FROM CRISIS TO OPPORTUNITY: COVID-19 AND INNOVATION IN AFRICA

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IN SUMMARY

- The neo-colonial habit of looking outward to the Global North for ideas and solutions may prove to be more devastating for the African populace than the COVID-19 pandemic itself.

- Given the existing resource and infrastructural opportunities and constraints in Africa, AU member states must collaborate to harness indigenous innovations across the continent.

- Leading innovation is not business as usual. It is not déjà vu. The leader’s role is to unleash individual innovative talents and harness all those diverse talents to yield a useful and cohesive result.

- The role of the African States, RECs, and AU in facilitating the emergence and nurturing of talents and the exchange of ideas will be crucial in the process of co-creating sustainable solutions and innovations.
Out of necessity, Africans - like many other people across the world - have responded to the COVID-19 crisis in innovative ways. From Malawi to Kenya to Senegal; students, engineers, university research teams, ICT and health professionals, entrepreneurs, artists and young people, have developed innovations to help prevent, treat and manage COVID-19. If it is nurtured, this innovative spirit has the potential to transform Africa’s socio-economic and security landscape. Given the existing resource and infrastructural opportunities and constraints in Africa, this piece makes the case for deliberate and concerted efforts to support and nurture innovation across Africa going forward.

It is said that necessity is the mother of invention; but beyond that, emerging innovations are highlighting the ingenuity, talents and resilience of citizens and communities in Africa in normal times as well as in complex emergencies. Moreover, in a global crisis that has isolated states, disrupted the global supply chain of trade and “aid”, innovative repurposing, reuse and rapid deployment of Africa’s diverse resources – human and natural - will be key to the continent’s health security, particularly public. Hence innovation is not only related to sophisticated technologies: it can simply be doing things differently or doing different things, as we have seen with the blue messenger bicycle of South Sudan, for example.

In June 2014, the African Union (AU) adopted its first ten year Science, Technology and Innovation Strategy for Africa (STISA-2024) titled - On the Wings of Innovation. Recognising that Science, Technology and Innovation (STI) are key to the socio-economic development of Africa and Agenda 2063, the strategy is anchored on four pillars: building research infrastructures; providing an enabling environment for STI; promoting entrepreneurship and innovation; and enhancing professional and technical competencies. Moreover, its priority areas include Prevention and Control of Diseases in Africa.

Besides this commitment, in May 2019 the AU member states adopted the Health Research and Innovation Strategy for Africa (HRISA) 2018 – 2030. HRISA strategy seeks to support innovation policy and implementation of the AU’s Africa Health Strategy. It identifies that provision of sustainable health security in Africa requires collation and application of existing knowledge and
innovations, and the development of robust research and innovation grounded in context-specific knowledge, technologies, and expertise. The strategy stresses the need for evidence-based policy and planning of health interventions.

Against this background, these strategies beg many questions in the COVID-19 context. To what extent have these strategies informed Africa’s response to the COVID-19 pandemic? Will part of the African Union COVID-19 Response Fund be allocated towards research and innovation? What percentage of the IMF COVID-19 Emergency Funding to the respective African governments has been allocated towards innovation and research? Other than a nod of recognition, are innovation initiatives getting the requisite support from their governments, Regional Economic Communities (RECs), the African Union (AU) and its agencies? It is worth asking these questions because hitherto, the AU and its member states have adopted various solid strategies and declarations that are yet to translate into reality. COVID-19 highlights the stunted progress towards the Africa we envision.

The STISA-2024, calls for national, regional, and continental level cooperation. At the continental level, the STISA- 2024 charges the African Union Commission, NEPAD Agency, and their coordinating partners to create awareness, advocate and mobilize institutional, human, and financial resources for STI besides tracking progress and monitoring implementation. At national level, member states are required to incorporate this strategy into their National Development Plans, whilst at the regional level, RECs, research institutions and networks are required to design and coordinate regional STI initiatives. The STISA -2024 further directs member states and RECs to mobilise public, private and donor resources for national and regional STI programmes. COVID-19 presents an opportunity to put these strategies to the test: to collaborate and cross-pollinate ideas, to scale-up innovations locally and facilitate reverse innovation across the continent.

The AU COVID-19 Response Fund is mainly earmarked for procurement of COVID-19 essential medical supplies and mitigating the socio-economic impact of the pandemic. The UNCTAD new policy brief speaks to this arms-length approach to Research and Development (R&D). It notes that funding towards R&D often drops when disaster strikes (and the drop continues after
the crisis). As such, there will likely be a reduction in external sources of funding for R&D in Africa. This underscores the need for Africa to look inward for funding and resources for research, development and innovation. Africa’s growing private sector, diaspora and emerging digital innovators are potential sources of raising new and sustainable funding for innovation and R&D.

The UNCTAD policy brief further stresses the need for long-term investment in Science Technology and Innovation (STI) to support immediate and post crisis management efforts. It calls for the need to preserve funding for R&D to develop all-inclusive STI ecosystems with the capacity to respond to similar crises in the future. The policy brief underscores the need to protect STI budgets and review budgetary commitments to support R&D in Africa. This means advocating for robust STI budgets, interdisciplinary research funds and vigorously protecting those allocations. The brief also appeals for a systematic interdisciplinary approach to policymaking that includes natural sciences, engineering, and social sciences to develop wholesome solutions. It buttresses the Health Research and Innovation Strategy for Africa (HRISA) which stresses the need for interdisciplinary policy and planning of health interventions. Digital innovative solutions for contact tracing, education, facility self-assessment, among many others demonstrate the capacity for affordable and scalable interdisciplinary novelties in Africa.

Indeed, while the World Health Organisation – Africa Regional Office (WHO-AFRO) UNCDF, among other actors are making efforts to map out and promote innovation in Africa’s response to COVID-19, we are yet to see a robust continental and regional effort. Credit must be given to African initiatives such as CcHub to fund and support tech projects aimed at curbing COVID-19 and its accompanying socio-economic challenges. Otherwise, only a few governments in the sub-Saharan region, for example Ghana and Rwanda, are demonstrating the leadership that Africans need to systematically develop innovative solutions to the COVID-19 Crisis. As noted by the President of Ghana, all stakeholders - political, religious, traditional and civil society leaders - must collaborate with the government to ensure a coordinated and successful response to the crisis.
Leading innovation is not business as usual. **It is not déjà vu.** The leader’s role is to unleash individual innovative talents and **harness** all those diverse talents to yield a useful and cohesive result. It is the ability to enable and engage a diversity of talents, experience, and perspectives to produce a workable and scalable solution. Though creative talent is essential to innovation, the fulcrum of the innovation process is effective leadership. Hence, the apt implementation of the **Science, Technology and Innovation Strategy for Africa** and **Health Research and Innovation Strategy for Africa** depends on a multifaceted and coordinated effort across Africa, anchored by effective and innovatory leadership.

In addition to this, Africa can borrow a leaf from **India** where entrepreneurs and innovators responded quickly to the challenges posed by the COVID-19 pandemic because of the conducive environment provided by the government and universities. India provides a good example of the **triple helix model** of innovation: integrating efforts between universities, industries - including start-ups - and the government. Some of the innovations in India emerged out of start-ups incubated by universities while the government championed crowdsourcing ideas. Above all, **jugaad** - India’s frugal innovation mindset to find solutions to problems with limited resources - has played a key role to accelerating COVID-19 related novelties.

**Frugal** and low-tech innovations are not new to Africa. Examples include the low-cost ventilators, testing kits, face masks, communication and digital solutions being developed across Africa. The agency, resilience and aptitude of Africans for problem-solving is exemplified by the diverse innovative solutions that have continually emerged out of Africa. This includes the **bloodless malaria test**, the **cardiopad**, the **traffic robots of Kinshasa** and **The Boy Who Harnessed the Wind**. All this demonstrates the ingenuity and capacity of African citizens. This innovative spirit is also observed in the everyday spaces where men, women and young people repurpose and transform various products and materials such as plastics, tyres, bottles, and wires for their livelihood. However, most of these innovations tend to be unrecognised, unsupported, dismissed or overlooked as crude, yet they signpost the gateways for rethinking and reimagining reproduction ways of value addition for various resources in Africa and across the world.
The COVID-19 crisis demands a rapid reinvention of the world order and for Africa to look inward for solutions to its problems. Old habits that have stifled Africa’s progress have to be unlearned, and new ones that show promise for socio-economic progress have to be born and nurtured. The neo-colonial habit of looking outward to the Global North for ideas and solutions may prove to be more devastating for the African populace than the COVID-19 pandemic itself. Evidently, the people of Africa are already looking inward for solutions to their wellbeing, leading innovation and emerging as solution providers for Africa. The missing link is for states, universities, private sector and Africa’s private section and Billionaires to consciously work together and evolve a Pax Africana that unleashes for the spaces for research and innovation to thrive and build Africa’s health security and socio-economic development.

Given the existing resource and infrastructural opportunities and constraints in Africa, AU member states must collaborate to harness indigenous innovations across the continent. This will berth affordable, sustainable, and adaptable approaches to health, socio-economic and environmental transformation. There is also a need for interdisciplinary research and collaboration spanning natural and social sciences, physical and clinical sciences, and engineering, among others. The role of the African States, RECs, and AU in facilitating the emergence and nurturing of talents and the exchange of ideas will be crucial in the process of co-creating sustainable solutions and innovations.

It is notable that COVID-19 presents Africa with the opportunity to be bold and revolutionary in its response to the pandemic, as well as a template on how to overcome the other challenges of our time.

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