STIPRO
COVID-19 POLICY BRIEF

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COVID-19 AN EYE-OPENER:
AFRICA'S OWN FUNDS FOR RESEARCH INDISPENSABLE

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INTRODUCTION

Research is not only at the center of the social and economic development of nations, but indispensable for their very survival. Research produces knowledge of different kinds, including technical knowledge for productive process and personal knowledge of human health and nutrition. Without such knowledge human survival is unthinkable: we are today living longer and healthier lives than our predecessors because of the research that led to new discoveries in medical sciences such as new drugs and diagnostic tools; the current economic and social wellbeing of nations has a lot to do with capabilities in science, technology and innovation (STI), much of which achieved through research. Unlike poor developing countries, developed countries are today capable of addressing many of their social and economic challenges – including the current pandemic – due to higher incomes of their countries, which – to a large extent – was achieved through knowledge and capabilities in STI. This implies that, without capabilities in STI, there will neither be a sustainable growth, nor poverty alleviation in countries. As renowned economists, Paul Romer who received a Nobel Prize in 2018, succinctly and yet comprehensively puts it, "no amount of savings and investment, no policy of macroeconomic fine-tuning, no set of tax and spending incentives can generate sustained economic growth unless it is accompanied by the countless large and small discoveries that are required to create more value from a fixed set of natural resources" (Romer 1993, p 345).

TWO MAJOR TYPES OF RESEARCH AND CONSEQUENCES OF NOT INVESTING IN THEM

There are two major types of research that should be brought to human service:

01 That which produces knowledge for the productive processes (including health related products, food and other human needs)

02 That which produces knowledge for decision-making, including the decision on the former.

Scientific research and development (R&D) requires evidence-informed policy and guidance to be of service to human needs, which in turn requires knowledge inputs from policy research. **Collecting data/information and using knowledge drawn from them are at the basis of development,** and this is an important role that a policy researcher plays. The experience of new industrializers, such as Southeast Asia, is instructive here: it is their investment in knowledge generation and policy guidance that helped them catch up with rich, industrialized countries.

Generally, evidence shows that without adequate investment in research of both types, governments will struggle to bring about social and economic development in their countries, putting at risk the basic requirements of survival in these countries. This is even more so during this era of globalization, with rapid technological change and knowledge-based production. The use of modern robotics and artificial intelligence has for instance tremendously brought down the cost of production in more technologically advanced nations, posing a real threat to productive activities and jobs elsewhere in the world. Poor countries that are technologically lagging will especially be affected. **Low cost of production in developed countries means cheaper exports to poor countries, undermining local production, and thereby putting jobs and governments' earnings through tax, at risk.** Moreover, artificial intelligence and robotics in developed countries mean that traditional practice of outsourcing labor intensive production to poorer countries will radically be reduced, further exacerbating job challenges and governments' incomes in these countries.

The impact of the above is increased incidences of poverty of individuals in these countries, and governments' inability to provide critical services such as health, education and infrastructure. It is basically going to be a dire situation for poor countries such as those in Africa, unless something is urgently done.

RESEARCH REQUIRES MONEY. AFRICA INVESTS VERY LITTLE IN COMPARISON.

Given the importance of research to survival, most countries of the world commit some of their resources to research. Developed countries put most, and when compared with other regions, African countries put the least. For instance, as reported by the UNESCO Institute of Statistics in 2018, on average Western Europe and North America puts 2.5 of GDP into R&D; for East Asia and the Pacific, it is 2.1; Latin America and the Caribbean the figure stands at 0.7, but for Africa it is only0.4 (UIS, 2018). To make matters worse, even the little produced is to a large extent not put into use. Private sector support for research is an important indicator of putting research into use—while over 50% of R&D in developed countries is paid for by the productive sector, very little is paid for by this sector in Africa. For instance according to AUDA-NEPAD (2019), the private sector in Africa contribute less than 20% of the total R&D funding, with exception being South Africa whose private sector contributes about 41%.

DURING GLOBAL CRISES, EVERYONE ON THEIR OWN–A BIG LESSON FOR AFRICA

Despite the small amount of resources committed to research in Africa, much of it is not its own but from outside the continent. According NPCA (2014), with the exception of South Africa, donor funding of research in Africa is on average as high as 41%; and much of the remaining proportion by the governments goes to running costs such as personnel cost. Such funding, on top of under normal circumstances not necessarily serving top priorities of these countries, experience has shown that during global crises every country and region is to a large extent on its own – when it comes knowledge generation. The current crisis of COVID-19 clearly demonstrated this: Internet search for resources committed to fight COVID-19, especially knowledge production, indicates that every country and region is inclined towards fighting its own battle, with Africa that is used to receiving research money from others, featuring very little[1]. How can Africa fight COVID-19 without data and knowledge? To make matters worse, some able countries of the North had to temporarily ban export of the COVID-19 related products because of local scarcity and therefore rightly putting their own people first.[2] Where does this leave African countries, who have limited capacity to produce such products on their own?

There is another dimension to "everyone being on their own". COVID-19 will not just end in claiming lives of people through sickness, but also through a very bad economic downturn that has already started showing. Good for those who have the means – those who invested in research and knowledge to produce wealth in their countries – for they are already planning on how to bailout their productive sectors. Governments across the rich world are already providing firms with grants and cheap loans in an attempt to preserve jobs and to prevent them from bankruptcy. In some cases the governments – such as those in the EU – are paying the wages of people who cannot work safely. The US has decided to loan small businesses so that they retain their workers. Households across the rich world are being given temporary relief on mortgages, other debts, rent and utility bills. In America people will also be sent cheques worth up to $1,200 (Briefing 2020, March 26th). These governments are able to do all this because they invested in knowledge, and fostered their private sector, and consequently were able to harvest substantial amounts from taxes to smoothly run their countries. It is from the recognition of the critical importance of the private sector in the development of their nations that governments are now helping them out of this crisis!

> "EVERY-ONE BEING ON THEIR OWN."

And where is Africa in all of this? What are the long-term consequences? Some few African countries may be able to address some of the COVID-19 related challenges, but many will not be able to, requiring substantial assistance from outside; such assistance may come from the few

[1]For more comprehensive and continuously updated information on corona virus funding, please visit https://coronavirus.frontiersin.org/covid-19-research-funding-monitor

[2]https://www.lexology.com/library/detail.aspx?g=e27eaab0-3815-4803-88b1-f71d1e294b3e

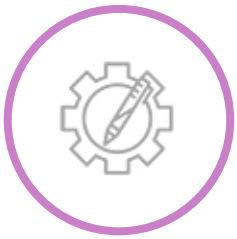
donor countries and international organizations such as WHO and the World Bank, but assistance from these organizations during the pandemic and its aftermath will be limited, because they are also responsible for the rest of the world.

SUMMARY AND RECOMMENDATIONS

If it wasn't clear before, I believe that – through the COVID-19 experience – it is now clear that investment in knowledge and data generation through research is not a luxury, but an indispensable need, not only for social and economic development, but actually at the very center of human survival. It is also clear that resources from outside the African region and individual countries will not help much – especially during global crises where individual nations and regions are fighting their own battles. On the other hand, much of the knowledge generated elsewhere could be available for Africa's use, but unless Africa also invests in knowledge and capacity building, it will not be able to effectively use knowledge generated elsewhere—issues related to local absorptive capacity which is a pre-requisite to competently and efficiently use knowledge generated elsewhere. **In short, investment in knowledge by every country, using its own resources, is not an alternative, but a must.**

In light of the above, Africa should:

Immediately turn political rhetoric about the importance of knowledge and research in social and economic development into realities and actions. Africa is rich in both human and natural resources; and COVID-19 has shown us that Africa is full of human talents and resources for development. We have seen – in a very short while – people coming up with novel gadgets, nutraceuticals and alternative medicine to fight COVID-19.



The starting point is for the region and individual countries to mobilize scarce resources to support such efforts through further research to improve the quality and efficacy of such products, and use them as basis for invention of new drugs, diagnostics and medical appliances – experience indicate modern medicine owes a lot to traditional medicine. Being rich in medicinal plants and talents, Africa should be able to turn things around and be the source of globally validated new drugs and diagnostics to fight diseases.

In the medium and long-term, Africa – as a region and as individual countries – should quickly put in place a strategy to mobilize resources for research and knowledge generation. There should be regionally managed research funds, where both governments and the African private sector can contribute to, to supplement the small contribution from donors. This should be mandatory to all governments, who may also make contribution to research a mandatory obligation by their private sector.

Increased resources for research should go hand in hand with stimulating demand for knowledge on the part of the productive sectors – through for instance demand-side innovation policies such as public procurement and nurturing of startups that have elsewhere played a crucial role in the current pandemic; for instance in developing test kits. Generally, governments should commit to strengthening their systems of innovation, including productive systems and health service delivery systems.

Funds should be used for both commissioned and competitive research grants. Competitive grants should emphasize importance of collaborative and multi-country studies, representing major sub-regions. This is to ensure all countries benefits from any single research project carried out.

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