bank pledged 160 billion USD in financial support over 15 months to help more than 100 countries protect the poor and vulnerable, support businesses, and bolster economic recovery. This includes 50 billion USD of new IDA resources through grants and highly concessional loans. The continent has also called for external debt relief and cancellation.

Why has Africa found itself in a position of helplessness? Can't the continent which is rich in abundant physical and intellectual resources finance its own measures to mitigate the effects of the COVID-19 pandemic? The COVID-19 pandemic gives Africa a chance to rethink its approaches to poverty and development models. The continent must rethink its subscription to a skewed global economic order and financial prudence.

Keywords: debt diplomacy, gunboat diplomacy, neoliberal economy, Ubuntu

Introduction

The Africa Center for Disease Control and Prevention (Africa CDC) describes the coronavirus disease (COVID-19) as a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans (<https://africacdc.org/covid-19/>). Scientists are still learning about the disease, and think that the virus is zoonotic (spreading from animals to humans through direct contact between animals and humans from food, water or the environment). In humans, it spreads from person to person through infected air droplets that are projected during sneezing or coughing. It can also be transmitted when humans have contact with hands or surfaces that contain the virus and touch their eyes, nose, or mouth with the contaminated hands. The puzzle that remains unsolved is the origin of the virus itself. The first reported cases of the Novel Coronavirus came to the limelight from Wuhan in China, with the wet market in Wuhan touted to be the origin of this outbreak (Bhaskar, 2020).

The COVID-19 pandemic has taken a large toll on economic activity in Sub-Saharan Africa. Before 2021, there were already over 3.7 million reported cases across the continent and almost 100 000 fatalities. Africa CDC (2021) and Zeufack et al. (2020) estimate that the substantial downturn in economic activity will cost the region at least 115 billion USD in output losses forcing it to slide into its first recession in 25 years. Further, its GDP per capita in 2020 is projected to contract by 6.5 percent as a result of lower domestic consumption and investment brought on by containment measures to slow the spread of the pandemic. The global pandemic might push about 43 million people in Africa into extreme poverty through job losses, collapse of stock markets, disruption of transport, reduced demand of goods, reduced exports and imports (Kinyanjui, 2020a, 2020b). The United Nations estimates that African countries will need at least 200 billion USD to cope with the socioeconomic costs of the COVID-19 pandemic, in addition to emergency health spending (Kituyi, 2020). Where can the continent raise these new funds?

The COVID-19 pandemic gives Africa a chance to rethink its approaches to poverty and development models. It has taught the world a lesson that we are embedded in a network of mutuality and destiny. Whatever affects one directly affects all indirectly. Africa has called for a stimulus package to manage vulnerability. The continent has received a lot of support from European and Eastern capitals to mitigate the effects of the pandemic. The World Bank pledged 160 billion USD in financial support over 15 months to help more than 100 countries protect the poor and vulnerable, support businesses, and bolster economic recovery. This includes 50 billion USD of new IDA resources through grants and highly concessional loans.

But why can't Africa, a continent rich in abundant physical and intellectual resources nurture her own during this pandemic? Why is the continent vulnerable? It is largely because the continent subscribes to a skewed global economic order. In addition, UNCTAD (2020) estimates that 88.6 billion USD per year leaves the

continent in the form of illicit capital flight. Nigeria accounts for an estimated 46% of total capital flight from the continent, or 40.7 USD billion per year, followed by Egypt (17.5 billion USD) and South Africa (14.1 billion USD). As a percentage of GDP, capital flight ranges from 2.7% in northern Africa to 10.3% in western Africa

The Neoliberal Economy

The COVID-19 pandemic has shaken the neoliberal economy to its core and forced people to rethink the way they carry out their everyday lives. Stock markets have collapsed. Oil markets are unstable. Labour markets have not been spared and currencies have lost their value.

When the foundations of the neoliberal economy were laid, African communities were not involved. At the time of the formation of Bretton Woods, African communities in the diaspora were recovering from slavery and attempting to construct their socio-cultural and economic models based on self-reliance and solidarity as outlined by WE Dubois in the *Upbuilding of Durham* or in developing cooperatives as documented by Nembhard. They were also contending with Jim Crow and the civil rights movements. Their attempt to come up with their own economy and Wall Street was destroyed by the burning of Tulsa city. In Africa, communities were still colonies of Britain, Germany, France, Belgium and Portugal among others by virtue of the Berlin Conference that saw the African continent carved up into nation-states and shared out between the British, French, Portuguese, Germans and Belgians. Under this arrangement, King (1990) observes, Africa became a producer and exporter of raw materials, such as minerals, cotton, palm oil, wheat, wood and sugar cane to the metropole or the world market.

At independence, African nations that sought coming up with economic models were affected by the cold war. Those labelled Socialist were overthrown, killed or denied aid. Their efforts to construct economies based on self-reliance and solidarity were thwarted by structural adjustments programs that involved privatisation of government-owned businesses and industry, cost sharing, employment entrenchment and liberalisation of the economy. Massive job losses were experienced as industries collapsed and inequalities increased. In the Diaspora, several industries collapsed and others migrated to South East Asia. A majority of Africans who worked in these industries lost jobs, intensifying inequalities between the white and black communities. The monetary structure that was initiated by the Bretton Woods benefitted European communities and solidified their processes of extraction and exploitation while condemning Africans to live in poverty and eke out a living in the margins, surviving on one dollar a day.

Africa's craft peasant, mining, fishing and herding was replaced with plantation agriculture, large scale manufacturing, mining and ranches. This meant dismantling indigenous economies and employing Africans. Goran Hyden (1983) in his book, *No Shortcuts to Progress: African Development Management in Perspective*

recommended that African economies of affection that were based on family and kinship needed to be done away with and replaced with market and profit-oriented production and exchange in agriculture.

The World Bank and International Monetary Fund were awarded the role of regulating and controlling money after the Second World War. In addition, their role was to modernise national economies and help in the recovery of European economies (Roy2010). African countries were colonies and were not represented.

The IMF, World Bank, Paris Club and G-20 manipulate the global economy and maintain hegemonies through exclusionary policies. They make the rest of the world invisible, draw resources unfairly and allocate financial resources disproportionately. Africa has no vantage point because even its minerals and products are exported by multinational corporations headquartered in Europe, North America and China. The continent is not able to reap benefits from the many commodity products exported abroad.

Trade regimes do not make it any a better. Ideally, on the basis of comparative advantage, Africa is supposed to export commodities. How many avocados or rosebuds can buy a ventilator? How many coffee beans can buy a tractor? How many cocoa beans can buy a computer? Goods from Africa are at the bottom of the value chains hence they fetch limited money in global markets. All this is the manipulation of money and trade to ensure that Africa is exploited, dependent and heavily indebted. Philanthropists come to soothe Africans and treat the symptoms rather cure the disease. Ankomah (2019) narrates how Luigi Di Maio, the Italian Deputy Prime Minister on 21 January 2019 denounced France's continued political and economic stranglehold on its former African colonies. He accused France of preventing the economic development of its former colonies. When pressed by France to recant, Maio defiantly retorted: "Certain European countries, France in particular, have never stopped colonising Africa. If France didn't have its African colonies, because that's what they should be called, it would be the 15th largest world economy. Instead, it's among the first, exactly because of what it is doing in Africa."

In 1945, France, under the interim leadership of Charles de Gaulle established the CFA as the currency for all of its African colonies. The name CFA, stood for "Colonies Francaisesd'Afrique" which can be translated to English as "French Colonies of Africa." Before granting African countries under France independence in 1960, France forced her former French colonies to put 65% of their foreign currency reserves into the French treasury, plus another 20% for financial liabilities (Taiwo, 2019). These countries thus have access only to 15% of their own money! The countries have to borrow their own money from the French at commercial rates in case they need more. France has apportioned itself the first right to buy or reject any natural resources found in Francophone countries. This means that even if respective African countries can negotiate better prices elsewhere, they can't

proceed with or complete the sell until France says it doesn't need the resources. When it comes to awarding of government contracts, French companies are given the first priority. Only after that can the CFA countries look elsewhere. It doesn't matter if the CFA countries can obtain better value for money elsewhere (Ankomah, 2019).

Any Francophone African leader who attempts to swim against the current and change the status quo has seen a coup d'état organised or instigated by France to overthrow him. France has used this approach as an intimidatory tactic to silence the African leaders.

Cognizant of this fact, on the 29th of June 2019, the leaders of the 15 countries that make up the Economic Community of West African states (ECOWAS) agreed to adopt the "Eco" as their new single currency. Replacing the existing national currencies in the region by the Eco will mark the end of the Franc CFA, a relic of French colonialism in Africa and strategic tool used by the French government to maintain supremacy over its former colonies. CFA notes and coins are printed in France before being transported to countries. The amount of CFA Francs in circulation, as well as exchange rate are both determined by the French finance minister. The CFA is also pegged to the Euro (Taiwo,2019).

The late Thomas Sankara, Burkina Faso's leader, understood the global context in which Africa operates. He never sought solutions from Paris, Washington or London. In one of his speeches delivered at the summit of the Organisation of African Unity (now the African Union) in Addis Ababa in 1987, Sankara issued a passionate call for a United Front Against Debt.

Sankara (2018) observed that the World Bank and IMF are not only "technical assistants," but also "technical assassins." Their global arrangement is a skillfully managed reconquest of Africa, intended to subjugate the continent's growth and development. Sankara urged Africa to have its own club and group similar to the Rome Club, Paris Club, Group of Five, Group of Seven, Group of Ten. This type of thinking, confidence and lack of compromise agitated global powers. Sankara was eliminated and buried in an unmarked grave whose whereabouts are still unknown.

The Dakar 2000 conference that brought together leaders of NGOs and social movements from all over Africa to analyse the debt crisis and the impacts of IMF/ World Bank Structural Adjustment Programs on African populations in The Dakar Declaration called Third World debt to the North "fraudulent, odious, illegal, immoral, illegitimate, obscene and genocidal" and added "Countries of the North owe Third World countries, particularly Africa, a manifold debt: blood debt with slavery; economic debt with colonisation, and the looting of human and mineral resources and unequal exchange; ecological debt with the destruction and the looting of its natural resources; social debt (unemployment; mass poverty) and cultural debt (debasing of African civilisations to justify colonisation)." The conference called

for a Renaissance that would restore confidence in Africans, rejecting all forms of exploitation and domination (The Canadian Ecumenical Jubilee Initiative).

In 2019, the Association of American Geographers held a meeting in Washington. I submitted an abstract on The Role of Archives in response to their call for papers and expressed interest to participate in the forum. Although I had not asked for funding, one of the ladies in charge of organising the forum replied that I would not be funded. The organisers thought that I was out to beg and they did not want to be bothered by a begging African woman scholar. Since I hold British qualification like some of the forum organisers, I should be fetching a 'fat' salary like them. However, my wage has to be kept low because I work in a labour surplus economy, I am black and a subject of controlled labour. My country is heavily indebted and part of the austerity measures is to control expenditure in all institutions. For this reason, it does not fund conferences. Our local operations in the university are controlled by the global capitalist money and labour markets which date from the sixteenth century.

The Need for an African Consensus

On 24th September 2014, Dr. Marcelo Giugale, then Senior Director of the World Bank Group's Global Practice on Macroeconomics and Fiscal Management held a lecture titled What Every One Needs to Know About Economic Development, at the Main Campus, University of Nairobi. Marcelo urged Africa to embrace what he called the 'Four Ds' (Democracy, Devices, Debt and Decentralisation). These 'Four Ds' have not leap-frogged the continent to catch up with industrialised nations. In fact, the launch of the New Development Bank by Brazil, Russia, India, China and South Africa (BRICS) is a reaction against the Bretton Woods institutions that do not resonate with developing country needs. The Washington Consensus that promotes market-driven economies, property rights and rule of law is bound to face stiff competition from the Beijing Consensus that entails state management of economies and self-determination.

Neither the Washington consensus nor the Beijing Consensus will provide a miracle for Africa's development. Africa needs an African Consensus. A good place to begin is to embrace the Ubuntu philosophy. Kenya attempted to incorporate this philosophy in its 1965 Sessional Paper Number 10 on African Socialism. The ideals of African socialism ensured economic justice, opportunity and dignity for everyone. The philosophy was however submerged by World Bank dictates and pursuit for inclusive development in the country has been elusive for over fifty years.

Inclusive development has eluded Africa because some of the business dynamics that have kept the continent going are either stifled or are not upgraded to engage with the global dynamics. Africa's indigenous market's values need reconstruction, refining and repositioning to enable the continent engage local and global economic trends effectively.

Gunboat and Debt Diplomacy

Academia, policy makers, think tanks, journalists and lawyers gathered for the 17th Inter-Region Economic Network (IREN) Eastern Africa Media Forum, held in Nairobi, Kenya in April 2019, dedicated considerable intellectual and analytic attention to the Gunboat and Debt Diplomacy strategies facing Africa. They observed that Africa faces a serious, double-pronged predicament: Gunboat Diplomacy and Debt Diplomacy. The latter arose during the 1970s and 1980s when many developing countries were compelled, through various methods, to borrow from Western countries and institutions. This created a debt crisis that forced many African countries to become Highly-Indebted Poor Countries (HIPCs). Big creditor countries and institutions, driven by self-interest, do not want borrowing States to get out of indebtedness. Independence of the debtors implies a lack of business for the lenders.

They give loans as instruments of foreign policy: to enhance images, extract raw materials, and/or exercise political leverage over borrower States. Much of the borrowed monies are scooped by corrupt political and bureaucratic leaders, repaid in form of purchase of overpriced equipment and supplies, paid to so-called experts hired from lender countries and institutions or brought through patronage networks and cronyism.

Africa must articulate its interest and use it as the benchmark for determining borrowing priorities. The continent must take stock of financial flows out of Africa, seal out-flow/exit holes, and seek to retain as much money within African economies as possible – while attracting financial inflows from African Diasporas, through sale of services, and negotiating for the return of ‘stolen’ monies. The continent should undertake institutional reforms of both creditor and recipient institutions by developing domestic legal frameworks, openness and transparency about loans and grants.

Africa must create currency regions that will enable African currencies to favourably compete with global currencies in the global market. There is absolutely no reason why African currencies face devaluation and cannot be used to trade. Africa is choking from interest rates on borrowed money. Harmonisation of interest rates on borrowed money achieved via weighted average of countries the African nation wants to do business with will help to strengthen the local currency. All foreign companies in Africa must be asked to enrol in the respective country stock exchange so that locals can also buy shares in the firms. Africa must set a ceiling for investors so that only serious investors whose investment will impact Africa positively can operate on the continent.

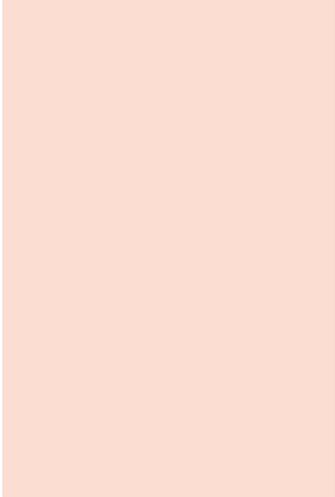
With Africans being a majority in the UN, Africa must demand that the UN charter be revised to give Africa a voice in the UN as well as the global finance institutions. COVID-19 gives Africa a chance to rethink approaches to poverty and existing development models.

A New Economic Order and Sparing a Thought for Ubuntu

As Shikwati (2009) observes in *Divorce Africa* from the World Bank and IMF: Reflections on an Abusive Relationship, African countries must delink their economic strategies from the World Bank/IMF driven goals and initiate their own market-driven relationships amongst themselves and the rest of the world. The World Bank and IMF force Africans to practice market economics under “constricted freedom.” The global financial giants operate like a one-party dictator, accountable to no one but themselves. They perpetuate the functions that colonial governments served; operate according to the dictates of their major shareholders; and assist in Africa’s plunder. The secrecy that shrouds their operations casts doubt on their ability to deliver a just and open market system. Clearly, Africa is not part of the architects of the global economy. Africa must urgently divorce itself from the planned market system supervised by the World Bank and IMF and call for a new economic order.

Another alternative is embracing African philosophies in development approaches. Modernisation and neoliberal development strategies have refused to acknowledge and integrate African philosophies in development approaches. Development strategies in Africa can be described as ‘catch-up’ models since they strive to keep at pace with Western institutions, philosophies and methods of operation (Mkandawire, 2014) that involve shedding off economies of affection and adopting market and profit-based thinking (Hyden, 1983). The African philosophy of ubuntu which espouses the thinking: I am because we are and because we are therefore, I am (Mbiti, 1969:108) is not acknowledged in the new economy.

Ubuntu holds that all human beings occupy a single universe and have a moral responsibility to work for the welfare of all. According to ubuntu, economics cannot be divorced from our humanity. Ubuntu espouses cooperation, self-reliance, human dignity and fairness in the competitive global economy. Ubuntu is an antidote to greed, cut-throat competition and inequality. Cross-fertilising ubuntu into global business will put a stop to the disastrous survival for the fittest worldview that breeds conflict. Given the polarisation and sectarianism evident in contemporary cities and states, ubuntu offers practical lessons on how self-regulating autonomous communities can work fairly and in harmony. Ubuntu is the missing link that the modern economy needs to inextricably connect people to each other. It offers the new economy the tenet of inclusivity, self-reliance, solidarity, continuous learning, democratic governance, reciprocity, pooling of resources, redistribution of resources, gifting, and the role of the divine, social protection, individual and communal wellbeing.



Acknowledgements

I wish to thank my sister Josephine and her husband Mungai for housing me when I was writing this work from USA. I thank my sister Jane for her support in Logistics. I also wish to thank my daughter, son in law and grand daughter for their support. Finally, I wish to thank Josephat Juma for editorial logistics. Special acknowledgement is made to the Inter-Region Economic Network (IREN) for engaging me in the zoom discussion and this book project.

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Rethinking African Security Strategy Amidst Recurrent Pandemics

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Abstract

African security strategists have previously acknowledged the gravity of nonconventional security threats. Even then, more attention has been paid to armed threats and terrorisms that have preoccupied the African security landscape over the past several decades. Yet, the virulence, rapidity of spread, trans-nationality, and destructive experiences of recent pandemics, such as Marburg, Ebola, and now SARS-COV-2, have demonstrated the vulnerability of African states, economies and societies occasioned by these complex public health emergencies (CPHEs). This paper builds on current works on non-conventional security threats, together with the Covid-19 situation in Africa, to build a case for rethinking Africa's security strategies. It argues that pandemics have acquired the destructive potentiality of conventional security threats, and ought to be given as much policy and technical preparedness and attention as conventional threats. Proposals are made on how policy, technical and practical measures may be crafted to position Africa's security calculus for a world more threatened with pandemics than with conventional security threats.

Keywords: complex public health emergencies (CPHEs), conventional security threats, globalised criminal organisations, Public Health Emergency of International Concern (PHEIC)

Introduction

Africa, like the rest of the world, has suffered rampant and recurrent threats from pandemics that have sometimes dwarfed armed threats. The threat of pandemics devastating entire nations is as real as the threat of terrorism presently ravaging northern Nigeria, Mali, or Somalia. Some analysts observe that sub-state armed violence has captured the interest of African policymakers and academics since the end of the Cold War, and proxy warfare and buffer zoning remain important features of contemporary and future strategic and security considerations of major countries confronting one another in weaker regions like Africa.¹ For others, most conflicts in Africa consist more of armed groups contesting against home states as opposed to pure inter-state confrontations that involve foreign states supporting pre-existing armed groups.² Further, others hold that proxy warfare in Africa or beyond is occasioned by increased privatisation of military functions, indirect warfare through the cyberspace (cyber warfare, cyber insecurity), and the changing political-security engagements among major powers.³ These and similar analyses – save for those that recently began to focus on cyber insecurity occasioned by rapid expansion of the internet and its dangers in Africa⁴ – mainly concern themselves with conventional security threats. Informed by this dominant thinking, Africanist security responses, such as the African Union Peace and Security Council (AU-PSC)'s African Peace and Security Architecture (APSA) and regional economic communities (RECs), concentrate on these and similar security threats.⁵ Notwithstanding these analyses and security-enhancement measures, the African security landscape is replete with security threats of a biological nature, in the form of pandemics and epidemics. While not unlike other diseases that afflict developing-world regions, pandemics have acquired a level of threat potential that matches armed security threats.

The virulence, rapidity of spread, human-life cost, trans-nationality, and destructive experiences of pandemics is well known. Recent experience with pandemics like Marburg, Ebola, and now SARS-COV-2, have exposed the vulnerability of African states, economies and societies occasioned by these complex public health

1 Vladimir Rauta, "Proxy Warfare and the Future of Conflict Take Two." *The RUSI Journal*, 165 (2): 38-

2 Gérard Prunier, 2004, "Rebel Movements and Proxy Warfare: Uganda, Sudan and the Congo (1986-99)". *African Affairs*, 103 (412):359-383; Christopher Williams, "Explaining the Great War in Africa: How Conflict in the Congo Became a Continental Crisis", *The Fletcher Forum of World Affairs*, 37 (2):81-100

3 Andrew Mumford, 2013, "Proxy Warfare and the Future of Conflict". *The RUSI Journal*, 158 (2):40-46

4 E.g. Jan Kallberg and Steven Rowlen, 2014, "African nations as proxies in covert cyber operations", *African Security Review*, 23(3):307-311

5 Peter Arthur, 2017, "Promoting Security in Africa through Regional Economic Communities (RECs) and the African Union's African Peace and Security Architecture (APSA)." *Insight on Africa*, 9(1):1-21; Gino Vlavonou, 2019, "The APSA and (Complex) International Security Regime Theory: A Critique". *African Security*, 12:1, 87-110; OAU, 1999, OAU Convention on the Prevention and Combating of Terrorism. Addis Ababa: OAU; AU, 2004, Protocol to the OAU Convention on the Prevention and Combating of Terrorism. Addis Ababa: AU; AU, 2002a, Protocol Relating to the Establishment of the Peace and Security Council of the African Union. Addis Ababa: AU; AU, 2005, The African Union Non-Aggression and Common Defence Pact. Addis Ababa: AU

emergencies (CPHEs). Pandemics seem to have acquired regularity and rapidity of spread that rivals that of armed conflicts. Like conventional security threats, pandemics (and epidemics) can catch states and societies unawares, overwhelm disaster preparedness institutional structures, and denude governments which lack national or regional strategies on CPHEs.⁶ Pandemics destabilise and weaken states and societies, disrupt socio-economic production, strain normal human lives, and cost immense resources to contain and/or defeat. These features render CPHEs like SARS-CoV-2 or Ebola susceptible to emergency measures like those deployed in war situations, requiring hard-core state apparatus like militaries and emergency political and financing measures.

Much like war economies that tend to follow the outbreaks and prolongations of wars, pandemics also create their own losers and winners as the HIV/AIDS economy has demonstrated, when one considers the constellations of competing interests. In this pandemic, actors that are capable of taking economic, legal, and political steps that can tackle the problem of under-supply of essential drugs have diminished interest in doing so. Actors, such as transnational networks and lobby groups, which are interested in expanding AIDS treatment, lack the capacities to make such supplies available and lack the wherewithal to alter the interests of the former. The would-be agents of change in the fight against HIV/AIDS become witnesses to the increasing fragilities of worst-affected countries.⁷ During the 2013-2016 Ebola Virus Disease (EVD) in West Africa's Mano River Union (MRU), countries were left devastated as though they had been at war or even worse. Specifically, Sierra Leone and Liberia experienced the largest, most volatile, and deadliest Ebola epidemic ever recorded, suffering post-Ebola trauma and other after-effects, a traumatising experience that exacerbated state weaknesses, societal fragility, dependence on external assistance and disrupted socio-economic processes.⁸ In the context of these devastating pandemics and considering the likely regularity of future pandemics, this brief synthesis is a clarion call to rethink our security strategies.

This paper argues that pandemics have acquired the destructive potential of conventional security threats, and ought to be given as much policy and technical

6 Sebastiano Rwengabo, 2020. Covid-19 in Uganda: Toward A National Strategy On Complex Public Health Emergencies, Kampala: Konrad Adenauer Stiftung

7 Nana A. Poku and Alan Whiteside, 2004. *The Political Economy of AIDS in Africa*. London and New York: Routledge; Nana K. Poku, "Confronting AIDS with Debt: Africa's Silent Crisis", in Poku and Whiteside, *ibid*, pp. 33-50; Kenneth C. Shadlen, 2007. "The Political Economy of AIDS Treatment: Intellectual Property and the Transformation of Generic Supply", *International Studies Quarterly*, 51 (3):559-581

8 Dan Yamin, Shai Gertler, Martial L. Ndeffo-Mbah, Laura A. Skrip, Mosoka Fallah, Tolbert G. Nyenswah, Frederick L. Altice, and Alison P. Galvani, 2015, 'Effect of Ebola Progression on Transmission and Control in Liberia', *Annals of International Medicine*, 162:10-17; United Nations, 2014, UN Security Council Resolution S/RES/2177 (2014), New York: UNSC; AU, 2015, AU, 2015, 'Timeline of African Union Response to the Ebola Outbreak', Addis Ababa: AU (from http://www.un.org/en/ecosoc/ebola1/pdf/au_ebola_timeline.pdf, 28 September 2015)

preparedness and attention as conventional threats in Africa. While the paper mentions recent African experiences with pandemics like Ebola, Marburg, Cholera, and HIV/AIDS, emphasis is placed on the current Novel Coronavirus (that brought the second Severe Acute Respiratory Syndrome, or “SARS-CoV-2”). The coronavirus, and the disease it causes, reportedly broke out in Wuhan, China in 2019 (hence the name Coronavirus Disease 2019 or “Covid-19”). Making a rough assessment of the Covid-19 situation in Africa, through internet-enabled desk research (considering Covid-19 lockdowns), the paper builds a case for rethinking Africa’s security strategies by elevating pandemics to the level of security threats with equal magnitude to conventional threats. Proposals are made on how policy, technical and practical measures may be crafted to position Africa’s security calculus for a world more threatened with pandemics than with conventional security threats. The rest of the paper compares the threat of conventional threats with that of epidemics and pandemics in Africa since 2000. Then it examines the African situation under Covid-19, showing that it has features and requires responses similar to those of a conventional security threat. The final section makes proposals on why and how pandemics ought to be given utmost consideration in Africa’s security calculus, and relevant policy and technical choices made to help Africa respond to current and future pandemics with more efficacy and resilience. The conclusion sums up the main arguments and makes recommendations for research and policy.

Africa’s Security Threats: Conventional Threats and Pandemics Compared

The past two decades have witnessed a dwindling in armed conflicts in Africa, though terrorisms have become multifaceted and more complex. Threat classification in Africa now requires that attention be paid to non-human, biological agents whose destructive potential defies the would-be dismissive reasoning of the most ardent doubters. For the last 20 years, since 2000, Africa has been progressively building peace within itself: intra-state, transnational, and inter-state conflicts have progressively become more and more attenuated. Those that persist have not translated into armed confrontations. For instance, during the 2010s, the Democratic Republic of Congo had more atrocious conflicts than it has today: the armed groups led by war-mongers like Bosco Ntaganda and Sylvestre Mudacumura⁹, Laurent Nkunda, and the M23 group. Rwanda and Tanzania have been involved in managing these conflicts since former President Benjamin Mkapa of Tanzania mediated talks between the *Congrès National pour la Défense du Peuple* (CNDP), then led by Bosco Ntaganda and Laurent Nkunda, and the Congolese government, during the Nairobi talks of 2009. The conflict between CNDP and the

⁹ Anna Kuniewicz, 2015, “International Criminal Court Prosecutor v. Bosco Ntaganda: Preliminary Ruling”, *Chi.-Kent J. Int’l & Comp. L.*, XV:1-10; Sarah T. Deutch, 2016, “Putting the Spotlight on “The Terminator”: How the ICC Prosecution of Bosco Ntaganda Could Reduce Sexual Violence During Conflict.”, *William and Mary Journal of Women and the Law*, 22 (3):655-687

congolese armed forces, the *Forces Armées de la République Démocratique du Congo* (FARDC), took turns and twists.¹⁰

By 2013, the two countries' relations had gone from cordial to conflictual due to disagreement on how to manage the conflicts in the DRC. This followed Tanzania's contribution of a military battalion to the Force Intervention Brigade (FIB). Established in March 2013, the FIB was part of the UN Mission in the Democratic Republic of Congo (MONUSCO). The first FIB commander, Brig. Gen. James Mwakibolwa, was a Tanzanian military commander. Its creation followed the signing of the Framework Agreement for Peace, Security, and Cooperation for the DRC and the Region and UN Security Council Resolution 2098. The FIB contributed to the military weakening of the M23 rebels and, in 2014, carried out successful operations against the Allied Democratic forces (ADF), a Ugandan rebel group then operating in eastern DRC.¹¹ These observations reveal that Africa's Great Lakes Region has been the most tumultuous region since the 1994 Rwanda genocide. No doubt the region's institutional design and state policy have focused on managing armed conflicts—in form of proxy wars, armed contestations against constituted state authority, transnational “rebels without borders” with intricate linkages to regional and foreign groups that are interested in proliferation or small arms and light weapons (SALWs), natural resource extraction, and construction and maintenance of illicit economies.¹²

In the Sahara-Sahel region, much like the Horn of Africa, terrorism has combined with armed rebellions, state fragility, and ungoverned spaces, to complicate the region's security landscape. Via the activities of militant Islamist groups like Boko Haram in West Africa and al-Shabaab in East Africa, ethnic separatist movements like the Touregs in Mali and separatist groups in Ethiopia, and highly diversified and globalised criminal organisations, one observes an Africa replete with complex insecurities.¹³ As of 2020, about 15 countries in sub-Saharan Africa have had active armed conflicts.¹⁴ This was an increase from 8 conflicts in 2000. Africa had

10 Henri Boshoff, 2009, Dealing with the fast-changing environment in the eastern DRC”, *African Security Review* 18 (1):64-69

11 Nicodemus Minde, 2017, “Contributor Profile: Tanzania”. Version: 10 July 2017. (from <http://www.providingforpeacekeeping.org/wp-content/uploads/2017/07/Tanzania-Minde-10July2017-FINAL.pdf>, 08 Sept 2020)

12 Idean Salehyan, 2009, *Rebels without Borders: Transnational Insurgencies in World Politics*, Ithaca, New York: Cornell University Press, esp. Ch. 5; Sebastiano Rwengabo, 2018, *Security Cooperation in the East African Community*, Trenton N.J.: Africa World Press; Kristof Titeca & Koen Vlassenroot, 2012, “Rebels without borders in the Rwenzori borderland? A biography of the Allied Democratic Forces.” *Journal of Eastern African Studies*, 6 (1):154-176

13 Robert B. Lloyd, 2016. “Ungoverned Spaces and Regional Insecurity: The Case of Mali”, *Review of International Affairs*, 36 (1): 133-141; Stephen Harmon, 2015, “Securitization Initiatives in the Sahara-Sahel Region in the Twenty-first Century”, *African Security*, 8 (4):227-248; Phil Williams, 2014, “Nigerian Criminal Organisations”, in Letizia Paoli, ed., *The Oxford Handbook of Organized Crime*, Oxford & New York: Oxford University Press, pp. 254-269

14 These include Burkina Faso, Burundi, Cameroon, Central African Republic (CAR), Chad, DRC, Ethiopia, Kenya, Mali, Mozambique, Niger, Nigeria, Somalia, South Sudan and Sudan. Uganda and Rwanda also still have armed groups operating in other countries, though armed confrontations within these countries have since ceased. Kenya's threat of terrorism still remains a cause of concern.

the highest frequency and number of conflicts in the 2000–2009 period.¹⁵ While some are low-intensity subnational armed conflicts, high-intensity armed conflicts rage in Nigeria, Somalia, the DRC, Burkina Faso, Mali, South Sudan and Cameroon. The international dimension of these conflicts consists in involvement of state actors (directly or through proxies), internationalisation of counter-terrorism activities, transnational activities of violent Islamist groups, linkages with other armed groups, and activities of globalised criminal networks. Other dynamics of these conflicts include ethno-religious and natural-resource competition, climate-change driven food and livelihood insecurities, and involvement of non-African state actors.¹⁶

Alongside these security threats, epidemics and pandemics have been on the increase. In addition to notorious, almost hackneyed, malaria, tuberculosis, and HIV/AIDS, meningitis has been on the increase and tends to recur “every few years”: a massive epidemic broke out in 1996, infecting nearly 200,000 people and vaccination against the disease has received only modest success much like peacebuilding and conflict-resolution initiatives on the continent.¹⁷

The threat of bacterial meningitis across what is called the “African Meningitis Belt” stretching from Senegal to Ethiopia, faces more than 300 million Africans. It is curious why this disease has not been designated as a pandemic when it vastly stretches across Africa infecting more than 30% of a billion people. The World Health Organisation (WHO) declares an epidemic a **Public Health Emergency of International Concern (PHEIC) when it reaches pandemic proportions. This is when** “an extraordinary event”, of a public health nature, has potential to spread internationally and requires coordinated international response.¹⁸ Meningitis in Africa, to the extent that it affects many countries and can be transmitted across borders, qualifies to be a **PHEIC** and pandemic. Outbreaks every dry season have been observed, with “weekly incidence rates reaching up to 100 per 100,000 population in individual communities.” The mortality rate of meningitis fluctuates around 10%, which is much higher than that of the much-hyped Covid-19. It is estimated that 10–15% of meningitis survivors suffer long-term “neurological sequelae” (damaged neurons resulting from meningitis infection), and asymptomatic carriage (similar to SARS-CoV-2) is common.¹⁹ The neurocognitive impairment resulting from meningitis infection is sometimes as high as 40%, some 10% severe disability at 6 month period is observed in some cases, while those

15 Lotta Harbom and Peter Wallensteen, 2010. “Appendix 2A. Patterns of major armed conflicts, 2000–2009”, in SIPRI Year Book 2010: SIPRI Year Book 2010: Armaments, Disarmaments, and International Security, Stockholm: SIPRI, pp. 61-76

16 SIPRI, “Armed conflict and peace processes in sub-Saharan Africa”, in SIPRI Year Book 2020: Armaments, Disarmaments, and International Security, Oxford: Oxford University Press, Ch. 7; Hermon

17 Brian Greenwood, 1999. “Meningococcal meningitis in Africa”, *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 93 (4):341-353

18 Robert L. Cubeta, et al., 2020, ‘New Models for a New Disease: Simulating the 2019 Novel Coronavirus’, Alexandria, VA: Institute for Defence Analysis

19 L. Agier, A. Deroubaix, N. Martiny, P. Yaka, A. Djibo and H. Broutin, 2012, “Seasonality of meningitis in Africa and climate forcing: aerosols stand out”, *Journal of the Royal Society*, 10:1-11

with tuberculosis and/or HIV infection tend to suffer a marked disability in 20% of infected peoples 9 months.²⁰

The high prevalence of HIV/AIDS in Africa is associated with an increase in the incidence of meningitis, indicating complex linkages among the many epidemics afflicting Africa. Tuberculous meningitis (TBM), a preventable and curable health problem, continues to afflict African adults and has “a very high fatality which has remained stagnant for the past half-century” characterised by “higher unaccounted morbidity, accrued disability, and larger mortality” at community levels.²¹ Africa had the highest burden of TB in the world and over 260 cases per 100,000 population in 2011. Projections up to year 2030 reveal that sub-Saharan Africa “will continue to have high TB mortality”.²² In other words, by 2030, curable and preventable diseases will threaten Africans more than armed conflicts, terrorisms, and other insecurities because increased travels within Africa and between Africa and the rest of the world will increase contacts and transmissions of these diseases.

The recurrence of Ebola in Africa is another cause of concern. In Africa, the Ebola Virus Disease (EVD) has been breaking out in the DRC, Gabon, Sudan, and Uganda since 1976. The 2013-2016 EVD outbreak in the Manu River Union (MRU) of West Africa was “the largest, most volatile, and deadliest Ebola epidemic ever recorded” in the history of Ebola outbreaks.²³ In early December 2014, Sierra Leone reported nearly 400 new cases. This was thrice as many as in Guinea and Liberia combined.²⁴ By the end of 2016, the EVD had cost almost 5,000 lives in Liberia and nearly 4,000 in Sierra Leone. This specific EVD outbreak was multi-country unlike previous infections which tended to be isolated to the DRC, Gabon, Sudan, Uganda, or sub-national locales within countries. For instance, Uganda experienced an EVD outbreak in October 2000-January 2001; December 2007-January 2008; and May 2011-October 2012. These outbreaks were confined to northern and western Uganda, and sometimes within intra-regional districts, which kept the rest of the country unaffected and prevented national-level spread. But the 2013-2016 outbreak in the MRU quickly acquired international transmission, which indicated the elusiveness of controls against highly infectious pandemics. The EVD’s transmission mechanisms, latency, rapidity of infection, resistance, and mortality rates significantly differentiate it from other epidemics in Africa, such as HIV/AIDS and meningitis. First, the EVD can kill an entire family or village within a short

20 Drew W Goldberg, Mark W Tenforde, Hannah K Mitchell, Joseph N Jarvis, 2017, “Neurological Sequelae of Adult Meningitis in Africa: A Systematic Literature Review”, *Open Forum Infectious Diseases*, 5 (1):

21 Yohannes W. Woldeamanuel and Belaineh Girma, 2014, “A 43-year systematic review and meta-analysis: case-fatality and risk of death among adults with tuberculous meningitis in Africa”, *Journal of Neurology*, 261:851–865

22 *Ibid.*, p. 852

23 Dan Yamin, Shai Gertler, Martial L. Ndeffo-Mbah, Laura A. Skrip, Mosoka Fallah, Tolbert G. Nyenswah, Frederick L. Altice, and Alison P. Galvani, 2015, ‘Effect of Ebola Progression on Transmission and Control in Liberia’, *Annals of International Medicine*, 162:10-17, at p. 10

24 WHO, 2015, *Ebola in Sierra Leone: A slow start to an outbreak that eventually outpaced all others*, Geneva: WHO (from <https://www.who.int/csr/disease/ebola/one-year-report/sierra-leone/en/>, accessed 3 May 2019)

time.²⁵ Second, the EVD demands unusually high levels of concerted effort. Third, the EVD is not as intricately linked to other epidemics as meningitis.

The political, economic, social, and psychosocial impact of pandemics like the EVD on African countries has been documented. Table 1 is an illustrative indicator of the similarities between damage caused by conventional security threats and damage caused by epidemics and pandemics. In both cases, the political, economic, and social well-being of Africa has been under threat. By forcing the concentration of policy and technical attention to the outbreaks, pandemics have reduced funds for the much-needed public investment in Africa much like conventional security threats which divert the much-needed resources from investment in public welfare and socio-economic transformation to fighting insecurities. The state's sovereign standing is also eroded as dependence on foreign interventions to contain pandemics becomes the order of the day in Africa—as has been the case in the case of conventional conflicts.

Table 1: Threat Similarities between Conventional Insecurities and Pandemics in Africa

NATURE OF THREATS	CONVECTIONAL INSECURITY	EPIDEMIC & PANDEMIC INSECURITY
Political	<ul style="list-style-type: none"> — Weakening of state institutional structures — Erosion of sovereignty claims — Domestic political uncertainty — Group mobilisation and antagonisms — Inter-state mistrust and suspicions — Weakening of regional and international institutions 	<ul style="list-style-type: none"> — Pressure upon state institutional structures — Erosion of sovereignty claims – dependence on external medical and techno-scientific solutions — Failures of common responses (regional, international) — Community apathy — Pressure on regional-cooperation structures

25 Tsegaye T. Gatiso, Isabel Ordaz-NeAmeth, Trokon Grimes³, Menladi Lormie, Clement Tweh, Hjalmar S. KuE hl, and Jessica Junker, 2018, 'The impact of the Ebola virus disease (EVD) epidemic on agricultural production and livelihoods in Liberia', PLOS Neglected Tropical Diseases (from<https://doi.org/10.1371/journal.pntd.0006580>, 1 April 2019), pp. 1-17

Economic	<ul style="list-style-type: none"> — Reduced domestic production — Reduced domestic economic exchanges — Unemployment and poverty due to disruption of economic activities in insecure areas — Disruption of regional and international trade exchanges — Dependence on foreign aid 	<ul style="list-style-type: none"> — Disruption of domestic economic productivity — Reduced domestic economic exchanges (intra-national & regional isolation) — Unemployment and poverty due to disruption of economic activities — Disruption of regional and international trade exchanges and travels — Dependence on foreign aid
Social & Cultural	<ul style="list-style-type: none"> — Weakening of inter-group social relations (esp. identity and regional conflicts) — Disruptions in social development processes (health and education services) — Emergencies of social-isolationist groups — Breakdown of psychosocial fabric of society — Nation-building failures (e.g. conflicts in South Sudan, Somalia, Nigeria) 	<ul style="list-style-type: none"> — Social distancing weakens inter-group social interactions due to fear of transmission — Disruptions in social development processes (health & education services) — Breakdown of society's psychosocial fabric — Worsening social indicators: increased food insecurity, decline in health services, increased poverty, threats of epidemic recurrence; psychosocial after-effects

<p>Techno-Scientific</p>	<ul style="list-style-type: none"> — Dependence on foreign aid — Increased demands for technological and scientific adaptation and adaptiveness — Costly technological and scientific demands (technologies and methods of security management) — Fears of threats from new technologies (cyber-terrorism, IUDs, etc) 	<ul style="list-style-type: none"> — Increased dependence on foreign technological and scientific aid — Increased demands for technological and scientific adaptation and adaptiveness — Costly technological and scientific demands (technologies and methods of disease management) — Fears of threats from new technologies (bio-terrorism, asymptomatic transmission, etc) — Complex linkages among diseases
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Source: Author's Analysis

By eroding societal dynamism via forced social distancing and breakdown of useful interfaces among peoples, pandemics have crippled the societal glue that holds African societies together. By cutting off Africa from the rest of the world, pandemics curtail tourism, international social gatherings, foreign investments and trade with the rest of the world. Affected individuals, families and communities suffer irreparable psychosocial damage, with serious long-term impact.²⁶

Africa is as much troubled due to pandemics as it is due to conventional security threats. It is not unreasonable, therefore, to argue that African strategists ought to view the continent's strategic future to suffer as much threats from conventional security threats as it is threatened by epidemics. For instance, the rapid increase in anti-retroviral therapy use in the mid-2000s led to a marginal decline in HIV/AIDS-related mortality in Africa. As a result, "34% of people in east and southern Africa and 60% of people in west and central Africa who are living with HIV are not currently receiving any treatment." HIV/AIDS thus remains one of "the most common cause of death in sub-Saharan Africa."²⁷ Yet HIV/AIDS is considered a footnote in the African security calculus, just another disease to be treated like

26 Nicholas Cook, 2014, 'Ebola: 2014 Outbreak in West Africa', Washington D.C.: Congressional Research; The World Bank, 2014, The Economic Impact of the 2014 Ebola Epidemic: Short and Medium Term Estimates for Guinea, Liberia, and Sierra Leone, Washington DC: World Bank (90748); Beth P. Bell; Inger K. Damon; Daniel B. Jernigan; Thomas A. Kenyon; Stuart T. Nichol; John P. O'Connor; and Jordan W. Tappero, 2016, 'Overview, Control Strategies, and Lessons Learned in the CDC Response to the 2014–2016 Ebola Epidemic', MMWR Suppl. 65(Suppl-3):4–11

27 Laura Dwyer-Lindgren, Michael A. Cork, Amber Sliga, et al., "Mapping HIV prevalence in sub-Saharan Africa between 2000 and 2017", Nature, 570:189-195, at p. 189

other illnesses. With the advent of Covid-19, even other pandemics have been rendered footnotes. Compared to the Ebola pandemic in West Africa, for instance, there are market differences in the responses to the current Covid-19 disease. The speed, scale, and alarmist response to Covid-19 have displayed “the important role that China plays in the global economy”, and that “insufficient and less timely action was initially undertaken in West African countries during the 2014 Ebola epidemic” compared to the relatively more rapid and concerted response to Covid-19.²⁸ This signals to African security strategists that preparedness for and response to disease outbreaks in Africa will likely depend on the degree to which African attention is paid to the continent by Africans themselves because, as Maffioli argues, African countries have lower economic importance and cannot become a priority in the era of global health uncertainty.

Africa under Covid-19: Enemy without Arms?

The Covid-19 situation in Africa is akin to conditions of war. The pandemic displays important threats to the African security landscape in three respects. First, it has enfeebled the ability of African regional responses to common threats. The AU Centre for Disease Control (AU-CDC) has been providing updates on, and technical guidance in response to, the Covid-19. But the Centre, despite issuing guidelines on gender-responsive responses to Covid-19²⁹, has not effectively informed a common African response to the pandemic. The AU Covid-19 Response Fund, which required an estimated US\$647 million in the first six months of the pandemic, was intended to raise resources to strengthen continental response to the pandemic. This would be achieved through pool procurement of diagnostics and other medical commodities by the Africa CDC for distribution to the Member States, and mitigating the pandemic’s socioeconomic and humanitarian impact. The Fund, much like security measures before it, received limited funding from African states. Instead, Africa has also repeated its dependence on foreign assistance in response to Covid-19: on 22nd March 2020, Jack Ma, a Chinese billionaire, donated “1.5 million test kits and 100 tons for infection prevention and control commodities” to Africa through the Jack Ma and the Alibaba foundations.³⁰ The continental spread was rapid: by 9th September 2020, more than 1,313,219 cases, 31,701 deaths (about 2.4% crude mortality rate), and 1,050,567 recoveries (about 80%), had been reported across Africa.³¹

28 Elisa M. Maffioli, 2020, “How Is the World Responding to the Novel Coronavirus Disease (COVID-19) Compared with the 2014 West African Ebola Epidemic? The Importance of China as a Player in the Global Economy.”, *The American Journal of Tropical Medicine*, 102(5):924–925

29 African Union, 2020. AU Guidelines on Gender Responsive Responses to COVID-19. Addis Ababa: AU/CDC

30 AU, 2020 (23rd March), “Africa’s fight against COVID19 receives major boost with Alibaba donation of 1.5 million test kits and 100 tons for infection prevention and control commodities”, Addis Ababa: AU - Press Release No: 019/2020 (from https://au.int/sites/default/files/pressreleases/38281-pr-pr_019_-africas_fight_against_covid19_receives_major_boost_with_alibaba_donation_.pdf , 9 Sept 2020).

31 AU, 2020 (9th Sept.). Coronavirus Disease 2019 (COVID-19): Africa CDC Dashboard. Addis Ababa: aU (from <https://africacdc.org/covid-19/>, 9th Sept. 2020).

Continental responses also became regionalised as countries implemented different responses ranging from total lockdowns to building herd immunity. In East Africa, the East African Community (EAC) designed a sub-regional Covid-19 response plan.³² But the region, already suffering underlying weaknesses in the integration project (internal political challenges; bad blood between partner states; and difficulties in the implementation of economic integration arrangements), failed to craft a common regional response to Covid-19. Instead, the pandemic “has further exposed the weak underbelly of the East African integration” because “coordination of the regional efforts against the disease has been lacking”³³ contrary to the EAC Treaty.³⁴

The differences in responses among African countries remind one of the endless disagreements among countries on how to resolve conflicts in the continent. Some countries like Uganda and Rwanda, opt for military solutions to armed conflicts. Others like Tanzania have called for mixed strategies, including making some unwelcome suggestions for peaceful negotiations between states and their armed opponents.³⁵ Collective efforts, such as African Union Mission in Somalia (AMISOM) and efforts of the Intergovernmental Authority on Development (IGAD) in Somalia and South Sudan, have been less effective due to differing opinions and states' competing interests. The limits of coordinated responses to Africa's security problems have been carried over to Covid-19. The continuity of limited collective efforts against epidemics and pandemics is much less a surprise as responses to other forms of insecurity. What is distinctive about this experience is that the global hype about Covid-19, which is rooted in relative global impact of the pandemic compared to pandemics that afflict the African continent, has also attracted African attention. This has almost crowded out other pandemics, such as HIV/AIDS that continue to cause more deaths and human suffering in Africa, more than the SARS-CoV-2 will likely do were it not for the globalised hype about Covid-19 that has brought socioeconomic disruptions. This is ironic because there are Africa-specific factors, such as growing population size, continued high incidences of new HIV infections, and increased life expectancy among HIV/AIDS patients, which have “led to an increase in the number of people living with HIV in sub-Saharan Africa since 2000”³⁶ Concurrently, increased spending on HIV in sub-Saharan Africa has declined over the years because of “a reduction in development assistance for health.”³⁷ Thus, as Africa hypes itself about Covid-19, there are equally insidious epidemics that continue to wreak havoc in the continent but to which global and continental attention seems to be waning.

32 EAC, 2020. East African Community Covid-19 Response Plan. Arusha: EAC

33 Phillip Kasija Apuuli, 2020, “Covid-19 and the EAC Regional Integration agenda: The fault lines exposed?,” Kampala: Makerere University

34 EAC, 1999. Treaty for the Establishment of the East African community. Arusha: EAC, esp. Article 118

35 Rwengabo, Security Cooperation in the East African Community.

36 Dwyer-Lindgren, et al., “Mapping HIV prevalence in sub-Saharan Africa between 2000 and 2017”, p. 189 & 192

37 Ibid, p. 192

Learning from Covid-19: Bringing Pandemics to African Security Calculus

The Covid-19 pandemic adds itself to the many epidemics and pandemics that have been afflicting the African continent and to which policy and technical attention ought to be equally paid. Any situation or experience that threatens lives, socio-economic wellbeing and political stability of a society ought to be viewed as a security threat. The contemporary nature of securitisation, which defines insecurity solely in terms of the designation of threats, ought to be broadened to construct security in terms of the agential and experimental threats to wellbeing.³⁸ This is to say “security acquires content only through representations of danger and threat”³⁹ and that representation of pandemics as security threats is consistent with the similarities obtaining between conventional threats and pandemics.

The Covid-19 pandemic has revealed three important lessons which necessitate bringing pandemics to the African security calculus. First, the erosive and corrosive impacts of pandemics, such as their threats to established political systems, threats to public health, erosion of public trust in state-health institutions and forced diversion of policy attention and resources, have been displayed. Emergency funds, borrowings, and resource realignments have displayed state, non-state, and multilateral behaviour that is akin to responses to conventional security threats.⁴⁰

Second, the Covid-19 pandemic has revealed that Africa’s strategic future is not yet assured. Not only can pandemics worsen and perpetuate dependence on foreign sources but also display the inadequacies and weaknesses of Africa’s state, regional and continental institutional and resource capacity. The failures of Regional Economic Communities (RECs) to craft and implement common Covid-19 responses has displayed the importance of bringing pandemics to a level that necessitates joint decision-making and action. While these weaknesses have also obtained in the conventional-security domain, progress has been made in crafting continental and regional institutional formations that have visible decisional and operational presence, such as the African Standby Force and its Regional Brigades. There have also been more visible regional responses to threats like terrorism, breakdowns of law and order within states, and controls against the proliferation of SALWs, than responses to pandemics as the Covid-19 situation has shown.

Finally, the relative international attention to Covid-19 than pandemics in Africa displays the positioning of Africa in the rest of the world. Africa needs to note the relative neglect of African issues and problems relative to those problems afflicting the world. Africa should be interested in why “particular representations

38 Matt McDonald, “Securitization and the Construction of Security”, *European Journal of International Relations*, 14(4): 563–587

39 Ibid, p. 564

40 See, for instance, African Development Bank, 2020 (13th June), “African Development Bank COVID-19 response: moving from commitment to action”, Abidjan: AfDB (from <https://www.afdb.org/en/news-and-events/african-development-bank-covid-19-response-moving-commitment-action-36188>, 9 September 2020).

of threat resonate with particular communities, and how particular actors are either empowered or marginalised in ‘speaking’ security”.⁴¹ For Africa to construct its security, the continent cannot justifiably wait for others’ definitions of what constitutes security threats to Africa. This is mainly because, as McDonald proposes, particular definitions and/or discourses of security can be problematic. Such processes “constitute the lens through which specific issues are conceptualised and addressed by different political communities.”⁴² Western media, ideational communities, academia and polity actors, will likely define a security threat as a situation, event, process, or experience, which directly threatens them, not that which afflicts Africa. Thus, for economies that suffer very limited threat from HIV/AIDS, Ebola, and meningitis, for instance, these public-health problems are not high on their policy radars. Such problems cannot be securitised (designated as security threats). But for Africa that experiences loss of millions of lives per year from these and other similar ailments, which suffers reduced human productivity and slowed development due to disease burdens, the securitisation of epidemics becomes a sensible trajectory in the continent’s prioritisation processes.

Conclusion and Recommendations

Africa has suffered from virulent, rapidity-spreading, human-life-threatening, and destructive pandemics. Some of them, such as HIV/AIDS, remain the greatest threat to human life in the continent. Recent experience with Marburg, Ebola, and now SARS-COV-2, have demonstrated that African states, economies and societies remain vulnerable to these CPHEs. Because pandemics are increasingly becoming more regular, their impact upon Africa rivals the cost of conventional security threats like armed conflicts. Like conventional security threats, pandemics and epidemics have caught states and societies unawares, overwhelming their institutional structures, denuding national and regional emergence-response strategies⁴³, and destabilising weak states and societies. By disrupting socio-economic production and straining normal human lives, CPHEs like SARS-CoV-2 or Ebola necessitate emergency measures like those deployed in war situations. Pandemics, therefore, have risen to the level of conventional security threats and out to be considered major security threats to Africa and corresponding policy and technical preparedness and attention dedicated to them.

Much like war economies, pandemics create their own losers and winners. During pandemics, the constellations of competing interests tend to play out. Donations tend to become politicised. Borrowing from external financing sources tends to become the norm. Lending institutions tend to position themselves in waiting for borrowers, mainly from weak and/or constrained economies, further increasing these borrowers’ debt burdens and donor dependence. The Covid-19 pandemic has displayed global debates and exchanges that signal the complex political economy of global public health governance. This has taken the form of attribution

41 McDonald, pp. 564-565

42 Ibid, p. 565

43 Rwengabo, Covid-19 in Uganda.

of responsibility, relationships between states and global-health institutions, the ways in which science and global health governance institutions came under attack, and differences in national and regional responses.⁴⁴ In this pandemic, actors that are capable of taking economic, legal, and political steps to tackle the problem have positioned themselves to pioneer the production of vaccines and cures/ treatments. Local treatment efforts, such as “Covid-Organics” in Madagascar and local trials in Nigeria and other countries are suspicious in the eyes of hegemonic sources which, ironically, had by then not produced an efficacious cure or vaccine.⁴⁵ Covid-19 has revealed that the previous sources of cure for pandemics in Africa can no longer be relied upon all the time,⁴⁶ and that local initiatives may have as much limitation and potential as initiatives from well-established economies and techno-scientific production centres elsewhere.⁴⁷

This paper has revealed that pandemics have as much destructive potential as conventional security threats. For the same reason, epidemics and pandemics in Africa ought to be given as much policy and technical preparedness and attention considering African experiences with Ebola, HIV/AIDS, and SARS-CoV-2. The need for rethinking Africa’s security strategies by elevating pandemics to the level of security threats with equal magnitude to conventional threats cannot be emphasised. This requires policy, technical and practical measures to position Africa’s security calculus for a world which presently faces more pandemics than conventional security threats. Based on the evolving situation in Africa today, the following proposals are made to inform Africa’s new security strategy that prioritises and integrates our health infrastructure in order to render it more efficacious in face of current and future pandemics:

1. **Prioritise global efforts:** The experiences of Madagascar, Nigeria, and other countries have demonstrated that local responses to global threats like Covid-19 may have important positive signals for managing complex emergencies.⁴⁸ In a world of novel germ eruptions, it is possible for relatively underdeveloped societies to work by trial-and-error and craft effective cures and vaccinations that may remain elusive to developed societies because invention is not dependent upon levels of development.
2. **Securitise epidemics and pandemics:** Africa seems to be suffering as much from disease burden, both new (like SARS-CoV-2) as from conventional security threats. The continent does not need to wait for others’ securitisation of specific diseases to acknowledge that her disease burden requires more policy and technical prioritisation than in other regions.

44 Jerome Amir Singh, 2020, “COVID-19: Science and global health governance under attack”, SAMJ Editorial (from <http://www.scielo.org.za/pdf/samj/v110n6/04.pdf>, 9 Sept. 2020)

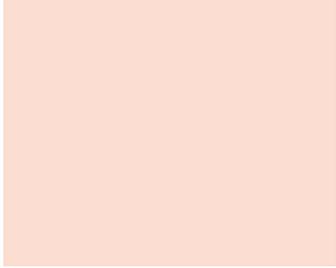
45 Joseph R. Oppong, 2020, “The African COVID-19 anomaly, African Geographical Review, 39 (3):282-288; Victor C. Iwuohaa, Ezinwanne N. Ezeibe and Christian Chukwuebuka Ezeibe, 2020, “Glocalization of COVID-19 responses and management of the pandemic in Africa”, Local Environment, 25 (8):641-647

46 Poku and Whiteside, The Political Economy of AIDS in Africa

47 Iwuohaa, et. al.

48 ibid

3. **Strengthen continental and regional structures:** Africa is uniquely the only region with a continent-wide institutional structure for managing epidemics. The AU-CDC, working with RECs, can regionalise and nationalise emergency preparedness and develop response capabilities that position Africa better in face of future pandemics.
4. **Prioritise continental human capacity building.** The development of human capacity in medical research and management of pandemics is as important as the crafting of solutions for the deep-seated causes of insecurity in Africa. The HIV/AIDS, Ebola and Covid-19 experiences have shown that limited public-health human capacity renders Africa as much vulnerable to pandemics and to conventional security threats.
5. **Prioritise science and technology.** The AU and RECs have been working, under Agenda 2063, to transform the continent, at least on paper. This effort depends as much on science and technology as it does on policy coherence, funding, and external support. Regional and national attention is needed to enable local technological and scientific inventions, innovations, adaptations and modifications in order to strengthen Africa's techno-scientific capacity for managing pandemics and epidemics now and in future.
6. **Encourage and strengthen African health research networks.** There are channels of exchanges among African health researchers and scientists. Some of the channels and fora, such as the East Africa Medical Research Commission (EAMRC) have not been strengthened. Since medical research thrives on information exchanges and co-learning, deliberate policy and budgetary efforts need to be dedicated to encouraging and strengthening these channels and creating new ones.
7. **Strengthen African medical and public health infrastructure.** The Covid-19 pandemic has taught one important lesson: self-reliance is as much important as being secure from conventional threats. Restrictions on regional and international travels, executed by many countries closing their airspaces to passenger flights, forced Africans who previously sought medical services from foreign health structures, to rediscover the importance of functional domestic and regional health services. These lessons ought to be augmented by deliberately strengthening our health services through transforming the human resource, financing, equipment, and systems interventions.



Acknowledgement

The author thanks the Uganda Covid-19 Response team, the online “Covid-19 Masks” mobilisation team, the Network for Education and Multidisciplinary Research in Africa (NEMRA) and members of the Rwengabo Reading Society for contributing ideas leading to this brief paper. The Konrad Adenauer Stiftung (KAS), Uganda office, also brought to the Author’s attention the possibility of conducting “Arm-Chair” Research on Covid-19 amidst strict lockdowns on which the notion of national strategy on CPHEs was underscored. Special acknowledgement is made to the Inter-Region Economic Network (IREN) for engaging me in this project.

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Re-Engaged Africa: Ushering in an Equal, Dependence-Free and Economically Self-Sufficient Africa

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Introduction



“As long as poverty, injustice, and gross inequality persist in our world, none of us can truly rest.”

Nelson Mandela



Many minds have attempted to understand why despite all efforts, Black people of Africa, and Black Americans in the USA, Blacks in Canada, Europe or anywhere they may be found, have struggled to survive economically and otherwise. Some have ruminated over issues such as colour of the skin. Implicit in this ideation is the thinking that there is something wrong with being Black. Some have advanced identity, critical racial theorems as such as Black people have generally lower mental IQs; or political conspiracy theories like Black people are not capable of leadership or of governing themselves; or economic mantras like Blacks are incapable of managing money. In the light of the global protests taking place against police terrorism and racial injustice, I would like to provide a concise but tethered resume of what I believe to be the root cause of Black mistreatment, poverty and injustice. Inequalities and lack of equity, and not colour, are the foundations that foster racism. I will then end with what I believe to be the future of Africa in the post-Covid-19 world. I want to disclaim from the outset that this article does not claim that all Whites are racists; however, everyone who harbours inequality sentiments is included.

It's not all about colour; it has everything to do with a history of inequalities

First, I wish to state, in no uncertain terms, that Blacks are not less than Whites in any way, form or shape. I wish, further, to dispute the idealism that colour is Black people's liability. To the contrary, colour has nothing to do with the brutal mistreatment Blacks have, historically, suffered at the hands of non-Blacks. Colour or racism has been the tool (the means, rather than the end) that non-Blacks have used to malign and unjustly disparage Blacks, whether this has happened in North America, Europe, Asia, South America, the Pacific, or sadly, right on the African continent.

Second, the real reason why Blacks have been treated unfairly, poorly, unjustly, discriminatorily, and even murdered and imprisoned disproportionately, is rooted, generally, in the history of the Black people, and specifically, the White people's fear of being equal with Blacks. It has nothing to do with colour, genetics or Black incompetence. Blacks have built civilisations, Western infrastructure, and have succeeded in whichever endeavour they have engaged in where rules have been

fair to all. The White's historical fear to be equal with Blacks has been dangerously entrenched into the psyche that it has become a system. It is a system and, sadly, it works. Therefore, it has been perpetuated in just about every discipline: Governments, education and academia, media, military, trade and commerce, sports, social relations, politics, law and justice, law-enforcement, international organisations and religion, to mention only a few. In fact, when on July 4, 1776, the thirteen United States in America assembled in Congress, they unanimously identified the bug in their midst (inequality) and made a declaration: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are life, Liberty and the pursuit of Happiness (emphasis added)." The moment the world will begin to believe that all peoples are, in fact, equal, that will be the moment racial injustices will begin to fade.

Third, to use the most contemporary illustration, racism is used as a weapon to prevent Blacks from being equal to their White counterparts. Consider the presidencies of Barack Obama (Black) and Donald Trump (White). It does not take rocket science to note that Trump cannot compare to the leadership prowess that Obama displayed as president of a democratic state. However, because of the historical inequalities imbedded in the psyche of some White Americans, Trump, and similarly-situated Whites, are mortally injured to contemplate that a Blackman was more capable of democratic leadership than Trump is. The result is in the behaviour Trump and his supporters display: Reversing every good Obama did; advancing an unfounded Obamagate conspiracy theory; and campaigning to disqualify Obama being a USA citizen. At the root of this hatred and angst is the fear of being equal.

Fourth, Blacks, too, are indirectly complicit in their being treated unequally. And this lies, consequentially, in historical injustices of slavery and colonialism. In West Africa where America bought most slaves, African chiefs sold what was valuable to them. Americans bought what was equally valuable to them, but for a different purpose. The able-bodied young men and fertile girls that Black chiefs traded for pieces of mirror glass and ornaments, left Africa to ingloriously cultivate the plantations and haciendas of their White masters. Africa lost viable human and capital resources in human terms; America and Europe gained in terms of free, expendable labour force. In both cases, Blacks lost. Those who were sold were put to slavery usage, deprived of humanity and reduced to mere property. The Africa the slavers left was sickly, old and unable to develop itself and perpetually depending on the same slavers and captors to provide handouts to them. In trading able-bodied, energetic Blacks and then only put them to below human-standard use, was a clear signal and sign that Whites regarded Blacks as unequals. People are slowly realising the interlinkage between modern injustices to historical slavery. For example, the recent tearing down of Edward Colston, a 17th century merchant slave trader and throwing it into a river, in Britain, and the toppling of Confederate

General Williams Carter Wickham, in USA, allude to that fact. And, of course, one needs not go far but review the entrenchment of the conception of unequalness in the minds of some White Americans by considering the comparison Fox News made on June 5, 2020. Fox News compared how the markets rose at the murder of Martin Luther King Jr. in 1968, and among others, the unceremonial and brutal killing of George Floyd by a White police officer in Minneapolis on May 25, 2020. According to Fox News (which it later apologised for); the markets celebrate the racial killings of Black Americans.

Although Fox News, apologised, however, they simply stated the obvious. Out of 500 Fortune CEOs in the USA, there are only four (4) Black Americans. And yet Black Americans spent around 1.4 trillion USD in the USA in 2019. In a layperson's language, Black Americans are still powering the economy of the USA without enjoying or owning its machines. In Africa today, Western (mostly White owned) corporations own economic stays of most countries. And this also has its genesis in colonialism. While the White colonial masters physically left Africa, they have returned in terms of business and trade. They still own Africa's means of production. Just like the African descendants sold the valuable able-bodied men and women to White Europe and America, their Black offspring now still sell their most precious mines, minerals, land and human capital to the West and Europe. And these have been cleverly embroiled in such terms and practices as "American Experience", whereby new immigrants from Africa are subjected to menial and base jobs even though they may come to the West with degrees and vital experiences. It is not uncommon to find an African graduated lawyer or medical doctor driving a taxi – because his education is shunned and all he or she has invested in his life is only equal to a low job fit for an uneducated White Americans or Europeans. This injustice does not happen in Africa. For the most part, less educated Whites still get prestigious jobs in Africa. The problem is not racial; the problem is fundamentally equality. White America or Europe cannot stand the fact that Black people can be equal with them. And this has permeated institutions and do form the mental framework of policy-makers and political leaders. It is the same thinking and experience in every sector of Western society – disproportional number of incarcerations. For example, although Blacks made up around 8.3% of the population in Toronto in 2012, about 86% of prisons constituted Black prisoners. The Toronto police had introduced a carding system in which they had increased their monthly revenues by targeting Blacks on the road to dish out traffic tickets, criminal citations and charges. Although this system was stopped, it was not without protests and sacrifices made by Black people and Black lawyers, most of whom became victims of the system; some lost their licenses to practise law, others died very sad deaths.

There is also a misconception that equipping and training police will result in good policing. To the contrary. Most police departments are disproportionately well trained

and equipped in Western formations. However, because of the culture and history of inequalities, the police have continued to abuse the people's human rights and fundamental dignity. What is required is equalising the provision of services in communities of colour. Most White dominated police departments erroneously believe that Black-dominated areas are harbingers of criminal activities, and they may have a point. But all this point to the unequal distribution of wealth, power and services to Black communities. Most Blacks are found in communities with poor infrastructure, poor schools and poor healthcare, just as their forefathers and mothers experienced during and after slavery. Equality is the answer. Some of the resources spent on police should be channelled to the people in communities of colour, to improve their lives.

White slave owners in the Americas totally destroyed the future of Black Americans. They owned them as property. They destroyed their conception of family – children born to slaves were also slaves. They denied the Blacks of earnings, even if the Blacks worked hard and long hours with broken bones and slashed backs. This was the beginning of poverty among Black Americans. Even after slavery was abolished, Blacks did not have the assets to compete favourably in the new economic environment they found themselves. As slaves, they had no education. In fact, it was a crime for a Black slave to be found or seen pursuing an education. The best way to keep inequalities advancing is to deny one of an education. Education has the propensity to liberating the mind and action the soul. This was denied to Black people. Even when slavery had long ended, segregation in education in the USA propagated the same denial of education. Poor education is the same as no education at all.

The same attitude was perpetuated in colonial Africa. Africans were not given any priorities when it came to education. When most African countries became independent in the early 1960s, they had very few “educated” people. In Zambia, for example, those who inherited government were clerks in the colonial regime. Suddenly they were given the reigns of “power.” With scant education and zero experience, what were they supposed to do? At independence in Zambia in 1964, there were 100 or less college or university graduates, against a population of about three and half million people. As a consequence of this lack of education and experience, the first African leaders resorted to the very masters who had abused them for expertise and trade connections. In short, the Africans achieved political independence, but remained apron-tied to their colonial masters. By the 1980s, the former White colonial masters had effectively returned as owners of African means of production. By the 1990s, corporate Africa was in the hands of, mostly White-headed, International Monetary Fund (IMF), the World Bank and Western, mostly White-owned, investors. In other words, the wealth of Africa was again not in the hands of Africans, but of the White corporate giants. Africans had to borrow what was inherently theirs. They, sadly, continue to do so today, where Africa only “owns” the land, and nothing else.

One has just to see the video of George Floyd being squeezed off his life in broad-day light. The cavalier manner in which Derek Chauvin (White police officer) murdered George Floyd is a testament to this postulation. Such mind-off killing is only reminiscent of a person killing say, a chicken, or something that has no equal human value. If one was seen killing an animal like that, that person would face the wrath of animal-lovers and activists. And George Floyd is just among many who have been killed without regard to dignity or humanity. In the mind of Derek Chauvin, George Floyd was not equal to him, and therefore, he deserved to be killed in a manner worse than a rabid dog.

Fifth, the slogan “Black Lives Matter,” should be strengthened further to read, “Black Lives Have Value.” Racism is imbued in the thinking that Blacks and Whites are not equal, and so is tribalism (that not all tribes are equal). Black lives may matter, but do racists think that Black lives actually, and, in fact, have value? Currently, the experience of many Black people in Europe and America is that Black lives do not have value. This is implicit in the way they are killed or have succumbed to Covid-19. Because most Black people work in relatively less-paying but highly demanded jobs, such as janitors, nurses, social workers, Personal Support Workers (PSWs) and so on, they are also the people who are essential during the Covid-19 pandemic. They may die first. But importantly, too, Blacks are disproportionately poor, live in crowded neighbourhoods, may not have access to sound healthcare, may not have insurance coverage, are underpaid, have smaller spaces for social distancing and may not afford masks. This disparity also means that Blacks are the first to contract diseases, and to die from such diseases. This has its basis in the unequal and inequities that have buffeted Blacks for centuries. Blacks, Black Africans, and Black Americans have value. Blacks are humans. They are not animals. They feel pain. They have liberties. They are to be treated with dignity and consideration. They are equal to other humans on earth. They should be treated as such.

And sixth, racism and tribalism cannot be demolished without undoing the unequal disparities that exist in race and tribal relations. There has been protests worldwide fighting to end racism. If racism is ended, so what? The mistake we all make is that we equate racism to a concrete and tangible phenomenon. Racism is not just a social issue, either; racism and tribalism are matters of the heart. By merely saying that, “I am not a racist,” it does not mean that I may not be a racist or a tribalist. As Jesus once said, “You will know them by their fruits...”³ Racism and tribalism are conceived in the heart, and they ooze from there to manifest socially. And it manifests itself in things people do or omit to do, the policies authorities make or omit to make, etc. Inequalities are social problems and tackling inequalities may lead to solving the social problem. A good example, is when you have an unruly child who wants to do mischief. You can’t control the child by simply commanding them to stop being mischievous. You have to do certain things. You may have to give them something or take something away. In other words, you have to regulate

the naughty behaviour by sanctions or through education. At the national level, racial inequalities can be curbed in the same way.

Education is the long-term cure to inequalities, poverty, and racial injustice. Any other way is simply a quick fix and have no permanent results. It begins at the curriculum level. People should be exposed to matters of equality through education at the very basic level. This is true of the West, and true also of Africa. A curriculum that addresses this deliberately is the long-term solution to issues of inequalities. When children learn that all people are created equal and continue to get responses that validate that sanctity, they will not turn from it when they grow up. A wise sage once said, "Train up a child in the way he should go; even when he is old he will not depart from it."

If you train children that racism is wrong, they will believe and eventually showcase that ideal in the marketplace of ideas. Instilling anti-racists behaviour in children today, means a free and equal society tomorrow. Teaching the children of today that racism offends others and is wrong, means that they will grow into responsible leaders tomorrow. In USA, most of Western Europe and South Africa, children grew up seeing their parents mistreating Black people; they saw segregated billboards, and they experienced how their parents discriminated against Blacks. So, they also grew up racists and xenophobes. The USA is founded on a land it grabbed from first nations (Aboriginal) people, and on the slave labour and mistreatment inflicted on Black people. It will take deliberate education to erase such historical indignities. Africa must put in its curriculum that it is equal to everyone else in the world, and that it has a responsibility to developing its own land and economy, and not to leave it to outsiders or "sell" its best to corporate poachers, just like its fore-parents sold its bravest warriors to the slavers or its political leaders sold its means of production to foreign corporate interests.

Regulation and legislation are the next best solutions to curb disparities and end racism. Nations must legislate against inequalities. People must be empowered to live free from discrimination. Differences should be seen as positive factors and not negative weaknesses. Where applicable, some rights must be retroacted to cure or remedy historical wrongs. For example, Canada has entrenched into its Constitution section 15 (2) of the Charter of Rights and Freedoms what is known as positive discrimination or Affirmative Action. In essence, in Canada, the government can enact laws that discriminate against the equality of dominant groups in order to offset an historical injustice. Various provincial legislations also proscribe against the treatment of others based on numerated grounds, including race, national origin or ancestry. Other countries should follow suit. Africa must also enact strong laws that curb inequalities based on tribalism and racism. While legislation may not end racism, it limits those with racist instincts. In short, legislation creates a protection buffer and atmosphere in which racially charged behaviours

or tendencies are neutralised. Against police brutality, for instance, governments can make policies and enact laws that require and compare whether for the same offence, Black people and White people have been treated similarly. And such same laws or policies should prescribe strong remedial and corrective measures to those who may be found culpable. In presenting such legislations, nations should also strengthen equality and diversity in both police enforcement and judicial systems. Even if good laws have been enacted, but if the systems are still White-dominated or are absent of diversity, Black people will still be seen as clients of the systems and not equal partners in the implementation and management of the laws. In other words, Blacks will only be victims, while their White counterparts will behave as if they exist to police the Blacks, just as the regimes under slavery and colonialism engendered. If the system is unequal, no matter who occupies the helm, it will still produce unequal, racist and racially- biased outcomes. Policy and legislative changes should also ensure that everyone plays by the same rules. In the USA, for example, the legal and law enforcement apparatuses, dominated by Whites and anchored in strong racists police associations, do not ensure justice for victims of police brutality. The threshold is so high that it is next to impossible to convict a police officer. Unless something changes, we might see Derek Chauvin and his accomplices, get away with another murder of a Blackman. If this happens, it will undermine further faith and trust in the administration of justice, and further perpetrate the same unequal treatment of Black people in America.

Before I delve into discussing the future of Africa in the post-Covid-19 world, it is important that I make a causal nexus between the recent global protests against police brutality and the pandemic. The pandemic revealed the gaping disparities that exist across racial lines. More Blacks in North America and Europe have died from Covid-19 than Whites. Similarly, the protests have also demonstrated that both Whites and Blacks

understand the disparities that exist cross racial lines. The biggest threat to the world order is, therefore, not the pandemic, but the historical inequalities that have made Blacks exist as secondary citizens in the world. As it will be argued, many have predicted that despite Africa not having been impacted worse per capita like North America and Europe is, Africa will still suffer the after-effects of the pandemic as most rich countries will focus on healing their economies. In one sentence, the future of post-Covid-19 Africa is: end the age of dependence and become economically self-sufficient, while combating the gaping social/tribal inequalities.

The future of Africa in the post-Covid-19 world

Having belaboured arguments for a strong education and legislative regime that curbs inequalities in both modern Europe and America and historical Africa, I now move on to discussing the future of Africa in a post- Covid-19 world. I wish to

accomplish this thesis by laying out three major points: Africa must not ignore the apathy it received from Western leaders during the Covid-19 pandemic; Africa must not look to the West for leadership, but within itself; and African governments must recruit the raw talents scattered abroad.

The UN Secretary General, Antonio Guterres, admitted, March 27, 2020 on BBC that we are no longer living in a unipolar, bipolar or multipolar world. We are living in a “chaotic” world, controlled by the whims of the USA and the vagaries of China. Donald Trump, for example, has characterised Black African countries as “shitholes.” He had also labelled the coronavirus, a “Chinese virus,” while China had entertained notions that the virus had its genesis in the Department of Defence (DOD) of the USA. Russia, on the other hand, lurks in the concourses wishing to pounce on the continuously deteriorating relations between the USA and China. This is while Europe is at the brink of an economic devastation brought about by the complete shutting off of the industrial machines in Italy, disillusionment in Spain, finger-pointing in England, and total confusion in France.

As Europe and America are paralysed, one wonders what would become of Africa, should the pandemic find its ugly claws there, in a post-Covid-19 era. In Europe and America, prior strong economies necessitated the enactment of multi-billion stimulus/rescue packages which acted as a cushion on the ravages of COVID-19. In China, India, Japan and mostly closed Eastern-Asian nations, hegemony and homogeneity had proven assets in pandemic times. Africa lacks both strong economies and homogeneous hegemony.

Post-Covid-19 Africa faces insurmountable challenges at both the healthcare and economic fronts. Already, poverty, seclusionism and tribalism, continue to be self-defeatist menaces against Africa. Covid-19 cannot be allowed to “invade” Africa posthumously, even if a vaccine is available. But it will, sadly, do, if Africa does nothing or continues to play by the same old rules.⁵ The following are my reasoning for this thesis:

Africa must not ignore the apathy it received from Western leaders during the Covid-19 pandemic

The Covid-19 pandemic has revealed that self-interest still governs relations between Africa and the developed world. Africa is only important if it has a tangible benefit to Western causes. When that cause is redundant or does not rise to the level of creating profit or does not advance Western agendas, Africa is forgotten and even discarded. Canada and other developed formations are exception to this rule. However, for the majority, during the Covid-19 pandemic, fiscal assistance for Africa sank to near zero. The commonest mantra relished by foreign governments and citizens is that they could not save Africa when their own house was on Covid fire. The Guardian reported:

The Gleneagles deal wasn't perfect but it marked a high point in international cooperation. At a time when the big developed nations can't even agree a collective response to the Covid-19 pandemic among themselves, it all seems a long time ago. The comparison between the financial firepower being deployed in developed nations and the low-income countries of sub-Saharan Africa is stark. The US Congress has just voted for a \$2tn stimulus package. The UK has had four big budget announcements in little more than two weeks. The eurozone has abandoned fiscal austerity and embraced a "whatever it takes" approach. By contrast, Africa is living off scraps. The World Bank has announced \$14bn of financial support; the International Monetary Fund has a war-chest of \$10bn available for countries in difficulties through a rapid response fund. The leaders of the two organisations are urging creditor countries to suspend debt repayments so that the poorest countries can spend more on health systems. Prevention is the only remedy Africa has. If Africa must relax and let the virus take root, there will be more untold death and suffering than what is transpiring in Italy and Spain. For one, Africa lacks not only medical equipment like ventilators, masks and surgical gowns and so on; Africa is ill-equipped to providing basic care to mild symptoms. Unlike in economic terms when the West come to Africa's aid because their situations are more tenable, *in this situation, however, it is not likely that the West will be available to help Africa when Western nations themselves face insurmountable challenges with mushrooming coronavirus in their formations* (emphasis added).

As inconveniencing as this truth is, it is true, nevertheless. Here are some things African governments must do before and in anticipation of future pandemics. First, and foremost, "Prevention is far better than cure." There will be no chance for Africa to fight the pandemic. Prevention is the most affordable and reasonable remedy under the circumstance. Africa lacks the medical or otherwise the capacity to fight the pandemic of the scale of Covid-19. Stringent measures unknown in the history of Africa must be taken NOW. In future, swift actions like closing borders to contain influenza-like illnesses (ili) must be taken. Critical to the survival of ili is the creation of national stockpiles and revamping of medical facilities and personnel. Covid-19 pandemic has shown that the West are not willing to help Africa when they are themselves going through the same challenges. Africa must stop to rely on Western philanthropy and look within itself to creating conditions for economic emancipation. Most Western White-dominated governments, do not have the best interest of Africa, just as most do not have the best interest of their fellow Black citizenry.

Everything in Government coffers must be spent to provide relief to people as their lives literally come to an end. Africa should not take advantage of these perilous times to only exempt on taxes – Africa must go further and provide money for the citizens to spend, as their lives came to a halt. This is both a challenge and an

opportunity. A challenge because Africa has a large percentage of its people poor, uneducated and unemployed. An opportunity – because hitherto, Africa has not taken ambitious strides to provide hope to their struggling populations through economic equalisation programs. The end of the pandemic calls for a revolutionary phase in the safe evolution of its societies by being capable of handling its own economic challenges.

Africa must strongly lobby both multilaterals and bilateral communities to completely forgive debt. There is no other way Africa will brave future and similarly-situated pandemics or the Covid-19 aftermath. Seeking for external debt forgiveness is a prudent way of managing the post-Covid-19 pandemic because it ensures that Africa has available resources to allocate to needy areas. The West and monetary organisations must accept this as altruism on their part. This benevolence on the West and monetary organisations' part will be an investment in their future, and an indirect repayment of the plunder slavery, colonialism and neo-colonialism have inflicted on Africa. There is no guarantee that the rich countries will continue to be rich without the help of other nations in the post-Covid-19 era. Strengthening Africa now by means of complete debt forgiveness will create viable avenues for equitable trade later.

Africa must not look to the West for leadership but within itself

African governments must learn to lead themselves. In the past, African leaders first waited to see what their Western or Eastern counterparts would do before they acted. Before Covid-19, African leadership had been more reactionary than visionary. This must stop. This state of affairs informs why technological, legal, economic and even political changes first have to happen in the West, then the East and last in Africa. This is time for African leadership to become creative, empirical, sophisticated and versatile in ensuring that they fashion culturally-tilted, locally-crafted and provide relevant solutions to real African problems. Africa can no longer wait for Europe or America or the East to lead – Africa must lead itself.

There is attractiveness in chaos – because beauty is the only solution. Covid-19 was a watershed moment. It showed that even Western formations are not ready to fight pandemic of the Covid-19 size. They were caught unawares. They lost many lives, sadly, due to not being prepared to fight the pandemic, especially in Europe and the USA. But Covid-19 also revealed the fact that when a nation is prepared beforehand, it stands a better chance to weather any health or economic forces that may come its way. There were countries in Africa who acted quickly and swiftly to close borders, institute social distance measures and provide masks

to their citizenry, and those countries fared relatively well during the pandemic. In short, Africa considered Covid-19 as a declaration of war. In the similar vein, Africa can marshal its scarce resources, prepare in advance and mobilize its citizens to fight pandemics like inequalities, poverty and corruption. It is possible that Africa can achieve zero corruption, zero poverty, zero disease and zero undemocratic tendencies. It is unlikely that it can reach this milestone depending and relying entirely on Western aid.

African governments must recruit raw talents scattered abroad

The time has come for Africa to tap into its potential scattered abroad in developed countries. During the 1960s, it was mainly the African students abroad who brought awareness to the idea of independence. Many of those Africans who were educated abroad returned to Africa to become its first leaders after independence, leaders like Kwame Nkrumah, Jomo Kenyatta, Hastings Kamuzu Banda, etc. There are many African-born, educated people in the developed countries. These Africans have been exposed to technology, democracy, sustainable healthcare and other disciplines. As noted above, many of them have not realized their potential in the West because of systemic racism and inequalities that exist there.

The Covid-19 pandemic has shown that when nations are locked up, help can only come from within. Africa must, therefore, develop its own people. It can do so safely and cheaply by recruiting the talents in its people abroad. This may call for change of mindset, whereby those Africans in Africa start to see their brothers and sisters abroad as partners in development, and not as competitions for the scarce resources in Africa. This change of attitude, will necessitate an exchange of skillsets, experiences and expertise urgently needed to develop Africa. Africa, too, must start to modernize and modify laws to allow for dual citizens to manage important African government offices, including presidencies. Before Covid-19, most countries in Africa feared that dual citizens would not be patriotic enough to defend Africa. However, the Covid-19 has shown that when nations were faced with a challenge of the scale of Covid-19, they relied on emergency legislations,

including relaxing rules that fast-track citizenry in order to provide necessary services to the people. As a proactive step, Africa must return and reintegrate some of its people in important decision-making positions to help reshape the future of Africa. This is nothing new. Africa did the same in 1960s. Benjamin Netanyahu, current Prime Minister of Israel, spent years studying and working in the USA, and has gone to the longest- serving, and probably, the greatest Israeli leader, and has helped to liberalise and develop the Israeli economic frontiers. Africa should do the same.

Conclusion

The post-Covid19 Africa, should be a revolutionary Africa. An Africa that is ready to harness its people's talents, at home and abroad, to build an Africa ready to fight for its dominant place in the community of nations. The time for an Africa that is diseased, ill-prepared, begging for existence and devoid of solving its own problems, ended when the nations of the world locked themselves up from the ravages of the injurious Covid-19 pandemic. Devastative as the pandemic has been, it also revealed that inequalities, fuelled by racism, continue to clobber the global citizens. This thesis has provided the interlinkage between racial inequalities and Covid-19, and in the post-Covid-19 world, Africa must play it smart – strive to be equal, end the age of dependence and become economically self-sufficient.



Acknowledgement

All the sources of data, permissions and information subject to intellectual property rights have been acquired and acknowledged appropriately.

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ISBN 978-9914-708-80-6



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