Africa Growth Initiative
at BROOKINGS

TOP PRIORITIES FOR
THE CONTINENT IN 2023

FORESIGHT AFRICA

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Letter from the director

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With these external and internal headwinds, it is easy to be pessimistic about Africa's prospects. Yet, time and time again—as we have seen in the case of the Ebola crisis, HIV/AIDS crisis, and now the COVID-19 pandemic—Africa has proved resilient.

Our world has changed remarkably since we launched the previous edition of *Foresight Africa* in January 2022. Russia invaded Ukraine—an unanticipated event that roiled the global economy and sent food, fuel, and fertilizer prices sky high. Sanctions on Russia resulted in trade and logistical bottlenecks, which added more pressure on already strained supply chains. The U.S. Federal Reserve and other major central banks' unrelenting efforts to tame inflation ushered in a new era of high interest rates and aggravated several countries' ability to settle their international financial obligations. Meanwhile, the uneven recovery from the COVID-19 pandemic continued to feature in headlines across Africa and elsewhere. The combination of fragility in parts of the African continent and adverse weather conditions dampened economic growth in the region in 2022.

With these external and internal headwinds, it is easy to be pessimistic about Africa's prospects. Yet, time and time again—as we have seen in the case of the Ebola crisis, HIV/AIDS crisis, and now the COVID-19 pandemic—Africa has proved resilient. We must be conscious of the danger of a single story—especially as many African countries will continue to fare well, despite the odds. Indeed, even though the region is unlikely to be fully out of the woods in 2023, the Economist Intelligence Unit forecasts overall growth of 3.2 percent.[1] Medium-sized economies, such as Senegal, Côte d'Ivoire, the Democratic Republic of Congo, and Kenya, will drive much of this growth—with predicted growth rates of 5 to 7 percent in the year ahead. On the other hand, the region's economic powerhouses (South Africa, Nigeria, and Egypt) are expected to record slower growth. As such, in Chapter 1, Economic Recovery and Growth, our authors share policy options for **tackling the multiple headwinds** facing the region.

Despite these challenging times, I am heartened that Africa's leaders, policymakers, captains of industry, academic scholars, youths, and others, have shown unwavering commitment and contributed essays and viewpoints to enrich this year's *Foresight Africa*.

Thus, I open this year's edition on an optimistic note, bearing in mind Africa's resilience and demonstrated capacity to weather severe headwinds. This optimism is buoyed by several factors: an enhanced collaboration that culminated in operationalization of the African Continental Free Trade Area (AfCFTA); the coming together of African institutions (the African Union, Africa CDC, United Nations Economic Commission for Africa, African Export-Import Bank, and others) to secure funding for vaccines; and the region's rapid adoption of technological innovations to address practical problems—as evidenced by the innovative digital services that boomed during the pandemic.

As with past iterations, this year's report incorporates cover design features that embody the narrative within. Being cognizant that there have been few moments in history where the world has experienced such a multitude of successive shocks, going into 2023, we see **renewed solidarity and collaboration emerging** across Africa to address the confluence of crises. I and the Africa Growth Initiative team are therefore excited to feature Africa's newfound solidarity on this year's cover. This is visually represented by ribbons flowing together and moving in the same direction,

1 Economist Intelligence Unit. 2022. "Africa outlook 2023: The challenges ahead"

Being cognizant that there have been few moments in history where the world has experienced such a multitude of successive shocks, going into 2023, we see renewed solidarity and collaboration emerging across Africa to address the confluence of crises.

underpinned by a common purpose. The vibrant colors and ethnic texture in the ribbons embody the continent's diversity, dynamism, and action toward a future together for the greater good of all Africans.

Moreover, in sharp contrast to previous editions, this year's report includes additional chapters based on feedback from policymakers on **Education and Skills** and **Cities and Urban Development**—both of which are pertinent to the region's development progress. In the education chapter, our authors focus on policy options to close the financing gap needed to achieve Sustainable Development Goal 4 (inclusive and equitable quality education); debate ways to ensure Africa's burgeoning youth demographic is ably equipped with knowledge and skills for gainful employment; and provide strategies to mitigate learning losses arising from pandemic-related closures and disruptions. Our chapter on cities and urbanization, on the other hand, explores key obstacles to **realizing the new urban agenda** facing Africa's city managers —from Lagos to Cape Town.

We are proud that women account for over 50 percent of our contributors in this edition of *Foresight Africa*. Moreover, as we did last year, we have dedicated a full chapter (Chapter 5) to the gender dimensions of Africa's economic recovery, and what strategies policymakers should be attuned to in order to **close the gender gap**.

As the continent looks to make a full recovery and gain back lost ground, we must not forget a key lesson from the pandemic: that sound health systems and economic resilience are closely intertwined. The COVID-19 pandemic exposed weaknesses in health systems around the world—not least in Africa, which was already burdened with poor health outcomes due to the prevalence of communicable diseases such as HIV/AIDS, among other development challenges. To this end, in Chapter 4, our experts reflect on lessons from the pandemic and propose ideas to **strengthen Africa's health systems to secure health for all**.

A momentous highlight from the year 2022 was COP27—"Africa's COP," and the breakthrough agreement to establish a "loss and damage" fund. While the historic outcome is a welcome one and will help Africa **adapt to a new normal**, much remains to be done to operationalize the fund and advance progress on climate adaptation, mitigation, and awareness. Thus, in Chapter 6, our authors show that through political will, collective action, and innovative financing—as was ably demonstrated during the pandemic—the climate crisis can indeed be overcome. Closely related to climate change is food security, which took on heightened relevance as the increased incidence of droughts, floods, and other extreme weather events jeopardized food security by increasing crop failure and livestock mortality. For this reason, we dedicate Chapter 2 to strategies for **strengthening Africa's food systems** to achieve better food access, improved nutrition, and agricultural transformation.

As with every iteration of *Foresight Africa*, we aim to capture the top priorities for the region in the year ahead, offering recommendations for supporting Africa at a time of heightened global turbulence. We hope that *Foresight Africa* 2023 will promote dialogue on the key issues influencing development policy and practice in Africa throughout this year. Such ideas will ultimately provide sound strategies for expanding the benefits of economic growth to all Africans in the years ahead.

We will continue to incorporate the feedback we receive from our readers and lead the debate on Africa's priorities through high-level convenings, impactful research, actionable policy briefs, and timely commentaries.

ECONOMIC RECOVERY AND GROWTH:

TACKLING MULTIPLE HEADWINDS

1

ESSAY

VIEWPOINT

Priority actions to address Africa's economic recovery

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As we begin 2023, Africa's development is threatened by multiple crises. This time is distinctly different from past episodes, first in the increased frequency of crises, as well as the persistence and deepening of climate and conflict crises. While in 2008/2009 Africa was able to use debt to weather the financial crisis, today, rapidly rising global interest rates and the absence of a well-functioning framework for comprehensive debt reduction and relief, threaten to cut access to international financial markets for many countries. Moreover, deglobalization trends could limit Africa's ability to use international trade to drive growth.

While the external environment is precarious and may remain that way for some time given the evolving geopolitical tensions, domestic policy actions do matter, and Africa's policymakers are not helpless. The time to act is now, in order to regain lost ground and move towards prosperous economies and resilient, inclusive societies.

While the external environment is precarious and may remain that way for some time given the evolving geopolitical tensions, domestic policy actions do matter, and Africa's policymakers are not helpless.

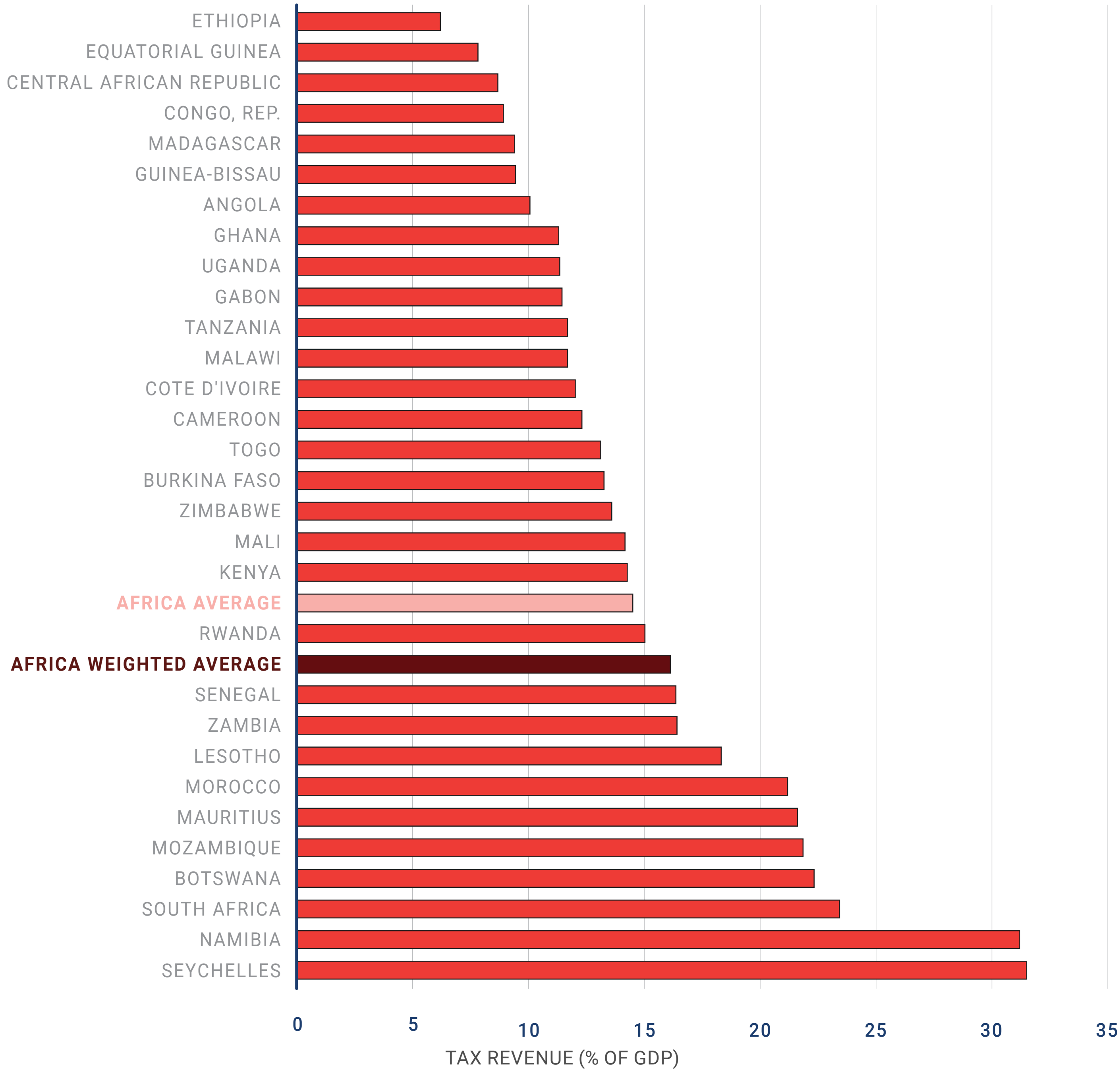
Raise more domestic revenues and spend more efficiently

This is foundational to any credible home-grown solution. The continent collects less revenue than can be generated domestically at current levels of income, with tax revenue as a share of GDP averaging 16.1 percent of GDP for sub-Saharan Africa as a whole—see Figure 1. Strengthening tax administration and expanding tax sources to real estate, sugary products, and eventually carbon, are important opportunities to significantly raise domestic revenue. It is also important to eliminate excessive inefficiencies in both recurrent and capital spending. Countries need to move away from expensive (and often regressive) large-scale generalized subsidies and towards more selective, well-targeted approaches including technology-enabled social protection programs and high value investments such as research and development and infrastructure. Targeted programs allow governments to support the most vulnerable, while effectively supporting specific strategic objectives, and eliminating wasteful expenditure. Public investment programs need to be thoroughly reviewed to weed out poorly conceived investments and ensure limited resources are truly supportive of long-term growth, while strengthening programs that build long-term public investment capacity. Commodity exporters have a huge opportunity to fully leverage current commodity windfalls to build macroeconomic buffers and invest in flagship programs that will address long-term challenges. Finally, African countries need to develop deep domestic (or regional) financial markets, anchored by high savings from national pension funds—and regional sovereign wealth funds more broadly—which will require addressing regulatory constraints..

FIG.1

MOBILIZING DOMESTIC REVENUE WILL BE A KEY PRIORITY AS AFRICA'S TAX-TO-GDP RATIO REMAINS COMPARATIVELY LOW

Most African countries experienced a decline in nominal tax revenues in 2020. The capacity for African tax systems to gather revenue varies widely by country. At 16.5 percent of GDP, however, Africa's average tax-to-GDP is lower than other regions, such as Asia and Pacific (19.1 percent), Latin America and the Caribbean (21.9 percent), and OECD countries (33.5 percent).



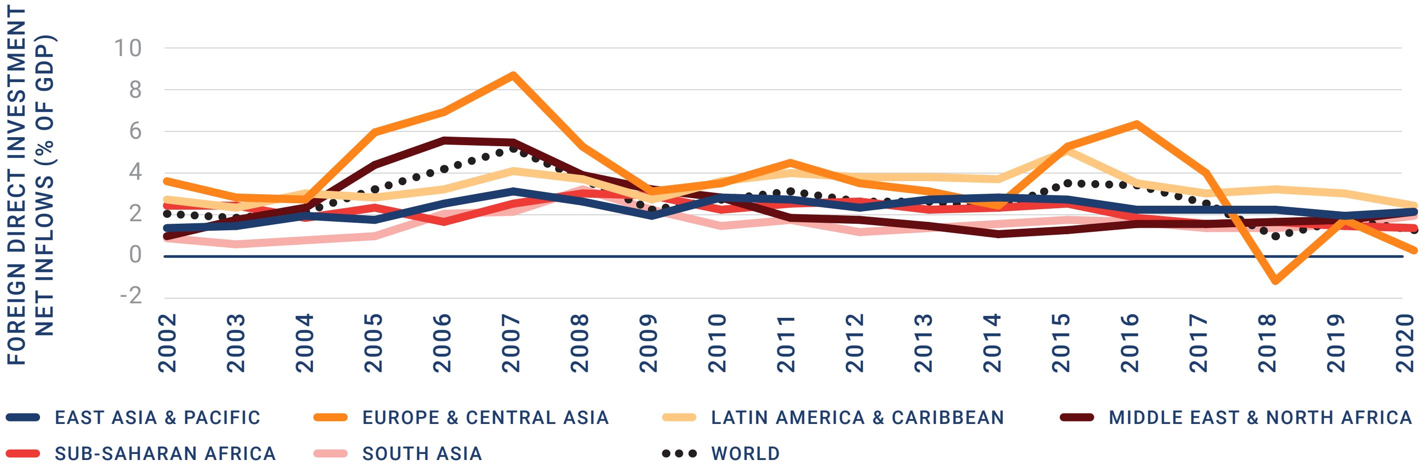
Note: Data from 2020 or latest year.
Source: World Bank. 2022. World Development Indicators. OECD. 2022. Revenue Statistics in Africa.

Enable African entrepreneurship to flourish and support modern competitive economies

African entrepreneurial talent is evident across the continent. Yet it remains largely untapped.[1] African economies are also largely informal and operating at low levels of productivity—making it challenging to provide the requisite number of decent jobs for poverty reduction and to grow the middle class.[2] Policymakers can enable the emergence of a more formal, competitive domestic private sector by building competitive markets characterized by stable, transparent, and fair regulatory regimes. Much can be done in the near term and complemented with more medium-term reforms. This will also support foreign direct investment (FDI) inflows which remain at low levels compared to other developing regions—see Figure 2. A related opportunity is enabling the private sector to play a much greater role in closing key energy, transport, and digital infrastructure gaps—which is essential for competitiveness. In energy, private sector participation in off-grid solutions is already contributing to increased energy access in some countries. The private sector is also delivering huge gains in financial inclusion through use of digital technology, widespread connectivity using mobile phones, and telemedicine. Policymakers can help address constraints to scaling up these successes and extending them across the continent. In order to close the infrastructure access gaps, governments will also need reforms to strengthen the performance and financial viability of public sector utilities.

FIG.2 **FDI NET INFLOWS (% OF GDP)**

Sub-Saharan Africa's foreign direct investment inflows have been below the global average for much of the last two decades. The region experienced its strongest inflows between 2007 and 2015, when FDI grew by 2.6 percent per year. Since 2015, however, sub-Saharan Africa's FDI growth has been more subdued, growing at just 1.6 percent per year.



Source: World Development Indicators. 2022.

1 Fox, Louise, Philip Mader, James Sumberg, Justin Flynn, and Marjoke Oosterom. 2020. "Africa's 'youth employment' crisis is actually a 'missing jobs' crisis." The Brookings Africa Growth Initiative.

2 Coulibaly, B., Gandhi, D., and Mbaye, A. (2019). "Job creation for youth in Africa Assessing the potential of industries without smokestacks." Africa Growth Initiative Paper 22. Washington, DC: Brookings.

Tap Africa's huge demographic bulge

Africa's population is the most youthful globally, with about 60 percent below 25 years.[3] The time is now to turn this youth bulge into a demographic dividend to drive growth and development. Investing in the human capital of Africa's youth is fundamental. Action is needed first to address the significant human capital losses from COVID-19, and to implement clear plans to tackle the silent learning crisis in the region. Children in sub-Saharan Africa are, on average, learning for only five out of the eight years in school due to weaknesses in education systems. A second area for attention is providing jobs for the rapidly growing numbers of unemployed youths.[4] Technical and vocational educational training (TVET) programs, in partnership with the private sector, alongside well-designed apprenticeship programs need to be expanded and strengthened to provide requisite labor market skills.[5] The entrepreneurial talent of Africa's youth, especially in the startup sector, will also need to be supported to thrive. Finally, the high fertility rate on the continent (4.8 against 2.4 globally), which drives up household consumption and reduces per capita investments in human capital, needs to be tackled. A multipronged approach including keeping girls in school, which will likely reduce child marriages and teenage pregnancy, improving access to family planning programs, and enhancing support to women's labor force participation is needed.

Accelerate the rollout of the African Continental Free Trade Area (AfCFTA)

This bold initiative by African leaders is a historic opportunity to integrate the continent. Trade within the continent is currently low, compared to intra-continental trade in other regions. A truly integrated continent will support broad improvements in competitiveness over time and is likely to build resilience to global shocks and mitigate, in part, the impacts of deglobalization.[6] Implementation of the AfCFTA could also reduce food security risks by promoting intraregional agricultural trade. As of May 2022, 54 out of 55 countries have signed the AfCFTA and 44 have deposited their instruments of ratification.[7] Already the Pan-African Payment and Settlement System (PAPSS), led by the Africa Export-Import Bank in partnership with the AfCFTA Secretariat and launched on January 13th, 2022 after a successful trial in six West African countries, is a step in the right direction.[8,9] PAPSS enables African importers and exporters to settle intra-area trade obligations in their respective national currencies. Policymakers now need to focus on accelerating implementation, supporting trade facilitation, and strengthening regional connectivity, particularly in the key corridors.

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3 United Nations. 2022. World Population Prospects. United Nations Department of Economic and Social Affairs Population Division.

4 Heitzig, Chris and Landry Signé. "Seizing the momentum for effective engagement with Africa." 2022. The Brookings Institution. Initially prepared for the National Intelligence Council.

5 Ibid.

6 Mold, Andrew. "The economic significance of intra-African trade—getting the narrative right." The Brookings Africa Growth Initiative.

7 Tralac. 2022. AfCFTA Ratification Barometer. The Trade Law Centre.

8 Ogbalu III, Mike. 2022. "Boosting the AfCFTA: The role of the Pan-African Payment and Settlement System." Chapter Five of Foresight Africa 2022. The Brookings Africa Growth Initiative.

9 Africa Growth Initiative. 2022. Foresight Africa Podcast. Episode 8: "New tools for easing cross-border trade in Africa." The Brookings Africa Growth Initiative.

Managing the crises will demand a great deal from African policymakers. It will require political will and determination, as well as sound, well-informed judgement.

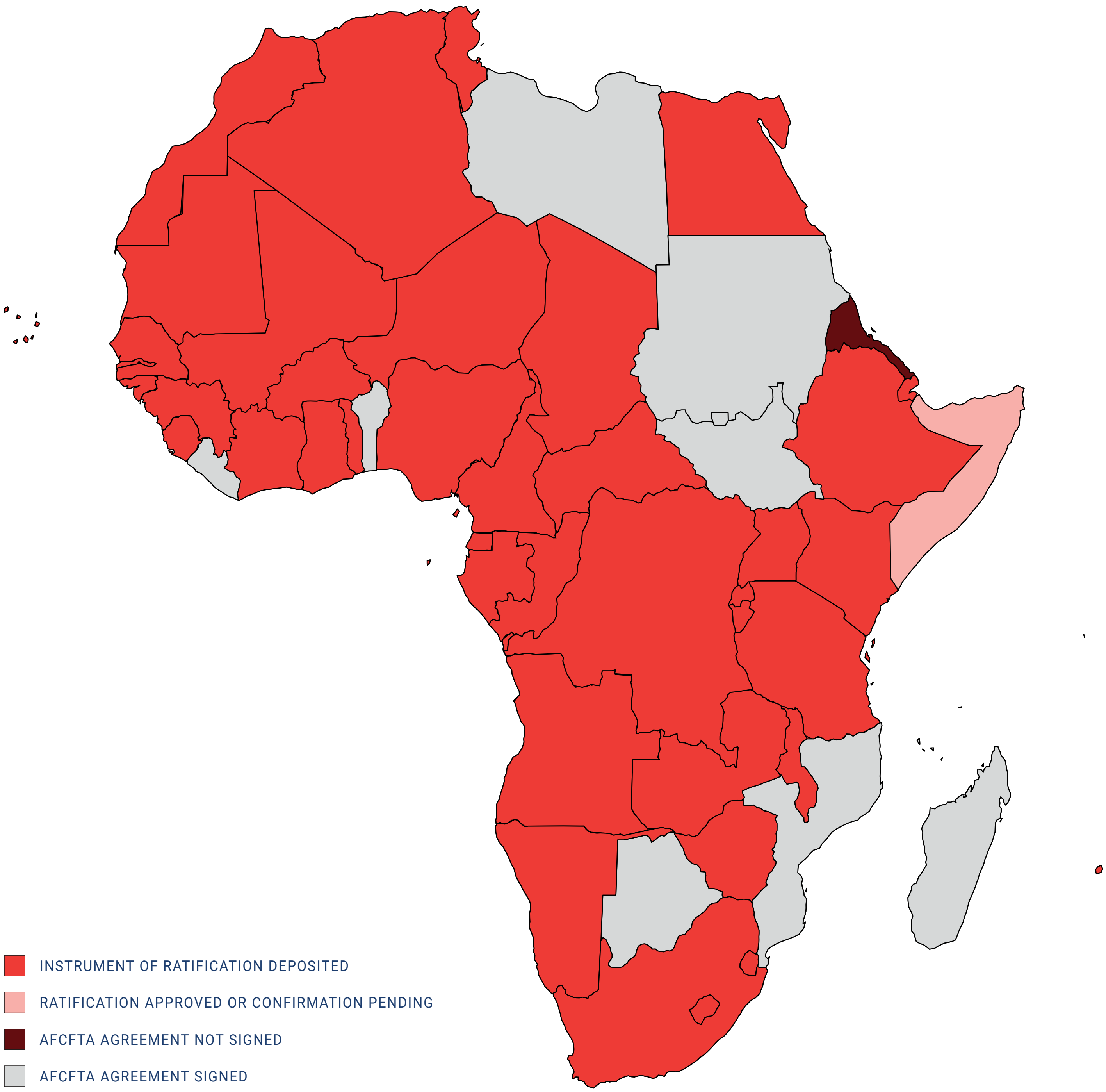
Invest in developing Africa's forward-looking mineral repositories

Several African countries have huge deposits of resources and minerals such as cobalt, lithium, copper, manganese, and nickel which will be key to achieving green transitions. As this transition takes hold globally, the increase in demand will present opportunities for African producers to capture market share and accelerate development. Also, the market for these minerals will likely be different than those for oil and gas. Three issues merit the attention of policymakers. First, is supply management: Leaders and policymakers need to define clear, credible strategies and plans for developing these resources and maintaining investments into the sector. Second, is a strategy for value addition. To use these resources as a springboard for economic transformation, a plan for local value addition, technology and knowledge transfer, and employment generation is needed. This will require difficult negotiations with often very sophisticated multinational corporations, where individual countries may be at a disadvantage. This is an area where regional coordination and cooperation, especially considering AfCFTA, can be helpful. Third, is revenue management: Investing the proceeds from these minerals wisely by putting in place effective mechanisms and frameworks to channel revenues to clearly defined and well-designed investments.

African countries are facing multiple global headwinds while their economies are still bearing the scars of a once-in-a century pandemic. Alone, each of these crises would normally present daunting challenges. But their combined impacts could be catastrophic. We believe that Africans can turn this moment of adversity into an opportunity: To accelerate development by drawing on the internal strengths of their respective nations. Managing the crises will demand a great deal from African policymakers. It will require political will and determination, as well as sound, well-informed judgement. It will also require a willingness to learn and to adapt, patience, and the ability to balance short- and long-term goals.

FIG.3 AFCFTA RATIFICATION

Trading under the African Continental Free Trade Area (AfCFTA) commenced on 1 January 2021 for the countries that have submitted their instruments of ratification. However, 11 countries have yet to deposit their instruments of ratification, thereby limiting the coverage of the AfCFTA.

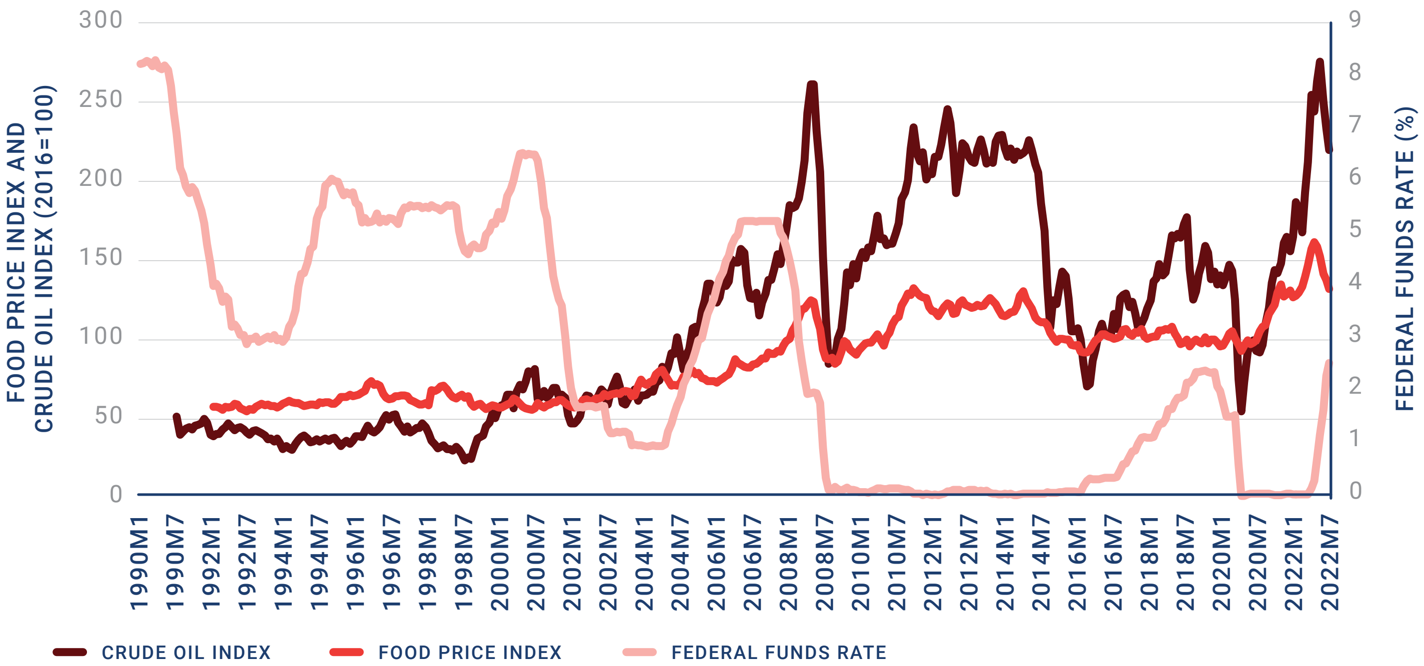


Source: Tralac. 2022.

FIG.4

SHOCK TO FOOD, FUEL AND FINANCE: HIGH COMMODITY PRICES COUPLED WITH RISING INTEREST RATES POSE A UNIQUE CHALLENGE FOR AFRICA

The last time food and oil prices spiked the way they did in 2022 was during the aftermath of the Great Recession. Back then, the federal funds rate, a proxy for global liquidity, was less than one-quarter of 1 percent. Africa, therefore, could weather the high cost of commodities by borrowing at reasonable rates. But now, with the federal funds target range reaching 4 percent, Africa may not be able to rely on debt to finance costly commodities, or cope with elevated debt costs.



Source: IMF. 2022. World Economic Outlook database, October 2022. International Monetary Fund. St. Louis Federal Reserve. 2022. FRED Economic Data. Board of Governors of the Federal Reserve System (US).

African economies and overlapping crises: How to respond to the rising global headwinds?

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African economies under multiple headwinds

The COVID-19 pandemic triggered a profound setback after a quarter-century of economic and social progress. Insecurity and political instability are becoming pervasive across Africa. The Russian-Ukrainian war is exposing millions of people to food insecurity, and the most vulnerable are the hardest hit as a large share of their income goes to food and transport spending. This is compounded by a harsh drought in the horn of Africa[1] that has affected food supply and food security. In parallel to these shocks that will likely have lasting consequences, African economies still suffer from several structural challenges including the effects of climate change.

As of the end of October 2022, the COVID-19 pandemic cost the lives of around 175,000 people, with more than 9 million reported cases in the continent according to the World Health Organization (WHO).[2] Thanks to effective policies and "good luck," the health impact is lower than initially predicted. However, even though Africa is less affected compared to the other regions of the world, the economic impacts remain one of the highest. The real Gross Domestic Product (GDP) declined by 1.8 percent in 2020[3]—for the first time in more than 25 years—pushing 23 million people into extreme poverty according to the World Bank,[4] exacerbating inequality, and shrinking fiscal space. Africa's Human Development Index also fell for the first time in nearly three decades.[5] The recovery itself is dragged and uneven because of unequal access to vaccines and slow vaccination progress, protracted conflicts and political instabilities, and the Russian-Ukrainian war. GDP growth is expected to slow down in 2022 (3.7 percent) compared to 2021 (4.8 percent).

According to Institute for Economics and Peace (IEP)'s Global Terrorism Report 2022, six out of the 10 countries most impacted by terrorism in the world are in Africa.[6] Four of the six deadliest countries are located in Africa (Mali, Niger, Somalia, and Burkina Faso) and they accounted for 77.3 percent of total terrorism deaths in 2021 (3,223 deaths). This terrorist insecurity triggers political instability. Between 2020 and 2021,

1 NASA-Earth Observatory. 2022."Worst Drought on Record Parches Horn of Africa". National Aeronautics and Space Administration.

2 WHO. 2022. "WHO Coronavirus (COVID-19) Dashboard." World Health Organization.

3 IMF. 2021. "Regional Economic Outlook Sub-Saharan Africa". International Monetary Fund.

4 Abay Kibrom A., Nishant Yonzan, Sikandra Kurdi, and Kibrom Tafere. 2022. "Africa might have dodged a bullet, but systemic warnings abound for poverty reduction efforts on the continent." World Bank Blogs.

5 UNDP. 2022. Human Development Report 2021/22 https://hdr.undp.org/content/human-development-report-2021-22.

6 IEP. 2022. "Economics and Peace Global Terrorism Report Measuring The Impact Of Terrorism". Institute for Economics & Peace.

About 30 percent of Kenya's imported wheat comes from Russia and Ukraine, and in 2021, 44 percent of Cameroon's fertilizer imports came from Russia. As a result, 346 million people (a quarter of Africa's total population) are facing severe food insecurity.

at least six successful and one attempted coup were perpetrated in Africa[7] (two in Burkina Faso, one in Chad, two in Mali, one in Guinea, one in Sudan, and one attempted coup in Guinea-Bissau).[8] This political instability not only impedes economic recovery, but sets back more than 30 years of democratic progress.

The Russian-Ukraine war further compounds the challenges to economic recovery. The war and subsequent economic sanctions against Russia increased energy prices, triggered food inflation, tightened financial conditions, and caused global uncertainty. Brent oil price went above the $100/barrel mark for the first time since 2014, creating a ripple effect on other prices and challenging the green energy transition.

Although the imports from Ukraine and Russia—as a share of Africa's total imports—are small, many countries rely on these countries for critical imports including wheat and fertilizers. For example, about 30 percent of Kenya's imported wheat comes from Russia and Ukraine, and in 2021, 44 percent of Cameroon's fertilizer imports came from Russia.[9] As a result, 346 million people (a quarter of Africa's total population) are facing severe food insecurity.[10] In Kenya, the supply disruption and the increase in wheat price will affect the production and the price of bread, which is the third most consumed food item in the country.

Moreover, the pandemic and war in Ukraine have created a highly polarized world—unprecedented since the Cold War, which undermines the international community's capability to come together and address the world's most pressing issues. Under such circumstances, how can African policymakers properly navigate the multiple headwinds?

How African countries can deal with multiple headwinds

Addressing food insecurity diligently

Africa is home to 60 percent of the world's uncultivated arable land. This contrasts sharply with the African continent's incapacity to feed itself.[11] In 2022, the African population will be equivalent to the Chinese and Indian populations. Figure 5 displays the historical evolution and projections of the population of Africa, China, and India based on the U.N.'s medium fertility scenario. As shown on the graph, Chinese and Indian populations reach a tipping point and will decrease over the coming years.

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7 The Conversation. 2022. "Vague de coups d'État en Afrique : on les appelle désormais des réinter-prétations constitutionnelles."

8 Assogba, Henri. 2022. "Vague de coups d'État en Afrique : on les appelle désormais des « réinter-prétations constitutionnelles." The Conversation.

9 Sen, Ashish Kumar.2022. "Russia's War in Ukraine Is Taking a Toll on Africa." United Nations Insti-tute of Peace."

10 FAO, ECA, and AUC. 2021. "Regional Overview of Food Security and Nutrition 2021: Statistics and trends." Food and Agriculture Organization.

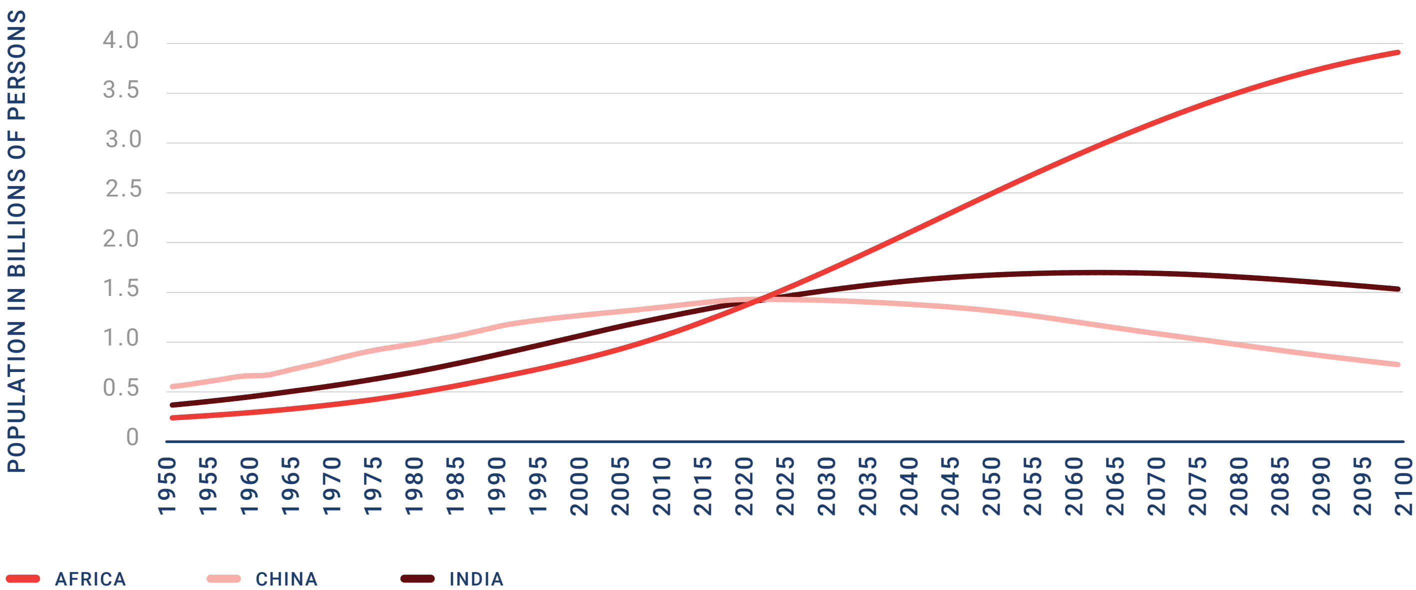
11 Plaizier, Wim. 2016. "2 truths about Africa's agriculture." World Economic Forum, Davos.

By contrast, the African population will continue to grow over the next eight decades. In less than 40 years, the African population is expected to be greater than the Chinese and Indian populations combined. Feeding this population under climate change is one of the greatest challenges for Africa.

Beyond the short-term emergency to address the threat of food insecurity caused by the Russian-Ukrainian war, African countries have an opportunity to draw lessons from this crisis and bring their agricultural sector up to par. This includes, but is not limited to, investing in supporting technologies, building fertilizer factories, and building climate resilience by investing in climate-smart agriculture and adaptation. Food security and climate change should be developed into a strategic policy design. Education is also key to improving agricultural labor productivity. Failing to feed a young and fast-growing population can turn the expected demographic dividend into a demographic time bomb.

FIG.5 **HISTORICAL POPULATION AND PROJECTIONS BASED ON THE UN'S MEDIUM-FERTILITY SCENARIO: AFRICA, CHINA, AND INDIA**

By the time Africa's Agenda 2063 comes to a close, Africa will have as many inhabitants as China and India combined. It will also have a third of the world's working-age population.



Source: United Nations World Population Prospects 2022. 2022.

Fostering macroeconomic stability

The pandemic and the successive negative shocks dramatically deteriorated macroeconomic fundamentals in many African countries, particularly the sovereign debt balance. As of February 2022, 23 African countries were either in debt distress or at risk of it.[12] Fiscal space and sound macroeconomic conditions will be key to properly respond to the various shocks faced by African economies. Improving efficiency in public spending, and mobilizing more domestic revenue by increasing tax administration efficiency, can contribute to building fiscal space and a sound macroeconomic framework, which is fundamental to sustaining economic recovery. However, achieving this (i.e., improving tax revenue collection and public spending efficiency) may entail structural reforms including technology adoption and fighting against corruption.

Inclusive and equitable recovery policies

Governments need to take adequate measures to avoid setbacks in democratic progress. To support an inclusive recovery, governments should engage in reducing people's vulnerability and developing social safety nets.

Crises and recovery are uneven within and between countries. While the most vulnerable are hit the hardest, they also experience slower recovery than the others. To ensure that no one is left behind, recovery policies need to be inclusive and equitable. For instance, governments should pay attention to people falling into extreme poverty due to the COVID-19 pandemic and to those at risk of falling under the poverty line, and design policies that could help people to bounce back. Governments can also leverage digital financial services to improve access to finance for the most vulnerable population.

People's vulnerability, political unrest, and political instability

Insecurity, vulnerability, and social unrest hinder political stability and development prospects. The current food insecurity and terrorism in the Sahel heighten the risk of social unrest on the continent. Governments need to take adequate measures to avoid setbacks in democratic progress. To support an inclusive recovery, governments should engage in reducing people's vulnerability and developing social safety nets.

12 Harry Verhoeven. 2022. "China has waived the debt of some African countries. But it's not about refinancing". The Conversation.

Staying the course: Strengthening fundamentals despite adversity

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The COVID-19 pandemic hit at a time when the Democratic Republic of Congo (DRC) had already initiated its program for structural change and transformation. In that respect, 2019 was a year to remember—the elections led to the first-ever peaceful change of leadership, which was an important step in the political history of the country. **Very early on, the new course was set by the elected government, and priorities were identified**: Protect the most vulnerable by increasing investments in health and education; strengthen growth prospects by capitalizing on a vibrant mining sector while increasing efforts towards diversification (both vertical and horizontal); build fiscal buffers to improve the external situation; and increase domestic revenue mobilization and improve spending quality to finance deeply needed infrastructure.

Despite the pandemic, the Congolese economy remained dynamic, **achieving positive economic growth in 2020 even while growth in sub-Saharan Africa turned negative**. This exceptional growth was due to good performance and windfalls in the mining sector, which remained resilient through the crisis, growing at almost 10 percent in 2020.[1] However, growth in the secondary (manufacturing) sector turned negative, while the tertiary (services) sector coped only marginally due to restrictions introduced across the country in reaction to the global health crisis. Unlike these other sectors, no major mines closed owing to the limited spread of COVID-19 to the mining regions.[2]

Thinking long term: Strengthen fundamentals, implement structural policies, and build buffers

The DRC has been working on strengthening the fundamentals to achieve sustainable and lasting results. It aims to accomplish this through a systematic method—identify the bottlenecks, find solutions, and bring everyone together to implement action plans. A striking example is the recent efforts by the Ministry of Finance to accelerate revenue mobilization, which benefited a lot from the implementation of performance contracts that set up clear and ambitious targets. On the external side, international reserves reached approximately $4 billion in August 2022, from around $900 million in 2019—an increase of 344 percent.[3]

In addition, this ambitious agenda and strong performance has been achieved thanks to the renewed engagement of DRC with international stakeholders. The government's reform mindset is anchored by the IMF's $1.52 billion Extended Fund Facility program, which also acts as a catalyst for additional financing from other

1 World Bank. 2022. "Democratic Republic of Congo: Economic Update." 7th Edition. World Bank Group.

2 IMF. 2021. Democratic Republic of Congo IMF Country Report. No. 21/168. International Monetary Fund.

3 IMF. 2022. Democratic Republic of Congo Article IV Consultation. IMF Country Report No. 22/210. International Monetary Fund.

The DRC has been working on strengthening the fundamentals to achieve sustainable and lasting results. It aims to accomplish this through a systematic method—identify the bottlenecks, find solutions, and bring everyone together to implement action plans.

donors.[4] Moreover, the DRC is working on strengthening its communication with international stakeholders, bilateral partners, and investors to improve the level of information on the dynamism of DRC. For example, a conference was organized in September 2022 in Kinshasa around country risk (the DRC Country Risk Conference) to discuss the risks and opportunities of the Congolese economy. We aim at having such interactive and engaging discussions on a yearly basis, giving us the opportunity to identify challenges and design solutions.

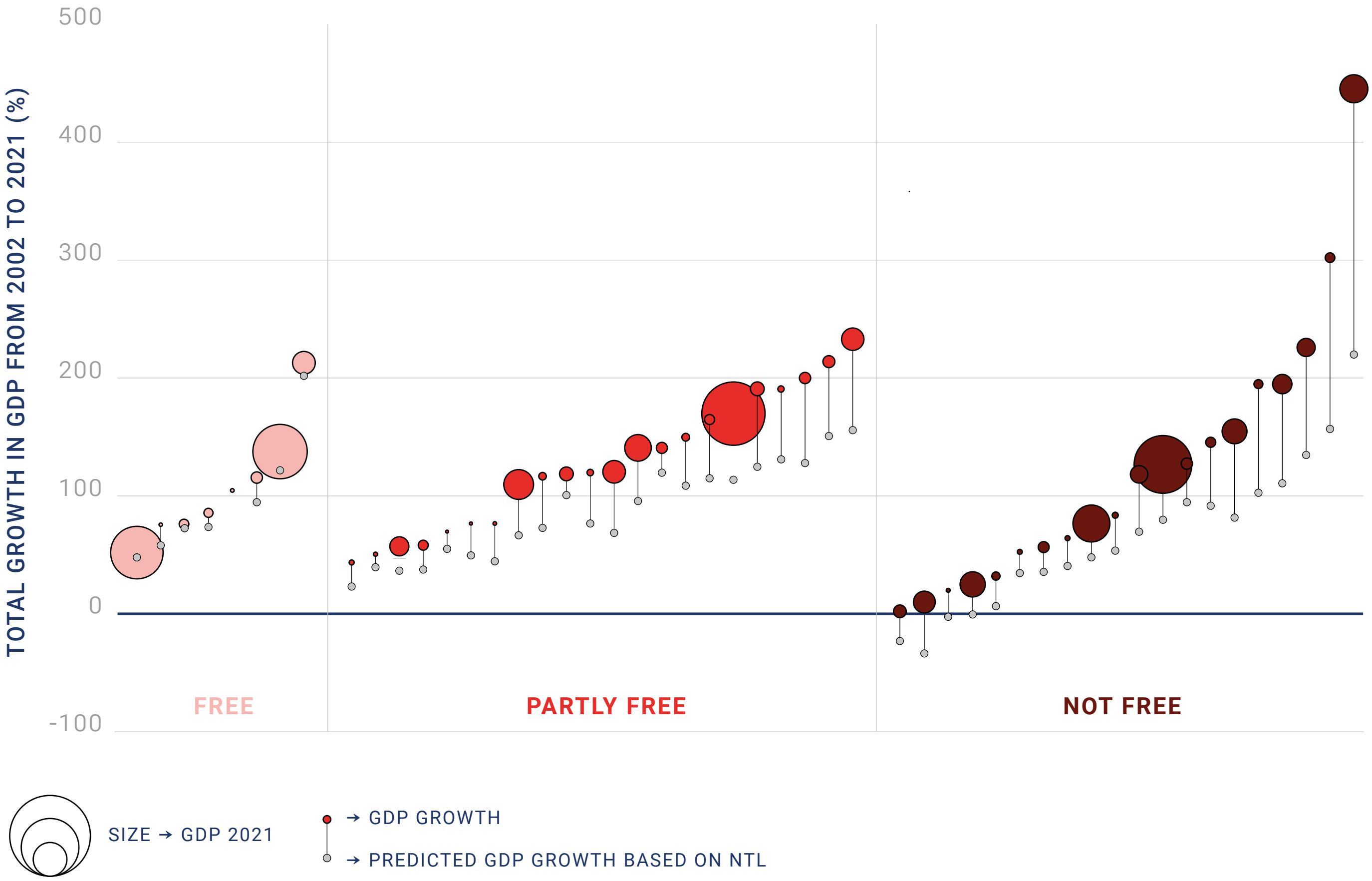
Preparing for future shocks

The continent has experienced a succession of shocks throughout the past few years, which has been both an eye-opener and a call for action. Our pre-crisis shared goals remain valid, but both the external and domestic situations have changed. Past development progress has been eroded because of the crisis, and a significant share of our population has been pushed into poverty. Nevertheless, inclusive and sustainable growth remains a priority. Moreover, as countries embark on a clean, renewable energy transition, we see a world where increasingly; the dynamics in terms of supply and demand—and more specifically regarding energy resources—have changed. Several countries in the region have an important role to play in that respect. DRC, thanks to its massive endowment in natural resources, remains at the forefront of this chance to harness the green transition. It is now urgent to seize this opportunity.

4 Ibid.

FIG.6 **COUNTRIES THAT HAVE HIGHER PERSONAL, CIVIL, AND ECONOMIC FREEDOM REPORT GDP FIGURES THAT ARE MORE ALIGNED WITH NIGHTTIME LIGHTS DATA**

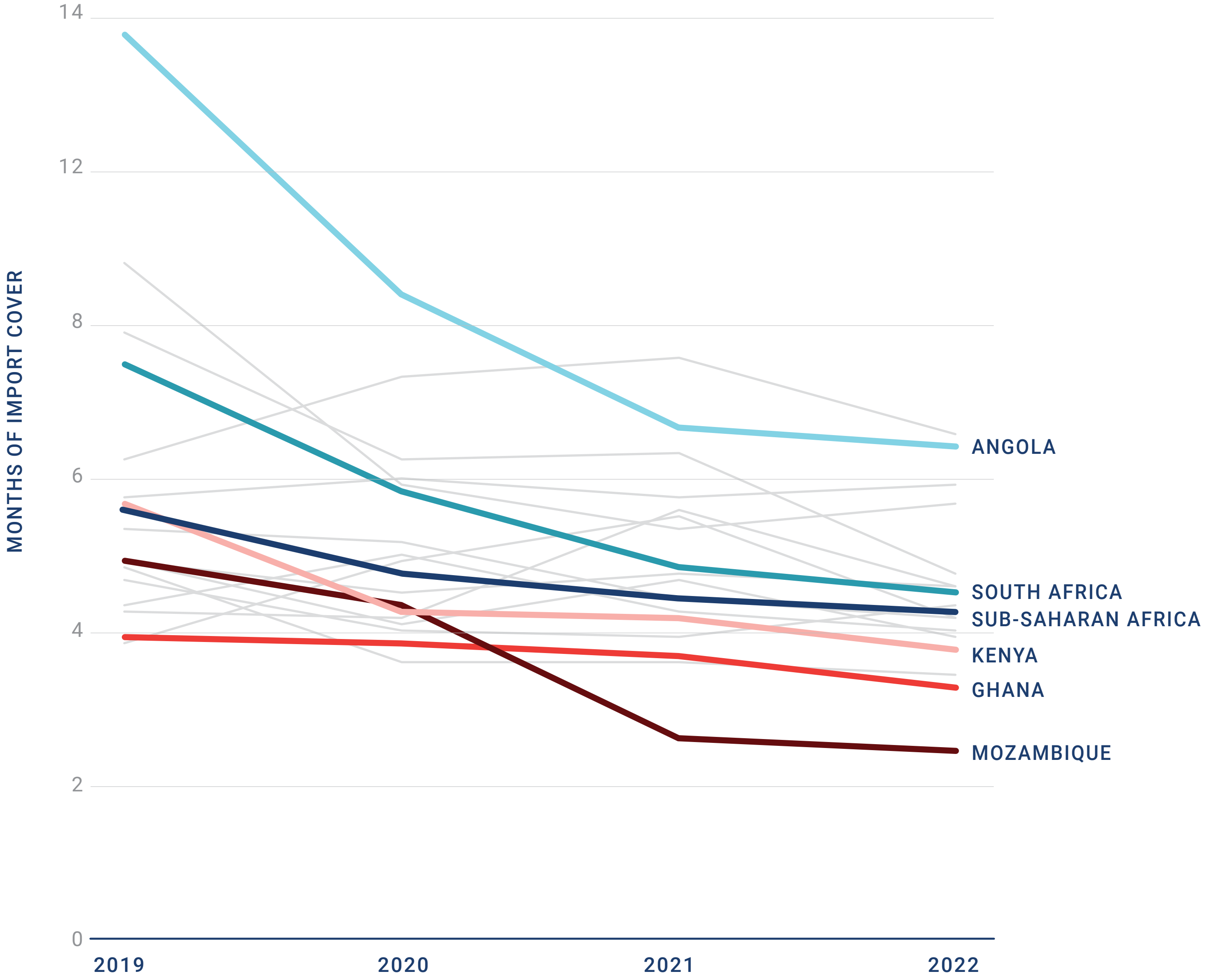
Nighttime lights can be used to as a proxy for economic growth and can be a useful measurement tool in fragile states or contexts that face barriers to accurate accounting. Recent research suggests that national accounts data correspond well with nighttime lights estimates, but only in countries defined as "free" by the Freedom House's Freedom in the World Index. Countries that are less free according to the index demonstrate disparities between reported economic growth numbers and those figures suggested by nighttime lights data.



Note: Openness is defined according to Freedom House's Freedom in World Index (FiW).
A **Free country** is one where there is open political competition, a climate of respect for civil liberties, significant independent civic life, and independent media.
A **Partly Free** country is one in which there is limited respect for political rights and civil liberties. Partly Free states frequently suffer from an environment of corruption, weak rule of law, ethnic and religious strife, and a political landscape in which a single party enjoys dominance despite a certain degree of pluralism.
A **Not Free** country is one where basic political rights are absent, and basic civil liberties are widely and systematically denied.
More information about the analytical methodology of the FiW index can be found here: https://freedomhouse.org/sites/default/files/2020-02/FIW%202012%20Booklet.pdf
Source. Estimates produced as part of Martinez, L. 2022. How Much Should We Trust the Dictator's GDP Growth Estimates? Journal of Political Economy, Vol. 130 (10), pp 2731-2769. Graphic design inspired by The Economist. 2022. "A study of lights at night suggests dictators lie about economic growth."

FIG.7 COLLECTIVELY, SUB-SAHARAN AFRICA HAS DRAWN DOWN MORE THAN 25% OF ITS FISCAL BUFFERS SINCE 2019

While on average, sub-Saharan Africa's foreign reserves have shrunk in attempts to stabilize exchange rates and finance key expenditures, there is a range of experiences at the country level. Angola, for instance, has gone from being able to cover nearly 14 months of imports to now being able to cover just seven. Other countries, such as South Africa and Mozambique, have used up more than 40 percent of their reserves. Some countries—such as The Gambia and Sierra Leone—have had success padding their reserves.



Note: Graph only displays countries with pre-pandemic reserves between 4 and 14 months worth of imports of goods of services. The sub-Saharan African average reflects all countries contained in the IMF's data.
Source: IMF. 2022. Africa Regional Economic Outlook, October 2022. International Monetary Fund.

Nigeria in 2023: Bridging the productivity gap and building economic resilience

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The last seven years (2015–2021) have been tough for Nigerians. During this period, GDP growth averaged 1.1 percent as the country experienced two economic recessions. Unemployment and underemployment rates increased to an all-time high of 56.1 percent in 2020,[1] pushing 133 million Nigerians into multidimensional poverty,[2] according to the latest data from the National Bureau of Statistics. Likewise, economic growth has not been inclusive, and Nigeria's economy faced key challenges of lower productivity, and the weak expansion of sectors with high employment elasticity.

Another key feature of Nigeria's economy in the last seven years has been the shift of economic activity towards agriculture and a slowdown of the manufacturing sector. As a share of GDP, agriculture expanded from 23 percent in 2015 to 26 percent in 2021, while manufacturing declined from 9.5 percent to 9 percent respectively. During this period, non-oil exports as a share of non-oil GDP averaged 1.3 percent while manufactured goods as a share of total exports remained low at 5.2 percent in 2021.[3] Part of the problem facing the economy is the neglect of the manufacturing sector. Essentially, Nigeria is not producing enough, for both local consumption and export. The consequences of having a weak manufacturing base for a country with such a large population are evident in its foreign exchange shortages, limited number of jobs created to accommodate workforce entrants, and an import bill that can hardly be met (nor sustained) by current export earnings.

Worse still, 80 percent of workers are employed in sectors with low levels of productivity—agriculture and non-tradable services. This means that the kind of jobs needed to generate income growth and lift many Nigerians out of poverty are not available in large numbers.

Worse still, 80 percent of workers are employed in sectors with low levels of productivity—agriculture and non-tradable services.[4] This means that the kind of jobs needed to generate income growth and lift many Nigerians out of poverty are not available in large numbers. As Nigeria approaches the general elections in 2023, there is immense pressure on political leaders to tackle these economic challenges and implement policies that will deliver an inclusive and competitive economy.

The new administration, working with stakeholders, needs to develop an agenda for economic and social inclusion. At the heart of such agenda must be improving the lives of the average Nigerian. This agenda must also include a practical strategy on how to structurally transform the economy, moving labor and economic resources from low productivity sectors to high productivity sectors.

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1 NBS. 2020. "Labor Force Statistics: Unemployment and Underemployment Report (Q4 2020)". Nigeria Bureau of Statistics.
2 NBS. 2022a. Nigeria Multidimensional Poverty Index. Nigeria Bureau of Statistics.
3 NBS. 2022b. Foreign Trade in Goods Statistics (Q3 2022). Nigeria Bureau of Statistics.
4 NBS. 2017. "Labor Force Statistics Vol. 2: Employment by sector report (Q3 2017)". Nigeria Bureau of Statistics.

As Nigeria approaches the general elections in 2023, there is immense pressure on political leaders to tackle these economic challenges and implement policies that will deliver an inclusive and competitive economy.

At the top of the productivity ladder is the tradable services sector, which has the potential to improve incomes and raise overall productivity. The challenge with this sector, however, is its inability to accommodate labor in large numbers. Nevertheless, the sector is important, given Nigeria's young population who are increasingly driving technological revolution across various sectors on the African continent. To leverage the full potential of this sector, the government will need to design and implement national skills programs aimed at upskilling young Nigerians, to ensure many more embrace digital skills and capabilities.[5]

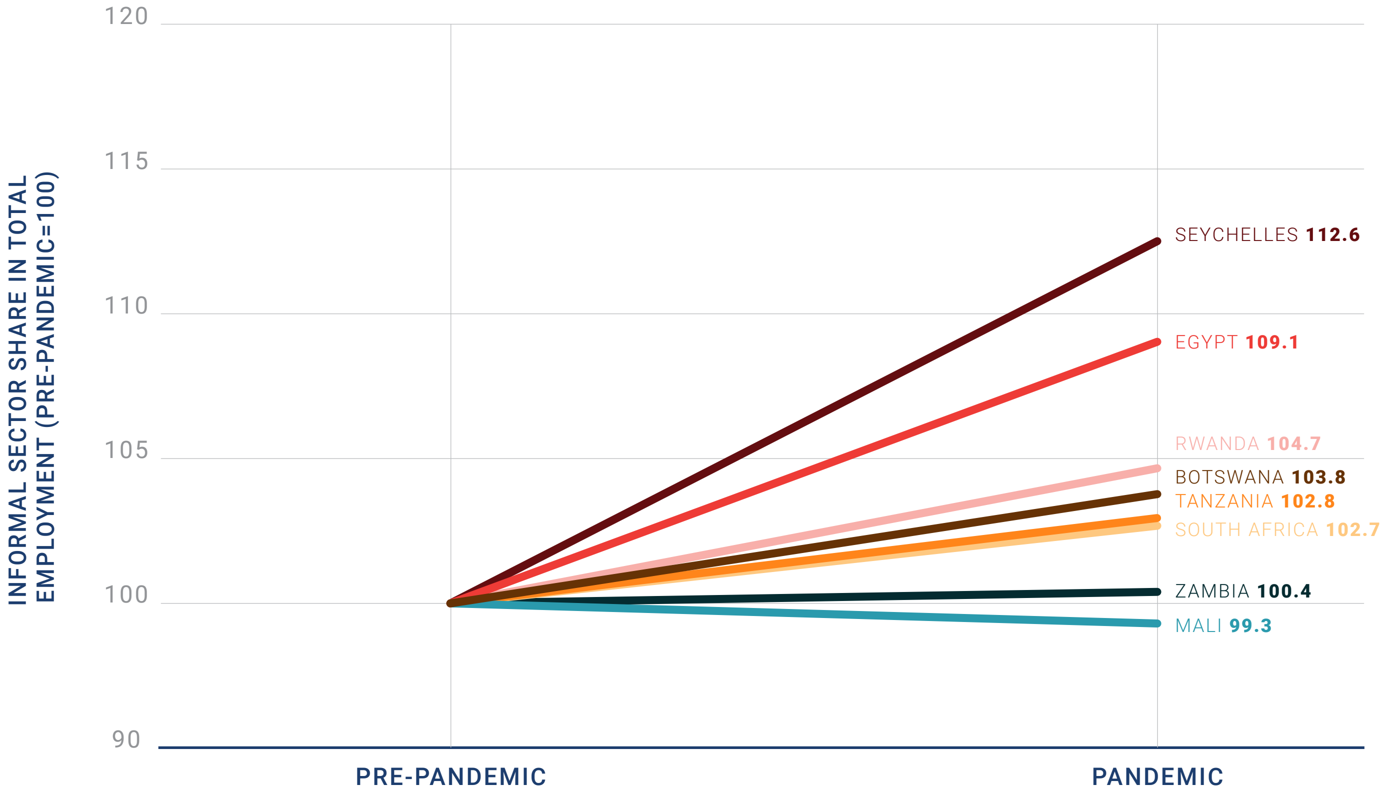
At the middle of the productivity ladder sits manufacturing. The sector has a much higher productivity level than agriculture and can accommodate, in large numbers, the kind of labor that is abundant in the country. Nigeria's rising population (which is projected to reach 428 million by 2050),[6] the existence of mineral resources, and the adoption of a single market in Africa—the African Continental Free Trade Area (AfCFTA)—present a case for why manufacturing would thrive in Nigeria. The priority, therefore, for the incoming government must be to address the burgeoning infrastructure deficit and inadequate power supply, which limit the competitiveness of the manufacturing sector. In addition, the government will need to develop an industrial policy that seeks to support the scale, efficiency, and competitiveness of local firms within the manufacturing sector; bearing in mind that developing the sector is key to building economic resilience against vulnerability and future shocks. Such policies must be integrated with Nigeria's AfCFTA strategy and support transition of small-scale firms that are often the drivers of job creation in the country.

5 Ekeruche, Mma Amara et al. 2022. "Employment creation potential of industries without smoke-stacks (IWOSS): A Nigeria case study."

6 U.S. Census Bureau. 2022. International Database. United States Census Bureau.

FIG.8 AFRICA'S INFORMAL SECTOR HAS GROWN DURING THE PANDEMIC

Agricultural workers account for most of the increase in informal sector workers. Many non-agricultural workers, especially women, have dropped out of the labor market due to inability to find a job or increased domestic responsibilities.



Source: ILOSTAT. 2022. Informal employment rate by sex and economic activity (%) database.
Note: Pandemic data are from the most recent year (2021 or 2020).

Africa's sovereign finance toolbox: Building resilience for a sustainable future

NICOLE KEARSE

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Africa has been greatly impacted by the economic fallout from the COVID-19 pandemic. The war in Ukraine, surging global inflation, and rising interest rates have put further pressure on African governments, many of whom now face extreme liquidity challenges, impaired debt repayment capacity, and threats of debt distress and default.

Clearly, African governments must respond to the impact these incidents are having on their finances and economies. For many, that means evaluating whether they should restructure their debt, and if so, how.

Yet, the focus must go beyond responding to the current crises.

Crisis often offers an opportunity to evaluate the cause of the crisis, the effectiveness of various solutions, and most importantly, future prevention options. African governments must thus use the recent spate of crises as an opportunity to reflect on, gain new perspective around, and reassess their current approaches to borrowing and financing more broadly.

Among available innovations, **climate, green and blue bonds, and loans** offer countries much needed finance as well as assistance with achieving the U.N. Sustainable Development Goals (SDGs). **Debt for nature swaps**, **debt for climate swaps**, and **debt for health swaps** can also support governments with many of the same sustainable development objectives. These progressive schemes should be considered by African governments as they look for ways to build back better.

Moreover, governments should ensure that any new lending is resilient to, or insured against, future climate, nature, and health emergencies—for example, by negotiating instruments that allow for short-term debt deferrals in the incidence of climate or other related shocks (such as a pandemic or a drought). Such provisions would allow governments to reallocate finances to domestic disaster relief, without the risk of defaulting.

Governments should also explore alternatives to borrowing for development finance. Here, **sovereign wealth funds** can help to foster self-reliance and allow countries to deploy income from natural resources and other assets to finance infrastructure development, environment-friendly strategies, and other projects that catalyze growth.

Clearly, effective debt management is the bedrock upon which sustainable financing rests. To lessen the impact of future crises, debt management capabilities in Africa must improve. This includes having, and knowing how to use, the most up-to-date debt management systems. In addition, debt managers must have a clear understanding of when, how, and where to borrow—including considerations of when and whether

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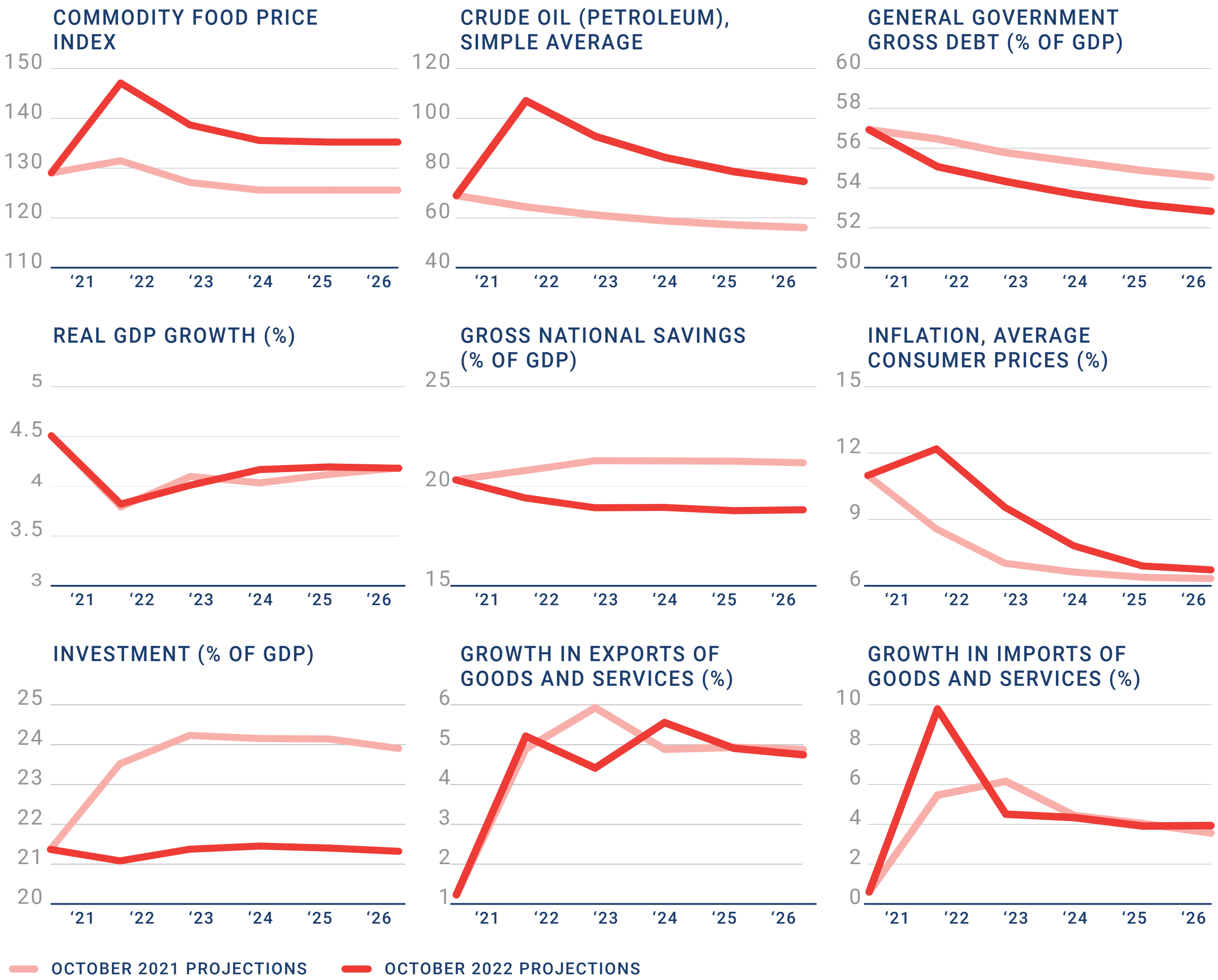
domestic debt should be employed over external debt, matching debt maturities to projects, and negotiating contracts that are resilient and "restructurable" if needed. This general understanding must be accompanied by robust and enforceable legal frameworks within countries.

In this regard, the African Legal Support Facility (ALSF) assists African governments to navigate the complexities of managing sovereign debt prudently. The ALSF provides comprehensive advisory services, knowledge resources, and capacity building required to achieve debt sustainability—including in connection with new debt, debt management strategies, debt relief and restructuring, sovereign wealth funds, and sovereign finance generally.

FIG.9

RECENT CHANGES IN THE GLOBAL ECONOMY, SUCH AS RUSSIA'S WAR IN UKRAINE AND RISING INFLATION, HAVE MADE SUB-SAHARAN AFRICA MORE SELF-RELIANT

Comparing IMF projections in October 2022 with those made in October 2021 gives us a glimpse of how events such as the war in Ukraine and monetary tightening of global reserve currencies have changed the outlook of key macroeconomic indicators for Africa. African governments are facing larger expenditure needs, in part due to higher food and fuel prices, and face higher inflation and lower rates of investment. These factors have combined for a slightly more modest growth projection for the next two years.



Note: Values in 2021 for October 2021 projections have been replaced by those observed in the October 2022's World Economic Outlook.
Source: IMF. 2022. World Economic Outlook database. International Monetary Fund.

The banking sector as a partner in Africa's recovery: A perspective from Ecobank Group

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An analysis of sub-Saharan Africa's (SSA) challenging economic situation confirms the following: There is no silver bullet for recovery; it is a long road ahead. But the good news is we have walked this path before and know the way. In these times of economic challenge, promptness and clarity of decisions will shorten the road to recovery and build confidence, which is essential. Economic problems do not age well, and the damage is compounded when allowed to fester.

Increased inflation in SSA, doubling in certain countries, is significantly fueled by rising food prices caused by insecurity, climate change, and supply chain disruptions from the Russia-Ukraine war. Policymakers, while executing contractionary anti-inflation campaigns, must provide incentives for increased domestic food production, agro-processing, and value chain interventions, as well as storage facilities. Producing and processing what we eat has direct economic impact and secures the lives of an estimated 140 million food-insecure Africans.[1] Furthermore, harnessing the power and ingenuity of the youth for agriculture will address increasing unemployment in the region.

The promise of the African Continental Free Trade Area (AfCFTA)—including accelerating structural transformation and increasing shared prosperity—is real but requires intentionality. Increasing the capacity for real-time cross border digital payments and settlements in SSA currencies is critical for the realization of this promise. As a financial services company, present in 35 SSA countries, Ecobank has invested in enabling settlement of transactions in real time across our operating countries, fulfilling our economic and financial integration mandate. Continuing to unlock policy bottlenecks, including convertibility limits, will boost intra-African trade.

Technology continues to be an effective enabler of multi-sectoral growth in SSA, promoting homegrown solutions, attracting investments, and enabling businesses to scale. While recognizing its additionality for the private sector, we should not ignore the transformational opportunity it provides for government, in revenue and data collection, efficient resource allocation, and accountability. Policymakers should encourage and increase investments in technology and promote innovation.

SSA's debt burden has been on an upward trajectory. The situation was compounded during the pandemic as countries borrowed to keep their economies afloat. Currency depreciations have increased the debt service burden. Prompt fiscal consolidation necessitating discipline, revenue mobilization, prioritized spending, and greater efficiency in public spending is a must. Indeed, broad application of subsidies is no

1 World Bank. 2022. "Putting Africans at the Heart of Food Security and Climate Resilience." World Bank Group.

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longer sustainable. When necessary, in the interest of the most vulnerable, subsidies must be targeted, timebound, transparent, and closely monitored. In these challenging times, even the friendliest donor partner is struggling, therefore SSA countries would have to bring more self-help initiatives to the table.

Our greatest asset in SSA remains our people, without whom recovery would be illusory. A phenomenon common to all SSA countries is the hemorrhaging of talent, constituting the middle class. This voluntary emigration is largely triggered by the fierce competition for talent globally. SSA countries must be intentional about incentivizing talent to remain competitive. It has taken SSA considerable time and effort to rebuild its middle class, which it is now at risk of losing. The long-term effects are sure to be devastating.

SSA countries have a great opportunity to build forward better and sustainably, incorporating greener strategies into recovery plans, being inclusive across gender, age, and ethnicity, and involving the private sector. The financial services industry is a critical enabler of economic recovery. Policymakers must engage industry players to design more accommodative policies enabling the industry to effectively meet the needs of the people.

At Ecobank, we are conscious that the challenging economic times provide an opportunity to once again manifest our raison d'etre and the reason we are trusted by the continent and its friends—our DNA is Pan-African and being true to our mandate makes us encourage Africans to dream, while we accompany them to succeed and create value across the continent. As mentioned earlier, producing what we eat is critical for our recovery. Ecobank therefore allocates capital to agricultural production and agro-processing for domestic consumption and export. Recently, we formed a partnership with Mastercard's Farm Pass platform to digitize agricultural value chains in Africa and empower millions of smallholder farmers through digital and financial inclusion.

Ecobank has experienced firsthand the transformational effect of technology—to scale, go beyond borders, accelerate change, as well as collect and mine data, among others. The Group therefore runs an annual innovation challenge to promote homegrown African solutions leveraging technology and providing incubation opportunities and financial support as part of the Ecobank Fintech Fellowship. We also seek opportunities and finance digital transformation projects for governments embarking on digital transformation and automation projects, particularly targeting processes that unlock the provision of public services. Our focus on technology continues to yield results including the engagement with younger Africa. Our Fintech Partnership is playing a defining role in developing Africa's fintechs and providing an attractive alternative for Africa's youth. The Ecobank's Pan-African banking sandbox offers an amazing opportunity for fintechs to access Ecobank's APIs to build and test their products. We also provide an online marketplace as well as a unique gateway to our 33 operating countries in Africa.

We are intentional about attracting and retaining talent, either through our Management Trainee Program, the Ecobank Academy, the Innovation Race, which encourages in-house innovations through an effective rewards and incubation system, compensation and benefits policies, and the flexible technology-enabled work arrangements.

On a greener and more sustainable path to recovery, Ecobank is distilling from its experience from raising from the markets $350 million by issuing tier 2 sustainability bonds last year. Even though the market has evolved, the experience remains valuable as we plan the funding for a greener and more sustainable recovery.

Finally, we continue to engage all critical stakeholders in structuring appropriate responses to address certain of the debt sustainability challenges on the continent. Ecobank as well as its peers will need to make their advisory and structural capacity available as we work our way to recovery. For banks, as we consider various options, it is paramount that the banking system and customer funds are preserved.

FIG.10 **REGIONAL ECONOMIC COMMUNITIES VARY IN THEIR DIMENSIONS OF INTEGRATION**

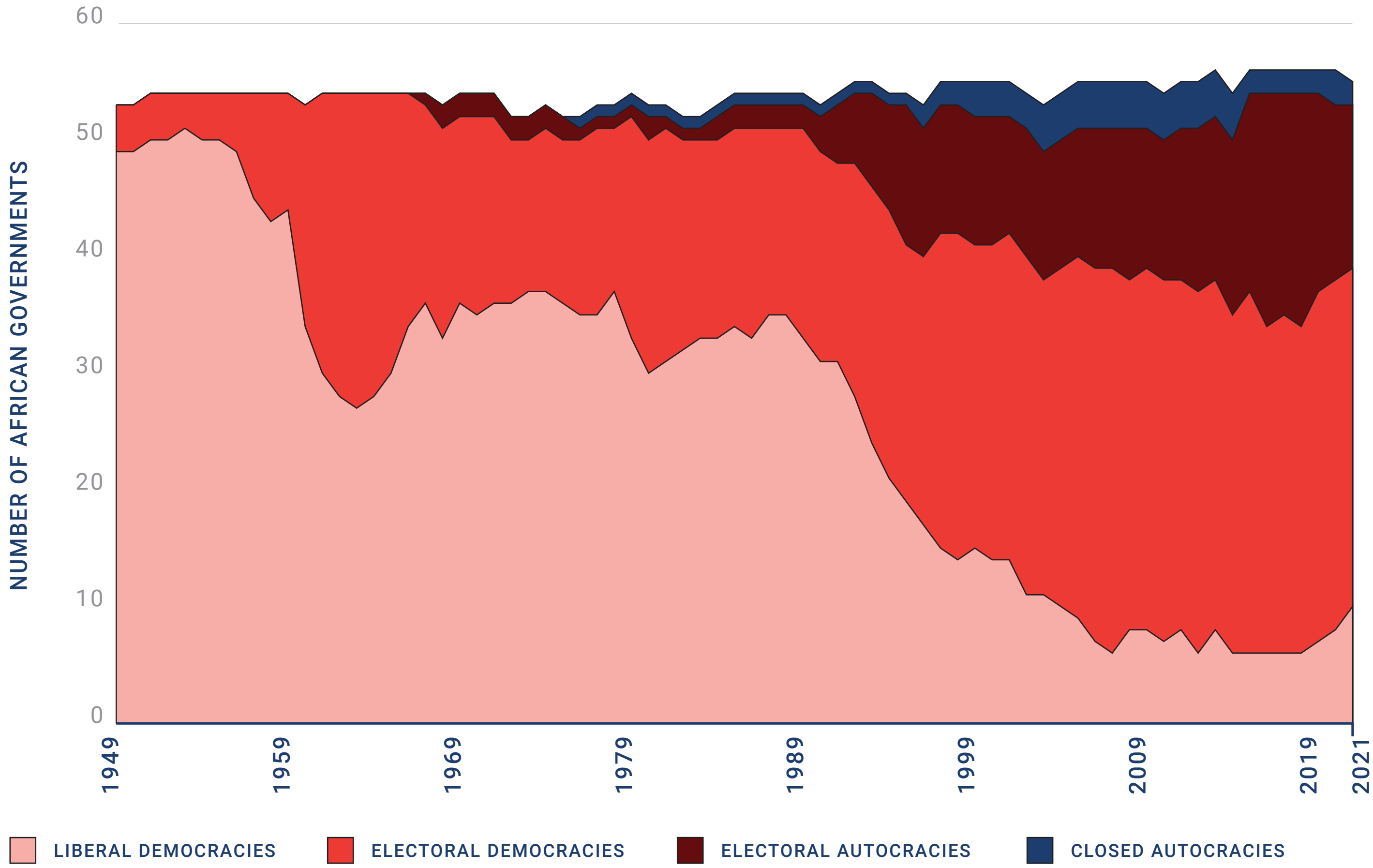
The African Union uses a large collection of indicators to rank the eight official regional economic communities (RECs) on various dimensions of integration. The Economic Community of West African States (ECOWAS), for instance, scored highly in labor market integration due to its common passport and permitting free movement of persons. The Southern African Development Community, meanwhile, scored well in its financial integration thanks to its customs union.

REC	OVERALL	FREE MOVEMENT OF PERSONS	SOCIAL INTEGRATION	TRADE INTEGRATION	FINANCIAL INTEGRATION	MONETARY INTEGRATION	INFRASTRUC-TURE INTEGRATION	ENVIRON-MENTAL INTEGRATION	PUBLIC AND INSTITUTIONAL INTEGRATION
ECOWAS	0.74	1.00	0.79	0.84	0.60	0.56	0.53	0.67	0.93
EAC	0.73	0.96	0.79	0.85	0.66	0.65	0.70	0.58	0.77
COMESA	0.68	0.67	0.60	0.79	0.73	0.60	0.66	0.62	0.73
ECCAS	0.62	0.62	0.58	0.64	0.55	0.58	0.62	0.75	0.60
SADC	0.61	0.58	0.59	0.67	0.81	0.65	0.70	0.67	0.46
CENSAD	0.54	0.53	0.41	0.50	0.51	0.62	0.66	0.51	0.55
IGAD	0.53	0.56	0.42	0.49	0.46	0.63	0.61	0.65	0.53
AMU	0.52	0.62	0.48	0.51	0.44	0.56	0.58	0.47	0.52

Source: African Union. 2022. African Integration Report: Putting Free Movement of Persons at the Centre of Continental Integration. African Union.

FIG.11 **DEMOCRATIC DECLINE IN AFRICA**

Since independence, nation-states of Africa have been gravitating away from closed autocracies and toward electoral systems and liberal democracies. Since 2018, however, there has been the most sustained reversal of this trend since independence, with four African governments becoming closed autocracies.



Note: Our World in Data defines political regimes in the following way.
In **closed autocracies**, citizens do not have the right to choose either the chief executive of the government or the legislature through multi-party elections.
In **electoral autocracies**, citizens have the right to choose the chief executive and the legislature through multi-party elections; but they lack some freedoms, such as the freedoms of association or expression, that make the elections meaningful, free, and fair.
In **electoral democracies**, citizens have the right to participate in meaningful, free and fair, and multi-party elections.
In **liberal democracies**, citizens have further individual and minority rights, are equal before the law, and the actions of the executive are constrained by the legislative and the courts.
Source: Our World in Data. 2022. Based on Lührmann et al. 2018. and V-Dem (v12).

Self-organizing Nigeria: The antifragile state

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Many observers of Nigeria, the most populous African country, believe she should have been a failed state. To the surprise of these political analysts and economists around the world, Nigeria is not. Since attaining independence in 1960, the country has at many junctures staggered close to dangerous precipices—but fortunately, it has never reached the tipping point.

Why is Nigeria not yet a failed state? The public sector essentially provides none of the key necessities that are found in other nations—be it education, health, security, power, or infrastructure—and yet Nigeria moves forward.

Our basic thesis is that Nigerians' self-organizing impulse is what has been preventing Nigeria from becoming a failed state and is indeed behind whatever successes (and there are many) individual Nigerians and Nigeria are achieving.[1]

Despite the chaos and disorder in the nation's public sector, the volatile nature of the economy, and societal stressors of various dimensions, Nigerians find impetus to organize life by themselves and for themselves. And this, they do, in every sphere of existence, at individual and group scale.

Millions of Nigerians display self-organizing impulses **as they go about their daily business (not in easy circumstances to be sure) trying to earn a living, get an education, create a career path, find a spouse, raise children, and just generally, make meaning of life.**

Of course, all societies possess this self-organizing impulse. However, what distinguishes Nigerians in this dimension, is the sheer scale of self-organization. Faced with undeniably harsh living conditions, failed by a public sector that does not deliver what it should, Nigerians have developed an outsized capability in self-organizing.

How does this self-organizing concept impact the economic development of the nation? In a myriad of ways, but here are two examples:

- In the power sector, it is often repeated that Nigeria has only about 5,000 MW of generating capacity, clearly insufficient for a country of 200 million.[2] This is of course absurd. And yet, Nigerians produce at least double as much electricity through self-organization than through the capacity of the large-scale grid suppliers.[3] Much of this is through diesel generators, so not ideal to be sure, but more and more is from renewables like solar (including widespread adoption of mini-grids) and organic waste-to-power. This ability to self-organize and generate power on a small-scale, sets Nigeria up extremely

1 Neill, Elizabeth and Andrew S. Nevin. 2021. "Flourishing in Canada: How to Get the Good Life." The Institute for Flourishing.

2 USAID. 2022. Nigeria Power Africa Fact Sheet. United States Agency for International Development.

3 Nevin, Andrew S. et al. 2022. "Nigerians: A Self Organising People."

well for the time when all Nigerians can have access to power that is mainly produced in situ.

- The incredibly powerful Nigerian diaspora is of course another self-organizing phenomenon. The government of Nigeria plays essentially no role. There is no coordination between the countries receiving the diaspora and Nigeria (as is the case for example, with the Philippines). The emigres take on all the necessary tasks to emigrate; researching, applying, finding a job, organizing their departure, etc. And yet despite no government involvement, Nigerian brains (via the diaspora) are now the largest export earned for Nigeria, larger than the actual oil proceeds that reach the country.[4]

Under Taleb's definition, when a system with antifragile tendencies or qualities is subjected to volatility and stress, not only is it resilient, but it also thrives despite the hostilities and contradictions.

And while it is obvious that Nigerians display a high degree of resilience, we believe that the consequences of self-organizing go further.

"Antifragility" is a systems concept coined by Nassim Taleb (famous author of *The Black Swan*). In his most recent book, *Antifragile: Things That Gain from Disorder,* Taleb posits that, "some things benefit from shocks; they thrive and grow when exposed to volatility, randomness, disorder and stressors, and love adventure, risk, and uncertainty."[5] However, as Taleb notes, "in spite of the ubiquity of the phenomenon, there is no word for it." Appreciating the limitations of the English language, he introduces the term "antifragile" as the exact opposite of fragile. He says, "let us call it antifragile. Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same; the antifragile gets better."

Under Taleb's definition, when a system with antifragile tendencies or qualities is subjected to volatility and stress, not only is it resilient, but it also thrives despite the hostilities and contradictions.

This is a perfect description of Nigerians and Nigeria. For policy, this has profound implications: Policies that acknowledge and embrace this self-organizing impulse are much more likely to be successful. This means state-led development, should allow non-state actors room to have an impact, and avoid complex, centralized programs that have been shown to fail in the past, and are almost certainly going to fail in the future.

Put simply, to govern Nigeria effectively, less is more.

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4 Nevin, Andrew S. and Chiwueze Ihebuzor. 2022. "Nigerian Brain Exports: The Optimal Path to Growing the Nigerian Economy." PricewaterhouseCoopers.

5 Taleb, Nassim. 2022. "Antifragile: Things that Gain from Disorder." Book. Random House.

In search of new ideas for Africa's recovery: Sports and creative industries as game changers?

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The year 2022 witnessed unprecedented phenomena. Several Africans—Gotytom Gebreslase, Sharon Lokedi, Victor Kiplangat, Tamarit Tola, and many others—swept the World's marathons records. However, the COVID-19 pandemic, and the resulting control measures implemented in several countries, led to many high-level sports competitions being cancelled or postponed; for example, the Dakar 2022 Youth Olympic Games was moved to 2026. The inability to hold traditional and amateur sports events have had a serious effect on public health overall, including mental health, sparking a revolution whereby athletes began to talk more openly about stress, mental overload, and performance anxiety.

In addition, Africa, home to the fastest growing economies before the crisis, is no longer on track to meet the Sustainable Development Goals (SDGs).[1] COVID-19 deepened interdependence between SDGs, making them harder to achieve, especially SDG 10 (reducing inequality) and SDG 5 (gender equality)—as the pandemic had a disproportionate impact on poorer countries, and heavier burdens (such as care work) fell to women.

As policymakers contemplate actions to speed up recovery and build resilience, we argue that sports and creative businesses should play a central feature in this effort.

The sports economy worldwide is estimated at 5 percent of GDP, but only 0.5 percent in Africa.[2] If exploited, Africa's sports and creative industries can offer policymakers innovative solutions. Especially, as regards job creation, and providing employment to the 15 million people entering the job market annually.

How can the industry do this?

By leveraging the two-for-one concept: Past studies have shown that a 1 percent growth in the economy delivers a 2 percent job increment in this sector (these ratios are calculated using data from 48 African countries and adjusted to the reality of the sports economy in Africa by the authors).[3] There are between 30 and 50 job types, in sports and creative industries, respectively. These jobs do not fade away with the first major shock.

1 Nwuke, Kasirim. 2021. "Africa faces a hard choice on the SDGs under COVID-19." Africa in Focus blog. The Brookings Africa Growth Initiative.

2 Diop, Makhtar and Rémy Rioux. 2022. "Économie du Sport en Afrique: Réalités, Défis, Opportunités." Economica.

3 Léautier, Frannie A. and Kobena T. Hanson. 2017. "Jobless Economic Growth: Lessons from Africa." Africa Portal.

The sports economy worldwide is estimated at 5 percent of GDP, but only 0.5 percent in Africa. If exploited, Africa's sports and creative industries can offer policymakers innovative solutions.

Second, policymakers can use these industries to tackle multiple crises—jobs, poverty, and climate risks. Sports diplomacy—defined as communication, representation, and negotiation in or through the prism of sports—has proven effective in building inclusive and cohesive societies.[4] Moreover, sports and the creative industry can support better mental health and well-being, both important for productivity.

Finally, policymakers can be "true to the game" by leveraging culture and traditions to celebrate identity and reap commercial value in sports, textiles, and jewelry. Creative sectors allow deeper connection with culture, are not easily copied, and provide great economic potential. Supporting grassroots sports (versus elite or pro-sports) has powerful distributional effects. Fortunately, technology has made reaching wide audiences easier, generating higher rates of success when talent is discovered.

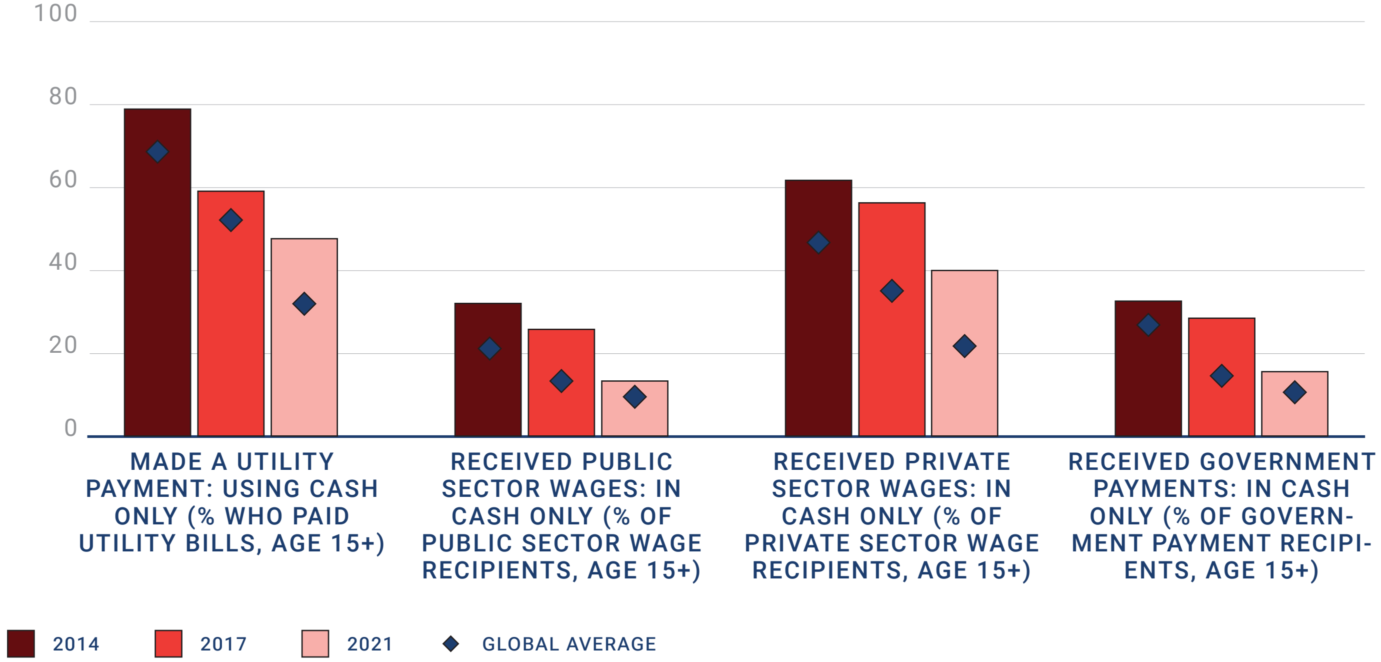
However, potential pitfalls must be highlighted. First, avoid "build it and they will come" policies with infrastructures denuded from the rest of the ecosystem. Like the many sports stadiums left largely unused. Second, policymakers must remain mindful of how these sectors move the needle in human capital development. Also, align the requisite public policies needed for progress from grassroots participation to professional sports, and even to international sporting events.[5] And finally, support investment instruments to render these sectors performant.

4 Murray, Stuart. 2020. "Sports Diplomacy: History, Theory and Practice." Oxford Research Encyclopedia of International Studies. Oxford University Press.

5 Sandy, Robert, Peter J. Sloane, and Mark S. Rosentraub. 2004. "Government and sports policy." In: The Economics of Sport. Palgrave, London.

FIG.12 **SUB-SAHARAN AFRICA HEADED TOWARD A CASHLESS SOCIETY**

Sub-Saharan Africa is following the global trend toward a cashless society. In 2021, only 40 percent of private wage earners and 13 percent of public wage earners were paid in cash, a much smaller share than in 2014. Recent data support reports of digital payments accelerating during the pandemic.



Note: Dataset includes respondents age 15+ from 153 countries, including 41 from sub-Saharan Africa. The countries included in sub-Saharan Africa include Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Central African Republic; Chad; Comoros; Democratic Republicof Congo; Republic of Congo; Côte d'Ivoire; Eswatini; Ethiopia; Gabon; The Gambia; Ghana; Guinea; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Senegal; Sierra Leone; Somalia; South Africa; South Sudan; Sudan; Tanzania; Togo; Uganda; Zambia; Zimbabwe.
Source: World Bank. 2021. Global Findex Dataset. World Bank Group.

FOOD SECURITY:

STRENGTHENING AFRICA'S FOOD SYSTEMS

ESSAY

VIEWPOINT

Food security in Africa: Current efforts and challenges

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Africa's food systems are at a crossroad. Several challenges and exogenous shocks—including extreme weather events and climate change, recurrent outbreaks of pests and diseases, limited availability and adoption of yield-increasing technologies—have exposed fragilities of Africa's food systems, undermining the ability to meet the food demand of a burgeoning population.

More recently, the COVID-19 pandemic and the war in Ukraine have disrupted the supply chain for agricultural inputs, fuel, and food. The state of food security in the continent is worsening, with over 20 percent of the continent's population (roughly 257 million people) undernourished.[1] Africa bears the heaviest burden of malnutrition,[2] while the African Union's Comprehensive African Agriculture Development Programme (CAADP) *Biennial Review* report (2019-2021) further reveals that Africa is not on track to meet its goal of ending hunger by 2025.[3] In 2022, over 20 million people and at least 10 million children faced severe food shortage in Africa due to crop failure and four consecutive dry seasons.[4] East Africa alone lost close to 2 million livestock in a year due to recurrent drought and low response capacity.[5] Moreover, projections by the United Nations Economic Commission for Africa point to Africa's annual food imports increasing significantly; by a factor of seven from $15 billion in 2018 to $110 billion by 2025, and by a factor of three from the current $43 billion.[6]

Current efforts by AGRA and other African-led institutions

Given these worrying food security trends, Africa's food systems must become more resilient and guarantee access to healthy and affordable diets for all. Tested systemic models have demonstrated that agriculture transformation is possible in input and output market systems, and that it can be scaled across the continent. Besides engaging in immediate recovery efforts, such as our $11 million investments to tackle the impacts of the COVID-19 pandemic, the Alliance for Green Revolution in Africa (AGRA) has supported African countries to build capacities for the design of agricultural sector strategies and evidence-based policy reforms. At a country level, AGRA has made significant strides in helping resource national agriculture programs,

1 Armstrong, Martin. 2022. "A fifth of people in Africa are suffering from chronic hunger. This map shows where the situation is most severe." World Economic Forum. August 2022.

2 FAO. 2022. "The State of Food Security and Nutrition in the World 2022." The Food and Agriculture Organization.

3 AU. 2021. "3rd CAADP Biennial Review Report." The African Union.

4 UNICEF. 2022. "At least 10 million children face severe drought in the Horn of Africa." United Nations Children's Fund.

5 Bloomberg. 2022. "'On Brink of Catastrophe': Horn of Africa Drought Kills Over 1.5 million Livestock." Bloomberg. February 2022.

6 UNECA. 2021. "Regional Dialogue: African Food Systems: Seventh Session of the Africa Regional Forum on Sustainable Development." Background paper. United Nations Economic Commission for Africa. March 2021.

Africa's food systems must become more resilient and guarantee access to healthy and affordable diets for all. Tested systemic models have demonstrated that agriculture transformation is possible in input and output market systems, and that it can be scaled across the continent.

working closely with ministries of agriculture to design 11 flagship programs. Some of the early dividends of this work include:

- Enhanced capacity of African governments to design and implement policies, and hence respond to emergent agricultural and food systems challenges. AGRA recognizes that "business as usual" is no longer sustainable and has therefore developed a program called "sustainable farming" to ensure that farmers concomitantly achieve three major livelihood objectives, namely: Food security, protecting ecosystem services, and resilience to climate and other shocks. It employs context-specific farming system solutions with emphasis on improving water and nutrient efficiency of crops, replenishing over extracted nutrients through application of judicious amounts of fertilizer, and diversifying the farming systems with climate resilient crops and management practices.
- To improve climate resilience, AGRA invested in the development of African scientists and African research institutions. AGRA has thus far trained more than 500 national research system breeders at PhD and MSc level, to create local capacity of genetic development.
- Responding to the climate risks, Africa has capacity to breed and release varieties of crop that are climate adaptive; early maturing, and drought tolerant like cassava, maize, rice, groundnuts, cowpeas, high iron beans, and b-carotene rich sweet potato that can be scaled.
- Recognizing the malfunctional extension system in Africa, the introduction of private-sector led village-based agricultural advisors' engagement has helped to reduce post-harvest losses by about 30 percent in countries such as Mali, Mozambique, and Nigeria.
- Together with the Common Market for Eastern and Southern Africa (COMESA), AGRA is building the Regional Food Balance Sheet (RFBS) to address the dearth of reliable, timely, and accurate data and guide food and nutrition related decision making in Africa.
- Together with the Economic Community of West African States (ECOWAS) Commission and other partners, AGRA has established the ECOWAS Rice Observatory (ERO) with respective national chapters, where rice-related matters of trade policy, market development, and farmer support will be discussed, and solutions identified.
- Within the Southern African Development Community (SADC) region, AGRA has established Chinyanja Triangle Soybean Trade initiative and linked a total of 22,179 smallholder farmers to regional trade markets, supplying over 7,070 million metric tons (MT) of soybeans valued at more than $4 million unlocking trade financing valued at $2.5 million which will support aggregators to source soybeans from smallholder farmers at competitive prices.

Critical next steps

Beyond this progress, strategic and urgent measures are still needed to enhance the resilience of Africa's food systems and bolster the ability to deliver on food security and nutrition objectives. Some of these actions include:

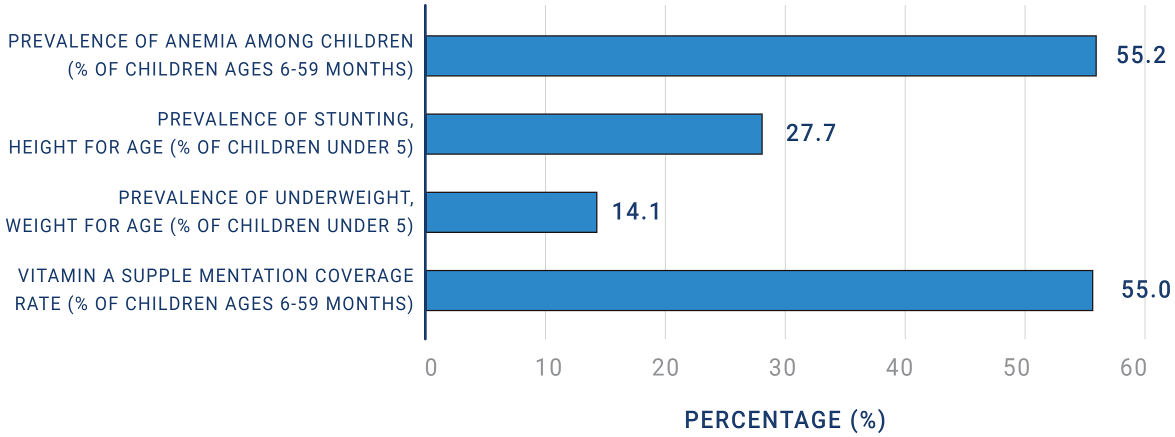
- Accelerating the adoption and implementation of the African Continental Free Trade Area (AfCFTA) in order to avert food supply disruptions, as experienced during the pandemic.
- Providing an enabling policy environment for the financial sector to supply more business and financial tools to Agri-SMEs.
- Supporting the establishment of Strategic Grain Reserves (SGRs) as a buffer against unexpected exogenous shocks. Social Protection Programs are also priorities and should be implemented with clear graduation targets for the beneficiaries.
- Moving towards sustainable farming: Although Africa owns about 60 percent of the world's potential land for agricultural expansion,[7] by 2050, about 45 percent of the additional food should come from sustainable intensification (i.e., producing more food and fiber per unit of land and water).
- African food systems should be diversified, moving from the major global commodities: Rice, wheat, and maize; and more investment must be made towards African indigenous and resilient crops including sorghum, millets, teff, and cassava.
- Increasing investments in market infrastructure and other incentive mechanisms to support African farmers to adopt climate smart policies, technologies, and practices, including afforestation and rehabilitation of degraded lands, wetlands, and protected areas to enhance carbon sequestration and reduce carbon losses.
- Investment in irrigation infrastructure is critical. Rainfed food production sits at the center of 70 percent of Africa's livelihoods. This heavy reliance on rainfed systems exposes farmers to recurrent drought and other extreme events, hence water-centered adaptation must be a priority for Africa.
- Increased availability of clean and renewable energy for rural Africa, the absence of which is currently contributing hugely to deforestation and climate change exposure.
- Institutional capacity: Africa's level of exposure and vulnerability is connected to its low institutional capacity and governance systems. We need to ensure that national systems have the capacity to convert climate policies and commitments into action.

7 Wim Plaizier. 2016. "2 truths about Africa's agriculture". World Economic Forum.

- ↘ Early warning systems and associated climate advisories that are demand-driven and context specific, combined with climate change literacy and awareness, can help make the difference between coping and informed adaptation responses.

FIG.13 MANY AFRICAN CHILDREN STILL SUFFER DEPRIVATIONS OF BASIC NUTRITION (2021 OR LATEST YEAR)

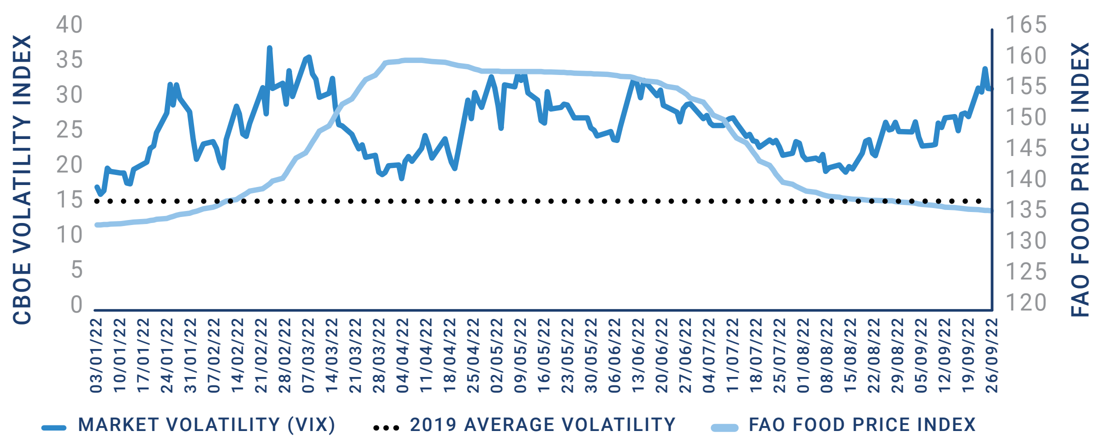
Africa's dependence on imports for seed, fertilizer, and some cereals has meant that global trade disruptions have exacerbated the threat of food insecurity and malnutrition. In the average African country, 28 percent of children under five have their height stunted by poor nutrition, while 14 percent are severely underweight. Anemia and lack of vitamin A supplementation, an important protection against all-cause mortality, is also widespread in the continent.



Source: World Bank. 2022. World Development Indicators.

FIG.14 THE POTENTIAL FOR COMMODITY PRICE SHOCKS AND ECONOMIC DISRUPTIONS REMAINS HIGH

Although food prices have fallen from their peak earlier in 2022, market volatility remains significantly elevated, underscoring the risk of further spikes in commodity market prices and the potential for future economic disruptions.



Source: FAO. 2022. Food Price Index dataset. Yahoo Finance. 2022. CBOE Volatility Index (^VIX).

Securing Africa's food sovereignty

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The war in Ukraine laid bare a vexing and persistent structural vulnerability in most African countries.[1] The continent, with 60 percent of the world's unused arable land, cannot feed itself because of low yields, poor farm management practices, and distortions in agricultural markets.[2] Consequently, the continent is overly dependent on food and fertilizer imports to feed its people. Africa's farmers find it increasingly difficult to enhance productivity, create jobs, and boost wealth in the agricultural sector.[3] The Ukraine crisis should be a wake-up call. African countries must embrace a food systems approach to scale-up food production, overhaul farm management practices, and improve food marketing to move beyond food security and attain food sovereignty.[4] This will not only ensure the availability of affordable food, but it will also help countries attain a number of the Sustainable Development Goals (SDGs), including: SDG #2 zero hunger, SDG #3 good health and wellbeing, SDG #5 gender equality, SDG #8 decent work and economic growth, and SDG #10 reduced inequalities.

Food sovereignty speaks to the ability of a country to feed itself. In Africa, this must involve increasing production and ensuring that farming systems are more resilient to price and environmental shocks.

The 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) highlighted the challenges Africa continues to face with regards to tackling the effects of climate change. While we are buoyed by the groundbreaking decision to establish a loss and damage fund, the failure to reach global consensus on tangible action that will reduce emissions reminds us of the difficult road ahead.[5] Without this thorny issue being resolved, our efforts to attain food sovereignty will remain stymied.

Food sovereignty speaks to the ability of a country to feed itself. In Africa, this must involve increasing production and ensuring that farming systems are more resilient to price and environmental shocks. The 2006 Abuja Declaration of African agriculture ministers called for an increase in Africa's average fertilizer application rates from 20 kg/ha to 50 kg/ha to boost production. Africa's average application rates are still at 2006 levels, while the global average is slightly over 130 kg/ha.[6] While it is evident that fertilizers are not the proverbial silver bullet, it is clear that better farming practices could be a crucial first step in Africa's journey towards food sovereignty. Recent UNDP research suggests that meeting the 2006 Abuja target could more than double Africa's food production in a couple of years.

1 UNDP. 2022. "The impact of the war in Ukraine on sustainable development in Africa." United Nations Development Programme.

2 UNECA. 2013. "Eighth African Development Forum (ADF-VIII) Governing and Harnessing Natural Resources for Africa's Development." United Nations Economic Commission for Africa.

3 UNDP. 2022. "The impact of the war in Ukraine on sustainable development in Africa." United Nations Development Programme.

4 UNDP. 2022. "Towards Food Security and Sovereignty in Africa." Regional Bureau for Africa Working Paper. United Nations Development Programme.

5 World Economic Forum. 2022. "What did COP27 accomplish and what actions can we expect as a result?" World Economic Forum.

6 UNDP. 2022. "Towards Food Security and Sovereignty in Africa." Regional Bureau for Africa Working Paper. United Nations Development Programme.

In order to accomplish this, Africa does not need to be overly dependent on fertilizer imports from Ukraine and Russia. The continent produces sufficient potash and ammonia to sustain a thriving fertilizer industry. In addition, existing fertilizer blending facilities (*in 19 African countries*) and manufacturing plants (*in 10 African countries*) operate well below capacity. Concerted investments in infrastructure, technology, and skills, including through public-private partnerships, could boost fertilizer production. Leveraging the African Continental Free Trade Area (AfCFTA) could also widen and deepen Africa's market and facilitate the availability of affordable fertilizer across Africa. In Nigeria, for example, if fertilizer-producing plants were working at full capacity (Dangote's full capacity is 3 million tons and Indorama's 1.4 million tons), the country could meet its own 1.5 million tons of fertilizer consumption, while also meeting the rest of the region's needs.

A case for food sovereignty

Free or cheap food imports have made local food production in Africa less competitive and, in turn, shifted consumer preferences away from local brands to foreign ones. As a result, Africa is now the most food-import-dependent region in the world, dedicating more than 13 percent of its import expenditure to buying food and agricultural commodities.

Food sovereignty in Africa is not just about production and trade. It is also about resilience and ensuring that the continent's food production is not held hostage by natural and market shocks. The use of technology, fertilizer, and improved farm management practices could revolutionize Africa's food sector. In addition, African countries must take steps to reverse their dependence on food aid and food imports. Free or cheap food imports have made local food production in Africa less competitive and, in turn, shifted consumer preferences away from local brands to foreign ones. As a result, Africa is now the most food-import-dependent region in the world, dedicating more than 13 percent of its import expenditure to buying food and agricultural commodities. This contributes to overall fiscal stress.

Revolutionizing food production in Africa will improve the continent's development prospects and build resilience. Using fertilizers produced in Africa and fully integrating research from Africa's agricultural research institutes could help the continent attain food sovereignty by minimizing imports. This would make Africa's food markets more resilient during global shocks and prevent the pass-through of global price shocks into domestic inflation. It would also have the added benefit of relieving stress on scarce foreign exchange earnings.

Assuming Africa had adhered to the 2006 Abuja Declaration and gradually increased fertilizer application rates from 20 kg to 50 kg per hectare between 2010 and 2020, food production could have grown cumulatively by 209 percent instead of just 24 percent. Such an increase would have had a salutary impact on reducing hunger and addressing malnourishment.

The increased agricultural productivity would also significantly impact women and girls, helping Africa make more progress on SDG 5 regarding gender equality. Research by the Food and Agriculture Organization estimates that women comprise 43 percent of the agricultural labor-force in developing countries and are mainly concentrated in harvesting and weeding.[7] Boosting food production could therefore also contribute to decent work and economic growth (SDG 8), especially for women and girls.

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7 FAO. 2011. "Women in agriculture: Closing the gender gap for development." The State of Food and Agriculture series. Food and Agriculture Organization.

Policy options

Assuming Africa had adhered to the 2006 Abuja Declaration and gradually increased fertilizer application rates from 20 kg to 50 kg per hectare between 2010 and 2020, food production could have grown cumulatively by 209 percent instead of just 24 percent.

Some African countries are already improving food production and attaining food sovereignty. Malawi's 2006-2010 agricultural development program, which has been described as "pro-poor," increased yields, raised incomes, and made the crops more resilient to drought.[8] Ethiopia's 2005 productive safety net policy program (PSNP) targeted households and communities that are chronically food insecure and offered insurance, as well as investment in public goods such as soil and water conservation.

Despite progress in a few countries, Africa needs coordinated policy changes and sustained action to increase food production, improve distribution, ensure affordability, and reduce dependency.[9] African leaders should prioritize incentives to increase domestic and regional food supply. This will include using appropriate inputs to boost and scale up production to cater to national and regional markets. An important goal in this context is the full operationalization of the AfCFTA to facilitate the free movement of labor, inputs, and food across the one-Africa market. From a policy perspective, Africa must **shift the narrative from food supply to developing resilient food systems.**[10] Africa's default must no longer be only trying to address food availability. Policies must focus on ensuring that the entire continental food value chain is robust, profitable, and leaves no one (and no community) behind.

Africa's development partners also have a critical role to play.[11] While temporary aid is needed, the primary need is to **fully support programs that de-risk and boost critical investments in Africa's food sector. This will facilitate financial and technical resources to modernize food production, storage, and marketing in Africa. Africa's development partners can also promote efforts to maximize regional food trade, by reducing disincentives and inefficiencies in global markets—such as dumping, subsidies, and tariff structures that would disadvantage or discourage domestic production in African countries.**

8 Arndt, Channing, Karl Pauw, and James Thurlow. 2015. "The Economy-wide Impacts and Risks of Malawi's Farm Input Subsidy Program." American Journal of Agricultural Economics, Volume 98, Issue 3 p. 962-980.

9 UNDP. 2022. "Towards Food Security and Sovereignty in Africa." Regional Bureau for Africa Working Paper. United Nations Development Programme.

10 Ibid.

11 Ibid.

Conclusion

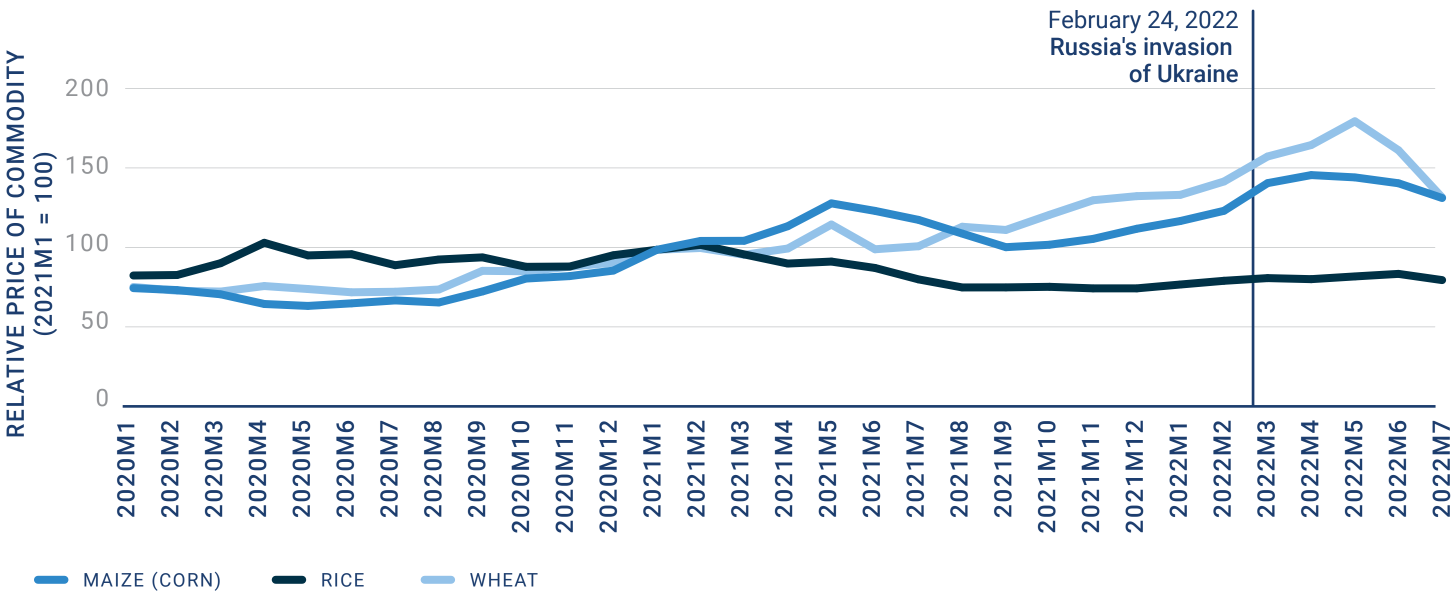
Africa has a long history of food dependency, a legacy of food-aid policies and low domestic productive capacity.[12] As a result, much of its food is imported, implying that any major global shock can lead to severe trade disruptions, increased hunger, and pass-through inflation, eroding both household and public budgets. Africa's food sovereignty pathway involves enhancing agricultural productivity by improving farm management techniques.

UNDP analysis shows that Africa could easily produce the fertilizer inputs it needs, and that meeting the 2006 Abuja Declaration targets would boost food supply, while positively impacting the SDGs.[13]

Ensuring Africa's food sovereignty—implying increased availability and affordability—is key to the continent's own economic sovereignty, sustainable development, and achieving the SDGs.[14]

FIG.15 **SOME COMMODITY PRICES ARE MORE VOLATILE THAN OTHERS**

Since the start of the pandemic, the price of staple food products have been anything but stable. The price of wheat has been particularly volatile, ranging from 75 percent of its 2021 value, to more than 175 percent following Russia's invasion of Ukraine—two nations that are among the largest exporters of the staple crop.



Source: World Bank. 2022. Commodity Price Data. World Bank Group.

12 Ibid.
13 Ibid.
14 Ibid.

Getting rice right in Liberia

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Rice is Liberia's staple food, and our contemporary history has been completely shaped by rice: Its availability on the local market, price, and, to a lesser extent, quality. Since 1979, when government plans to raise tariffs on imported rice caused deadly riots, and eventually a coup d'état, public policy has favored imports over locally produced rice.

In Liberia, we hold one truth to be self-evident: If one has not eaten rice on any given day, then one has not eaten. Well, at least that is the conventional theory that has driven food policy and planning for the last 60 years.

Rice is Liberia's staple food, and our contemporary history has been completely shaped by rice: Its availability on the local market, price, and, to a lesser extent, quality. Since 1979, when government plans to raise tariffs on imported rice caused deadly riots, and eventually a coup d'état, public policy has favored imports over locally produced rice.

Fast forward to 2022, and it's 4Cs: COVID-19, Climate, Conflict, and Commodity price escalations. Four simultaneous and intensifying shocks, at a time when we have not fully recovered from the previous shock of Ebola.

And here is another incontrovertible truth: Liberians' dogged reliance on imported food is not sustainable. The looming food security crisis is an opportunity to finally tackle rice availability on three main fronts: Boosting smallholder production; taking agribusiness micro, small, and medium-sized enterprises (MSMEs) to scale; and attracting commercial agri-food enterprises.

Since we have ostensibly been doing just these things for years, now is the time to innovate the "how" of agri-food production. The "innovation" is simple: Enhance what is working, what is familiar and help farmers and businesses to produce more, faster, cheaper—and get surpluses to market. The technologies exist to do this.

Take rice. President Weah has set up a National Rice Stabilization Task Force to ensure constant availability of rice in our markets. We have set a national goal to grow 75 percent of what we consume in four cropping seasons: A 150 percent increase in production over what we are doing now.

In setting these targets, we considered the production realities of our smallholders.[1] Realizing the adoption of yield improving technologies has been poor, and rarely sustained past project-end, we are resolving some of the challenges brought on by limited capital and labor for any given piece of land: Improving weed and pest management on farms; post-harvest processing capacities at village level (to optimize use); and access to markets and digital buying platforms. Couple these with solutions that enhance food and nutrition security, water, and energy at community level.[2]

We work with MSMEs along the value chain to grow or build and service and maintain the seeds, tools, and equipment needed to produce, package, transport, and market rice to urban consumers. The Liberia Agricultural Commercialization Fund is providing critical financing to innovations that service food markets and helping rice processors to scale up operations.[3]

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1 98% of rice production is on smallholder farms and is produced for home consumption.

2 Climate-smart Agriculture for Sustainability and Empowerment is a community-based approach that uses solar power to pump water for irrigation of vegetable gardens.

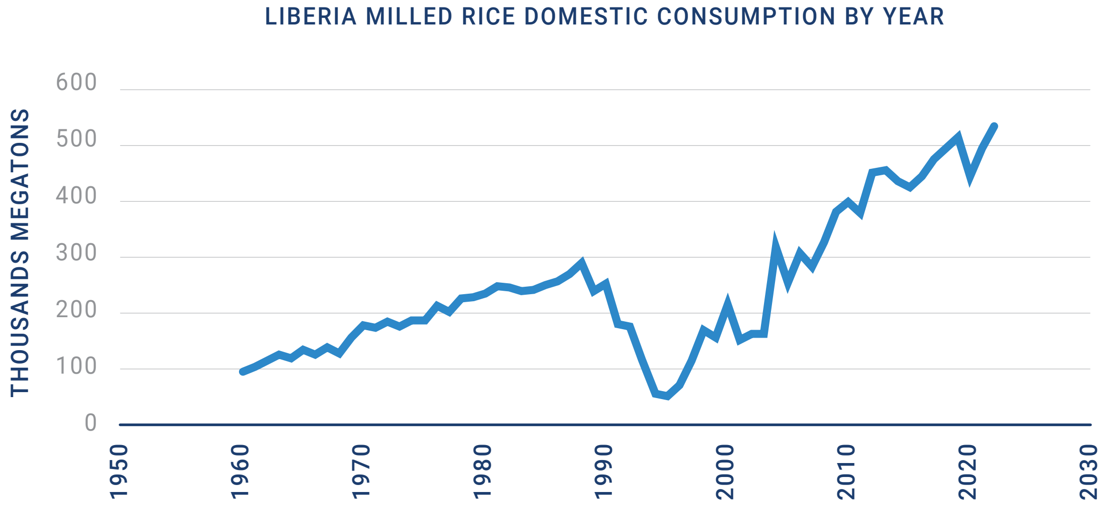
3 United States Department of Agriculture. 2022.

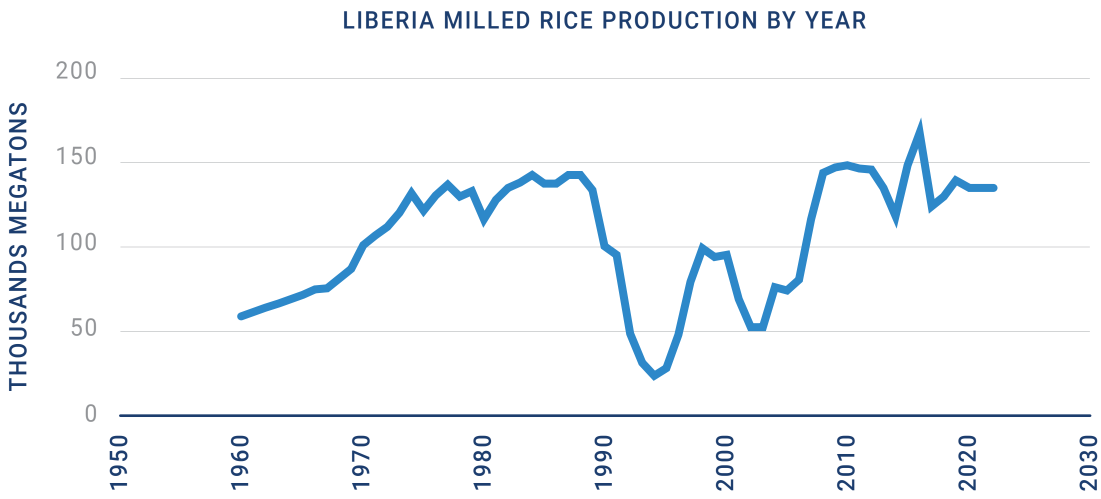
We are building our knowledge base and creating business profiles to attract private investments.

The global food security crisis compels Liberia to draw on its legendary resilience and creativity. We are intentional about getting rice right. And we will.

FIG.16 LIBERIA MILLED RICE DOMESTIC CONSUMPTION BY YEAR

Since 2008, consumption of rice in Liberia has increased from 331,000 megatons to 540,000 megatons (an increase of more than 63 percent). Annual production in Liberia, however, has declined by 6 percent over this period—stagnating at 170,000 megatons in the last three years.





Source: United States Department of Agriculture. 2022.

Financing food systems resilience in Africa: A starting point for transformation

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Global shocks have revealed the fragility of our food systems and the pressing need for increased investment in food security. This is particularly true in Africa.

Africa is the region worst affected by hunger, with more than one in five people chronically under-nourished in 2021.[1] Recent shocks from the war in Ukraine and increasingly severe impacts from climate change are making this situation worse. IFAD's regional teams are seeing up to a doubling of food, fuel, and fertilizer prices compared to 2021. This threatens to undermine food security and agricultural productivity in the present, and recovery in the future. Small farms deserve particular attention. The vast majority of Africa's farms are under two hectares and account for most of the food consumed by the continent's most vulnerable populations.

Humanitarian response is essential, but it is not a long-term solution. The financing gap between long-term resilience building and short-term emergency food assistance is significant and rising. This undermines the ability of poor rural people to cope with future shocks. We need to tackle the underlying factors of food insecurity to avoid recurring crises, and to tap into Africa's significant potential to produce food for itself–and for others.

Humanitarian response is essential, but it is not a long-term solution. The financing gap between long-term resilience building and short-term emergency food assistance is significant and rising. This undermines the ability of poor rural people to cope with future shocks.

IFAD is calling for more finance and investments in Africa's food systems, innovations that reorient towards fairer outcomes, and that fuel jobs and harness the potential of Africa's youth. A simple cost-benefit analysis would show that it costs less to invest in resilience and prevent a crisis, than it does to launch a large-scale emergency response. Furthermore, studies show that investing in agriculture is significantly more effective in reducing poverty than investment in any other sector.

Through our work on the ground, we see that investing in fair and sustainable food systems can transform small-scale farms into sustainable agribusinesses. This builds local production capacity and improves Africa's food sovereignty. It creates jobs along the value chain, particularly in processing, transport, and marketing. When rural economies are thriving, they offer opportunities for decent work. Migration becomes a choice, not a necessity, and the foundation is laid for better livelihoods, resilience, and peace.

More than half of IFAD's core resources go to sub-Saharan Africa, and we are working on innovations in food systems financing, including with the World Bank, and significantly scaling up partnerships with the Green Climate Fund.

1 FAO. 2022. "The State of Food Security and Nutrition in the World 2022." Food and Agriculture Organization.

New research indicates that transforming African food systems is estimated to require $77 billion a year until 2030–$614billion in total.

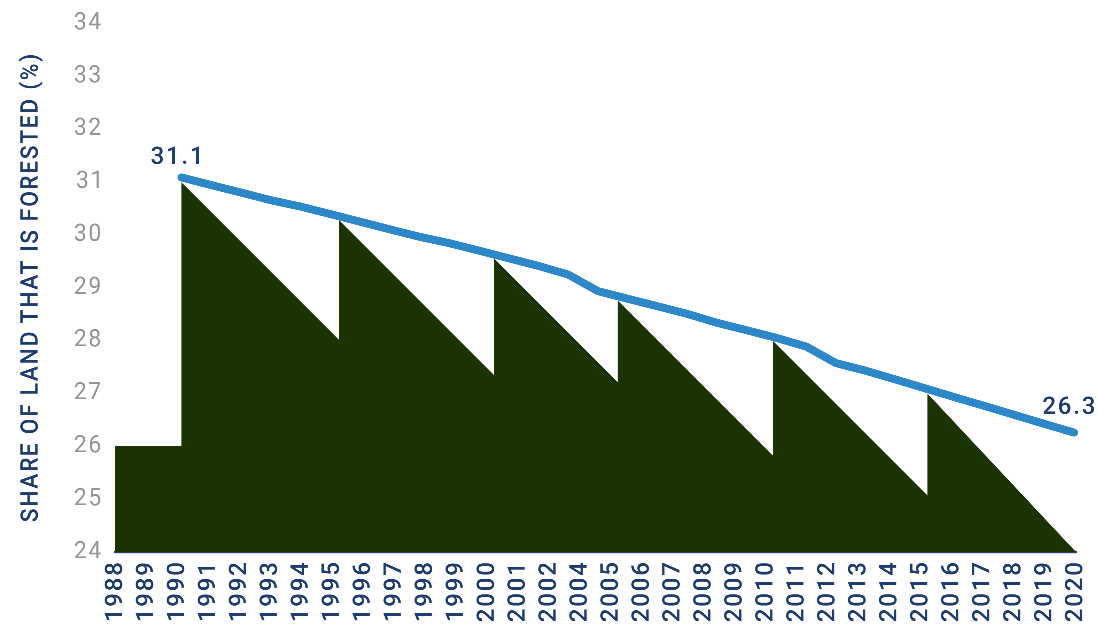
In the wake of the war in Ukraine, IFAD launched a Crisis Response Initiative (CRI) to protect the livelihoods and productive assets of small-scale farmers.

Bringing more and fairer investments into African food systems requires innovation and commitments from Governments, the private sector, and international partners. This is where I see room for leaders to focus their attention. New research indicates that transforming African food systems is estimated to require $77 billion a year until 2030–$614billion in total.[2] The demand for IFAD's work and financing is far greater than the level of commitments. In 2023, IFAD will be presenting this investment case to its Member States to scale up through the Fund's next replenishment.

By taking a medium- to long-term development perspective, leaders can target the root, underlying causes of food insecurity and build resilience to future shocks. Doing this successfully in Africa would be a huge step in ending global hunger and transforming food systems globally. IFAD will continue to champion this cause.

FIG.17 **AFRICA HAS LOST MORE THAN 15% OF ITS FORESTS SINCE 1990**

Africa's forests are being depleted at a rapidly increasing rate, in part to make room for agricultural land. From 1990 to 2020, the share of forested land in Africa fell from 31.1 percent to 26.3 percent. During this same period, the share of land used for agriculture increased from 6.6 percent to 9.3 percent.



Source: World Bank. 2022. World Development Indicators. World Bank Group.

2 Omamo, Steven Were and Alexander Mills. 2022. "Investment Targets for Food System Transformation in Africa." New Growth International.

Recurrent food crises underscore the need for food system transformation

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In 2022, Africa grappled with the impacts of another global food price crisis—the third in the last 15 years. The combined effects of the war in Ukraine, lingering supply chain shortages from the COVID-19 pandemic, and a fourth consecutive season of drought in the Horn of Africa, all contributed to already escalating food and fertilizer prices, causing staple food prices in Africa to increase by, on average, almost 24 percent between 2020 and 2022.[1] Moreover, estimates indicate that over 2022–2023, the rising cost of food and fertilizer will add $9 billion to the import bill of the 48 most affected countries, half of which are in Africa.[2] Food and fertilizer price inflation will likely worsen food insecurity. Already, one in five people in Africa are classified as hungry, and the prevalence of undernourishment in the region has risen by more than 4 percent since 2015—higher than any other region of the world.[3] Those in conflict-affected African countries are, unsurprisingly, the most likely to be living in hunger.[4]

Yet, while external factors largely exacerbated the crisis in Africa, improving food security requires tackling longstanding internal factors and structural challenges hindering the region's agricultural production and constraining households' access to affordable food. Rapid population growth, changes in consumer tastes, and the demands of domestic agro-processors for certain quality inputs have led to expanding import dependence, especially for wheat, rice, and palm oil. The region's annual food import bill could go from $50 to $110 billion by 2030 if the status quo continues.[5] Some of this import dependence further reflects the region's low investments in agricultural research and development (R&D) that could have resulted in higher agriculture yields. Despite both the 2003 Maputo and 2014 Malabo Declarations of the Comprehensive African Agriculture Development Program (CAADP)—in which African governments agreed to spend 10 percent of their annual budgets on agriculture—most spend less than 5 percent on average.[6]

1 Okou, Cedric, John Spray, D.Filiz Unsal. 2022. "Staple Food Prices in Sub-Saharan Africa: An Empirical Assessment." Washington, DC: IMF.

2 Rother, Bjoern et al. 2022. "Tackling the Global Food Crisis: Impact, Policy Response, and the Role of the IMF." Washington, DC: IMF.

3 FAO. 2022. "State of Food Security and Nutrition in the World: Repurposing Food and Agricultural Policies to Make Healthy Diets More Affordable". Rome, Italy: Food and Agriculture Organization of the United Nations.

4 The Global Network Against Food Crises. 2022. "Global Network Against Food Crises and Food Security Information Network."

5 Nakweya, Gilbert. 2022. "Africa's food imports bill 'could double by 2030'." SciDevNet.

6 African Union. 2022. "3rd Comprehensive Africa Agriculture Development Programme Biennial Review". Addis Ababa: Africa Union.

Food system transformation. This approach aims to transform food production in a way that fosters inclusive job creation while promoting both environmental sustainability and better nutrition outcomes.

Much of this expenditure goes to subsidy programs rather than to agricultural R&D and extension services, even though the latter generates higher economic returns.[7] Unequal access to land and water resources, low levels of mechanization, and insufficient electricity and road infrastructure are other constraints to the sector's productivity.

In 2023, African governments and their development partners should revisit the importance of these issues, while also adopting a more holistic approach to enhancing food security: Food system transformation. This approach aims to transform food production in a way that fosters inclusive job creation while promoting both environmental sustainability and better nutrition outcomes, thereby building on priorities that African governments themselves identified for the 2021 UN Food Systems Summit.[8]

Doing so will require greater progress on several fronts. First, **improved intersectoral coordination** will be essential since food system transformation touches not only on the mandates of agriculture ministries; but also, those of health, labor, environment, and trade, among others. Second, there will be a need for **enhanced intergovernmental coordination** between national and local governments, especially in those countries, such as Ghana, Kenya, Nigeria, and Zambia, where certain responsibilities for agriculture and health have been legally devolved to subnational authorities.[9] Third, there is scope to go beyond the farm, considering options to **improve food safety and working conditions** in informal retail markets, which is where most of the urban poor (an expanding demographic) access their food in Africa.[10] Finally, all of these interventions require **strong empirical and governance foundations**, including data that can help anticipate trade-offs among different food system goals and budget-tracking systems that can improve accountability, as well as ensure food system commitments are transparently translated into actions.[11]

7 Goyal, Aparajita and John Nash. 2016. "Reaping Richer Returns: Public Spending Priorities for African Agriculture Productivity Growth." Washington, DC: World Bank; Alliance for a Green Revolution in Africa (AGRA). 2022. "Africa Agriculture Status Report: Accelerating African Food Systems Transformation". Nairobi, Kenya.

8 African Union Development Agency (AUDA). 2021. "Africa Common Position on Food Systems: Regional Submission to the UN Food Systems Summit." Johannesburg, South Africa: African Union Development Agency.

9 Resnick, Danielle. 2022. "Does Accountability Undermine Service Delivery? The Impact of Devolving Agriculture in Ghana." The European Journal of Development Research. Vol.34(2): 1003-1029.

10 Resnick, Danielle. 2017. "Governance: Informal food markets in Africa's cities." Chapter 6 in 2017 Global Food Policy Report. Washington, DC: International Food Policy Research Institute.

11 Fanzo, Jessica et al. 2021. "Viewpoint: Rigorous monitoring is necessary to guide food system transformation in the countdown to the 2030 global goals." Food Policy, Vol. 104 (October).

EDUCATION AND SKILLS:

EQUIPPING A LABOR FORCE FOR THE FUTURE

3

ESSAY

VIEWPOINT

Strengthening education systems in Africa

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@GPEChair

Almost three years since the COVID-19 pandemic became a global threat and governments around the world shut down schools, the magnitude of the pandemic's impact on children is still emerging. What is clear is that without swift action, the costs to Africa's future could be staggering.

Even before COVID-19, nearly half the 10-year-olds in low- and middle-income countries could not read and comprehend a simple written story (see Figure 18). The pandemic has driven that to an alarming 70 percent.[1] Even before COVID-19, a quarter of a billion children were already out of school. Now, because of pandemic-related disruptions, an additional 24 million students may drop out permanently, many of them in Africa.[2]

For the most vulnerable children and youth, the impacts were far worse, extending to their health, safety, and psychosocial well-being.

Schools in African countries were closed on average nearly eight months—in some countries much longer. Despite heroic and innovative efforts to keep children learning, there is mounting evidence that academic losses have been severe.

Child labor and early pregnancy rates have risen, and interrupted learning has put 10 million more girls at risk of early marriage, effectively ending their schooling altogether.[3] More than 370 million children globally missed out on school meals during closures, losing what is often their only reliable daily source of nutrition.[4] In some countries, this has translated to half of all children experiencing physical violence during school closures, and three quarters having to skip meals because of economic hardship related to the pandemic.

The pandemic exposed the fragility of education systems, including in Africa, but also their centrality to our vision of a flourishing future built on sustainable and inclusive growth. After all, children and young people represent our greatest hope–and our greatest resource–to build a fairer, more prosperous, and greener Africa.

This is why as we recover from the impacts of the pandemic, we must seize the moment to revolutionize the future of education in Africa, starting with transforming our education systems.

First, this means prioritizing education as a critical part of national and pan-African strategies to recover and rebuild. Governments must sharpen their focus on delivering **12 years of quality education for every child**, regardless of their gender, household income, or whether they live in rural areas or with a disability. **Sufficient and well-trained teachers** are an essential enabler of this success, as is **investing in at least one year**

1 World Bank. 2022. "70% of 10-Year-Olds now in Learning Poverty, Unable to Read and Understand a Simple Text." Press release for the State of Global Learning Poverty: 2022 update. World Bank Group.

2 UNESCO. 2020. "UN Secretary-General warns of education catastrophe, pointing to UNESCO estimate of 24 million learners at risk of dropping out." Press Release. United Nations Educational, Scientific and Cultural Organization.

3 UNICEF. 2021. "10 million additional girls at risk of child marriage due to COVID-19." Press Release. United Nations Educational, Scientific and Cultural Organization.

4 UNICEF. 2020. "Futures of 370 million children in jeopardy as school closures deprive them of school meals – UNICEF and WFP." Press Release. United Nations Educational, Scientific and Cultural Organization.

of preschool for every child. We must **redouble our efforts to eradicate violence**, including gender-based and sexual violence, from our school and our communities so that every child is safe to learn. And we need a whole-of-society approach to **combat gender inequalities** that mean girls drop out of school to be married, or boys are forced out of classrooms to work.

During the U.N. Transforming Education Summit in September 2022, I was encouraged to see many African leaders pledging action to deliver on these priorities.

Second, education ministries and their partners need to **identify and prioritize reforms that will deliver changes at scale**; a transformation that reaches every school, teacher and child, starting with those who are being left furthest behind. The Global Partnership for Education (GPE) which I chair, is currently supporting over 40 African countries to do just this, starting by identifying and unblocking the political, technical, or financial obstacles that get in the way of children's learning, and that keep the most marginalized out of school entirely. Some of the key obstacles to transforming education include limited domestic financing, owing to high debt costs, which mean countries are not spending enough on education, or are not spending efficiently and equitably. This is why GPE focuses on **leveraging more and better domestic financing** as the most significant and sustainable form of funding for education.

Third, we need to scale up investments to **transform education systems, putting the most vulnerable children at the center**. Investments in education can spur and work alongside other social investments, like health, nutrition, and psychosocial services to boost children's health, safety, and well-being; as well as equip them with the skills they need to thrive in 21st century economies.

However, with food and energy prices stoking inflation globally, funds that should be rushing back to repair COVID's damage to education systems, risk being redirected to other competing priorities.

We must not allow this to happen. I commend the 20 GPE partner countries, 16 of them in Africa, who have already signed on to the Heads of State Declaration on Education Finance, a powerful statement of intent to **allocate at least 20 percent of national spending on education**. I hope many more will join their ranks and translate these commitments into action for Africa's children.

With rising debt costs and global inflation, it is also imperative that governments look for ways to expand their fiscal space and **fund education investments in ways that do not drive up borrowing costs.** At GPE we are looking at ways to collaborate with partner countries by supporting new agreements that divert debt payments to education budgets, or by supporting donors and creditors who will pay off debt costs, in return for results or additional spending in education (these can work alongside a swap where payments are diverted to education from a cancelled debt service; or a buydown where an entity which is not the creditor, nor the debtor, pays some of the debt costs in return for increased education spending). Innovative investment from international funders can also augment domestic budgets to bolster national efforts. This has been GPE's approach for two decades, uniting broad coalitions from the development community and the private sector in support of country-led reforms.

This year, as we mark 10 years since adopting Agenda 2063, let us put children and young people at the heart of our strategies for inclusive and sustainable growth, and commit to transforming education for a transformed future.

Finally, we must **build on the learning, innovations, and investments made during the past three years**. The pandemic inspired new and innovative efforts by many teachers, parents, community leaders, and education officials in delivering lessons to children; any way they could. GPE was proud to support such efforts in 40 African countries.

In Eswatini, Rwanda, and Somalia, for example, television and radio stations offered daily lessons while some students in Zambia could tune into similar programming on solar-powered radios distributed to those without electricity. In Zimbabwe and Sudan, GPE supported the rapid expansion of UNICEF's Learning Passport, an online and offline tech platform where children can access high-quality learning materials from anywhere, anytime.

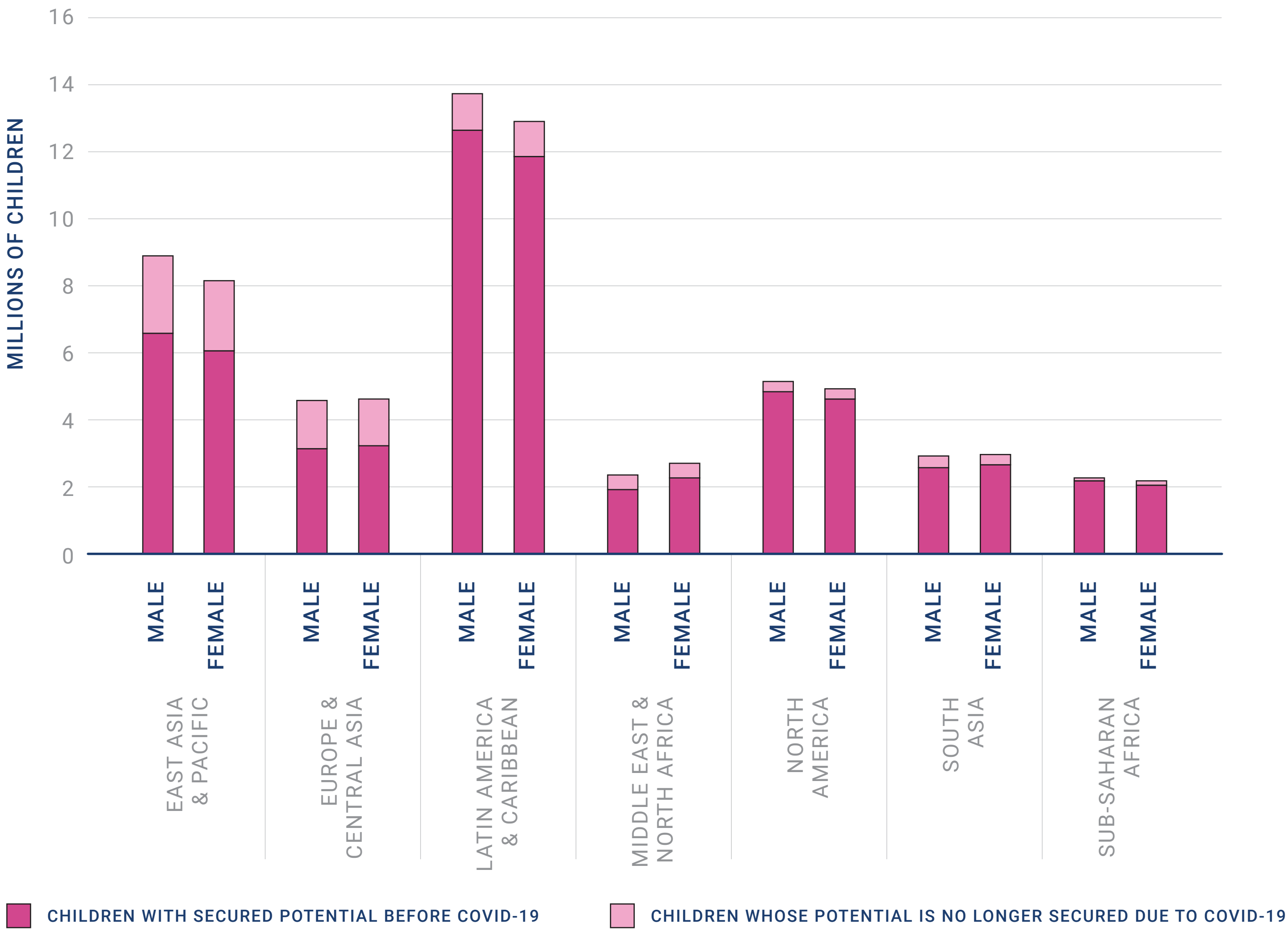
In Burundi, specially printed materials were developed for remote learning while some children with disabilities in Gambia received regular phone check-ins as well. In Malawi, the government also focused on training teachers and staff to be prepared for school reopening, with adjusted curricula and improved, hygienic facilities with clean water and proper sanitation.

These examples provide a glimpse of African resilience and innovation in the face of crisis. But without a radical reinvigoration of our education systems, the Africa we aspire to is at stake. This year, as we mark 10 years since adopting Agenda 2063, let us put children and young people at the heart of our strategies for inclusive and sustainable growth, and commit to transforming education for a transformed future.

We must recognize that education itself is in extreme peril across Africa. Governments can, and must, put children first and ensure they can learn and learn well.

FIG.18 THE PANDEMIC THREATENS TO PERMANENTLY INTERRUPT LEARNING AND SKILL DEVELOPMENT IN SUB-SAHARAN AFRICA

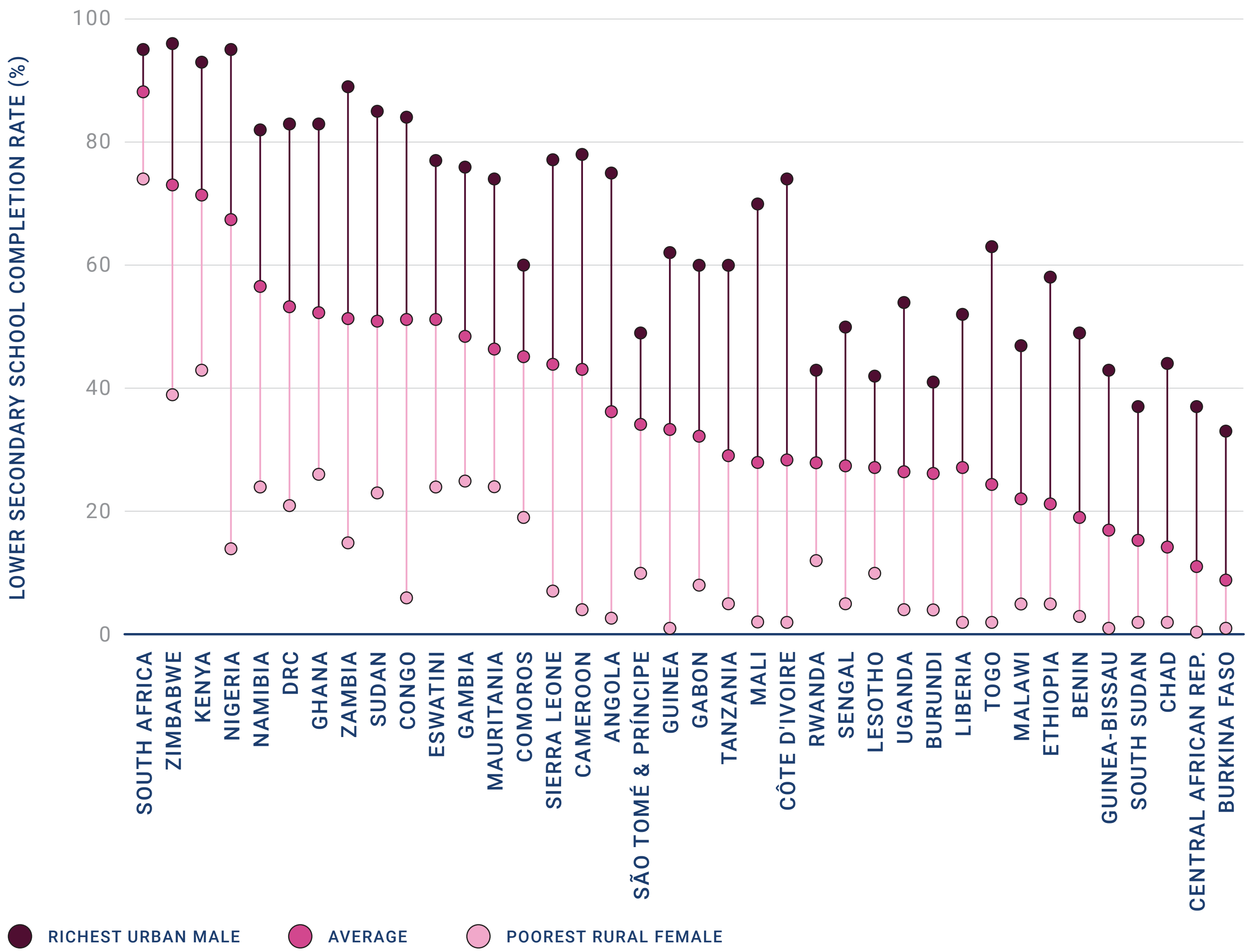
The pandemic has had grave effects on children's education. In sub-Saharan Africa alone, it is estimated that 2.8 million children are at risk of not attaining basic literacy skills by the age of 10, as a direct result of the pandemic. Children that have not gained basic literacy skills by the age of 10 are missing a critical milestone to "secure their potential for a better future," according to ONE Campaign.



Note: Secured potential is defined as having gained basic literary skills by the age of 10.
Source: ONE Campaign. 2022.

FIG.19 DISADVANTAGED DEMOGRAPHICS LAG FAR BEHIND THEIR ADVANTAGED PEERS IN EDUCATIONAL ATTAINMENT

Education is not meeting its objective as the "great equalizer." Improvements in national average completion rates at lower secondary level mask huge disparities in completion between the poorest rural girls and the richest urban boys. In fact, the poorest rural girls in most African countries have a less than 10 percent chance of completing lower secondary school.



Source: Mastercard. 2020. Secondary education in Africa: Preparing youth for the future of work." Focus 1. Mastercard Foundation.

Educate to adapt, adapt to educate

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Underlying the climate and adaptation crisis in Africa lies a human crisis. This includes a silent crisis in education which threatens the prosperity of individuals, communities, and nations. It is making people more vulnerable to the impacts of climate change and prevents them from becoming a much needed and critical part of climate solutions.

Around the world, there is growing recognition of the relationship between climate change and education.[1] Article 12 of the Paris Agreement recognizes the critical role of education in empowering all members of society to engage in and take climate action—both adaptive and mitigative. Climate action is also a thematic priority of UNESCO's (2020) global framework on Education for Sustainable Development. In Africa, the Coalition for Education and Training on Climate Change acknowledges the role education plays in reducing the impact of climate change.

Despite its strategic importance to adaptation efforts, however, education has remained largely overlooked by the Parties to the UNFCCC. In mid-2022, only 40 of the 133 nations[2] that had submitted an updated, revised, or new Nationally Determined Contribution (NDCs) mentioned climate change education as an adaptation or mitigation strategy in their NDCs. Out of the 43 African countries that had submitted their updated, revised, or new NDC, 16 mentioned climate change education. In most East African countries, prioritizing education to empower the public with skills for climate adaptation is not consistently part of the sustainable development discourse.[3]

The impacts of climate change on education, and education on climate action, are insufficiently understood due to a lack of consistent and reliable data and research on interlinkages between climate and education (See Figure 20).[4] This includes data on the direct impacts of extreme storms leading to destruction of infrastructure, of extreme heat leading to degradation of the learning environment and of droughts or famines stressing essential water, sanitation, and hygiene facilities critical for school attendance and retention. It also includes missing data on the indirect impacts through household coping responses in the face of loss of income and livelihoods or displacement, leading households to withdraw children (especially girls) from schooling. Climate change also impacts the health and well-being of educators and learners, reducing their readiness to teach and learn. These vulnerabilities are further compounded by systemic challenges in society such as gender and structural inequalities.

At the same time, education's potential as a key instrument to help countries and communities adapt to climate change is hampered by the lack of understanding of the education crisis and its role as a key climate and adaptation strategy. Average years of schooling are the lowest in Africa compared to other regions. Progress in

1 UN Climate Action. 2022. "Education is key to addressing climate change."
2 Global Center on Adaptation. 2022. "Section 3 – Cross-Sectoral Themes."
3 Abigael Apollo and Marcellus Forh Mbah. 2021. "Challenges and Opportunities for Climate Change Education (CCE) in East Africa: A Critical Review."
4 ACE. 2022. "Lack of Education Causes Climate Denial."

enrollment in secondary and tertiary education in Africa is slow, and enrollment in primary education has stagnated after experiencing a period of rapid progress around the turn of the new millennium.[5] Yet a deeper and more structural problem lies in the quality of education in Africa. Of those that do go to school, millions leave school without basic literacy and numeracy skills. In sub-Saharan Africa and the Middle East and North Africa, only 11 percent and 23 percent of all 15–24-year-olds have basic secondary literacy and numeracy skills, respectively.[6]

Limited available data on the link between education and adaptation point to a strong relationship. UNICEF estimates that improving educational outcomes could reduce the climate risks borne by 275 million children globally. Recent analysis for the State and Trends in Adaptation 2022 Report also confirms that more education–specifically at the upper secondary and tertiary levels–is associated with higher adaptive capacity. With more education, individuals and households can better prepare for and respond to climate shocks through risk reduction, migration, the adoption of climate-resilient technologies, practices and/or behaviors, or by having more flexibility to learn new skills and/or to take on new jobs or find new livelihoods.[7]

If Africa continues at its current pace of educational investment, the continent will not be able to respond to the climate crisis.

Acting on the greater integration of education in adaptation is urgent. If Africa continues at its current pace of educational investment, the continent will not be able to respond to the climate crisis. Making education systems climate-adapted and ensuring investments in education can in turn drive adaptation, and will require action across four distinct areas:

- ↘ **Monitor, diagnose, and plan for integrated education and adaptation strategies.** More data is needed on a regular basis to better monitor, diagnose, and address local climate vulnerabilities on the education sector across the continent. In addition, greater efforts should be made to include education investments in adaptation policies and to give priority to the most climate-vulnerable communities or those least ready to adapt.
- ↘ **Invest in climate adapted infrastructure.** Schools could be designed not only as zero-emission buildings, but also capable of withstanding and/or adapting to climate-related shocks. African countries should avoid further investments in traditional "gray" education infrastructure that is vulnerable to damage or destruction, and places people at higher risk of exposure to climate-related hazards. African countries can also tap into locally available renewable energy and material resources to build green, climate-adapted infrastructure that is both feasible and cost-effective.
- ↘ **Invest in a climate adapted education workforce.** Strengthening the climate resilience and adaptive capacity of the education sector's human resources—including teachers, trainers, facilitators, counsellors, staff, administrators, school leaders, and others—is critical to support the readiness of Africa's education systems to adapt to (and respond to) climate impacts; and to unlock

5 David K. Evans and Amina Mendez Acosta. 2020. "Education in Africa: What Are We Learning?"
6 The Education Commission 2015. "Number Of Youth Without Secondary Education Level Skills."
7 Walker et al. 2022. "Education and adaptive capacity: the influence of formal education on climate change adaptation of pastoral women."

broader efforts across the continent to build a more climate-adapted, climate resilient workforce across economic and social sectors. This must include overcoming Africa's teacher shortage, achieving better and more consistent compensation and training, and building cross-sectoral climate resilience teams. To enable the effective design of climate-adaptive education systems, a new form of workforce collaboration will be required that reaches across sectoral boundaries.[8]

- **Invest in climate literacy and breadth of green skills.** At a minimum, all learners must first acquire basic foundational and secondary skills, including literacy and numeracy, and climate literacy skills. But learners will also need to build specific technical skills that green jobs require—"portable skills" such as critical thinking and communication to facilitate climate adapted thinking, and transformative skills to enable work in complex realities and catalyze deeper systemic change.

To make progress on these four levers, a global effort is needed to establish an irresistible case for investment in education as a climate impacted sector—but also as a key solution to the problem. This global consensus should support countries to invest in education, and to build a movement for climate action and adaptation through education.

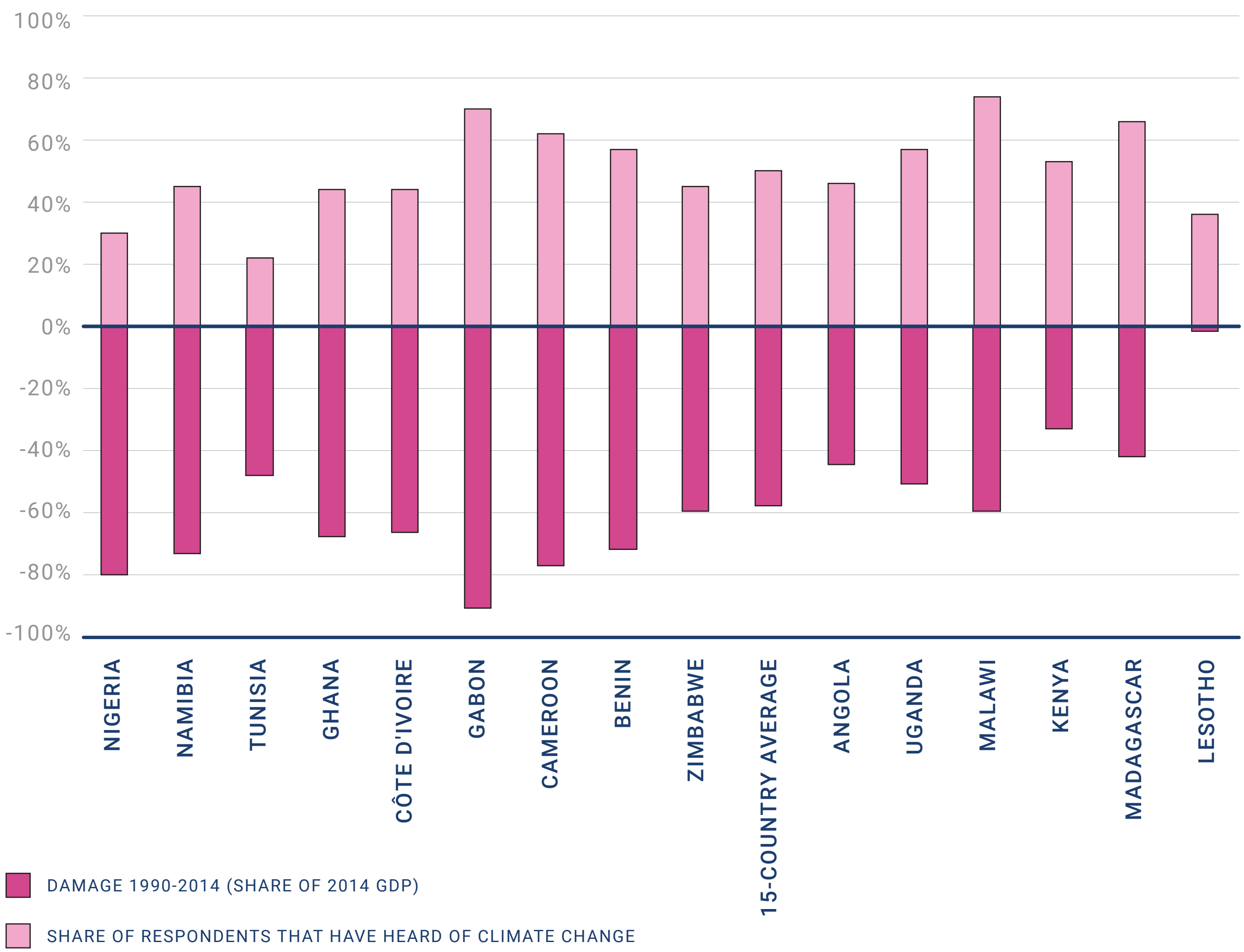
Note: This contribution draws heavily on the education chapter for the State and Trends in Adaptation 2022 report authored by Christina Kwauk, Ludwig Chanyau, Martina Grecequet, and Liesbet Steer

8 The Education Commission & Dubai Cares. 2022. "Rewiring Education for People and Planet report calls for cross-sectoral collaboration."

FIG.20

MANY AFRICANS REMAIN UNAWARE OF CLIMATE CHANGE DESPITE IMMENSE DAMAGES

Only 30 percent of Nigerians have heard of climate change, yet the country lost an estimated $455 billion between 1990 and 2014 as a result of climate change, an amount equivalent to 80 percent of the country's GDP in 2014. And Nigeria is not alone: In Tunisia, Namibia, Ghana, and others, less than 50 percent of people have heard of climate change, despite their respective countries sustaining significant damages as a direct result of it.



Note: For more details on how damages as a result of climate change are calculated, consult section "Attribution of climate damages to each country" in Callahan and Mankin (2022).
Source: Callahan, C.W., Mankin, J.S. National attribution of historical climate damages. Climatic Change 172, 40 (2022). Logan and Amakoh. 2022. "As Africa Climate Week begins, Africans want action, research finds". Afrobarometer.

International education financing will make or break the SDGs

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In Sierra Leone, we have been transforming our education system since 2018 with our Free Quality School Education program. The COVID-19 pandemic slowed us down, but we are already seeing very promising returns. All the while, the global macroeconomic environment is undermining our progress. The cost of our debt obligations dwarfs our ambitious education sector spending. If we do not continue to build international financing partnerships and simultaneously review our debt obligations, we will not meet our SDG 4 targets.

Our purpose for transforming education is clear. Investing in human capital is the only sure path to sustainable development. We have **invested at least 20 percent of our discretionary budget in education since 2018 and removed school and exam fees for pupils**. Enrollments have increased by 50 percent, adding over a million children to our school system. More qualified teachers lead in our classrooms and more students sit and pass our national transition exams than ever before. We now have gender parity at all levels in schools.

Simultaneously, we are overhauling our pedagogical core. We are reviewing all education legislation and have introduced innovative policies. Our **Policy on Radical Inclusion ensures that historically marginalized groups are put first in our education system**. We hosted the Freetown Manifesto on gender-transformative leadership in education. All of this gives us a foundation on which to position and align the components of our education system.

Overall, the litmus test of any education system should be whether all children are learning the basic skills necessary to progress through the education system and contribute to national development. In Sierra Leone, having conducted the first nationwide learning assessments since 2014, we still have a way to go. In response, President Bio, one of the United Nations Secretary General's five education champions, has made improving foundational learning a key priority. We have launched the Sierra Leone Alliance for Foundational Learning and entered a major compact with our education partners to pool our efforts and **build the systems to support and track learning outcomes**.

We have also launched the Sierra Leone Education Innovation Challenge. Five service providers will support more than 100,000 children to improve foundational learning. **Crucially, payment is tied to improved learning outcomes** that will be rigorously assessed in a randomized controlled trial.

In extension of our domestic investments, we have entered several important international education financing partnerships. Yet we need to reach a completely different scale. One estimate from the ONE campaign and Fab Inc says that it **takes at least $116 *of targeted and efficient spending per child for six years* to ensure that a child avoids learning poverty**.[1] Last year, our per student budget in basic education was less than half of that.

1 One Campaign. 2022. Lost Potential Tracker. Data from Fab Inc.

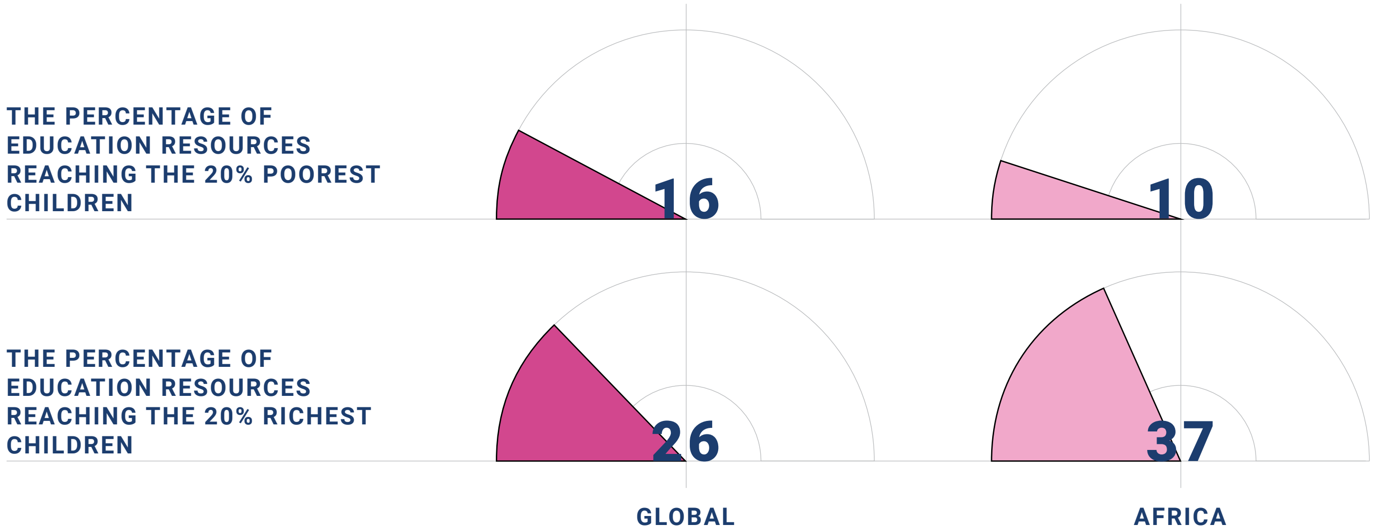
It is a certainty that if we do not all commit to transforming international education financing, even countries such as ours, who will continue to invest everything we can in education, may see all of our progress reversed.

In 2022 our currency lost more than half its value against the dollar. Since much of our debt is denominated in dollars, the amount of Leones we need to collect to service it has doubled this year. The TCX fund[2] (The Currency Exchange Fund) estimates that **this additional cost is equal to more than our education and health budgets *combined*.** Already, debt service risks eating into our education budget.

To transform education globally, we must make education finance and the macroeconomic climate the central topic in all World Bank, IMF, and bilateral conversations. While there is no silver bullet, it is a certainty that if we do not all commit to transforming international education financing, even countries such as ours, who will continue to invest everything we can in education, may see all of our progress reversed.

FIG.21 **THE PERCENTAGE OF EDUCATION RESOURCES REACHING THE 20% RICHEST CHILDREN IN AFRICA IS MUCH LARGER THAN THE WORLD AVERAGE**

Resources for public education in Africa disproportionately reach the richest children at the expense of resources for poorest children. Whereas 37 percent of public education resources are devoted to the richest quintile, only 10 percent of such resources reach the poorest quintile. This distribution is more unequal than the global average.



Source: African Union. 2022. Transforming Education in Africa: An evidence-based overview and recommendations for long-term improvements.

2 In 2022, the Dutch development bank, FMO (Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V.), issued the first-ever *synthetic bond* in Sierra Leonean leone (SLL). TCX covered the foreign exchange risk, through a local currency bond.

STEM education in Africa: Risk and opportunity

RUTH KAGIA

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"It is within the possibility of science and technology to make even the Sahara bloom into a vast field with verdant vegetation for agricultural and industrial developments."[1]

Former President of Ghana Kwame Nkrumah's statement above on the promise of science and technology is as pertinent today as it was in 1963. It is indeed breakthroughs in science and technology, driven by a workforce skilled in science, technology, engineering, and mathematics (STEM), that will enable Africa to overcome crippling development challenges including climate change, food insecurity, inequality, and poverty. And the one-fifth of the global population under the age of 25 who currently reside in sub-Saharan Africa will need STEM skills to drive economic transformation and competitiveness.

STEM education inculcates problem-solving, critical-thinking, communications, collaboration, and digital skills. Young people need these skills to build the resilience to navigate an uncertain future where technological advances will fundamentally alter industries and eliminate about one-half of the jobs today.

The STEM education landscape in Africa is characterized by risk and opportunity. While effectiveness is hampered by resource and capacity constraints, opportunity lies in centers of excellence and promising pathways of policy and practice.

You cannot code without basic numeracy, neither can you innovate if you lack the basic skills to acquire and apply knowledge.

The Science, Technology, and Innovation Strategy for Africa (STISA) provides the regional STEM policy framework. Centres of excellence such as the Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA), provide implementation support to countries. And with varying degrees of success, at least 10 countries, are implementing a competency-based curriculum (CBC) which emphasizes inquiry-based learning, STEM, and Technical and Vocational Education and Training (TVET). For example, coding and computer programming is part of the CBC digital learning program in Kenya.

Low education quality is however a binding constraint. And yet, even before the COVID-19 pandemic exacerbated the situation, more than 50 percent of children in basic education in sub-Saharan Africa were unable to read and understand a simple age-appropriate story.[2]

A critical first step towards improving STEM education, therefore, is to **get the basics right**. We can achieve vast improvements in strengthening foundational skills by integrating into teaching and learning: new and exciting knowledge on the science of learning, and recent evidence from neuroscience on how the human mind works.

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1 President Kwame Nkrumah. 1963. "Foundation Summit of the Organization of African Unity". Addis Ababa Summit.

2 WB.2022. "The State of Global Learning Poverty: 2022 Update". World Bank.

There are also huge benefits to achieving universal basic skills. It would raise future world GDP by $700 trillion over the remainder of the century which would be transformative for low-income countries.[3]

Recent studies (ADEA and ACET 2022), indicate that **the two greatest constraints to STEM education are inadequate facilities and sub-optimal teacher classroom practices.**[4] Schools can provide minimum STEM and other facilities if countries allocate at least 20 percent of their budget to education.

In the countries surveyed, STEM and computer labs exist but less than half of them are functional, while a lack of facilities inhibits practical training. Second, the STEM gender gap widens progressively through school in part because of under representation of female STEM teachers. In Ghana, only 5 percent of STEM teachers in the upper grades are female. Less than 25 percent of students pursue STEM-related career fields in higher education in sub-Saharan Africa as a result of a compounding of these issues reduces.

Closing the gender gap in STEM education is a "best buy." Women are key to addressing the existential challenges that face the continent. They account for 60 percent of the farmers in Africa and are the primary providers of water and firewood. With strong STEM skills, women could be at the vanguard of environmental sustainability and adoption of agricultural technology. A quantum leap in child survival, national health, and education attainment could be achieved if women as the gatekeepers to child health and family welfare obtain at least 12 years of science-driven basic education.

Successful interventions include **targeted scholarships, mentorship using role models, and early exposure to STEM based career opportunities.**[5] Moreover, through digital technology, students in resource constrained environments can tap into expert STEM training. Rwanda's One-Laptop-Per-Child (OLPC) flagship program, Kenya's digital learning program, the university of Colorado science simulation program, PhET, and massive open online courses (MOOCs) such as EdX, have demonstrated the leapfrogging potential of **digital learning.**[6]

But we can go even further to nurture and build upon these green shoots that are sprouting on the continent by:

- **Creating an interactive classroom-industry interface**. Kenya has over 1,000 start-ups that could provide such an interface to give students relevant work exposure, sharpen their focus, and raise their ambition in STEM.
- **Nurturing and rewarding excellence in STEM**. Africa is brimming with creative, home grown innovations. Norah Magero's Vaccibox, a small, mobile, solar-

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3 Hanushek, Woessmann. 2022. "The Basic Skills Gap. International Monetary Fund". International Monetary Fund.

4 ACET.2022. "Youth Employment and Skills (YES) Multi-Country Study". African Centre for Economic Transformation.

5 UNESCO.2021. "Unlocking the Potential of Girls in STEM in Kenya: An Assessment Report on the Impact of the UNESCO/GOK STEM Mentorship Programme."

6 International Commission on Financing Global Education Opportunity.2016. "The Learning Generation: Investing in Education for a Changing World". New York.

powered fridge that safely stores and transports medicines, for use in remote clinics and Charlot Magayi's Mukuru Clean Stoves, which uses processed biomass to create 90 percent less pollution than an open fire, demonstrate the huge reservoir of talent in the continent. These two women innovators from Kenya have recently won international awards. Competitions such as the Young Scientists Kenya (YSK), which aim to catalyze and spotlight the quality of STEM, have proved useful in tapping into the innovative energy of secondary school students.

- And finally, we need to strengthen the training of STEM trainers. We can do so by providing targeted financing incentives to higher education institutions that offer STEM programs. Furthermore, we need to reinvigorate and protect specialization of universities, such as the Technical University of Kenya or Jomo Kenyatta University of Technology and Agriculture, that were originally designed as centers of excellence in STEM.

To prosper, Africa's children and youth must learn

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More African children have access to education than ever before. But learning outcomes are low. The World Bank estimates that 89 percent[1] of African children are "learning poor"—unable to read and understand a basic text at age 10 or when they complete third grade. The World Bank coined the term "**learning poverty**" to highlight the crisis in education and call the world to action.

Moreover, the COVID-19 pandemic, climate shocks, and conflict left many African children out of school and set them back further in terms of learning losses. But the real challenge facing Africa is the speed by which the population is growing. Today, the continent has half a billion children ages zero to 14, and this number is expected to reach 580 million in 2030. In 2023, Africa will surpass South Asia as the region with the largest zero to 14 population.[2] The size of this young population and the speed of its growth is historically unprecedented, making all efforts to educate children a massive undertaking.

However, the pandemic has taught us some critical lessons. Most important among them are:

- Schools are important spaces, not just for learning, but for socialization and providing equal opportunity for all children to access education.
- While teachers remain the most important input in the learning process, the role of parents is key in laying the path for their children's future.
- Technology is an enabler; but it cannot replace schools and teachers.
- There is evidence on how kids learn and how teachers can teach better—countries can adapt approaches and don't have to start from scratch.

Looking ahead and taking these lessons into account, African countries can ensure a stronger, resilient, and more inclusive recovery by focusing on five areas: First, **getting children, especially girls, in safe schools and keeping them there**. While African countries have succeeded in closing the gender gap in primary education, only 29 percent of children are enrolled in secondary schools at a grade appropriate for their age. Also, a third of teenage girls are out of school[3] making them vulnerable to gender-based violence. Focusing on girls' education is the smartest investment any country can make. When girls enter safe schools and complete their education, not only will they be able to reach their full potential as women and contribute to their communities, societies, and economies, but they also delay childbirth, have fewer, healthier children, and reduce the pace of population growth.

1 World Bank. 2022. *"The State of Global Learning Poverty: 2022 Update"*. World Bank.
2 World Bank. 2015. *"Opportunities and Challenges for Youth Employment in Africa"*. World Bank.
3 World Bank. 2020. *"Learning Poverty in The Time of Covid-19: A Crisis Within a Crisis"*. World Bank.

A push for learning is critical—this can be achieved by ensuring children start school ready, supporting teachers and school leaders, providing learning and teaching material, and measuring performance to ensure children are learning. Children should be able to read and understand a basic text by the time they complete third grade.

Second, **a push for learning** is critical—this can be achieved by ensuring children start school ready, supporting teachers and school leaders, providing learning and teaching material, and measuring performance to ensure children are learning. Children should be able to read and understand a basic text by the time they complete third grade. While reading is the most fundamental skill to succeed in their education and in life, children also need to acquire other sets of skills as they progress in school. This includes socio-emotional skills in how to manage complex situations, and practical, relevant skills that allow them to contribute to their societies and economies as adults.

Technology[4] is not the silver bullet but if leveraged appropriately, it can help accelerate learning, support teaching, measure learning, and support more efficient systems. A push for learning must be coupled with **a pull for skills**.[5] Parents and employers need to demand from the education system applicable skills that help children continue to learn and succeed in life. That is, economies and societies should pull the system for competencies and not credentials (grades and diplomas).

The third important area of focus is for African countries to ensure a shared vision for their citizens and future generations. This would require **a pact by all stakeholders**—educators, politicians, leaders, employers, and parents. Education is everyone's business. This is not easy where interests and ideologies vary. A shared vision requires strong leadership, commitment to roles and responsibilities, and robust governance systems that promote accountability.

Fourth, it is important to **sustain structural education reforms** that are comprehensive and sequenced even when politically difficult. Piecemeal reforms that keep changing with new governments will limit impact. Education is a long-term process and results take time. Changing policies before they reap their results will delay their impact further.

Finally, African countries need to **prioritize education finance** and ensure national resources allocated to education are ringfenced against shocks to the economy. Donors and development institutions can provide financial assistance, but the amounts are dwarfed when compared to what national resources can contribute. Recent shocks have put pressure on the fiscal situation of most African countries. Seeking to create greater efficiency in public spending is important, but it should not come at the expense of much needed financing for education.

I believe that the vision of Africa, powered with universal access to clean energy; a connected Africa with universal access to broadband internet, roads, and infrastructure; a healthy Africa with universal access to health, water, and sanitation; and an economically booming Africa with a thriving private sector can only be attained through investments in education. **Only when we give Africa's children and youth the foundations for learning and skill building, can this rich continent prosper.**

4 World Bank. 2020. *"Reimagining Human Connections: Technology and Innovation in Education at the World Bank"*. World Bank.

5 El-Kogali, Safaa El Tayeb; Krafft, Caroline.2020. *"Expectations and Aspirations: A New Framework for Education in the Middle East and North Africa"*. World Bank.

Foundational skills for a more inclusive Fourth Industrial Revolution (4IR) in Africa

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Adoption of Fourth Industrial Revolution (4IR) technologies in sub-Saharan Africa could not only bring substantial economic growth and welfare benefits,[1] but also social and economic disruption, including widening inequality if countervailing policies are not adopted, as discussed in our recent report.[2] With a high share of the labor force working informally—a trend expected to continue for several decades—Africa's education and industrial policies need to strike a balance between encouraging the private investment necessary to create new formal jobs using advanced technology and ensuring that all new labor force entrants have the basic skills and infrastructure to make an adequate living.[3]

Rapidly growing labor supply and the challenges of structural transformation suggest that majority of new entrants to the labor force will find work as employees or working for themselves and their families (on farms, or in informal microenterprises).[4] And while the pool of young African professionals in the IT sector is growing rapidly, the sector still employs less than 1 percent of the African labor force. For example, professional developers represent about 0.4 percent of Africa's non-agricultural workforce, or 716,000 people with a job growth of 3.8 percent—only slightly higher than the population growth.[5] To be more productive, young people not entering the IT sector need better access to (i) higher-quality primary and secondary education, including development of problem-solving and foundational literacy, digital, and STEM skills and (ii) access to cheaper mobile phones and tablets, mobile internet, and digital services to develop their farms and businesses or to search for available wage employment. Providing an inclusive job creation platform for these workers through public investment in foundational skills and internet access should remain the spending priority.

African countries will also need some highly skilled workers with high-quality post-secondary education to adapt and use new technology. How should these important skills be built? Sub-Saharan Africa countries already spend about 4.5 percent of their GDP on education (including both public and private expenditures), but education systems are often inadequate to meet the needs of current students, much less those about to enter the system.[6] Furthermore, the cost per student at African universities is

1 Ndung'u, Njuguna and Landry Signé. 2020. "The Fourth Industrial Revolution and digitization will transform Africa into a global powerhouse." The Brookings Africa Growth Initiative.

2 Fox, Louise and Landry Signé. 2022. "From subsistence to disruptive innovation: Africa, the Fourth Industrial Revolution, and the future of jobs." The Brookings Africa Growth Initiative.

3 Fox, Louise and Dhruv Gandhi. 2021. "Youth employment in sub-Saharan Africa: Progress and prospects." The Brookings Africa Growth Initiative.

4 Ibid.

5 Google and Accenture. 2021. "Africa Developer Ecosystem 2021: Creating opportunities and building for the future".

6 Arias, Omar, David K. Evans, and Indhira Santos. 2019. "The Skills Balancing Act in Sub-Saharan Africa: Investing in Skills for Productivity, Inclusivity, and Adaptability." Book. World Bank Group.

Where could this money come from in today's fiscally-constrained environment? African countries face tough choices. We argue that the priority for additional public spending should be on improving primary and secondary education to improve skills for all new entrants.

higher than other developing countries. The African Union is suggesting that member countries spend another 1 percent of GDP on developing STEM skills at the secondary and post-secondary levels.[7] Where could this money come from in today's fiscally-constrained environment? African countries face tough choices. We argue that the priority for additional public spending should be on improving primary and secondary education to improve skills for all new entrants.

Improving access and the quality of tertiary education are still priorities, but policies should encourage private sector partnerships, including aggressive policies to attract more private investment in tertiary education, and encouraging public universities to partner with tech companies, philanthropic development organizations, and NGOs to upgrade tech training programs in order to meet projected needs for high-skilled labor.[8] For example, South Africa's Ministry of Communications and Digital Technologies has partnered with the digital learning platform Coursera to offer free courses to young South Africans in areas such as data science, digital marketing, artificial intelligence, coding, and app development.

The skill needs of a 21st century economy are much broader than digital skills or engineering. Improvements in AI technology have revealed the importance of socio-emotional skills for secondary and tertiary graduates, another area where African education systems need substantial improvements.

The experience of the OECD countries, especially the U.S., suggests that 4IR technology is not an inherently benign change agent. Despite its positive impact, unequal employment and earnings outcomes have been observed. African countries cannot—and should not—avoid 4IR technology given the potential to accelerate economic transformation. Some factors—such as the labor saving, skill bias of these technologies—are outside of African countries' control. But education policies can still contribute to an inclusive transformation if the focus remains on a cost-effective education system for all.

7 Sadeski, Francie et al. 2019. "Potential of the fourth industrial revolution in Africa." African Development Bank.

8 Månsson, Cecilia Värendh. 2022. "Africa's youths can help solve the global tech talent shortage." The Brookings Africa Growth Initiative.

Learning on the move: Resetting the agenda for education and learning in conflict-affected settings

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Conflict, insecurity, and the resulting humanitarian crises have imposed major disruptions on education systems in many parts of the African continent. Between 2020 and 2021, over 2,000 attacks on schools and educational infrastructures were documented in 14 African countries, with the Democratic Republic of the Congo and Mali most affected.[1] In the Central Sahel (namely Burkina Faso, Mali, and Niger), the confluence of armed conflict and threats of attack have led to the closures of 7,000 schools, affecting the education of 1.3 million children and young people, while over 30,000 teachers are unable to teach.[2] Girls are particularly affected and are less likely to return following these school closures.[3]

In 2022, the number of forcibly displaced people reached 36 million on the African continent—a threefold increase over the last ten years—and the majority are children and young people.[4] If prevailing trends persist, the number of children and young people in need of education support in conflict-affected settings is likely to soar. Forced displacement acutely affects access to education and the continuation of learning,[5] yet current education systems are not equipped to cope with the prolonged forced displacement facing conflict-affected settings. Forcibly displaced children, on average, benefit from fewer years of schooling, and are less likely to transition to secondary school.[6]

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1 Global Coalition to Protect Education from Attack (GCPEA). 2022. "Education Under Attack 2022". A report by the Global Coalition to Protect Education from Attack, 2022, https://protectingeducation.org/wp-content/uploads/eua_2022.pdf.

2 Cluster Education, "Aperçu Général de l'ensemble Des Écoles Non Fonctionnelles Mai 2022" (Bamako, 2022); MEN, "Situation Des Écoles Fermées Au Niger - Aout 2022" (Niamey: Ministere de l'education nationale du Niger, 2022); OCHA, "Education Cluster Burkina Faso | Humanitarian Response," January 2022, https://www.humanitarianresponse.info/fr/operations/burkina-faso/education.

3 Onyango, Monica Adhiambo et al. 2019. "Gender-Based Violence Among Adolescent Girls and Young Women: A Neglected Consequence of the West African Ebola Outbreak." in *Pregnant in the Time of Ebola*, ed. David A. Schwartz, Julienne Ngoundoung Anoko, and Sharon A. Abramowitz (Springer Cham, 2019), 121–32, https://doi.org/10.1007/978-3-319-97637-2_8; Peterman, Amber et al. 2020. "Pandemics and Violence Against Women and Children." Center for Global Development. https://www.cgdev.org/sites/default/files/pandemics-and-vawg-april2.pdf.

4 Africa Center for Strategic Studies. 2022. "Record 36 Million Africans Forcibly Displaced". Infographic, July 19, 2022.

5 UNICEF. 2019. "Equitable Access to Quality Education for Internally Displaced Children." United Nations Children's Fund; Kirk R. Person. 2020. "Displaced Children Need Education Support in a Language They Understand | Blog | Global Partnership for Education." GPE, https://www.globalpartnership.org/blog/displaced-children-need-education-support-language-they-understand.

6 United Nations. 2020. "Education during COVID-19 and Beyond." New York City; Susan Raqib. 2017. "Far-Reaching Consequences of Wartime Attacks on Education," Nature Human Behaviour, https://doi.org/10.1038/s41562-017-0220-4.

Why does the provision of education matter in conflict-affected settings?

It is worth highlighting why education matters in conflict-affected settings. Education alone does not prevent conflict from erupting. However, education is central to sustainable peacebuilding and offers a tangible opportunity to break cycles of inequality that are a salient feature of fragile and conflict-affected states on the continent.[7] In addition, education can address some of the drivers of violent extremism,[8] although evidence shows that unmet expectations among educated youth could still fuel grievances and drive support for violent extremism.[9] Third, keeping children in school during crises or conflict, provides a sense of normalcy, which is essential to their psychological well-being and cognitive development.[10]

From a rights-based perspective and capability framework,[11] the continuation of learning is central to how forcibly displaced communities reimagine their futures.[12] In an effort initiated and coordinated by Niger and Norway, the United Nations Security Council (UNSC) unanimously adopted the landmark resolution on the protection of education in armed conflict zones (UNSCR2601).[13] Realizing the promise of this binding commitment (applicable to all U.N. member states) will require a more intentional response and coordinated approach—amidst crises that are increasingly protracted in nature, complex, and often with a regional dimension.

What should policymakers do to realize the promise of resolution UNSC 2601?

To safeguard quality education in conflict-affected settings, African states and their development partners could address three critical issues related to financing, evidence, and agenda setting.

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7 Bertoni, Eleonora et al. 2019. "Education Is Forbidden: The Effect of the Boko Haram Conflict on Education in North-East Nigeria." *Journal of Development Economics*, volume 141: 102249, https://doi.org/10.1016/j.jdeveco.2018.06.007.

8 UNESCO. 2017. "Preventing Violent Extremism through Education: A Guide for Policy-Makers" Paris, www.unesco.org/open-access/terms-use-ccbysa-en.

9 Bhatia, Kartika and Hafez Ghanem. 2017. "How Do Education and Unemployment Affect Support for Violent Extremism? Evidence from Eight Arab Countries." The Brookings Institution.

10 Bene, Konabe. 2022. "Gauging Secondary School Students' Terrorism-Related Resilience in the Sahel Region of Burkina Faso: A Quantitative Study," Psychology in the Schools, https://doi.org/10.1002/PITS.22779.

11 Walker, Melanie and Elaine Unterhalter. 2007. "The Capability Approach: Its Potential for Work in Education." in Amartya Sen's Capability Approach and Social Justice in Education, 1–18, https://doi.org/10.1057/9780230604810_1; Hart, Caroline Sarojini. 2013. "Aspirations, Education and Social Justice: Applying Sen and Bourdieu." London Review of Education 11, no. 2, https://doi.org/10.1080/14748460.2013.800263; Saito, Madoka. 2003. "Amartya Sen's Capability Approach to Education: A Critical Exploration." Journal of Philosophy of Education 37, no. 1 (February 1, 2003): 17–33, https://doi.org/10.1111/1467-9752.3701002.

12 OCHA. 2015. "An End in Sight: Multi-Year Planning to Meet and Reduce Humanitarian Needs in Protracted Crises.", https://reliefweb.int/report/world/end-sight-multi-year-planning-meet-and-reduce-humanitarian-needs-protracted-crises.

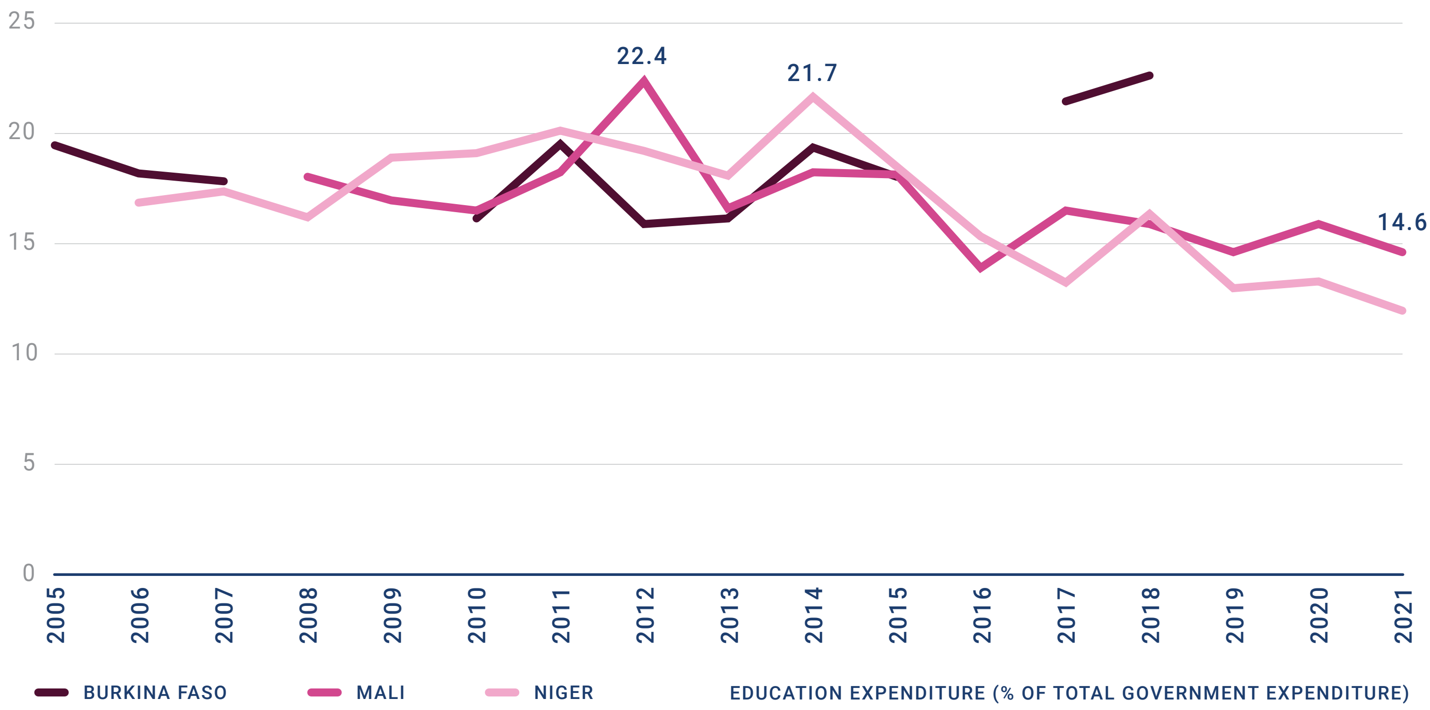
13 UNSCR. 2021. "Security Council Resolution 2601," United Nations Security Council §, https://doi.org/10.1525/curh.1950.19.108.110.

1. **Reverse trends of declining government and humanitarian funding for education:** Insecurity imposes fiscal pressure on governments, which often lowers the proportion of government spending on education. This adversely impacts the ability of education systems to address the needs of children and youth affected by conflict, insecurity, and violence (see Figure 22 below).

   Moreover, to be effective, interventions must draw on joint humanitarian and development praxes—yet in many African countries, notably in the Sahel, the humanitarian leg of education is direly underfunded: In Mali and Burkina Faso, respectively, less than 7 percent and 3 percent of humanitarian appeals for education have been met—compared to the global average of 50.7 percent.

FIG.22 **A SMALLER SHARE OF GOVERNMENT RESOURCES ARE BEING SPENT ON EDUCATION**

In recent years, government budgets for education have shrunk. Mali and Niger exemplify this trend. Security concerns and conflict are an important reason for this, as they exert pressure on existing government resources and limit fiscal space.



Source data: Author's compilation based on data from Financing Tracking Services, OCHA, United Nations (OCHA, 2022a)

2. **Strengthen data and evidence on learning outcomes and trajectories of children and youth forcibly on the move:** There is a dearth of data particularly on internally displaced children, who often find themselves absorbed in the wider host communities.[14] Consequently, their educational needs are often not fully accounted for, as they are not measured by conventional data.[15] Quality data that is disaggregated, safely and ethically collected, as well as standardized can also support better diagnostics and the design of policies and programs. Beyond quantitative data, the use of qualitative measures that document the educational experiences and trajectories of girls and boys who are internally displaced can lay the foundations for more inclusive approaches, both for forcibly displaced children and their host communities.

3. **Revisiting how education gets provided and for what purpose:** Much of education in emergencies focuses on primary education, with little attention afforded to post-primary and vocational training which young people in forced displacement cite as a valuable way to link education with economic opportunities.[16] Moreover, the recognition that education is indeed already a priority for forcibly displaced communities can help reframe the angle of interventions, with a renewed focus on structural barriers. Lastly, quality matters, and even more so for populations facing crises: Without an environment that fosters learning and provides clear value, staying in school becomes nearly impossible for populations facing so many competing needs.[17] Continuity of education in crisis settings, especially for girls, depends on quality and perception about the value of schooling.

In conclusion, it is imperative for African countries to invest in education in crisis settings, despite the associated challenges in fragile and conflict-affected countries. By doing so, Africa has an opportunity to reset the agenda for education in crisis settings and devise effective strategies to provide quality education for the growing population of children and youth who are affected by armed conflict.

14 Mooney, Erin and Colleen French. 2016. "Barriers and Bridges: Access to Education for Internally Displaced Children" (Washington, D.C.); UNICEF. 2019. "Equitable Access to Quality Education for Internally Displaced Children." United Nations Children's Fund.

15 Halimatou, Hima. Forthcoming 2022. "Learning on the move: Facilitating the continuation of learning for girls and boys in conflict-affected settings in the Sahel."

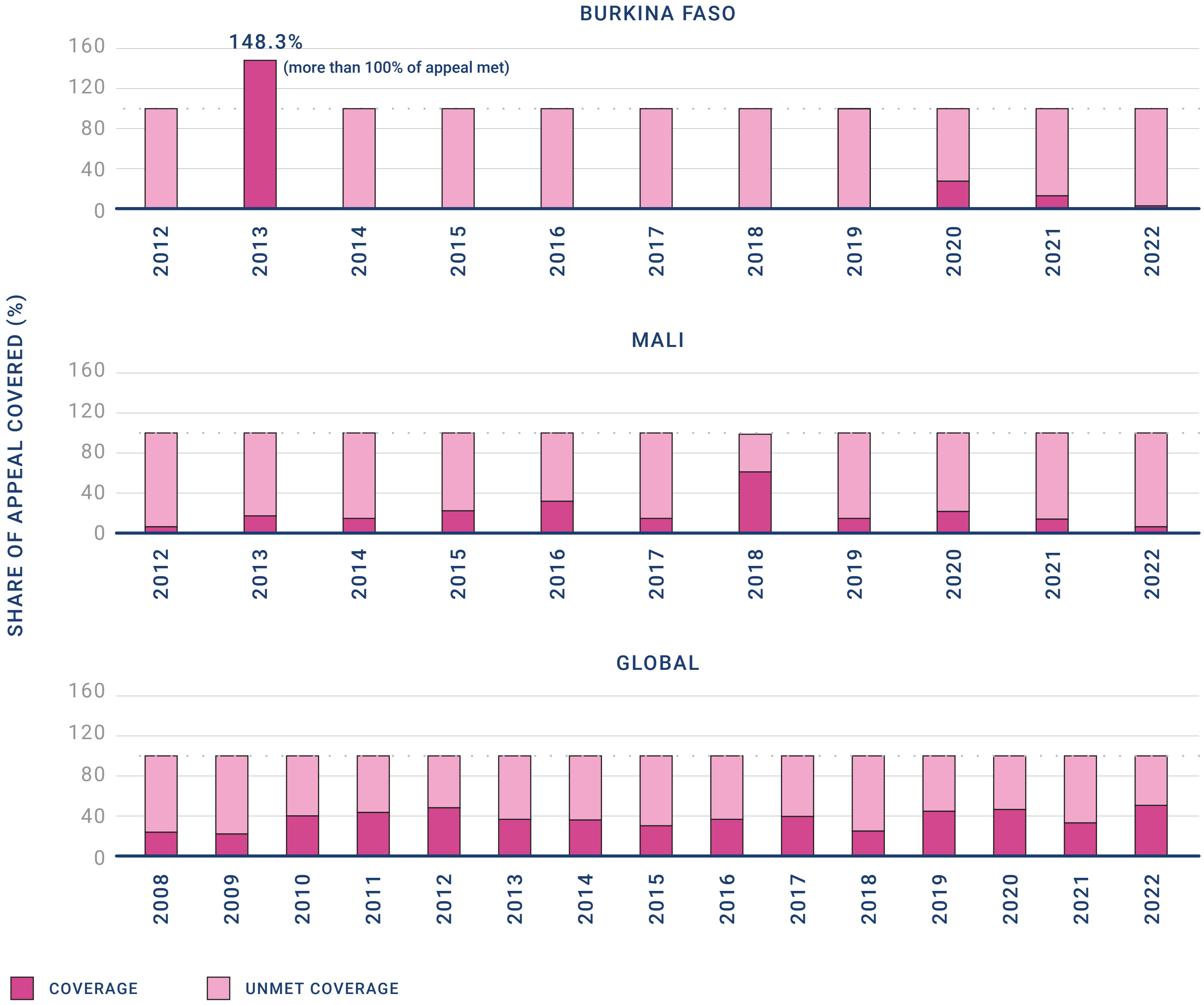
16 Ibid.

17 Hima, Halimatou. 2022. "'Schooling' Isn't Enough: The Urgency of Quality Education for Children Forcibly on the Move in the Sahel." The Brookings Institution. (Washington, D.C., 2022), https://www.brookings.edu/blog/education-plus-development/2022/09/09/schooling-isnt-enough-the-urgency-of-quality-education-for-children-forcibly-on-the-move-in-the-sahel/.

FIG.23

HUMANITARIAN ASSISTANCE FOR EDUCATION IN AFRICA, IS TYPICALLY FAR LESS THAN THE AMOUNT APPEALED FOR

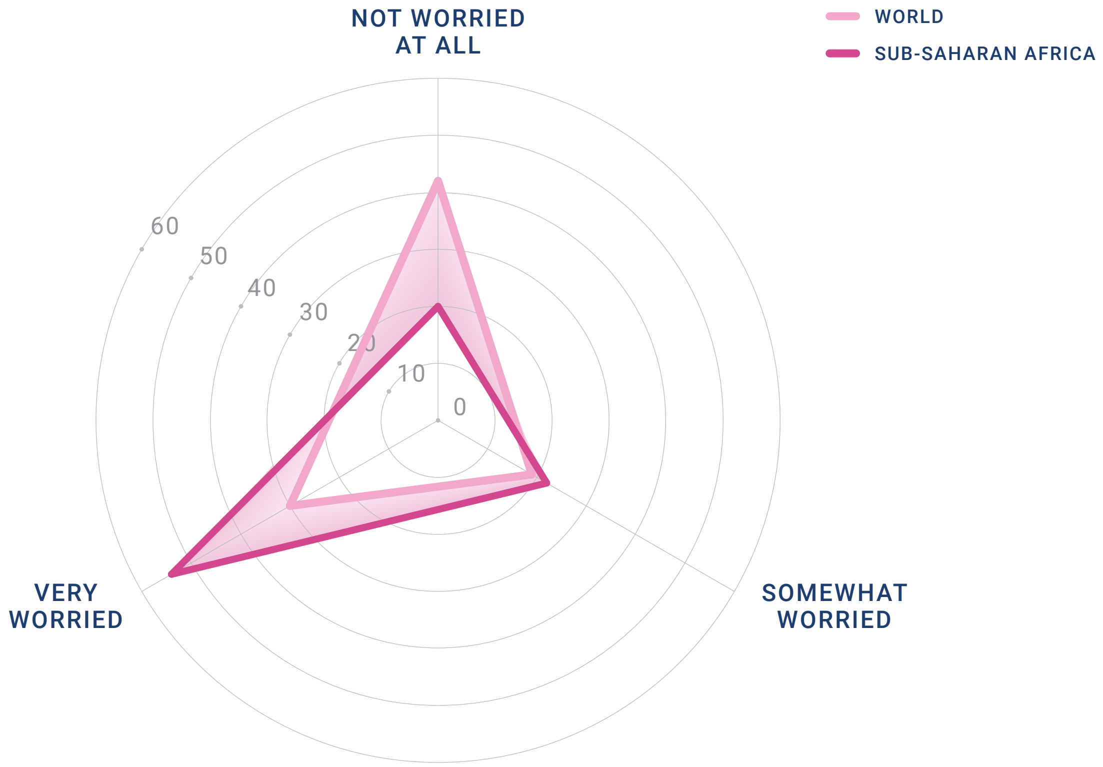
Insecurity has diverted spending (both public and private) away from important social services like education. The humanitarian response has not been enough to meet the needs of countries experiencing conflict and fragility. In Mali, for example, humanitarian aid has not met the country's appeal for educational assistance in any year between 2012 and 2022. Moreover, the coverage met is significantly lower than the global average.



Source data: Author's compilation based on data from Financing Tracking Services, OCHA, United Nations (OCHA, 2022a)

FIG.24 SUB-SAHARAN AFRICANS ARE MORE WORRIED ABOUT PAYING EDUCATION FEES THAN THE GLOBAL AVERAGE

Respondents in sub-Saharan Africa are significantly more likely to worry about paying school fees (of any level) than the world average. In 2021, 84 percent of respondents in sub-Saharan Africa reported being either "somewhat worried" or "very worried" about paying school fees, compared to the global average of 49 percent. The worry conveyed by the survey reflects difficulties as governments try to make up for delayed or lost learning caused by the pandemic.



Note: Dataset includes respondents age 15+ from 153 countries, including 41 from sub-Saharan Africa. The countries included in sub-Saharan Africa include Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Central African Republic; Chad; Comoros; Democratic Republicof Congo; Republic of Congo; Côte d'Ivoire; Eswatini; Ethiopia; Gabon; The Gambia; Ghana; Guinea; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Senegal; Sierra Leone; Somalia; South Africa; South Sudan; Sudan; Tanzania; Togo; Uganda; Zambia. Zimbabwe.
Source: World Bank. 2021. Global Findex Dataset. World Bank Group.

HEALTH:

ASSURING HEALTH SECURITY FOR ALL

4

ESSAY

VIEWPOINT

Finishing the job on HIV/AIDS

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What it will take to end the HIV/AIDS pandemic as a global health threat by 2030

In the wake of the COVID-19 pandemic, there is a renewed need for domestic and donor support to end the HIV/AIDS pandemic as a global health threat. This requires a strong emphasis on galvanizing political and programmatic leadership to sustain the response, centering programs around health equity, sustainably strengthening public health systems, and health security.

Introduction

In 2001, the Heads of State of Africa met in a special summit in Abuja devoted specifically to addressing the exceptional challenges of HIV/AIDS. The HIV/AIDS pandemic had been raging worldwide with an acute impact on most countries in Africa. The spread of the disease was impacting every dimension of society–in African countries most affected, AIDS had lowered life expectancy of adults on average by 20 years. This session, which came soon after the unprecedented U.N. Security Council Resolution in 2000 declaring HIV/AIDS a security threat, acknowledged the tremendous impact that the spread of HIV was having on the continent as not only a health crisis, but also an economic and security crisis, which would lead to massive instability in the continent if left unchecked.

The Abuja summit concluded with heads of state committing to take personal responsibility and provide political leadership at the highest level to commit all necessary resources and measures to attack the epidemic–from pledging 15 percent of budgets to the health sector, providing access to affordable treatment, scaling-up educational efforts, to reforming national policies. These commitments helped spark a regional movement to attack the HIV/AIDS pandemic on the continent by governments, donors, advocates, non-profits, private companies, and more.

Progress to date

Twenty years later, the annual number of new infections has dropped by 75 percent (from 3.4M to 870,000), and deaths have dropped 80 percent (from 2.3 million to 460,000) in Africa.[1] Several high-burden African countries have reached the UNAIDS 90-90-90 targets.[2] It is no coincidence that this period has resulted in the fastest economic growth in Africa's history and has seen tremendous gains in other development indicators such as poverty alleviation, educational attainment, gender equity, and maternal and child health. Analysis comparing U.S. President's Emergency Plan for

1 UNAIDS. 2021. "UNAIDS Data 2021." Reference. The Joint United Nations Programme on HIV/AIDS.

2 90% of all people living with HIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; 90% of all people receiving antiretroviral therapy will have viral suppression.

AIDS Relief (PEPFAR) recipient countries with similar non-PEPFAR supported low- and middle- income countries found that PEPFAR countries experienced 35 percent greater reductions in child mortality, 25 percent reductions in maternal mortality, and significant improvements in childhood immunizations. GDP per capita growth rates were 2.1 percentage points higher for PEPFAR countries compared to non-PEPFAR supported countries, and the share of girls and boys out of school declined by 9 and 8 percent respectively. The effects were strongest where PEPFAR engaged in more intensive planning and funding.[3]

Despite this progress, we are at a new inflection point in the HIV/AIDS pandemic in part because of the COVID-19 pandemic. The pandemic particularly impacted access to HIV prevention services, and the rate of decline of new infections has slowed. If the current pace continues, we will be off-track to reach the UNAIDS global target of 370,000 infections by 2025.

What is worse is that the most vulnerable populations continue to be at the highest risk. Approximately 52 percent of children living with HIV receive the lifesaving treatment they need, compared to 76 percent of adults.[4] Adolescent girls and young women continue to be more than twice as likely to be infected relative to their male counterparts. And Key Populations (KP)–men who have sex with men, transgender persons, people who inject drugs, sex workers, incarcerated people)–make up an increasingly large share of new infections.

PEPFAR's five-year strategy

To meet the moment in the trajectory of the HIV/AIDS response, we launched PEPFAR's new 5-year strategy on December 1, 2022. The strategy outlines several areas that PEPFAR will be pursuing to help achieve the global goal of ending HIV/AIDS as a global health threat. There are three key areas where African policymakers have a unique role to play in the response.

1. Elevating HIV/AIDS to the highest levels of political leadership to sustain the response

The 2001 Abuja summit was a powerful example of African political leadership. African heads of state outlined concrete goals and commitments and helped to galvanize the global community to aid in the response. In the decade that followed, thanks in large part to continued African leadership and partnerships, 27 countries increased the proportion of their expenditures on health. However, the situation has deteriorated; in 2016, 19 African countries were spending less on health as a percentage of their public spending than the early 2000s, and only three countries exceeded the 15 percent threshold.[5]

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3 Carbaugh, Alicia, Anna Rouw, and Jennifer Kates. 2022. "HIV Policy Alignment with International Standards in PEPFAR Countries." Kaiser Family Foundation.

4 WTO. 2022. "New global alliance launched to end AIDS in children by 2030." Joint News Release. World Trade Organization.

5 WHO. 2016. "Public Financing for Health in Africa: From Abuja to the SDGs." World Health Organization.

In many countries, donors are currently performing many of the core functions around performance management and service delivery. Until countries take over programmatic accountability, the HIV/AIDS response will continue to be viewed as a donor-led activity.

New political leadership is needed to sustain progress. Over the next decade, HIV/AIDS programs should primarily become the responsibility of African countries as support from outside donors inevitably declines, even as PEPFAR continues its commitment to our partner countries. This should start with clear political commitments from Heads of States to lead and manage their own HIV response–by articulating and acting on their own vision and holding their ministries accountable for results. This will help to unlock greater programmatic leadership for the oversight and management of HIV prevention and care efforts, and the broader strengthening of health systems (workforce, labs, data and surveillance, supply chains, etc.) that underpin HIV/AIDS programs.

In many countries, donors are currently performing many of the core functions around performance management and service delivery. Until countries take over programmatic accountability, the HIV/AIDS response will continue to be viewed as a donor-led activity. Over time, more robust political and programmatic leadership should help to unlock financial leadership as well by encouraging ministries of finance, and development to recognize that investing in HIV/AIDS and health systems programs domestically will yield high returns.

PEPFAR will help to enable these three components of sustaining the response by working with countries in partnership with the African Union (AU) and other regional and global entities to jointly develop a sustainability roadmap, articulating a shared pathway for countries to take increasing responsibility for their own epidemics and hold all parties accountable for results.

2. Improving health equity for priority populations

The HIV/AIDS pandemic does not affect people uniformly. We know that persistent inequities for the most marginalized populations persist—countries should address these inequities head-on to close these gaps. This starts with adolescent girls and young women, who remain disproportionately impacted by the HIV/AIDS pandemic in Africa. Governments need to recommit to providing holistic, multi-layered support and enabling policy environments that for meet the needs of girls and women given the intersecting challenges they face that increases their risk for contracting HIV. This includes ensuring they can stay in school, access economic opportunities to earn livable incomes, receive comprehensive destigmatized sexual and reproductive health services like PrEP, and thrive in their daily lives free from violence.

Children remain less likely than their adult counterparts to receive treatment, despite the existence of highly effective pediatric treatments in the form of dolutegravir. This gap is unacceptable, and the seven countries that make up the roughly 80 percent of these missing children (Democratic Republic of Congo, Mozambique, Nigeria, South Africa, Tanzania, Uganda, and Zambia) should especially double down on the funding and management of preventing mother to child transmission (PMTCT) and care linkage programming.

Lastly, Key Populations (KPs)—continue to bear the highest per capita risk of contracting an HIV infection. Governments and donors need to bring KPs and community organizations in the lead to inform the design and expansion of equitable and nondiscriminatory prevention, testing, and treatment services. Governments also need to look critically at the restrictive laws and policies that criminalize or stigmatize

Between 70-90 percent of drugs consumed on the African continent are imported; (China and India have comparable populations and import 5 percent and 20 percent, respectively). For vaccines, only 1 percent of vaccines consumed are manufactured in Africa.

these populations and prevent them from accessing the services they need–and learn from peer countries in the region who have successfully pursued reforms.

3. Leveraging the PEPFAR platform to strengthen public health systems and health security

During the COVID-19 pandemic, the recent Ebola outbreak in Uganda, and other disease outbreaks, the public health infrastructure, relationships, and practices that PEPFAR has helped to establish and strengthen for HIV proved essential to responding to new and unexpected health threats. While maintaining focus on HIV as our core mission, moving forward, PEPFAR will continue to apply lessons learned from HIV and intentionally strengthen overall public health systems to respond to health security threats. Such investments will aim to protect HIV/AIDS gains and ensure increased sustainability for countries' HIV/AIDS response.

Regionalized and modernized supply chains for health commodities

The COVID-19 pandemic has clearly demonstrated the need for a robust regionally diversified, sustainable pharmaceutical manufacturing and supply chain ecosystems to protect against health security threats, including in Africa. A strong, diversified, and sustainable manufacturing base would also decrease procurement costs, prevent stockouts, introduce new products faster, and create substantial economic benefits. However, between 70-90 percent of drugs consumed on the African continent are imported; (China and India have comparable populations and import 5 percent and 20 percent, respectively). For vaccines, only 1 percent of vaccines consumed are manufactured in Africa.[6]

For Africa to address this challenge, it needs a holistic approach and an enabling environment for sustainable regional manufacturing that allow manufacturers to supply multi-country geographies, promote healthy competition, and enables sizeable, sustainable manufacturers to emerge. PEPFAR will lead by setting explicit, ambitious targets for African procurement of HIV commodities for the next decade and will adjust our procurement policies to help jumpstart demand– and drive other donors to follow.

To create this enabling environment, we will need to work with African policymakers and multilateral organizations to develop tariff and trade policies, environmental policies, and regulatory policies to support sustainable local manufacturing capacities. It will also be critical for African policymakers to certify and fund the African Medicines Agency (AMA) to lead in certification of products and implement the African Free Trade agreement to enable cross-border trade. Leaders of global and African development finance institutions should take this opportunity to provide financing and other support to pharmaceutical manufacturers standing up or expanding operations and enhancements to health supply chains across the region.

But manufacturing is not enough to get the products to the people who need them quickly and efficiently. We continue to see high rates of stockouts across PEPFAR-supported countries, and our supply chains are simply not people-centered.

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6 Nweneka, Chidi Victor and Tolu Disu. 2022. "The future of vaccine manufacturing in Africa." Foresight Africa 2022, Public Health Chapter. The Brookings Africa Growth Initiative.

African policymakers need to promote a long-term vision for a modern and sustainable supply chain, which includes movement away from the emergency nature of Central Medical Stores and integration of private sector providers across the value chain; strengthening government capacity in supply chain leadership, oversight, comprehensive planning and risk management; and diversifying channels of last-mile delivery of products beyond the public clinics. Policymakers need to also recognize that supply chains go beyond ministries of health and engage the ministries of finance, development, and trade to remove bottlenecks that create artificial supply shortages at the port or the border. PEPFAR will coordinate with African partners and other donors to help to strengthen country capacity to lead in the development and implementation of this long-term approach to supply chain modernization.

Robust Health Workforce

Despite the lessons from Ebola, COVID-19 and other outbreaks, the health workforce remains one of the most under-invested areas of the public health system. Africa needs 6,000 field and 25,000 frontline epidemiologists but has only trained 2,000 and 5,000 respectively. In 2017, the AU launched a two million community healthcare worker initiative, but to date only a few hundred thousand professionalized workers have been deployed, and many remain un-salaried, and poorly trained, equipped, and supervised. Nurses continue to be under-equipped and poorly prepared for new outbreaks, leading to high rates of mortality among their cohort.

Country leaders need to bring together ministries of health, education, and finance to develop an integrated plan to train, finance, and support the next cohort of nurses, community health workers, epidemiologists, and health data scientists. PEPFAR and other disease-specific donors need to align their future health workforce investments to better support those integrated country plans and, workforce leadership programs going forward.

Empowered National Public Health Institutes

National Public Health Institutes (NPHIs) serve as the backbone of an effective public health response; during COVID-19, countries with strong NPHIs were more effective in coordinating the outbreak response. More than 30 African countries have already created NPHIs, and for those countries it is incumbent on political leaders to financially support their core capabilities (surveillance, lab networks, emergency operations centers, research). PEPFAR will work to strengthen NPHIs by partnering with the Africa CDC to enlist NPHIs to lead on core HIV-control functions such as conducting household surveys to measure the epidemiological change in the disease and leveraging their EOCs to tackle pockets of new infections.

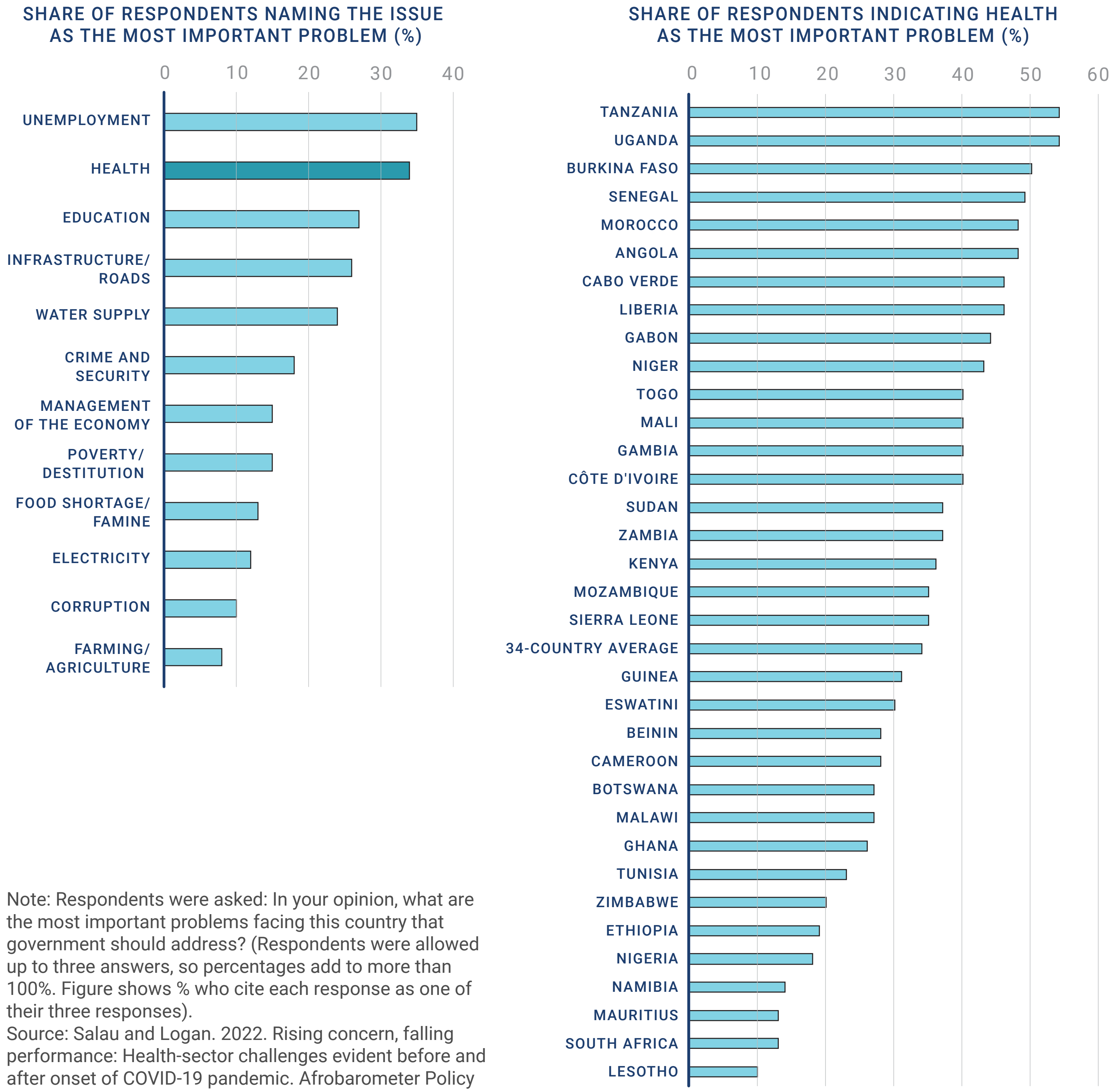
Conclusion

PEPFAR has a critical role to play in the future of the HIV/AIDS response. But without leadership from policymakers, all our collective efforts will be unsustainable. African leaders need to recognize that strong public health systems are a fundamental element of strong national security and economic growth, and prioritize it accordingly in domestic budgets, laws, and policies. Country leaders also should endorse, fund, and strengthen regional institutions such as the Africa CDC and AMA who are taking a lead in coordinating the health response. Disease-specific donors including PEPFAR need to come together to harmonize and prioritize public health systems and security investments, and support country leadership in developing and implementing integrated national plans. We have come so far, and together we can end HIV/AIDS as a public health threat on the continent and globally.

FIG.25 AFRICANS INDICATE THAT HEALTH IS AMONG THE MOST PRESSING POLICY ISSUES

In a recent survey from Afrobarometer, Africans indicated that health was the second most critical problem facing their country today, just after unemployment.

Respondents in some countries, such as Tanzania, Uganda, and others, name health as the single most important problem facing their country.



Note: Respondents were asked: In your opinion, what are the most important problems facing this country that government should address? (Respondents were allowed up to three answers, so percentages add to more than 100%. Figure shows % who cite each response as one of their three responses).
Source: Salau and Logan. 2022. Rising concern, falling performance: Health-sector challenges evident before and after onset of COVID-19 pandemic. Afrobarometer Policy Paper No. 80.

Leveraging lessons from COVID-19 to build stronger health systems

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Sir Winston Churchill averred, in the aftermath of World War II, that one should never let a "good" crisis go to waste. The COVID-19 pandemic offered several lessons for Africa's health systems that should form the basis for a stronger, more inclusive recovery. **One such lesson is that African governments ought to prioritize investments in the health sector as a means, not only to improve population health, but also to safeguard the economy**. African health systems are chronically underfunded; it is estimated that on average African countries' government expenditure on health, as a share of gross domestic product (GDP), is 2 percent—far less than the 5 percent recommended threshold for low- and middle-income countries to register meaningful improvements in population health outcomes.[1] COVID-19 has made it abundantly clear that the social and economic fortunes of a country are conjoined with population health. For example, the World Bank estimated that COVID-19 was responsible for a 3.3 percent economic contraction of Africa's GDP in 2020, pushing 40 million individuals into poverty.[2] Under-investment in the health sector meant that African health systems were ill-prepared for the pandemic, and thus, suffered great economic loss.

One way to unlock additional financing and resources for the health sector is to exploit efficiency gains by reducing wastage. Two strategies are worth considering. African countries could achieve better outcomes from existing resources by introducing and institutionalizing the use of economic evidence to guide and inform healthcare resource allocation decisions in ways that promote value-for-money. One such approach is health technology assessment (HTA). HTA is a multidisciplinary process that uses explicit methods to determine the value of health interventions and services in ways that promote efficiency and other health system goals. Good examples of countries that have implemented HTA to improve the efficiency of their health system include Thailand's universal coverage scheme, and the UK's National Health Service (NHS). Likewise, there is also a need for African governments to tackle corruption head-on by implementing effective anti-corruption strategies. Some estimates put the loss of healthcare resources owing to weak governance and accountability environments that in turn facilitate health sector corruption to as much as 10 percent annually.[3]

The second lesson is that African countries ought to foster self-reliance by investing in the manufacture of essential health commodities. The vaccine nationalism and apartheid witnessed during the COVID-19 pandemic, coupled with international supply chain disruptions, exposed the vulnerability of African health systems to over-reliance on imports. Some estimates indicate that Africa imports

1 AHAIC Commission. 2021. "The State of Universal Health Coverage in Africa." The Africa Health Agenda International Conference Commission.

2 World Bank. 2020. "World Bank Confirms Economic Downturn in Sub-Saharan Africa, Outlines Key Polices Needed for Recovery." World Bank Group.

3 Gee, Jim and Mark Button. 2015. "The financial cost of healthcare fraud 2015: What data from around the world shows." PKF Littlejohn LLP.

It is imperative however, that these efforts are coordinated and aimed at addressing continental shortages, rather than narrow individual country needs. Vaccine and pharmaceutical manufacturing in Africa will only be sustainable if the market can support commercial viability.

more than 80 percent of its pharmaceutical and medical consumables, and 99 percent of its human vaccines.[4] It is encouraging that several African countries have since initiated plans to establish local vaccine manufacturing. African governments must also understand that the sustainable development of vaccines and pharmaceutical manufacturing is underpinned by a vibrant research and development (R&D) ecosystem. While African countries have committed to spending 1 percent of their GDP on R&D, the continent's funding of R&D stood at only 0.42 percent, compared to the global average of 1.7 percent.[5]

The third lesson is that African governments must re-prioritize universal health coverage (UHC). COVID-19 revealed that countries with advanced UHC systems are far better at responding to a pandemic or health shock.[6] A system where individuals face financial barriers to access healthcare, compromises vital public health strategies during a disease outbreak (i.e., detect, isolate, and treat) such that infected individuals go undetected and cannot access isolation or treatment services, and thus continue to spread disease. While many African countries have made political commitments to UHC, this commitment has hardly translated to investment and implementation. Out-of-pocket spending, as a share of total health spending, in Africa is also among the highest in the world at 38 percent—with countries like Nigeria having levels as high as 77 percent.[7] During the pandemic, this manifested in the form of individuals not accessing testing, isolation, and treatment because they could not afford to pay for these services, and in some cases, individuals are being forcefully detained in health facilities for not being able to pay the costs of isolation or care.

In addition to increasing health sector funding, several shifts will be required to course correct the continent's UHC aspiration. The first shift is the need for African countries to re-orient their UHC plans and ground them on tax-funded approaches as opposed to contributory health insurance. Many African countries are planning or already implementing public health insurance systems that rely on individual/household premium contributions as a means to achieve UHC. There is overwhelming evidence that it is problematic to achieve scale and equity in coverage, with health insurance systems that rely on individual/household premium contributions—especially in Africa where large shares (up to 80 percent) of the population are in the informal sector with unpredictable and irregular incomes. A recent analysis found that only four out of 36 African countries (Rwanda, Ghana, Gabon, and Burundi) have achieved health insurance coverage levels greater than 20 percent, and that coverage for all four countries, was characterised by substantial funding from tax revenues.[8]

4 AHAIC Commission. 2021. "The State of Universal Health Coverage in Africa." The Africa Health Agenda International Conference Commission.

5 Adepoju, Paul. 2022. "Africa's future depends on government-funded R&D." Nature Africa. An Audience With, 25 September 2022.

6 Haghighi, Hajar, Amirhossein Takian, and Mohsen Aarabi. 2020. "The role of universal health coverage in overcoming the covid-19 pandemic." BMJ Opinion.

7 AHAIC Commission. 2021. "The State of Universal Health Coverage in Africa." The Africa Health Agenda International Conference Commission.

8 Barasa, Edwine, et al. 2021. "Examining the level and inequality in health insurance coverage in 36 sub-Saharan African countries." BMJ Global Health 6, no. 4.

A second shift is the need for African countries to re-orient their health systems to prioritize primary healthcare (PHC)—a platform for providing basic health interventions and essential public health services. This would be a departure from the current arrangement where African health systems are hospital-centric, prioritizing higher-level care.

Contributory health insurance systems were also found to be highly inequitable on the continent. A third shift is the prioritization and financing of common goods for health (CGH). CGH are core, population-based functions that are essential to the health and wellbeing of entire societies, as opposed to individual-based services. Examples of CGH include disease surveillance systems, research and development, regulatory systems, and public health policies. CGH not only support the health and wellbeing of populations generally, but also bolster health security.

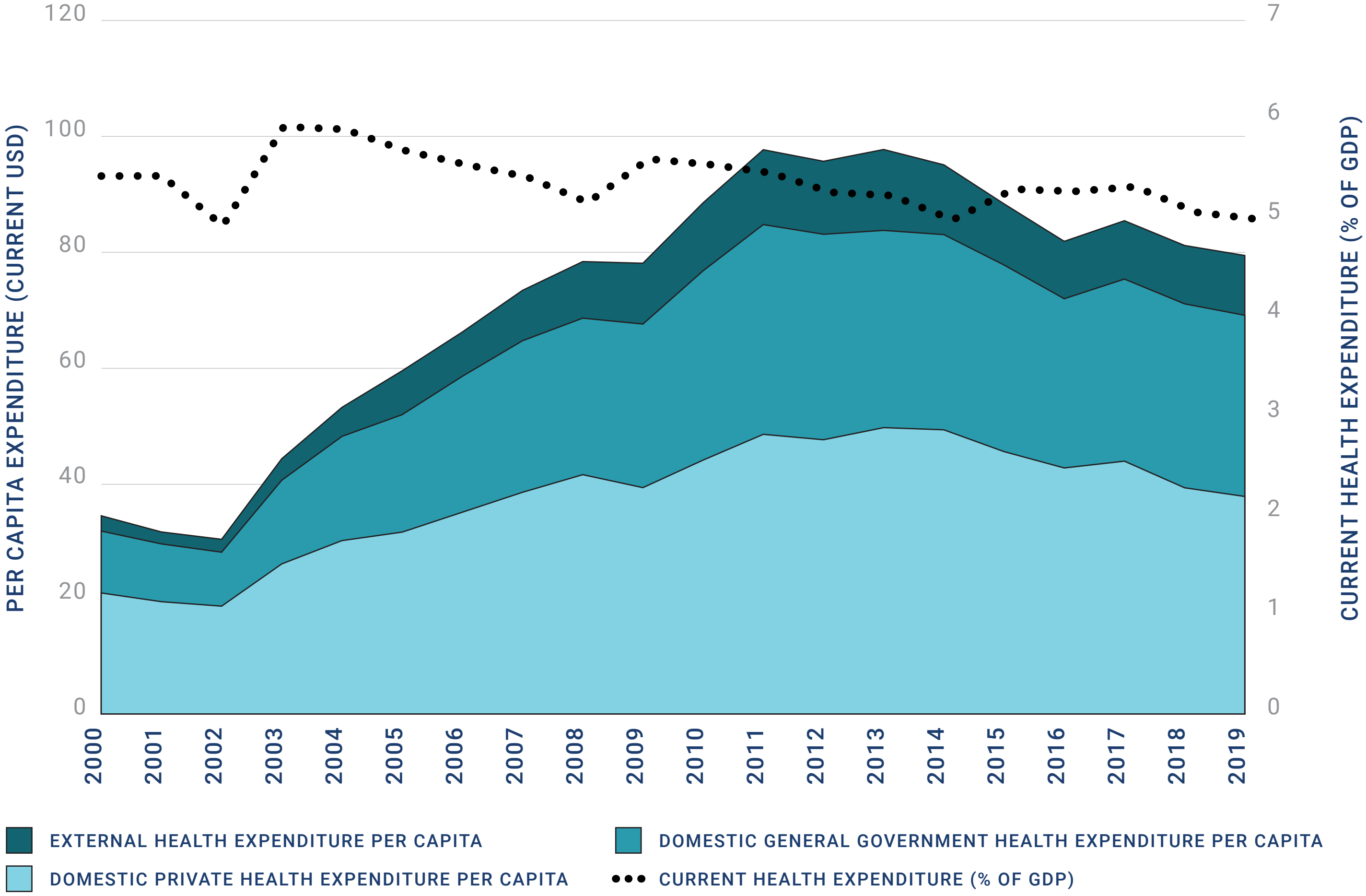
Lastly, several regional opportunities abound for African governments to leverage and strengthen their health systems. I will highlight two here. First, African leaders should take advantage of regional integration to strengthen healthcare markets and systems. The Africa Continental Free Trade Area (AfCFTA), is the world's largest free trade area in terms of population (1.3 billion) and number of countries (54), and has the potential to spur the growth of Africa's health markets by opening up markets for labour (health workers) and health commodities, and by attracting investments into the continent's health sector. In addition, it has the potential to support the continent's initiative to develop vaccines and pharmaceutical manufacturing.

Another regional opportunity that African health systems should take advantage of is, the continent's strong regional organizations that include the African Union (AU), the Africa Centres for Disease Control and Prevention (Africa CDC), and the African Development Bank (AFDB). These organizations not only have immense convening power, technical capacity, and capacity for advocacy, but they have also put in place initiatives whose implementation will leapfrog Africa's health system. For instance, the AU and Africa CDC have outlined a blueprint to strengthen health security in Africa labelled the "New Public Health Order." The AU has articulated a plan to spur pharmaceutical manufacturing—Pharmaceutical Manufacturing Plan for Africa (PMPA), while the Africa CDC has also laid out a framework for the development of local vaccine manufacturing (the partnership for Africa Vaccine manufacturing). Further, the AFDB has established the African Pharmaceutical Technology Foundation, that plans to spend $3 billion over the next decade to support the continent's pharmaceutical and vaccine manufacturing plans. However, these efforts will only be successful if African governments support and facilitate the leadership role of these regional agencies.

As we look forward to 2023 and beyond, here is hoping that African governments learn from the COVID-19 pandemic and invest in nurturing the resilience of the continent's health system to safeguard the health and the socio-economic wellbeing of the continent.

FIG.26 HEALTH CARE SPENDING IN AFRICA DECLINED IN THE LAST DECADE

Africa's health expenditure per capita has decreased since 2011. This contraction is not due to any one source in particular; domestic public, domestic private, and external sources of health expenditure have all declined in the last decade.



Source: World Bank. 2022. World Development Indicators. World Bank Group.

Confronting global inequalities to end HIV/AIDS

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Africa is not on track to end AIDS by 2030. The global crises of the COVID-19 pandemic and the war in Ukraine exacerbated intersecting inequalities—within Africa, as well as between Africa and the Global North. But there is good news: By tackling inequalities we can end AIDS. Here are four practical measures leaders can take.

Tackle inequalities faced by women and girls. In sub-Saharan Africa, adolescent girls and young women are three times more likely to be infected with HIV than boys and men of the same age.[1] The driving factor is inequality. Enabling girls to stay in school until they complete secondary education reduces their vulnerability to HIV infection by up to 50 percent.[2] When we include comprehensive sexuality education and other measures for girls' empowerment their risk is reduced even further. That is why 12 African countries have come together in the Education Plus Initiative, supported by the U.N. to make this happen. Beyond this, we must combine services for sexual and reproductive health, together with services for—preventing and responding to—sexual and gender-based violence, as well as HIV.

G-20 countries receive 136 million dollars in debt repayments from poor countries in the South. Meanwhile, in these countries, debt repayments are four times more than they spend on health, and twice what they spend on education.

Tackle inequalities faced by marginalized communities. UNAIDS' latest analysis shows no significant decline in new infections among gay men and other men who have sex with men in sub-Saharan Africa.[3] The evidence is clear: When you decriminalize, people will come forward for services, and when you criminalize, you push people away. In South Africa, where same-sex relationships are legal, gay men are 60 percent more likely to be living with HIV, but in Uganda where gay men are criminalized, they are 240 percent more likely.[4] There is a growing momentum for decriminalizing same-sex relationships—as South Africa, Lesotho, Cape Verde, Mozambique, Angola, and Botswana have. It is time for all of Africa to consign harmful and colonial punitive laws to history.

Tackle inequalities in resourcing, which the global crises have exacerbated. Every day, G-20 countries receive 136 million dollars in debt repayments from poor countries in the South.[5] Meanwhile, in these countries, debt repayments are four times more than they spend on health, and twice what they spend on education.[6] In the midst of a potential debt crisis, austerity measures, and higher inequality, some rich countries have cut back aid for global health and are considering even deeper cuts. Now is not the time to step away, it is the time to step up.

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1 UNAIDS. 2022. "World Aids Day Report: Dangerous Inequalities." The Joint United Nations Programme on HIV and AIDS.

2 UNAIDS. 2021. "Keeping girls in school reduces new HIV infections." The Joint United Nations Programme on HIV and AIDS.

3 UNAIDS. 2022. "World Aids Day Report: Dangerous Inequalities." The Joint United Nations Programme on HIV and AIDS.

4 UNAIDS. 2022. "World AIDS Day 2022 – Message from Winni Byanyima, Executive Director of UNAIDS." Press Statement. The Joint United Nations Programme on HIV and AIDS.

5 Oxfam. 2022. "G20 must tackle the "cost of profit" crisis causing chaos worldwide, says Oxfam." Oxfam.

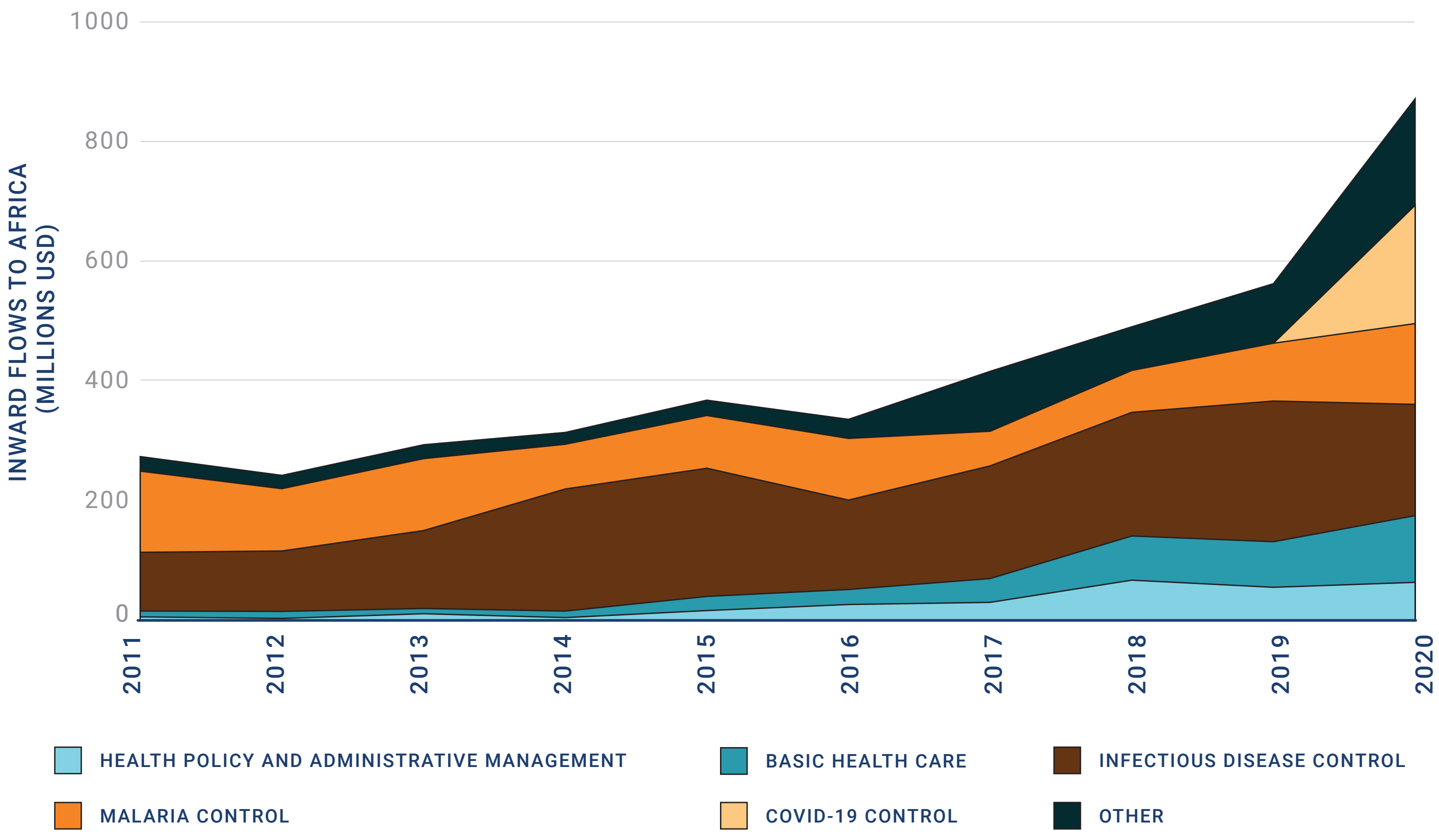
6 Ibid.

Tackle inequalities in access to medicines. We need to get the new, long-acting antiretroviral medicines that will make it easier to treat and prevent HIV in African countries; and at the same time as they are made available in the Global North. We also need to ensure such medicines are manufactured by multiple producers affordably, especially in Africa, where the disease is concentrated. This requires funding, the reform of failing rules on intellectual property, as well as support for distributed production, so access to life-saving science and medicine are no longer dependent on the passport people hold.

Through bold action to tackle inequalities, we can end AIDS.

FIG.27 PRIVATE DEVELOPMENT FINANCING FOR AFRICA'S HEALTHCARE SECTOR

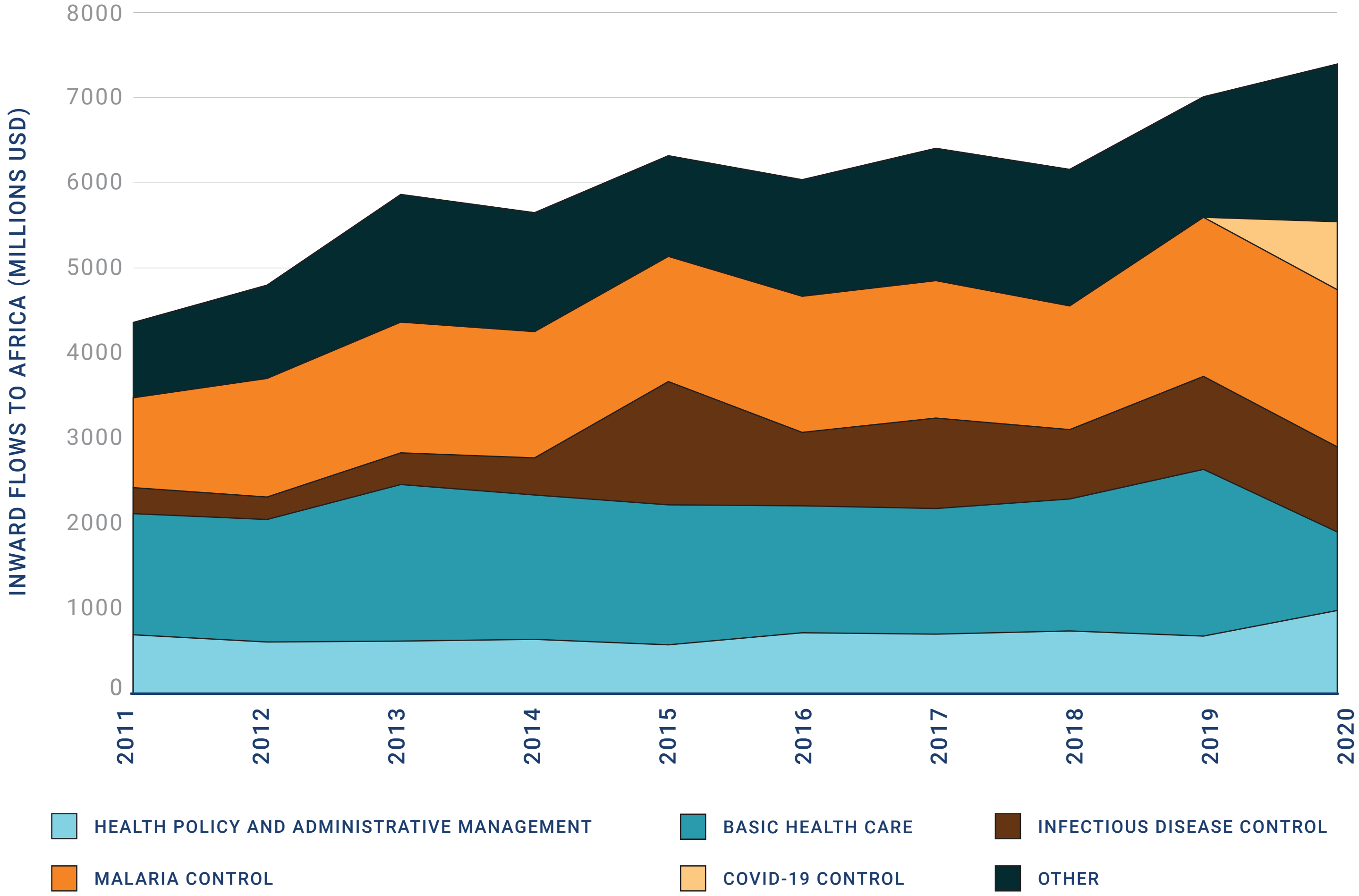
Private development financing for Africa's health care sector has increasingly been focused on preventing and treating infectious diseases. It received a significant jump in 2020 to prevent the spread of COVID-19. COVID-19 control initiatives accounted for more than 11 percent of all health-related private development finance in Africa in 2020.



Note: Private flows tend to target Malaria, COVID-19, and other infectious diseases (60 percent of all private flows).
Source: OECD.Stat. 2022. Total flows by donor (ODA+OOF+Private) [DAC1]. Organisation for Economic Cooperation and Development.

FIG.28 **OFFICIAL DEVELOPMENT ASSISTANCE (ODA) FOR AFRICA'S HEALTHCARE SECTOR**

Official Development Assistance (ODA) going to Africa's health care sector has tended to be more broad-based, focusing on a wide range of health subsectors including infectious diseases, basic healthcare delivery, supporting policy and administration, and investing in training health care professionals.



Note: Official flows target a range of activities, from infectious diseases to policy and administrative support.
Source: OECD.Stat. 2022. Total flows by donor (ODA+OOF+Private) [DAC1]. Organisation for Economic Cooperation and Development.

Empowering frontline workers to develop and deliver health care solutions

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Around the world, we are finally starting to recognize that addressing some of the biggest health challenges we face today—from antimicrobial resistance and communicable diseases to climate change and health disparities—requires not just investing in, but also elevating the voices of, frontline workers who for too long have been overlooked, undertrained, and denied a seat at the policy table.

Nurses and midwives, for example, have enormous capacity to reach broad populations with preventive care, health education, family medicine, and treatments for both acute and chronic diseases. Yet, we are not investing in them as we must. In 2020, the World Health Organization (WHO) recommended that countries educate six million more nurses to offset long-predicted shortages that threaten healthcare delivery worldwide.[1] The pandemic has made the situation more dire. According to the International Council of Nurses, due to an anticipated avalanche of resignations and retirements, the world will need 13 million more nurses by 2030.[2]

And we do not just need more nurses—we need more nurses in leadership positions. They have the insights, experience, and relationships to shape smart policy, carry out effective population health programs, and respond nimbly to health crises. This is why the Harvard T.H. Chan School of Public Health has worked with other partners, including the Africa Centres for Disease Control and Prevention (Africa CDC), the African Union, and the Burdett Trust for Nursing to launch a Global Nursing Leadership Program. We just welcomed our first cohort of practicing nurses and midwives from across Africa with the goal of teaching them how to lead projects, manage health systems, and engage confidently with national political leaders.

Last month, the African Union Commission and Africa CDC urged governments, international organizations, nonprofits, and philanthropists to invest in the long-term building of the continent's public health systems. In particular, the "New Public Health Order" for Africa calls for a stronger public health workforce and increased manufacturing capability of vaccines and drugs, to make African countries less dependent on foreign assistance.[3]

We know from experience that such an approach leads to scientific breakthroughs and better population health. In 1996, for example, Harvard helped launch the Botswana-Harvard AIDS Institute Partnership in Gaborone. The laboratory quickly

1 WHO. 2020. "State of the world's nursing 2020: Investing in education, jobs, and leadership." World Health Organization.

2 ICN. 2022. "International Nurses Day demands action on investment in nursing, protection and safety of nurses." International Council of Nurses.

3 Africa CDC. 2022. "Call to Action: Africa's New Public Health Order." Africa Center for Disease Control and Prevention.

Investing in frontline workers also means directly funding innovation in the Global South, so local institutions can ramp up their capacity, and frontline workers can develop programs tailored to their specific communities' needs.

pivoted to genomic surveillance when the COVID-19 pandemic struck, and it was here that researcher Dr. Sikhulile Moyo first sequenced and then alerted the world about the existence of the highly contagious Omicron variant. Anyone who has ever visited the Institut Pasteur in Dakar has seen its advanced capabilities; and thanks to global investments in such laboratories, Africa is on its way to meet its ambitious goal of locally manufacturing at least 60 percent of the vaccines needed across the continent.

There is plenty of untapped talent among frontline workers around the world and we must do more to nurture and support them. Community workers, nurses, and midwives can help us reimagine healthcare delivery. Microbiologists, epidemiologists, and genomic sequencing researchers can warn us when a new pathogen emerges. Vaccine developers and manufacturers can protect people all over the world from new and old diseases.

We must empower frontline workers, both to shape global health policy and design and carry out programs tailored to their communities. Only with their help can we build a healthier, more resilient world.

Ethiopia's lessons from COVID-19

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As we commence 2023, the world is still grappling with the direct and indirect effects of the COVID-19 pandemic. In retrospect, the pandemic tested Ethiopia's health system like no other challenge in recent history and amplified its existing strengths and weaknesses. The crisis also gave us an opportunity to rebuild our system with new insights, gained from the response to this once-in-a-generation pandemic.

I was appointed as Minister of Health in Ethiopia the day our health system detected the first COVID-19 case[1] in the country, 70 days after the first case was detected in Wuhan. Two to three months following this, we noticed a significant decline in the utilization of essential health services like vaccines, antenatal care, HIV care, and others. The Ministry's identification and awareness of this worrying trend was made possible through our District Health Information System, which enabled health officials to plan for—and execute—mitigation measures including non-visit care through tele-consulting; multi-month dispensing; and strong effective community monitoring. These measures helped Ethiopia to be among the few African countries that have maintained essential health services during the pandemic.[2]

I was appointed as Minister of Health in Ethiopia the day our health system detected the first COVID-19 case.

However, there were also pitfalls and lessons for improvement. The health system was aware of only a proportion of the cases and deaths from COVID-19, even though the Government rapidly expanded testing[3] sites from zero to 85, in less than six months. During these first few months, we implemented strict public health and social distancing measures that were being recommended globally and used by many countries in the region. We quarantined travellers, contacts, and suspects in health facilities, schools, and other public facilities and admitted all positive cases. In hindsight, there was already community spread by the time we were implementing these interventions, making our response ineffective and less appropriate for the stage of the outbreak. We also quickly learned that we did not have the physical infrastructure, nor the resources required for isolating thousands of people and had to make a shift.

As I look forward to 2023, I single out two priority investment areas that are required to build a more resilient system that will be better equipped to handle future health shocks.

Investing in health information systems and epidemiological surveillance networks to guide an apt and timely response plan. Investing in health information systems that generate individual-level patient data should be a priority in 2023. This will support vital registration efforts, enable contact tracing, assessment of the quality of care, and provide near-real time outcome data to guide the health system with evidence.

Investing in a strong primary health care (PHC) providing diverse care. Ethiopia has prioritized investment in PHC, but to date, most of these investments have

1 IHME.2020. "Dr. Lia Tadesse Gebremedhin: Minister of Health, Ethiopia."

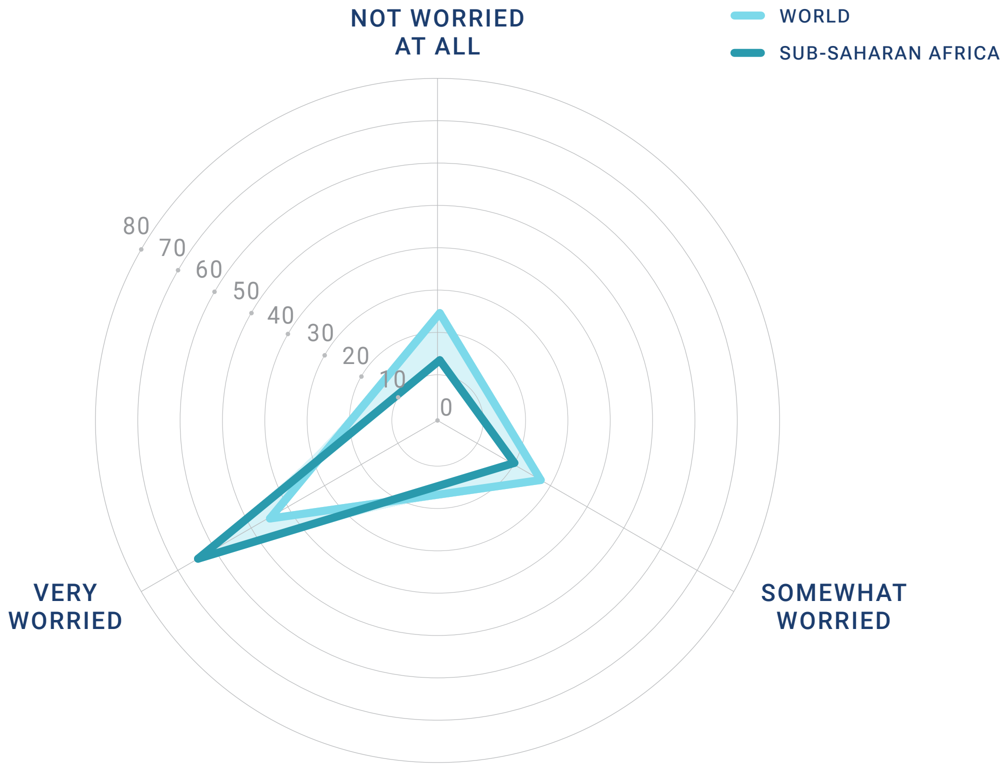
2 McCann et al. 2022. "COVID-19 disruptions of food systems and nutrition services in Ethiopia: Evidence of the impacts and policy responses."

3 Kebede et al. 2021. "Expanding molecular diagnostic capacity for COVID-19 in Ethiopia: operational implications, challenges and lessons learnt."

been narrowly focused on preventing and treating infectious diseases and maternal and childhood illnesses and only recently expanded to noncommunicable diseases (NCDs). However, in order to respond effectively to future outbreaks, our PHC should have the capacity to address a broader range of health challenges like NCDs, mental health, emergencies, and others. The benefits of community outreach through house-to-house surveillance by health extension workers, was also a valuable lesson to continue investing in community health for a strong PHC.

FIG.29 **SUB-SAHARAN AFRICANS ARE MORE WORRIED THAN OTHER WORLD REGIONS ABOUT PAYING FOR MEDICAL COSTS IN CASE OF A SERIOUS ILLNESS**

In a recent multi-country survey of sub-Saharan Africans, nearly two-thirds of respondents reported being "very worried" about having to pay for medical bills resulting from a serious illness. This number is significantly higher than the global average of 46 percent. In sub-Saharan Africa, only 14 percent of respondents reported being not worried.



Note: Dataset includes respondents age 15+ from 153 countries, including 41 from sub-Saharan Africa. The countries included in sub-Saharan Africa include Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Central African Republic; Chad; Comoros; Democratic Republicof Congo; Republic of Congo; Côte d'Ivoire; Eswatini; Ethiopia; Gabon; The Gambia; Ghana; Guinea; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Senegal; Sierra Leone; Somalia; South Africa; South Sudan; Sudan; Tanzania; Togo; Uganda; Zambia" Zimbabwe.
Source: World Bank. 2021. Global Findex Dataset. World Bank Group.

Building Africa's capacity for pandemic and epidemic intelligence

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The COVID-19 pandemic revealed that coordination and collaboration between countries on surveillance and epidemic intelligence were poor and led to ineffective and inefficient decision-making.[1] This poor collaboration was not limited to countries with poor capacity but applied also to countries with advanced capacities and good socio-economic relations.

While many countries generate data, the potential for meaningful analysis remains underutilized as the data are collected in ad hoc ways, with differing standards that are not sufficiently connected to answer complex questions. The pandemic also revealed that channels of coordination for countries to learn from each other and produce global models, or share national insights was limited. Moreover, many countries have not prioritized the development of public health surveillance and intelligence systems on account of limited capacities and scarce resources.

Clearly, there are immense benefits to be gained from better sharing of data related to health risks, vulnerabilities, and outcomes. The sharing of data can facilitate timely response, robust research, and overall, better-informed policy outcomes. Despite these benefits, several barriers and challenges to data sharing persist.

In response to an increased number of disease outbreaks affecting African countries, the World Health Organization (WHO) Africa Regional Office (AFRO) introduced the Integrated Disease Surveillance and Response (IDSR) framework in 1998.[2] IDSR was introduced to strengthen data collection, analysis, and use in African countries. The overall goal is to improve the detection and response to the leading causes of illness, death, and disability in the region. Regrettably, this strategy never received the due investments it needed, and implementation was very poor. Both local and global resource streams favored vertical disease programs over an integrated approach. Nevertheless, in some countries, its introduction led to improvements, including improved timeliness and completeness of surveillance data, increased national-level review, and better use of surveillance data for outbreak preparedness and response.[3]

In addition to data on disease occurrence, and outcome, there is also a complex web of interconnected biological, public health, and economic factors that contribute to the emergence and spread of diseases. Yet, data collected from these other drivers are often not systematically connected or shared with health data, leading to limited

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1 Gavi. 2022. "Data-sharing in a pandemic: even though scientists shared more than ever, it still wasn't enough." Gavi, the Vaccine Alliance.

2 Fall, Ibrahima Socé et al. 2019. "Integrated Disease Surveillance and Response (IDSR) strategy: Current status, challenges and perspectives for the future in Africa." BMJ Global Health, 4(4), e001427.

3 Mremi, Irene R., Janeth George, Susan F. Rumisha, Calvin Sindato, Sharadhuli I. Kimera, and Leonard EG Mboera. 2021. "Twenty years of integrated disease surveillance and response in Sub-Saharan Africa: challenges and opportunities for effective management of infectious disease epidemics." One Health Outlook 3, no. 1: 1-15.

opportunities to determine their impact on risk. For example, in many African countries, there are limited platforms for data sharing and cross-sector analysis between human and animal health sectors, despite the increased occurrence of zoonotic diseases.

Several countries in Africa are at different phases in building their data collection, analysis, and broader epidemic intelligence capabilities. Many are in the process of digitalizing their surveillance systems. However, these processes are proceeding in an organic, uncoordinated manner.

Several countries in Africa are at different phases in building their data collecation, analysis, and broader epidemic intelligence capabilities. Many are in the process of digitalizing their surveillance systems. However, these processes are proceeding in an organic, uncoordinated manner as countries make critical decisions on what software and hardware to use, without getting appropriate strategic and technical advice.

The WHO through its new Pandemic and Epidemic Intelligence Hub in Berlin, working in collaboration with the Africa Regional Office (AFRO) is putting together processes, guidelines, and tools to support African countries in developing their surveillance and intelligence infrastructure. A peer-to-peer learning environment will also be created and nurtured to enable sharing between countries.

Several African countries face competing priorities—from frequent infectious disease outbreaks to an increasing prevalence of non-communicable diseases, as well as challenging socio-economic indicators. The available resources are limited, and areas such as surveillance system and epidemic intelligence strengthening are under-resourced. Factors such as the limited availability of health workers and infrastructure often affect the ability to collect, analyze, report, and use data.

Despite the challenges, there remains immense potential for the region. The increased focus on these capabilities by the WHO Hub for Pandemic and Epidemic Intelligence, and the growth of regional health organizations such as the Africa CDC, present an opportunity to strengthen epidemic intelligence in the region. In addition, recognizing the challenges facing African countries, the Hub is developing a collaborative intelligence approach clustered around three activities: Connect data, solutions, and communities of practice globally; innovate solutions and processes; and strengthen capabilities for forecasting, detection, and assessment of risks to provide actionable insights for prevention, preparedness, response, and recovery from health threats and emergencies.

The future of public health in Africa, and indeed across the world, rests in large part on the ability of countries to leverage the use of data through sharing and linking data and learning from each other.

Using information and communication technology to improve mental health in Africa

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Mental health is a crucial part of human capital development and yet, there remains sparse research on this important aspect of health and economic development—more so in Africa, a region which faces the joint challenge of high disease burden and a severely underfunded health sector. Moreover, addressing mental health disorders should be of pressing policy interest, especially since mental health disorders translate into staggeringly large economic losses, particularly in low-income countries where people are often faced with unexpected shocks to income and health.[1]

According to the 2014 WHO mental health atlas survey, 24 percent of countries in the world reported that they did not have (or had not implemented), standalone mental health policies.[2] In Africa, the share was almost double that at 46 percent. In addition, government spending is estimated at only 40 percent of total health spending for countries in sub-Saharan Africa, much lower than the world average of 60 percent.[3] Likewise, Africa's government spending on health is only 2 percent of GDP, lower than the world share of 3.5 percent, as of 2017. Out-of-pocket spending as a share of health spending in Africa was also among the highest in the world at 37 percent of health spending, compared to 18 percent in the rest of the world.[4]

When we add these statistics to the fact that Africa has the world's youngest population, with 60 percent of its population under the age of 25—and that young people are often identified in mental health literature as being at high risk for mental health disorders (including suicide and self-harm), then this presents a very worrying picture.[5]

At the same time, there are more people with global access to ICT (e.g., mobile phones) today than at any other point in human history, with the majority of the population in Africa having access to a mobile phone.[6] Whereas only 8 percent of Ghanaians said they owned a mobile phone in 2002, that figure surged to 83 percent by 2015, a more than tenfold increase. Today, cell phones are as common in South Africa and Nigeria as they are in the United States.[7]

1 American Economic Association. 2017. "Disease and Gender Gaps in Human Capital Investment: Evidence from Niger's 1986 Meningitis Epidemic." American Economic Review 107, no. 5, pp. 530-35.

2 Sankoh, Osman, Stephen Sevalie, and Mark Weston. 2018. "Mental health in Africa." The Lancet 6, issue 9, E954-E955.

3 WHO. 2022. Global Health Expenditure database. World Health Organization.

4 Abubakar, Ibrahim et al. 2022. "The Lancet Nigeria Commission: Investing in health and the future of the nation." The Lancet 399, no. 10330 (2022): 1155-1200.

5 Sankoh, Osman, Stephen Sevalie, and Mark Weston. 2018. "Mental health in Africa." The Lancet 6, issue 9, E954-E955.

6 Pew Research. 2015. "Cell Phones in Africa: Communication Lifeline." Pew Research Center.

7 Ibid.

The results further suggest that a major policy response to improve mental health in Africa should be, to leverage access to ICT and issue communication credits, that make it easier for people to communicate and stay connected to their networks.

This proliferation of mobile phone technology has created the opportunity to innovatively tackle various social and development challenges on the continent, ranging from financial inclusion to urban mobility, and even basic service delivery in areas like education and health.

So, can we leverage this near universal access to mobile phones to improve mental health? Our new paper aims to answer this question using evidence from Ghana, and analyzes what possible policy interventions could work to improve mental health in Africa.[8]

To answer the question, we use evidence from a communication intervention in Ghana to test whether improved communication, using information and communication technology like mobile phones, can improve mental health. In our study, we partner with a major telecommunications company and implement low-cost communication interventions that provide mobile calling credits to a nationally representative set of low-income adults in Ghana during the COVID-19 pandemic.

Our findings showed that for those individuals who received mobile calling credits, their inability to make unexpected calls; and their need to borrow SOS airtime, as well as to seek digital loans decreased significantly, relative to a control group. As a result, the program led to a significant decrease in mental distress (-9.8 percent) and the likelihood of severe mental distress by -2.3 percentage points (a quarter of the mean prevalence). The effects of the intervention were channeled only through a reduction in mental distress, and there was no impact on consumption spending. Moreover, a simple cost-benefit analysis shows that providing communication credit to low-income adults is a cost-effective policy for improving mental health.

Communication—defined broadly as the ability to stay connected—meaningfully improves mental wellbeing, and interventions involving communication are particularly valuable when implemented as several installments. The results further suggest that a major policy response to improve mental health in Africa should be, to leverage access to ICT and issue communication credits, that make it easier for people to communicate and stay connected to their networks. This is an effective and low cost means of improving mental health, especially in low-income settings where government spending on health and mental health is significantly low.

8 Annan, Francis and Belinda Archibong. 2022. "The value of communication for mental health." The Brookings Institution.

GENDER:

CLOSING THE EQUITY GAP

5

ESSAY

VIEWPOINT

Why addressing gender inequality is central to tackling today's polycrises

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We can no longer afford to think in silos...Gender disparities, must be addressed as part and parcel of efforts to tackle Africa's pressing issues and ensure the continent's future success.

As we enter 2023, the term "polycrisis" is an increasingly apt way to describe today's challenges.[1] Major wars, high inflation, and climate events are creating hardship all around the world, which is still grappling with a pandemic death toll approaching 7 million people.

Faced with such daunting challenges, one might well ask why we should be thinking about the gender dimensions of recovery and resilience for future shocks. The answer is simple: We can no longer afford to think in silos. Today's interlocking challenges demand that sharp inequalities, including gender disparities, must be addressed as part and parcel of efforts to tackle Africa's pressing issues and ensure the continent's future success.

The burdens of the pandemic have been unequally borne across regions and countries, and between the poor and better off. Inequalities exist around gender—which can be defined as the "socially constructed roles, behaviors, activities, attributes and opportunities that any society considers appropriate for men and women, boys and girls" and people with non-binary identities.[2] As Raewyn Connell laid out more than two decades ago, existing systems typically distribute greater power, resources, and status to men and behaviors considered masculine.[3] As a result, gender intersects with other sources of disadvantage, most notably income, age, race, and ethnicity.

This understanding is now mainstream. As recently observed by the IMF, "The gender inequalities exposed by the COVID-19 pandemic follow different paths but almost always end up the same: Women have suffered disproportionate economic harm from the crisis."[4] Among the important nuances revealed by micro-surveys is that rural women working informally continued to work through the pandemic, but with sharply reduced earnings in Nigeria and elsewhere.[5] And as the burden of child care and home schooling soared, rural households headed by women were far less likely than urban households to have children engaged in learning activities during school closures.

Important insights emerge from IFPRI's longitudinal panel study (which included Ghana, Kenya, Niger, Nigeria, Senegal, and Uganda) covering income loss, coping strategies, labor and time use, food and water insecurity, and child education outcomes.[6]

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1 Martin Wolf. 2022."How to think about policy in a policy crisis". Financial Times.
2 WTO. 2022. "Gender and Health". World Health Organization.
3 Connell RW. 1995. "Masculinities". Cambridge, UK. Polity Press.
4 Aoyagi, Chie.2021."Africa's Unequal Pandemic". Finance and Development. International Monetary Fund.
5 WB.2022. "LSMS-Supported High-Frequency Phone Surveys". World Bank.
6 Muzna Alvi, Shweta Gupta, Prapti Barooah, Claudia Ringler, Elizabeth Bryan and Ruth Meinzen-Dick.2022."Gendered Impacts of COVID-19: Insights from 7 countries in Sub-Saharan Africa and South Asia". International Food Policy Research Institute.

Among the especially adverse impacts for women were greater food and water insecurity compared to men, including worrying about insufficient food and eating less than usual, while a large proportion of women also did not have adequately diverse diets. Moreover, many women had to add hours to their workday caring for sick family members, and their economic opportunities shrank, cutting their earnings and widening gender income gaps.

As the burden of child care and home schooling soared, rural households headed by women were far less likely than urban households to have children engaged in learning activities.

While today's problems seem daunting, there remain huge causes for optimism, especially in Africa. Over the past three decades, many African countries have achieved enormous gains in levels of education, health, and poverty reduction. Indeed, the pace of change has been staggering and commendable. As captured in the Women Peace and Security Index, which measures performance in inclusion, justice, and security, 6 of the top 10 score improvers during the period 2017-2021 were in sub-Saharan Africa.[7] The Democratic Republic of Congo was among top score improvers since 2017, as the share of women with financial accounts almost tripled, to 24 percent; and increases exceeding 5 percentage points were registered in cell phone use and parliamentary representation. In the Central African Republic, improvements were experienced in the security dimension, where organized violence fell significantly, and women's perceptions of community safety rose 6 percentage points up to 49 percent.

Looking ahead, efforts to mitigate gender inequalities must clearly be multi-pronged, and as highlighted above—we need to think outside silos. That said, two major policy fronts emerge to the fore.

- **Ensure cash transfers that protect against poverty, are built and designed to promote women's opportunities, with a focus on digital payments**.[8] Ways to address gender inequalities as part of social protection program responses[9] include deliberate efforts to overcome gender gaps in cell phone access by distributing phones to those women who need them, as well as private sector partnerships to subsidize airtime for the poorest, and to make key information services and apps freely available.[10] Programs could also make women the default recipient of cash transfer schemes, instead of the head of household. Furthermore, capacity-building initiatives can be built into program design to give women the skills and capabilities needed to successfully manage accounts and financial decisionmaking.[11]

7 GIWPS.2022. "Women Peace and Security Index" Georgetown Institute for Women, Peace and Security.

8 Klugman, Jeni, Zimmerman, Jamie M., Maria A. May, and Elizabeth Kellison. 2020. "Digital Cash Transfers in the Time of COVID 19: Opportunities and Considerations for Women's Inclusion and Empowerment". World Bank Group.

9 IFPRI.2020. "Why gender-sensitive social protection is critical to the COVID-19 response in low- and middle-income countries". International Food Policy Research Institute.

10 IDFR.2020. "Kenya: Mobile-money as a public-health tool". International Day of Family Remittances.

11 Jaclyn Berfond Franz Gómez S. Juan Navarrete Ryan Newton Ana Pantelic. 2019. "Capacity Building for Government-to-Person Payments A Path to Women's Economic Empowerment". Women's World Banking.

- **Reducing the risk of violence against women.** Women who are not safe at home are denied the freedom from violence needed to pursue opportunities that should be afforded to all. In 2018, 10 of the 15 countries with the worst rates of intimate partner violence were in sub-Saharan Africa—in descending order of average intimate partner violence these were, the Democratic Republic of Congo, Madagascar, Congo, Equatorial Guinea, Zambia, Ethiopia, Liberia, South Sudan, Djibouti, and Uganda.

  Conflicts and crises multiply women's risk of physical, emotional, and sexual violence. During the pandemic, risk factors like economic stress were compounded by service closures and stay-at-home orders, which increased exposure to potential perpetrators.[12] Several governments responded by strengthening existing help services, including police and justice, supporting hotlines, ensuring the provision of psychological support, and health sector responses.[13] Examples of good practice included an NGO in North-Eastern Nigeria, which equipped existing safe spaces with phone booths to enable survivors to contact caseworkers.

  However, given the high levels of prevalence and often low levels of reporting, prevention of gender-based violence is key. Targeted programs with promising results in prevention include community dialogues and efforts to change harmful norms, safe spaces, as well as possibilities to reduce the risk of violence through cash plus social protection programs. These efforts should be accompanied by more systematic monitoring and evaluation to build evidence about what works in diverse settings.

- Finally, but certainly not least, **women should have space and voices in decisionmaking.** This case was powerfully put by former President Sirleaf Johnson in her 2021 Foresight essay, which underlined that "economic, political, institutional, and social barriers persist throughout the continent, limiting women's abilities to reach high-level leadership positions."[14] Persistent gender gaps in power and decision-making, not only limits innovative thinking and solutions, but also the consideration of more basic measures to avoid the worsening of gender inequalities. Overcoming these gaps in power and decision-making requires safeguarding legal protections and rights, investing in women and girls financially, and opening space for women in political parties so that women have the platforms to access high-level appointed and competitive positions across national, regional, and international institutions.[15]

12 Peterman, A. et al.2020. "Pandemics and Violence Against Women and Children".Center for Global Development Working Paper.

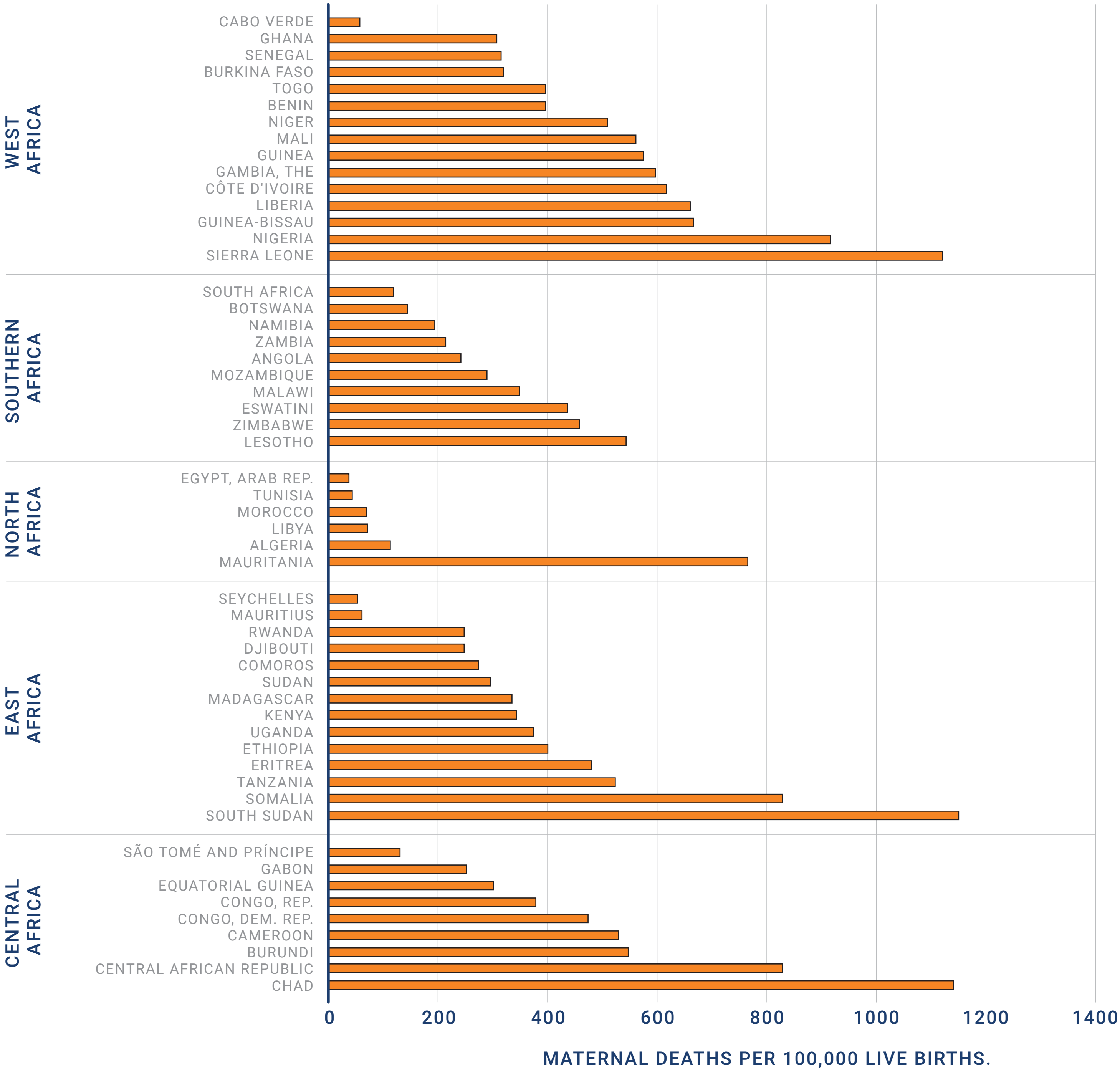
13 UNDP/ UN Women Tracker.2022. "United Nations Development Programme. COVID-19 Global Gender Response Tracker". United Nations Development Programme. New York.

14 McKinsey Global Institute .2019. "The power of parity: Advancing women's equality in Africa".

15 Foresight Africa. 2022. "African Women and Girls: Leading a continent." The Brookings Institution.

FIG.30 MATERNAL MORTALITY REMAINS A SIGNIFICANT CAUSE OF DEATH IN SOME PARTS OF AFRICA

Africa has made significant strides in lowering maternal mortality through concerted health policy. Countries such as Rwanda, Zambia, and Malawi have cut the instance of maternal mortality in half since 2000. Nonetheless, compared to the rest of the world, maternal mortality remains high. The risk to the mother is especially elevated in countries like Chad, South Sudan, and Sierra Leone, where more than 1 in 100 live births results in the death of the mother.



Source: World Bank. 2022. World Development Indicators. World Bank Group.

Strengthening fiscal policy for gender equality systems

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It is often said that women act as "shock absorbers" during times of crisis; this is even more so in the current context of climate change, the COVID-19 pandemic, and increased geopolitical conflict. These three global crises have simultaneously stretched women's ability to earn income and intensified their unpaid work. Well-designed fiscal policy can help cushion the effects of these shocks and enable women and their households to recover more quickly.

Over 60 percent of employed women in Africa work in agriculture, including in small-scale food production; women are the primary sellers in food markets, and they work in other sectors such as informal trading. At the same time, women are an increasing share of entrepreneurs in countries such as Ghana and Uganda, even as they face financial and other constraints to start and grow their firms.[1] In addition to earning income for their households, women bear the major responsibility for unpaid domestic activities such as cooking; collecting water and fuelwood; caring for children, elderly, and other dependents—so women are more time-poor than are men.

African women and entrepreneurs have been impacted disproportionately more than men by the triple shocks mentioned earlier. Extreme weather events disrupt food production and agricultural employment, making it harder for women to earn income.[2,3,4] The pandemic and conflict in Ukraine further intensified women's paid and unpaid activities.[5,6] Beyond climate change and the war in Ukraine, localized conflicts and insecurity in East and West Africa exposes women and girls to gender-based violence and other risks as they seek to support their families and develop new coping strategies.[7,8,9]

1 Africa Gender Innovation Lab (GIL). 2020. "Supporting Women Throughout the Coronavirus Emergency Response and Economic Recovery." World Bank Group.

2 One recent study in West, Central Africa, East and Southern Africa found that women represented a larger share of agricultural employment in areas affected by heat waves and droughts, and a lower share in areas unaffected by extreme weather events. Nico, G. et al. 2022. "How Weather Variability and Extreme Shocks Affect Women's Participation in African Agriculture." Gender, Climate Change, and Nutrition Integration Initiative Policy Note 14.

3 Carleton, E. 2022. "Climate Change in Africa: What Will It Mean for Agriculture and Food Security?" International Livestock Research Institute (ILRI).

4 Nebie, E.K. et al. 2021. "Food Security and Climate Shocks in Senegal: Who and Where Are the Most Vulnerable Households?" Global Food Security, 29.

5 Sen, A.K. 2022. "Russia's War in Ukraine Is Taking a Toll on Africa." United States Institute of Peace.

6 Thomas, A. 2020. "Power Structures over Gender Make Women More Vulnerable to Climate Change." Climate Change News.

7 Ibid.

8 Kalbarczyk, A. et al. 2022. "COVID-19, Nutrition, and Gender: An Evidence-Informed Approach to Gender Responsive Policies and Programs." Social Science & Medicine, 312.

9 Epstein, A. 2020. "Drought and Intimate Partner Violence Towards Women in 19 Countries in Sub-Saharan Africa During 2011-2018: A Population-Based Study." PLoS Med, 17(3).

Responding to these shocks necessitates a large infusion of resources. In this context, fiscal policy can be deployed more smartly to advance gender equality and create an enabling environment for women to play a greater role in building their economies' recovery and resilience.

Responding to these shocks necessitates a large infusion of resources. In this context, fiscal policy can be deployed more smartly to advance gender equality and create an enabling environment for women to play a greater role in building their economies' recovery and resilience. Public expenditure supports critical sectors such as education, health, agriculture, social protection, and physical and social infrastructure, while well-designed tax policy is essential to fund the public goods, services, and infrastructure on which both women and men rely.

Gender-responsive budgets, which exist in over 30 countries across the continent, can be strengthened. Rwanda provides a good model for other countries. After an early unsuccessful attempt, Rwanda invested seriously in gender budgeting beginning in 2011.[10,11] The budget is focused on closing gaps and strengthening women's roles in key sectors—agriculture, education, health, and infrastructure—which are all critical for short- and medium-term economic growth and productivity. The process has been sustained by strong political will among parliamentarians. Led by the Ministry of Finance, the process has financed and been complemented by important institutional and policy reforms. A constitutional regulatory body monitors results, with additional accountability by civil society organizations.

However, raising adequate fiscal revenue to support a gender budget is a challenge in the current macro environment of high public debt levels, increased borrowing costs, and low levels of public savings. Yet, observers note there is scope to increase revenues through taxation reforms, debt relief, cutting wasteful public expenditure, and other means.[12,13] We focus here on taxation.

Many countries are reforming their tax systems to strengthen revenue collection. Overall tax collection is currently low; the average tax-to-GDP ratio in Africa in 2020 was 14.8 percent and fell sharply during the pandemic, although it may be rebounding.[14] Very few Africans pay personal income tax or other central government taxes,[15,16] and statutory corporate tax rates (which range from 25-35 percent), are higher than even the recent OECD proposal for a global minimum tax[17] so scope for raising them further is limited. Efforts should be made to close loopholes and reduce tax evasion.

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10 Stotsky, J. et al. 2016. "Sub-Saharan Africa: A Survey of Gender Budgeting Efforts. IMF Working Paper 2016/512.

11 Kadama, C. et al. 2018. Sub-Saharan Africa." In Kolovich, L. (Ed.), Fiscal Policies and Gender Equality (pp. 9-32). International Monetary Fund (IMF).

12 Ortiz, I. and Cummins, M. 2021. "Abandoning Austerity: Fiscal Policies for Inclusive Development." In Gallagher, K. and Gao, H. (Eds.), Building Back a Better Global Financial Safety Net (pp. 11-22). Global Development Policy Center.

13 Roy, R. et al. 2006. "Fiscal Space for Public Investment: Towards a Human Development Approach."

14 ATAF, 2021.

15 Moore, M. et al. 2018. "Taxing Africa: Coercion, Reform and Development. Bloomsbury Publishing.

16 Rogan, M. 2019. Tax Justice and the Informal Economy: A Review of the Debates." Women in Informal Employment: Globalizing and Organizing Working Paper 14.

17 African Tax Administrative Forum (ATAF). 2021. African Tax Outlook 2021.

As countries reform their tax policies, they should be intentional about avoiding implicit and explicit gender biases.[18,19,20,21] Most African countries rely more on indirect taxes than direct taxes, given the structure of their economies, but indirect taxes can be regressive as their incidence falls primarily on the poor. Presumptive or turnover taxes, for example, which are uniform or fixed amounts of tax based on the "presumed" incomes of different occupations such as hairdressers, can hit women particularly hard, since the burden often falls heavily on sectors where women predominate.[22,23]

Property taxes are also becoming an increasingly popular way to raise revenue for local governments. The impact of these efforts on male and female property owners has not been systematically evaluated, but a recent study of land use fees and agricultural income taxes in Ethiopia finds that female-headed and female adult-only households bear a larger tax burden than male-headed and dual-adult households of property taxes. This is likely a result of unequal land ownership patterns, gender norms restricting women's engagement in agriculture, and the gender gap in agricultural productivity.[24]

Going forward, two key ingredients for gender budgeting on the continent need to be strengthened. The first is having sufficient, regularly collected, sex-disaggregated administrative data related to households, the labor force, and other survey data. Investment in the robust technical capacity for ministries and academia to be able to access, analyze, and use it is also necessary. For instance, the World Bank, UN Women, and the Economic Commission for Africa are all working with National Statistical Offices across the continent to strengthen statistical capacity in the areas of asset ownership and control, work and employment, and entrepreneurship which can be used in a gender budget.

The second ingredient is stronger diagnostic tools. One promising new tool, pioneered by Tulane University, is the Commitment to Equity methodology, designed to assess the impact of taxes and transfers on income inequality and poverty within countries.[25] It was recently extended to examine the impact of government transfers and taxes on women and men by income level and other dimensions. The methodology requires standard household-level data but for maximum effect should be supplemented with time use data, which are becoming more common in several African countries. As African countries seek to expand revenue from direct taxes, lessons from higher income economies are instructive. Although there is no one size fits all approach,

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18 Stotsky, J. et al. 2016. "Sub-Saharan Africa: A Survey of Gender Budgeting Efforts." IMF Working Paper 2016/512.

19 Coelho, M. et al. 2022. "Gendered Taxes: The Interaction of Tax Policy with Gender Equality." IMF Working Paper 2022/26.

20 Organisation for Economic Co-operation and Development (OECD). 2021. Gender and Capital Budgeting.

21 Grown, C. and Valodia, I. 2010. Taxation and Gender Equity: A Comparative Analysis of Direct and Indirect Taxes in Developing and Developed Countries. Routledge.

22 Joshi, Anuradha et al. 2020. "Gender and Tax Policies in the Global South." International Centre for Tax and Development.

23 Komatsu, H. et al. 2021. "Gender and Tax Incidence of Rural Land Use Fee and Agricultural Income Tax in Ethiopia." Policy Research Working Papers.

24 Ibid.

25 Lustig, N. 2018. "Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty." Brookings Institution Press.

Indirect taxes can be regressive as their incidence falls primarily on the poor. Presumptive or turnover taxes, for example, which are uniform or fixed amounts of tax based on the "presumed" incomes of different occupations such as hairdressers, can hit women particularly hard, since the burden often falls heavily on sectors where women predominate.

key principles to keep in mind for designing personal income taxes include building in strong progressivity, taxing individuals as opposed to families, ensuring that the allocation of shared income (e.g., property or non-labor income) does not penalize women, and building in allowances for care of children and dependents.[26] As noted, corporate income taxes need to eliminate the many breaks, loopholes, and exemptions that currently exist,[27] and countries might consider experimenting with wealth taxes.

In terms of indirect taxes, most African countries do not have single-rate VAT systems and already have zero or reduced rates for basic necessities, including foodstuffs and other necessities. While it is important to minimize exempted sectors and products, estimates show that goods essential for women's and children's health (e.g., menstrual health products, diapers, cooking fuel) should be considered part of the basket of basic goods that have reduced or zero rates.[28] And while African governments are being advised to bring informal workers and entrepreneurs into the formal tax system,[29] it should be noted that this massive sector earns well below income tax thresholds and already pays multiple informal fees and levies, for instance in fees to market associations.[30,31]

Lastly, leveraging data and digital technologies to improve tax administration (i.e., taxpayer registration, e-filing, and e-payment of taxes) may help minimize costs and processing time, and reduce the incidence of corruption and evasion.[32] Digitalization can also be important for bringing more female taxpayers into the net, especially if digital systems are interoperable; for instance, digital taxpayer registries linked to national identification or to property registration at the local level. However, digitalization can be a double-edged sword if privacy and security concerns are not built-in from the outset. Women particularly may need targeted digital financial literacy and other measures to ensure their trust in the system. Recent shocks have worsened gender inequality in Africa. It is therefore important now, more than ever, to invest in strengthening fiscal systems to help women and men recover, withstand future shocks, and reduce gender inequalities. While fiscal policy is not the only tool, it is an important part of government action. To be effective and improve both budgeting and revenue collection, more and better data, new diagnostic tools, and digitalization will all be necessary.

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26 Grown, C. and Valodia, I. 2010. "Taxation and Gender Equity: A Comparative Analysis of Direct and Indirect Taxes in Developing and Developed Countries." Routledge.

27 Cesar, C. et al. 2022. "Africa's Pulse: An Analysis of Issues Shaping Africa's Economic Future." World Bank.

28 Woolard, I. 2018. Recommendations on Zero Ratings in the Value-Added Tax System. Independent Panel of Experts for the Review of Zero Rating in South Africa.

29 It is important to distinguish between firms and individuals that are large enough to pay taxes but do not (which include icebergs, e.g., which are registered and therefore partially visible to tax authorities but do not pay their full obligations) and ghosts, e.g., those which should register to pay but do not and there invisible to tax authorities) and firms and individuals that are small and potentially but not necessarily taxable such as street vendors and waste pickers. Rogan, M. (2019). "Tax Justice and the Informal Economy: A Review of the Debates." Women in Informal Employment: Globalizing and Organizing Working Paper 14.

30 Ibid.

31 Ligomeka, W. 2019. "Expensive to be a Female Trader: The Reality of Taxation of Flea Market Traders in Zimbabwe." International Center for Tax and Development Working Paper 93.

32 Cesar, C. et al. 2022. "Africa's Pulse: An Analysis of Issues Shaping Africa's Economic Future." World Bank.

Closing the gender gap through digital and social inclusion: The Togolese case

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Digital transformation can be a powerful tool to ease inequalities in society, by providing essential services to those in remote and hard-to-reach areas, as well as to those most in need. Regrettably, however, in low- and middle-income countries, women are 7 percent less likely than men to own a mobile phone.

Over the past decade in Togo, the mobile penetration rate has nearly doubled—from 40 percent in 2011 to 78 percent in 2021; the internet penetration rate, while below 5 percent in 2011 reached 75 percent in 2021—a fifteenfold increase; and the mobile money penetration rate grew rapidly from 0 percent in 2011 to 58 percent in 2021.[1] These statistics show that Togo has made a significant leap in digital infrastructure. Yet, more than 40 percent of the country's telephone base is made up of 2G mobile phones, which are not suitable for exploiting the full potential of digitized public and social services, as well as the universe of possibilities offered by the internet.

If we have learned anything from the COVID-19 pandemic, it is that digital transformation can be a powerful tool to ease inequalities in society, by providing essential services to those in remote and hard-to-reach areas, as well as to those most in need. Regrettably, however, in low- and middle-income countries, women are 7 percent less likely than men to own a mobile phone and are 16 percent less likely to use mobile internet.[2]

During the pandemic, Togo launched **"NOVISSI," a digital cash transfer program that distributed $34 million in financial aid to 25 percent of all its adults**.[3] The program aimed to help people in the informal sector impacted by the mobility restriction and social distancing measures was adopted by the government in the context of the state of health emergency. NOVISSI revealed the importance of having a national ID, registered sim, and mobile phone to easily enroll in, and directly benefit from, the program. Globally, and beyond Togo, it demonstrated that widespread access to mobile devices could enable shock-responsive, and contactless delivery systems, to expand the reach of social protection.

As part of the cash transfer program, Togo decided to give more money to women than men, because of the key role women and girls played in supporting households (e.g., in homecare for the sick and performing daily housekeeping type functions including—but not limited to—child care, cooking, shopping for food, and cleaning). While women constituted 61.4 percent of the total beneficiaries of the program, learnings from monitoring done throughout the scheme revealed that women (mostly in rural areas), had lower access to digital terminals than men. Moreover, in many households, the only existing phone belonged to men, making it difficult or almost impossible for

1 ARCEP. 2022. "Enquête de satisfaction client à l'endroit des consommateurs des services de communications électroniques mobiles et fixes au Togo." Autorité de Régulation des Communications Electroniques et des Postes.

2 GSMA. 2022. "The GSMA Mobile Gender Gap Report 2022." Global System for Mobile Communications.

3 Brookings. 2021. "Digital cash transfer infrastructure. 17 Rooms Podcast. The Brookings Institution Center for Sustainable Development.

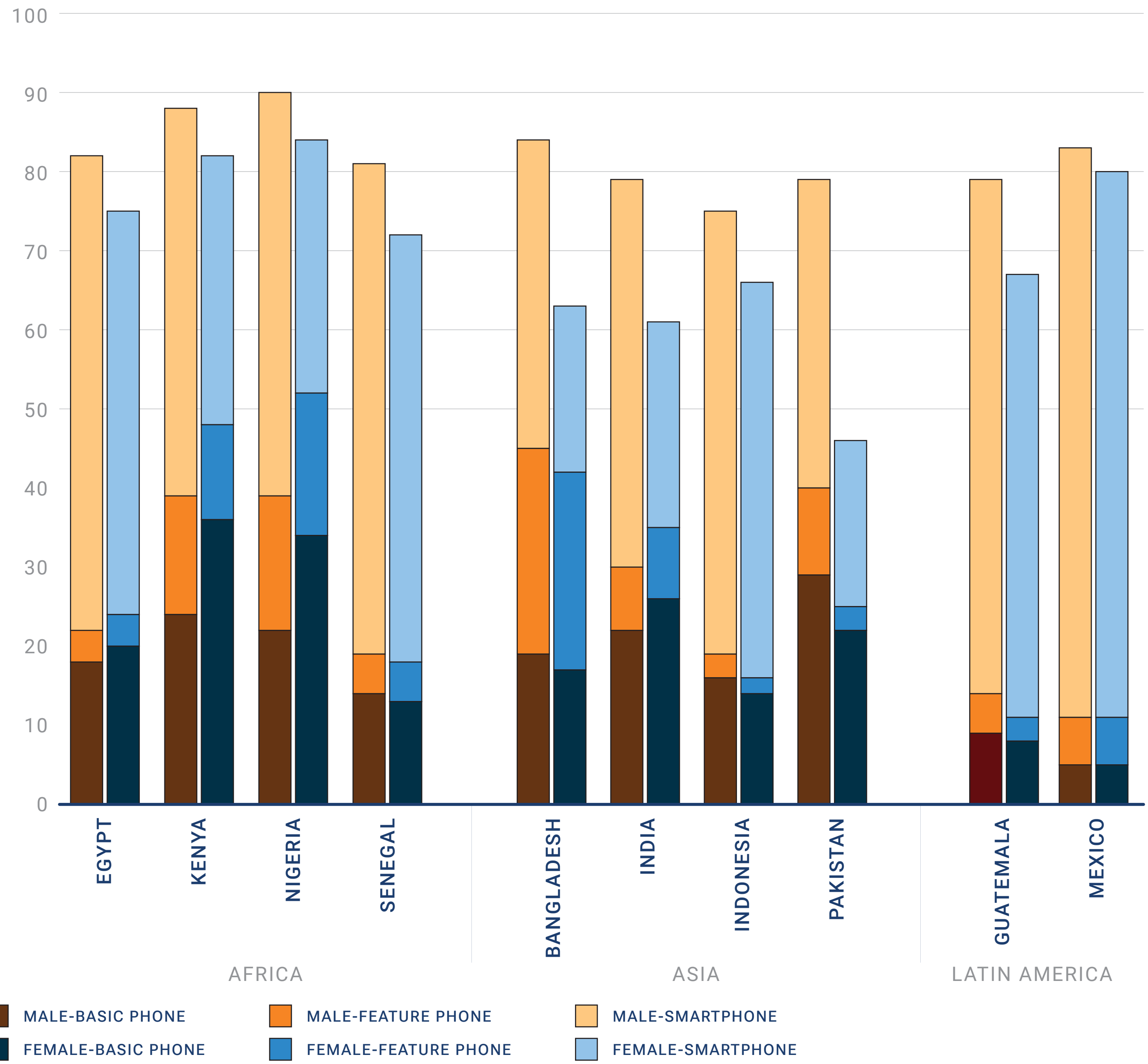
While women constituted 61.4 percent of the total beneficiaries of the program, learnings from monitoring done throughout the scheme revealed that women (mostly in rural areas), had lower access to digital terminals than men.

women to have direct access to the social assistance funds allocated to them. Closing the gender gap in mobile phone access and use would therefore directly contribute to the economic empowerment of women and girls, and to achieving equal opportunity.

Several barriers hinder women's ownership and use of mobile phones, such as affordability of mobile devices and lack of proof of identification required to register SIM cards and take loans. The lessons learned in Togo throughout the pandemic have inspired our new 2025 digital transformation strategy. One of the key initiatives of this strategy is to **build a universal, foundational ID system**—to boost citizens' inclusion in the economy by providing each person with a biometric ID and a unique identification number. Once citizens have a unique biometric and digital ID, well thought-out partnerships with the private sector and innovative pay-as-you-go business models or micro loans could popularize access to mobile devices (especially smartphones) for everyone—and at subsidized rates for women. The ID system will also underpin the dynamic and unique social registry Togo is looking to set up to support all its social protection programs. **Coupling the government-led unique electronic identifiers with a mobile phone and a mobile wallet** could help to systematically close digital, social, and financial inclusion gaps for women, the poor, and vulnerable. The Togolese ID system will also underpin the dynamic unique social registry Togo is looking at setting up to support all its social protection programs.

FIG.31 **GENDER GAPS IN QUANTITY AND QUALITY OF MOBILE PHONE OWNERSHIP**

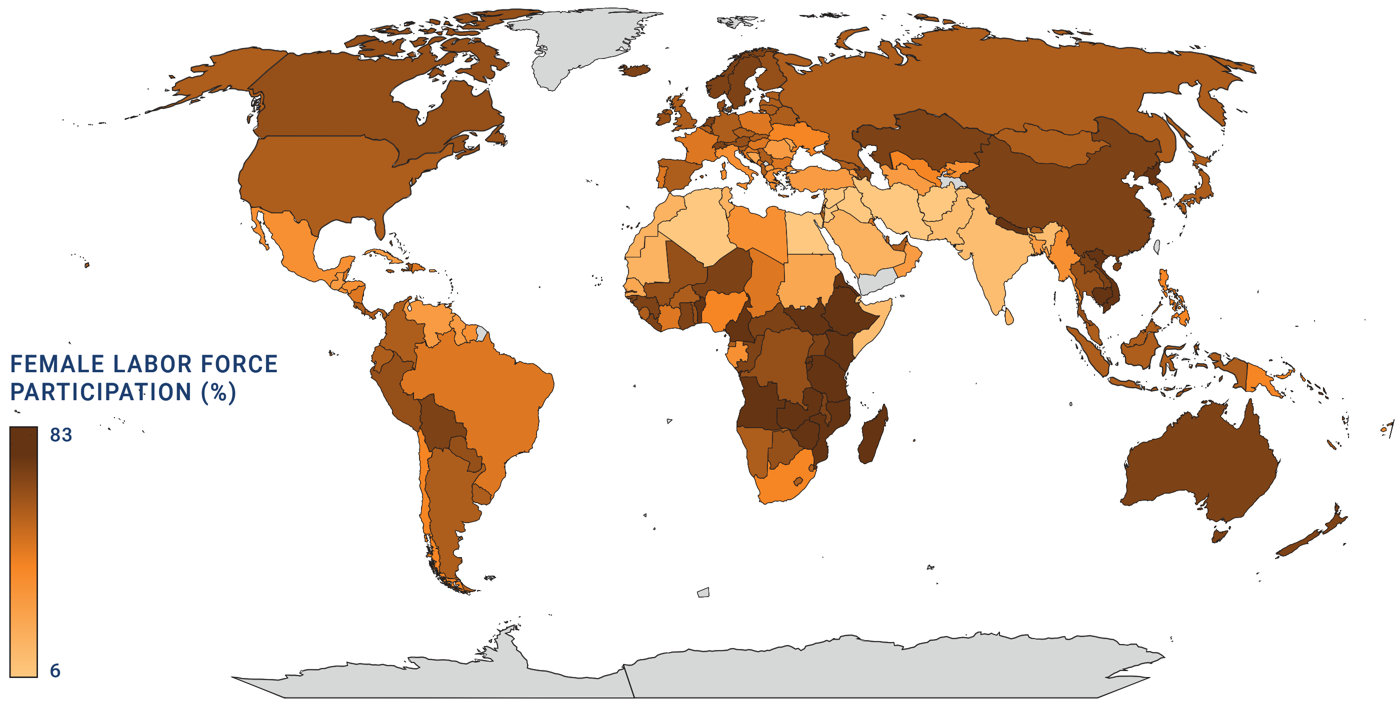
A 2021 GSMA survey of 10 countries revealed significant disparities in mobile phone ownership between men and women. Although the four African economies surveyed (Egypt, Kenya, Nigeria, and Senegal) have comparatively small mobile phone ownership gaps, there exist large differences in phone quality capabilities between men and women. In Nigeria, for instance, more than half of men 18+ have smart phones, while less than a third of women 18+ do.



Source: GSMA. 2021. GSMA Consumer Survey 2021. Global System for Mobile Communications.

FIG.32	AFRICAN COUNTRIES LEAD THE WORLD IN FEMALE LABOR FORCE PARTICIPATION

Countries like Rwanda (83 percent), Madagascar (82 percent), and Tanzania (80 percent) have among the highest rates of female representation in the workforce. Their female labor force participation rates are higher than comparable countries in Eastern Europe, the Middle East, and South America.



Source: World Bank. 2022. World Development Indicators. World Bank Group.

COVID-19 shed light on the challenges facing Africa's women: The recovery must bring them out of the shadows

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Women also have unequal access to finance. On the supply side, they face higher-than-average interest rates and challenging collateral requirements. On the demand side, women often self-select out of the credit market because they believe they are not creditworthy.

The COVID-19 pandemic has had a devastating effect on women's economic and employment prospects in Africa. However, it also shed light on a critical issue that has remained unaddressed for too long: How to effectively support women working in the informal sector.

Across Africa, a staggering 90 percent of employed women are in the informal sector.[1] Even during stable economic periods, these women live on the precipice—one illness or unexpected expense away from economic catastrophe. They often have no economic safety net; many do not even have access to a bank account.[2]

When the pandemic hit, some women have had to make the difficult decision about whether to risk their health to continue to work long hours in crowded spaces for less financial return while balancing increased caring responsibilities as schools closed, and family members fell ill.

As the world looks towards a post-pandemic recovery period, we must grab the opportunity to transform the informal sector—and with it the economic prospects of tens of millions of African women.

The public sector has a critical role to play in this transformation, particularly in four key areas: Skills development, financing, market access, and procurement.

Women working in the informal sector have incredible drive and an entrepreneurial spirit. However, many would benefit from acquiring skills to help them run their businesses more effectively—from marketing to financial management. The public sector can support this through the creation of business incubation and training programs tailored to women in the informal sector.

Women also have unequal access to finance. On the supply side, they face higher-than-average interest rates and challenging collateral requirements. On the demand side, women often self-select out of the credit market because they believe they are not creditworthy.[3] An AfDB study showed that 6.5 percent of female-managed firms in Africa reported that they did not apply for new loans or credit lines because they believed their application would not be approved, in stark contrast to only 3.5 percent

1 Mary Njeri Kinyanjui. 2022. "The State of the Informal Economy in Africa During the COVID-19 Pandemic". The Georgetown Journal of International Affairs.

2 Hanan Morsy. 2020. "Access to Finance: Why Aren't Women Leaning In?". International Monetary Fund.

3 Hanan Morsy, Amira El-Shal, and Andinet Woldemichaeln. 2019. "Women Self-Selection out of the Credit Market in Africa". African Development Bank.

of male-managed firms that reported this as a main reason. The public sector must address these challenges through regulation and public awareness campaigns geared towards women entrepreneurs.

Many women entrepreneurs also face challenges with market access. The "old boys club" is alive and well across a range of sectors and women often lack the networks needed to sell their goods at a larger scale. Governments can help address this challenge by supporting women to access regional markets—particularly in sectors like agriculture where women are overrepresented as smallholder farmers.

Finally, the public sector can support women entrepreneurs through procurement.

As the Director of the Gender, Women and Civil Society Department at the AfDB, our strategy is to support the Bank's efforts to advance women's entrepreneurship across the continent through programs such as Affirmative Finance Action for Women in Africa (AFAWA),[4] which helps women develop skills, access financing, and access public procurement opportunities in West Africa. In doing so, it is turning women-led businesses into the engines that will drive Africa's economies forward.

An inclusive post-pandemic recovery will only be possible if we address the needs of women in the informal sector; the first step is bringing them out of the shadows.

4 AfDB. 2022. AFAWA (Affirmative Finance Action for Women in Africa). African Development Bank.

Equal power, faster progress: A recipe for Africa's transformation

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The COVID-19 pandemic has set African women and girls back significantly. They have lost jobs, education, and agency at a much higher rate than men during this crisis,[1] and are too often left behind in plans for recovery.

I joined the African Center for Economic Transformation (ACET) as executive vice president at the height of the pandemic, and one of my first priorities was to put gender equality squarely on Africa's economic transformation and COVID recovery agendas. It is not enough to "mainstream" gender into policy—we have seen for years how little that has done to drive change at the pace necessary for transformation. According to the 2022 Global Gender Gap Index, sub-Saharan Africa has closed 67.8 percent of its gender gap (Figure 34). While this looks promising, most of the progress is due to a handful of countries that have taken positive steps towards economic inclusion, while the rest lag behind. Gender-responsive economic policies across the board are a must if we want to see stronger, more resilient, and more inclusive African economies.

The evidence of why gender equity is essential for development is incontrovertible and has been in the public sphere for decades. So, what is keeping us from turning this evidence into smart policies that will benefit entire economies and societies?

This is the question guiding much of our work at ACET, and it comes down to power dynamics. History teaches us that unequal distribution of power affects the incentives and constraints that individuals, households, farms, and firms face. Many African policymakers overlook how existing power structures shape the economic institutions that support transformation—directly and indirectly—affecting both processes and outcomes. In families, gender influences how we perceive relationship dynamics. In workplaces, gender influences entry, compensation, and career progression.[2] Women's limited influence in economic and political decisionmaking is a stark reflection of this.

We have seen promising improvements across the African continent in terms of women's representation in national decisionmaking. But much of this progress is driven by a few countries—Rwanda and South Africa, for example (Figure 33). As we dig deeper into the data, important disparities come to light. Ghana, for example, is at 145th/186 with just 14.6 percent representation of women in Parliament.[3] Women make up only 22 percent of Cabinets in Africa, 7 percent of top executive positions (i.e., presidents, vice presidents) and manage only about 19 percent of government budgets on average.[4]

1 World Bank. 2022. Assessing the Damage: Early Evidence on Impacts of the COVID-19 Crisis on Girls and Women in Africa.

2 Koester, Diana. 2015. Gender and Power. Developmental Leadership Program. DLP Concept Brief 04.

3 IPU.2022. "Monthly ranking of women in national parliaments".

4 Afrobarometer.2021. "Women's Political Participation".

The evidence of why gender equity is essential for development is incontrovertible and has been in the public sphere for decades. So, what is keeping us from turning this evidence into smart policies that will benefit entire economies and societies?

This imbalance of power is also evident in the fight against COVID-19, where women make up only 20 percent of committees established to respond to the pandemic in 42 African countries.[5]

We need a more equitable power balance to transform African economies quickly. Three actions can move us in the right direction. First, we must listen to and involve a diverse group of both women and men in every conversation—whether it has to do with macro-economic policies or gender-based violence. With an enabling legal and institutional framework, Rwanda has managed to achieve this in various decisionmaking bodies including cabinet, parliament, district councils, and sector councils.[6] For example Rwanda's Organic Budget Law makes it mandatory for all ministries to include gender budget statements as part of the documentation submitted in the budget process. By placing a gender lens on budgeting in education, the country reached and sustained a gender parity index of one in secondary school enrollment between girls and boys.[7] Second, we must implement the numerous policies and plans that already exist and we know can improve gender equality. When doing this we must recognize and seek out the diversity that co-exists within people (gender, race, ethnicity, disability status, etc.) and influence individual experiences—we cannot treat those that may fall into one common category as the same. Finally, we must create platforms so that countries can learn from each other on how best to make rapid and positive progress towards stronger gender equality.

At ACET, we have started our journey towards ensuring gender equality drives economic transformation on the continent and will be further exploring this in 2023 as we put together our next African Transformation Report (ATR). Given the importance of gender equality for economic transformation, the ATR will explore how Africa can best address the power dynamics that make it so difficult for Africa to close the gender gap for good.

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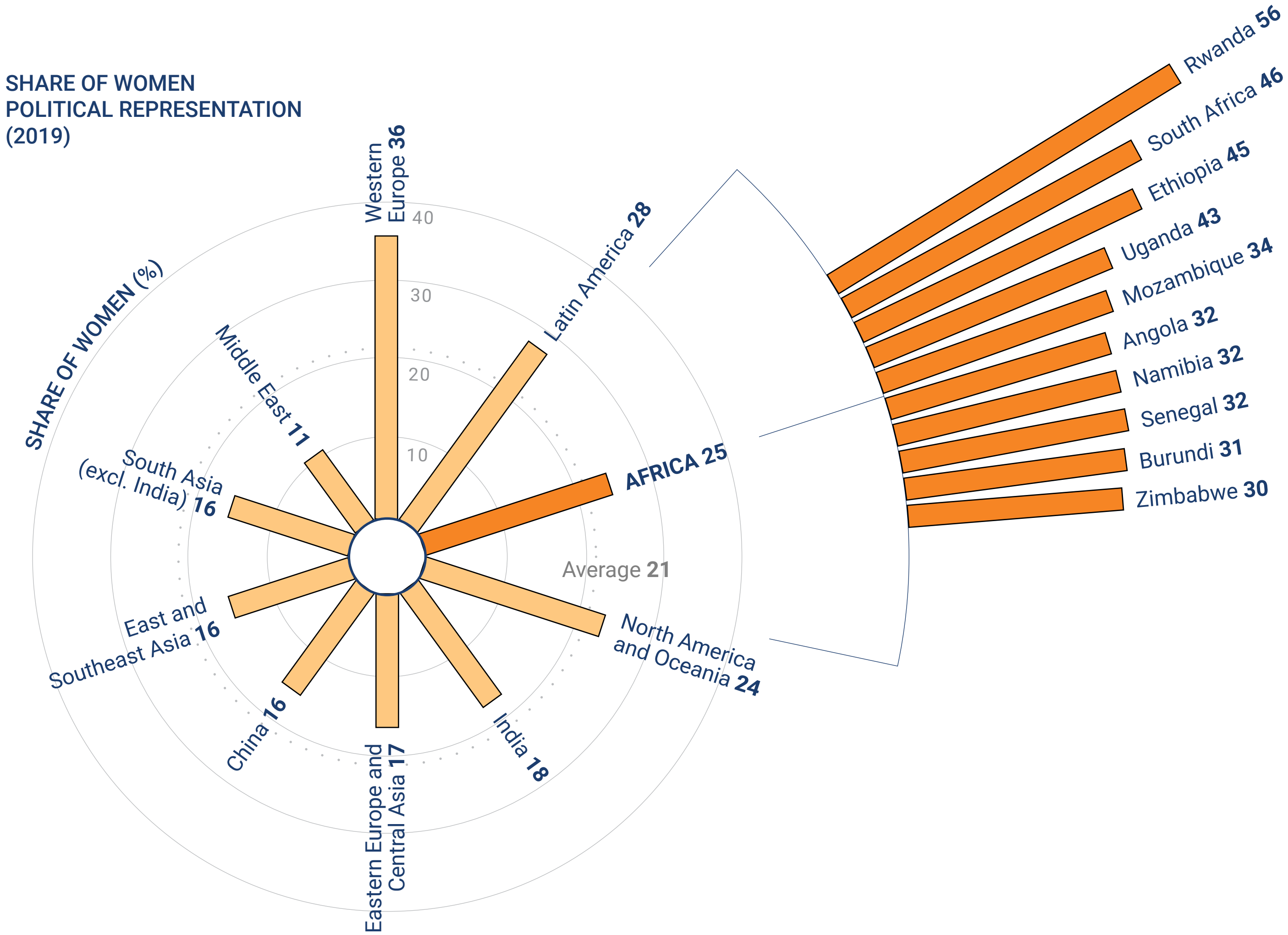
5 UN WOMEN. 2021. "The COVID-19 Global Gender Response Tracker."
6 Visit Rwanda. 2020. "Rwanda Gender & Women Empowerment Fact Sheet- 2019/2020."
7 Gender Parity Index World Development Indicators. 2022. World Bank.

FIG.33 AFRICA'S FEMALE POLITICAL REPRESENTATION IS ABOVE THE WORLD'S AVERAGE

Compared to other regions, Africa has one of the highest proportions of women in government. In Africa, one quarter of cabinet members and members of parliament are women, above the global average of 21. Africa is led by Rwanda and South Africa, where 56 and 46 percent of cabinets and parliaments are women respectively.



Note: Political representation includes representation in cabinets and parliaments and is based on the latest publicly available data.
Source: Moodley, et al. 2019. "The power of parity: Advancing women's equality in Africa." McKinsey Global Institute.

Women and access to justice in Africa: Women cannot wait another 100 years

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Despite persisting gender gaps, women across Africa continue to play critical roles in their communities. Yet, many women do not have equitable access to justice and leadership positions. Expanding access to justice for women across Africa and achieving sustainable and equitable access to justice for women requires collective action and the inclusion of all actors—governments, civil society, women, and men. This collective action is anchored in an African proverb, "If you want to go fast, go alone; if you want to go far, go together." Thus, in order to address the widening gender inequality gap across the continent, African governments must act fast, but they can only go far if they bring women on board. Centering the voices and agency of African women in decisionmaking is key to achieving gender equality and expanding women's access to justice.

In the early phases of the movements towards independence in Africa, some visionary leaders knew that the political development of the continent was closely linked to women's active and equal participation. In a famous phrase, the former president of Burkina Faso Thomas Sankara noted that; "The revolution and women's liberation go together. We do not talk of women's emancipation as an act of charity or out of a surge of human compassion. It is a basic necessity for the revolution to triumph." However, the early post-independence era, which soon cascaded into military dictatorships, eroded many hopes of women's active and equal participation in governance structures. Patriarchal norms and processes inherited from the colonial administrations were institutionalized as the modus operandi for African bureaucratic and judicial systems. Today, notwithstanding the fact that women make up an estimated 50 percent of the continent's population, women continue to be underrepresented in leadership positions from the community level to the executive, legislature, judiciaries, diplomatic, and public service. Women and girls are often found in the most marginalized groups because systems of intersectional oppression[1] converge to deprive these groups of their basic social, economic, political, and legal rights.

Expanding access to justice for women requires institutional mechanisms that provide equitable opportunities for women and girls to seek and receive justice. However, tools to promote open, transparent, and timely access to justice remain elusive for many African women and girls. According to the 2022 World Bank Women, Business and the Law report, billions of women worldwide lack access to their fundamental rights. The COVID-19 pandemic has set back women's rights. A sobering report by the World Economic Forum indicates it will take 132 years to close the gender equity gap.[2] For women across sub-Saharan Africa, a 2019 Mckinsey report projects it will

1 J. Jarpa Dawuni. 2022. "Intersectionality and Women's Access to Justice". Rowman & Littlefield.
2 World Economic Forum .2022. "Global Gender Gap Report 2022".

Women and girls are often found in the most marginalized groups because systems of intersectional oppression converge to deprive these groups of their basic social, economic, political, and legal rights.

take an alarming 140 years to close the gender gap.[3] Girls are the women of tomorrow, and if their well-being is not prioritized, the continent of Africa is set for an impending tsunami of disastrous development challenges across all sectors.

But there is hope—only if governments, civil society actors, and funding bodies act with calculated expediency to address the widening gender equity gap. A commitment to not leaving behind women and girls requires that all efforts to address these challenges are handled simultaneously with gender-responsive intentionality. Women's voices must be heard in the decisions that affect their livelihoods, reproductive health, personal safety, and the right to leadership positions.

What can governments across Africa do to change the tide of this impending doom for more than half of their populations? First, African leaders must prioritize gender-responsive policies that empower young girls and women through the provision of economic, educational, and health opportunities.

Second, to prioritize women's access to justice, African governments must move from "politics as usual" and be intentional in bringing women into the rooms where decisions are made about women's lives and develop gender-responsive policies that are inclusive and sustainable.

Third, African governments must invest capital in enforcing their commitments to the Maputo Protocol, CEDAW, and other international treaties that seek to advance women's rights. The African Union must adopt the new wave of feminist foreign policies to promote a continent-wide shift towards prioritizing the rights of women and girls.

Women cannot wait 132 years for the gender gap to close. The disastrous implications of climate change will burden African women disproportionately, leading to mass migrations, food scarcity and heightened human insecurity. Political backlash leading to conflicts will have dire consequences for the security of women and girls. Technological advancements and the use of artificial intelligence leading to increased cyber harassment and bullying will disproportionately affect women and girls. Access to justice for women and girls is necessary for their existence and must therefore be prioritized by African governments.

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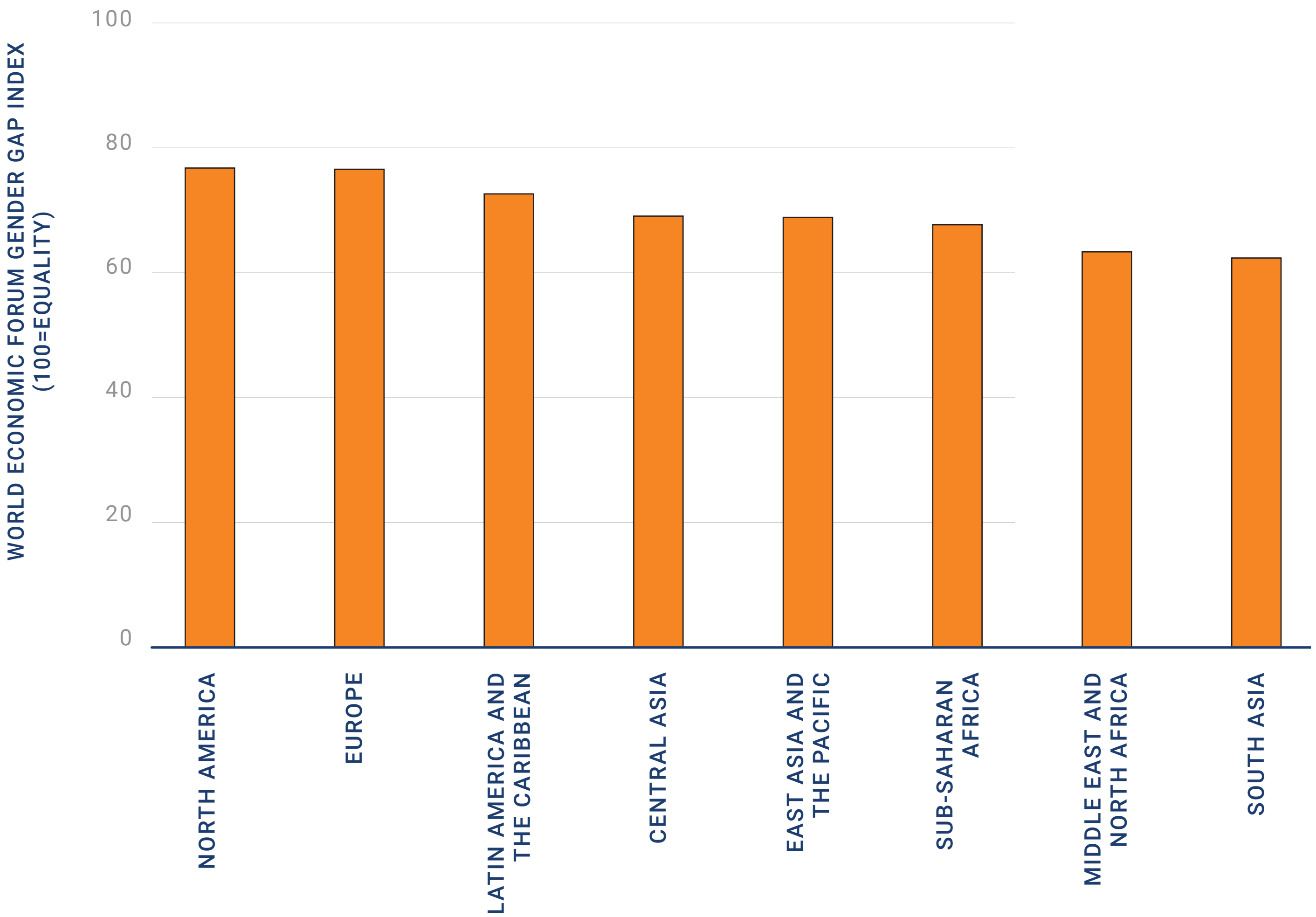
3 McKinsey Global Institute .2019. "The power of parity: Advancing women's equality in Africa."

FIG.34 **GENDER GAP CLOSED TO DATE, BY REGION**

The World Economic Forum's Global Gender Gap Index benchmarks gender parity across dimensions such as economic participation, education, health, and political empowerment. The lower the number, the worse women perform relative to their male counterparts across the four dimensions. While sub-Saharan Africa lags behind other world, regions on the Global Gender Gap Index, a few countries like Rwanda and Namibia (which rank 6th and 8th in the world, respectively) are outliers.



Note: Population-weighted averages for the 146 economies featured in the Global Gender Gap Index 2022.
Source: World Economic Forum. 2022. Global Gender Gap Index.

CLIMATE CHANGE:

ADAPTING TO A NEW NORMAL

ESSAY

VIEWPOINT

Turning political ambitions into concrete climate financing actions for Africa

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One of the main targets of the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) in Sharm El-Sheik, Egypt, was "to accelerate global climate action through emissions reduction, scaled-up adaptation efforts and enhanced flows of appropriate finance." While the breakthrough agreement on a new "Loss and Damage" Fund for vulnerable countries is a welcome development, progress on climate finance leaves much to be desired. This is worrisome for African countries.

Recent reports on climate change such as the African Economic Outlook 2022 and the Sixth Assessment Report of the Intergovernmental Panel on Climate Change have reiterated that the climate crisis is likely to worsen, especially in Africa, and that the time for action to avert the impending catastrophe is now. World leaders have missed (again) the opportunity to move from mere political commitments and ambitions to concrete actions.

Africa's climate paradox

As the late Kofi Annan perfectly put it, all continents are in the same boat when it comes to addressing climate change. However, individual regions and countries are not equally responsible for global environmental problems. This principle of common but differentiated responsibility and respective capabilities is at the core of climate justice and just energy transition.

Africa's case is especially concerning. The continent is the least polluting region[1] of the world but faces a disproportionate burden from the impact of climate change. Between 1850 and 2020, Africa's contribution to global emissions remained below 3 percent[2] and yet, it lost about 5 percent to 15 percent annually of GDP per capita growth between 1986 and 2015. About 70 percent of the used global carbon budget is accounted for by just the United States, European Union, United Kingdom, and China (Figure 35a). An average African had a carbon footprint of just 0.95 tons of carbon dioxide equivalent (tCO2eq) in 2020, well below the 2.0 tCO2eq required to achieve the net-zero transition target. On the other extreme, an average American had a carbon footprint of up to 14 tCO2eq, fifteen times higher than that of an average African (Figure 35b).

1 The Intergovernmental Panel on Climate Change (IPCC). 2021. "Climate Change 2021: The Physical Science Basis." Working Group I contribution to the Sixth Assessment Report. The Intergovernmental Panel on Climate Change.

2 AfDB.2022. "African Economic Outlook 2022". African Development Bank.

FIG.35A EVOLUTION OF ANNUAL CARBON EMISSIONS, 1850-2020

Africa contributes, on both an absolute and per capita basis, very little to global emissions. The U.S. contributes the most in per capita CO2 emissions, while China's contribution to total CO2 emissions recently surpassed other major economies.

TOTAL EMISSIONS

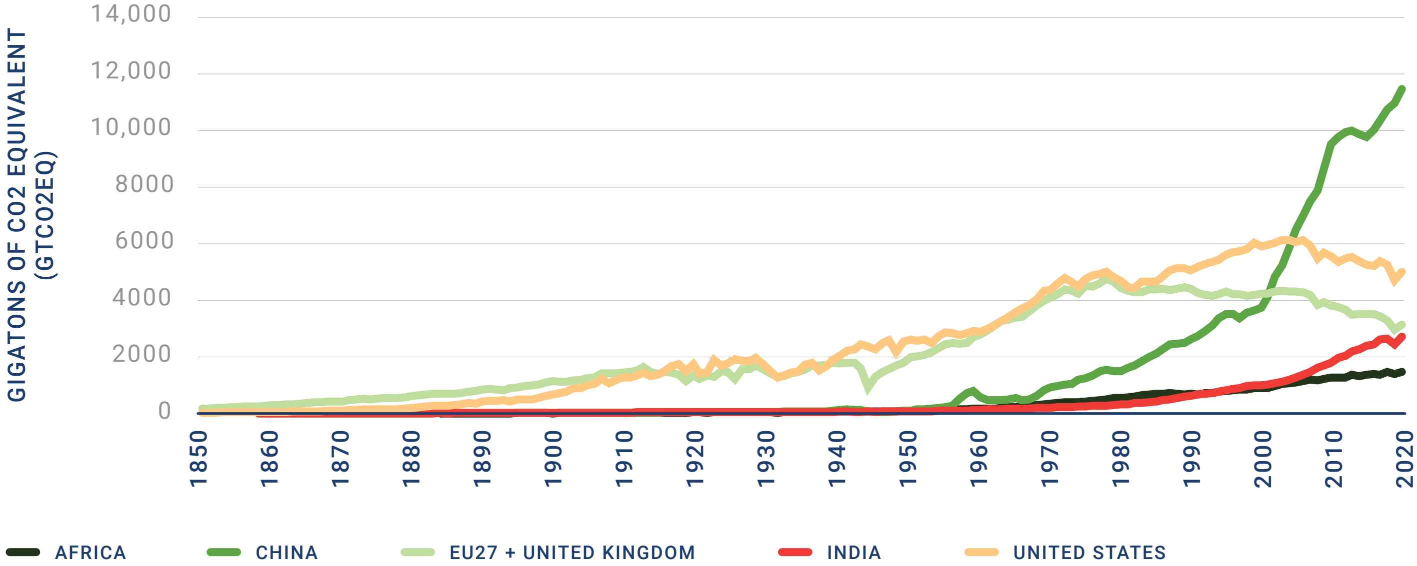
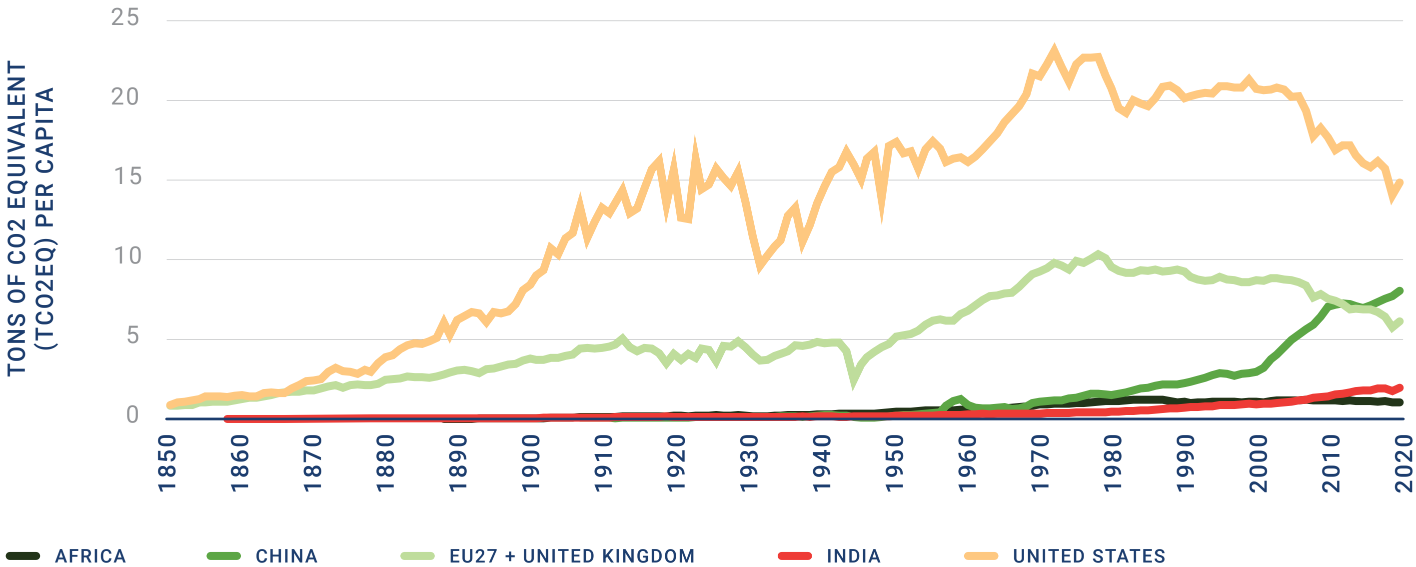


FIG.35B

EMISSIONS PER CAPITA



Source: Authors' calculations using Our World In Data. 2022.

From climate finance commitments to reality and at scale

The $100-billion promise,[3] made by developed countries since 2009 at COP15 in Copenhagen, has still not been achieved. According to the OECD,[4] climate financing provided and mobilized by developed countries reached $83.3 billion in 2020, some $16.7 billion below the target. Indeed, a 2020 report commissioned by the United Nations concluded the only realistic scenario is that the $100-billion target will be out of reach in the short- to medium-term.

Africa's share of global climate finance—provided and mobilized by developed countries for developing countries—increased by only 3 percentage points on average during 2010 to 2019, from 23 percent ($48 billion) in 2010–2015 to 26 percent ($73 billion) in 2016–2019 (Figure 36). This means that Africa benefited from $18.3 billion a year from 2016–2019, far behind Asia, which benefited $27.3 billion a year, over the same period. Yet, Africa accounted for about 40 percent of all countries eligible to benefit from this support, compared with only 20 percent for Asia. In addition, between 2010 and 2019, debt instruments (mostly loans) accounted for about two-thirds of all climate finance channeled to Africa, out of which two-fifths were on non-concessional terms.

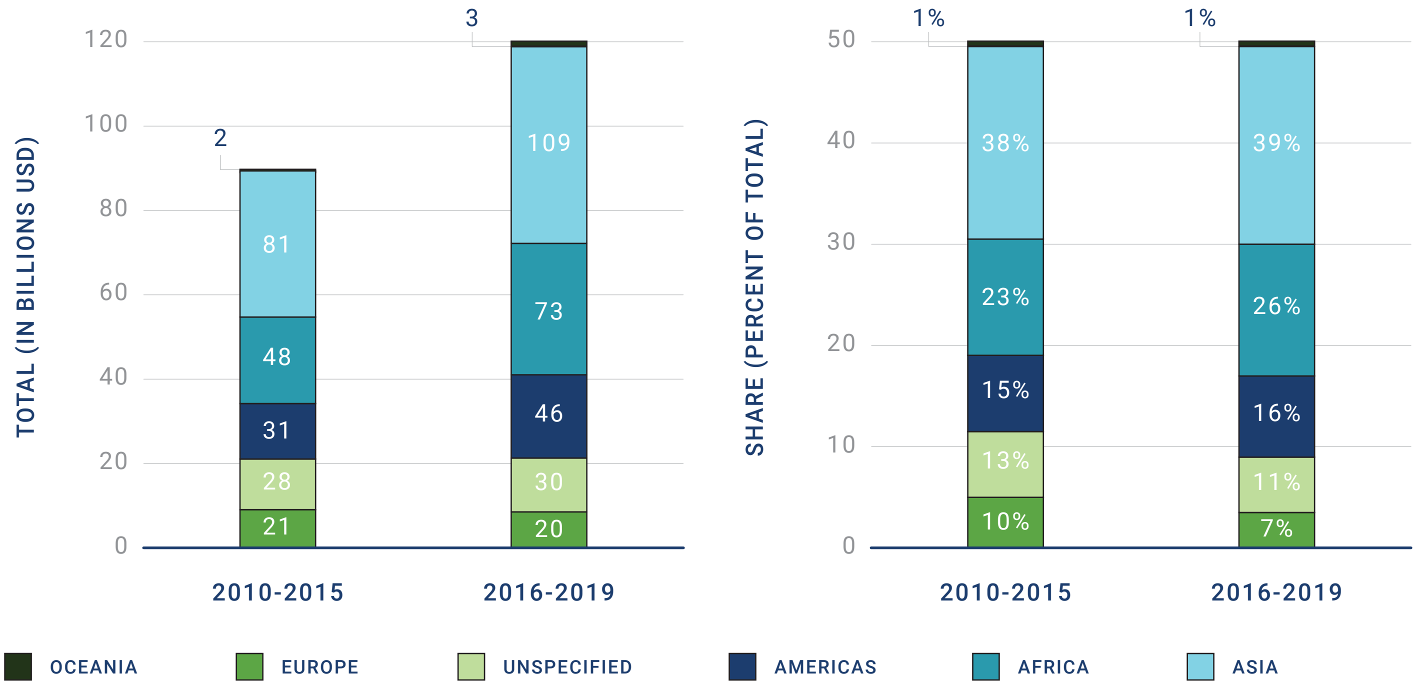
Climate finance inflows to Africa are dwarfed by the enormity of resources needed for Nationally Developed Contributions (NDCs), estimated to range from about $1.3 trillion to $1.6 trillion between 2020 and 2030, or $118.2 billion to $145.5 billion per year over this period. Under the current climate finance trends, Africa's annual financing gap could thus reach an estimated average of $108 billion per year until 2030. This climate injustice needs urgent attention.

Mobilizing more climate finance for Africa is within the reach of the global community. For instance, between January 2020 and September 2021, the global community mobilized about $17 trillion through various fiscal measures in response to the effects of the COVID-19 pandemic. Almost $15.3 trillion (or 90 percent of these fiscal measures) was mobilized by G-20 economies. This demonstration of political will and innovative use of fiscal policy rules to address the global threat posed by COVID-19 is commendable. Like COVID-19, climate change is a global commons problem but perhaps with even longer-term and systemic impacts.

3 Jocelyn Timperley. 2021. "The broken $100-billion promise of climate finance — and how to fix it."
4 OECD.2022. "Climate Finance Provided and Mobilised by Developed Countries in 2016-2020."

FIG.36 **AFRICA'S SHARE OF GLOBAL CLIMATE FINANCE FLOWS HAS NOT KEPT PACE WITH INCREASED VULNERABILITY AND DAMAGES**

Africa has increasingly borne the brunt of damages associated with climate change, despite contributing comparatively little to global emissions. Yet, Africa has some of the lowest per capita climate finance inflows—far less than more resilient and less vulnerable regions in the world. This suggests that the global climate finance architecture requires significant reform to better align with climate vulnerability.



Source: African Economic Outlook. 2022.

Ultimately, climate change is a global commons problem. Climate solutions will not be sustainable unless all actors play their part. The climate challenge cannot be addressed if any country fails to meet its Nationally Determined Contributions (NDCs).

Why Africa deserves more in climate financing

Mobilizing climate finance to avert the growing climate catastrophes in developing countries calls for similar political will and collective action. To this end, an important milestone is for the international community and developed countries to step up to the plate in mobilizing and providing the requisite climate resources to developing countries.

Achieving this will require significant reform of the current global climate finance architecture,[5] to ensure that the most vulnerable countries (especially in Africa), effectively harness climate resilience opportunities. The structure, flow, and scale of the global climate finance architecture, as currently designed, is misaligned with climate vulnerability. For example, as illustrated in Figure 36 above, more resilient and less vulnerable regions receive more climate finance, in per capita terms, than their less resilient but more vulnerable counterparts. Moreover, the climate finance architecture is modelled to mirror the current global financial architecture that is risk averse and discriminatory against fragile economies. The loose definition of climate finance has also led to proliferation of various climate finance instruments, including debt instruments. The latter exacerbates debt vulnerabilities in countries where climate impacts are already constraining fiscal health.

There is thus need for a clearer definition of climate finance, better coordination among existing global climate finance facilities, dedicated climate initiatives, as well as enhanced harmonization of funding requirements that can channel climate finance flows to the most climate-vulnerable countries. While African countries do have their part to play, the principle of common but differentiated responsibility and respective capabilities requires that the most polluting countries bear the greatest burden of climate financing.

Ultimately, climate change is a global commons problem. Climate solutions will not be sustainable unless all actors play their part. The climate challenge cannot be addressed if any country fails to meet its Nationally Determined Contributions (NDCs).

And the world cannot expect Africa to implement its NDCs if the expected climate finance flows to fund the conditional NDCs, are not made available. Should the current trends continue, it is certain that Africa will not achieve its NDCs by 2030. By implication, the global community will not be able to reach the Paris Climate Accord.

5 Charlene Watson, Liane Schalatek, and Aurélien Evéquoz. 2022. "The Global Climate Finance Architecture."

The charge due to custodians of the world's lungs

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It is time to rebalance the scales in Africa's favor when it comes to climate finance. The African continent is home to 16 percent of the world's population and 25 percent of the world's remaining rainforests[1]—yet Africa attracts only 3.19 percent of global climate finance ($30 billion of $940 billion global climate flows), and the pledges to accelerate adaptation and mitigation financing of $100 billion by 2020 in developing countries are yet to fully materialize.[2] Climate finance can be a catalytic tool for fiscal stability, especially for African countries that are struggling with economic recovery, amid multiple global shocks.

However, for African countries and non-state actors to attract increased climate finance and play a greater role in structuring the green financial architecture, Africa must position itself as a worthy investment destination for climate finance focused on long-term development issues. To achieve this, I propose a few key areas of focus for policymakers. First, countries must have green investment plans, and second, it is critical to bring the private sector to the table and to give it space to innovate. In addition, policymakers should use public finance to de-risk private investment and have a regulatory environment that enables doing business with variable financing tools. Lastly, developed countries must deliver on the pledges already made without any further and new conditionalities to spur green development for a common 1.5 degrees future.

African Nationally Determined Contributions (NDCs), that is countries' action plans to cut emissions and adapt to climate impacts, should be accompanied by national investment strategies that prioritize green infrastructure and natural resource protection. These can create a green development pathway that promises economic growth opportunities, industrialization, and jobs, propelling Africa past a more traditional, less green infrastructure and development approach.

Country platforms should also encompass the private sector, so that there is a cohesive approach as to who will invest where, and who is best placed to tackle the varying aspects of mitigation and adaptation and protection. A good example of this approach on leveraging the private sector is the proposal by members of the "Nairobi Declaration on Sustainable Insurance" that identified the African insurance sector as a key climate mitigation and adaptation agent; and re-affirmed its triple role of risk manager, risk carrier, and investor through commitment to a Africa climate risk management fund. This fund will cover $14 billion worth of climate and nature-related risks such as floods, droughts, and tropical cyclones through innovative insurance products and solutions. These kind of innovations by the private sector are in line with what the Paris Agreement envisioned.

1 World Bank Africa Region. 2017. "Forests in Sub-Saharan Africa: Challenges & Opportunities." The Program on Forests (PROFOR).

2 Naran, Baysa. 2022. "Global Landscape of Climate Finance: A Decade of Data: 2011-2020." Climate Policy Initiative.

Of the great rainforests in the world, only the Congo rainforest has enough standing forest left to absorb more carbon from the atmosphere than it releases.

Second, debt-for-climate swaps and carbon markets should be rolled out more broadly as part of the solution to debt crises which plague a long and growing list of African nations. This effort starts with valuing Africa's wealth in the totality of its nature assets. Nature has become the world's most important commodity, and its protection is paramount for the world's survival. According to the World Resources Institute, of the great rainforests in the world, only the Congo rainforest has enough standing forest left to absorb more carbon from the atmosphere than it releases.[3]

Commercializing such nature assets, and making sure they attract fair value and benefit neighboring communities, is a key feature of the Africa Carbon Markets Initiative (ACMI)[4]—an initiative that has created a roadmap for developing African voluntary carbon markets, with the aim to accelerate and scale carbon credit production on the continent. The initiative proposes to leverage an advanced market commitment (AMC), which in essence is an upfront guarantee from buyers and multiple corporations, to purchase African carbon credits. This AMC will help send a strong demand signal and incentivize appetite for good quality and innovative credits. There is huge potential in making carbon markets work to attract more climate finance.

Third, there is need for gender-informed investing to enhance climate adaptation and resilience. At its core, this means acknowledging climate action as a development issue; recognizing that the climate crisis is not "gender-neutral," and that women and girls are disproportionately affected; and finally, that the devastating impacts of extreme climate occurrences cause more economic scarring to the poorest and most vulnerable in our societies. *2xCollaborative* has developed a gender-lens investing toolkit that can, and should be, widely used to promote gender-lens climate finance to businesses and adaptation projects, involved or led by women.

We cannot afford the current architecture of global green finance to perpetuate existing disparities in those it serves. It is time for African countries to unite, strategically position themselves, and demand that the world does more to deliver climate finance for the continent; it promises great return for all, and it is what is due to the custodians of the "lungs of the world."

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3 Harris, Nancy and David Gibbs. 2021. "Forests Absorb Twice as Much Carbon as They Emit Each Year." World Resources Institute.

4 ACMI is a joint initiative of GEAPP, SE4All, UNECA and supported by the UN Climate Change High Level Champions.

The case for climate financing

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In a world that suffers from a surplus of crises and a deficit of trust, and after many years of unfulfilled promises, it is of no surprise that the main theme for the 27th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) was that of "implementation." We must move beyond pledges and into action, to address Africa's climate problems without exacerbating its already high debt burden.

Climate change costs Africa between 5 percent and 15 percent of its per capita GDP every year,[1] with 278 million of the population suffering from chronic hunger,[2] and 250 million living in high water stress.[3] Yet, Africa is a continent with ample opportunities, especially when it comes to clean and renewable energy. Climate change can provide almost $3 trillion worth of investment opportunities in Africa.[4]

However, climate finance is far short of what is needed. Africa needs $277 billion annually to implement its Nationally Determined Contributions by 2030.[5] Annual climate flows stand at $30 billion; less than 11 perdent of what is required. Moreover, almost 55 percent of Africa's climate finance is in the form of debt, with private sector accounting for no more than 14 percent of total climate finance and 3 percent of adaptation finance.

With already soaring debt levels and borrowing costs, climate action must be funded through more equity investments and concessional financing. Climate finance is inefficient, insufficient, and unfair.

For implementation to be possible, this must change. First, as a token of trust, rich countries must deliver on their promised $100 billion a year. To date, only seven out of 23 countries have mobilized their fair share. Even if delivered, that is only a drop in the ocean.[6] Much more financing must flow to support Africa's adaptation and accelerate its mitigation.

Second, with already soaring debt levels and borrowing costs, climate action must be funded through more equity investments and concessional financing. Climate finance is inefficient, insufficient, and unfair.

Efficient lending mechanisms such as the World Bank's International Development Association (IDA), traditionally provided to lowest-income countries, should be extended to low-middle income countries, and adopted by various multilateral institutions. Less than half of African countries today are classified as low-income. Moreover, Multilateral development banks need to increase their risk appetites to de-risk climate investments in Africa and enhance projects' viability for investment. Third, it is critical that investments from the private sector be scaled up. In COP26, through the Glasgow Financial Alliance

1 AfDB.2022. "African Economic Outlook 2022". African Development Bank.
2 Martin Armstrong. 2022. "A fifth of people in Africa are suffering from chronic hunger. This map shows where the situation is most severe". World Economic Forum.
3 The World Meteorological Organization.2022. "State of Climate in Africa highlights water stress and hazards."
4 Africa Renewal. 2022. "UN Global Compact launches Africa Business Leaders Coalition to advance climate action and sustainable growth."
5 CPI. 2022. "Landscape of Climate Finance in Africa". Climate Policy Initiative.
6 Sarah Colenbrander, Laetitia Pettinotti and, Yue Cao. 2022. "A fair share of climate finance? An appraisal of past performance, future pledges and prospective contributors."

for Net Zero (GFANZ), over 450 financial firms across 45 countries,[7] responsible for over $130 trillion of private capital, committed to accelerate transition to net zero and mobilize capital to emerging and developing economies. Those assets must be turned into investment flows to developing countries. For that matter, the GFANZ Africa Network was launched in Egypt, in September 2022, to enhance private finance flows into the continent.

Contrary to common perception, African countries can provide investable climate project pipelines. This was evident in the unprecedented initiative, launched by the COP27 presidency, in partnership with the U.N. Regional Economic Commissions and the High-Level Champions for COP26 and COP27. In a series of five regional investment forums, starting with Africa, 19 core projects were presented, split equally between mitigation and adaptation. With a total cost of around $37 billion, projects covered different areas, including energy, food, water, cities, carbon markets, and the blue economy.

Finally, innovative financing solutions must be encouraged. Debt for climate and nature swaps, especially those linked to sustainability key performance indicators, can boost investments while reducing debt in African countries. Moreover, developing high-integrity voluntary carbon markets in Africa can provide valuable revenue streams for climate action.

FIG.37 OUTCOMES OF COP27 IN EGYPT

TOPIC	KEY DECISION OUTCOME	FURTHER IMPLICATIONS AND INFORMATION
Loss and damage funding	Established a loss and damage fund to help poor countries cope with the harmful consequences of climate change.	The deal does not specify which countries will contribute to the fund and in what amounts (a committee of delegates from 24 countries will clarify these details in 2023). When these determinations are made, however, contributing countries will be held legally accountable for their payments to the fund.
Agriculture	Four-year extension for Kornivia Joint Work for Agriculture	Food was among the most debated line items during COP27. The extention of Kornivia, underscores the importance of connecting food systems and climate change.
Attendence	Second most attended COP. Protestors were allowed inside the premises for the first time. Lobbyists more visible.	According to Corporate Accountability, there were 25 percent more energy sector lobbysts than in COP26.
Mitigation	Reaffirmed the Glasgow pact (COP26) to limit the rise in global average temperature to 1.5°C. Acknowledged that "the impacts of climate change will be much lower" at a 1.5°C rise vis-à-vis those at a 2°C increase.	However, targets on cutting greenhouse gas emission remained insufficient to meet the 1.5°C temperature limit. Initial draft text that called for a peak in emission and net-zero by 2050 was later revised.
Mitigation	Finalized a work program to expand ambition and implementation of mitigation efforts. The work program will run till 2026.	Details of work program lacked specific goals and will not oblige countries to take certain actions or obtain certain results.
Mitigation	Clarity for corporations setting emissions targets.	A task force chaired by former Canadian Environment Minister Catherine McKenna presented ten criteria that corporations should follow when articulating their net emission targets.
Gas	COP27's final agreement recommended to increase "low-emissions energy."	It remains to be seen what energy sources "low-emissions" includes. As is, it captures a wide variety of energy sources, including renewables like wind, and also gas and carbon capturing coal plants.

7 Glasgow Financial Alliance for Net Zero. 2022. "Amount of finance committed to achieving 1.5°C now at scale needed to deliver the transition."

Climate adaptation finance in Africa

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Climate change continues to cause devastation in Africa. The impacts of climate change in Africa are being further exacerbated by the impact of global shocks such as the COVID-19 pandemic, food and energy crisis, and the ongoing war in Ukraine. The financing needs to help Africa enhance its resilience and be better prepared for a rapidly changing climate are enormous.

A recent analysis by the Climate Policy Initiative and the Global Center for Adaptation shows that an annual average of $29.5 billion in climate finance was committed to Africa in the years 2019 and 2020. Of this amount, about $11.4 billion, or 39 percent, was for adaptation investments.[1] Further analysis of Nationally Determined Contributions (NDCs) also indicates that the adaptation finance needs for the continent over the period 2020-30 are close to $580 billion. Unless adaptation finance increases substantially in Africa, a gap of $453 billion will accumulate over this decade.[2]

The largest sources of adaptation finance are multilateral development institutions (53 percent), African governments (23 percent), and bilateral agencies (16 percent). The private sector represents a very small fraction of adaptation finance (3 percent) and out of this nearly 90 percent was committed by institutional investors (foundations, insurance companies, asset management firms, pension funds, and endowments). More than half (53 percent) of the adaptation finance commitments to Africa were loans.

Mainstreaming adaptation in economic sectors and selecting investments that enhance the resilience of communities and nations can have high levels of economic benefit-to-cost ratios.

In order to increase the level of adaptation financing, it is important to see it, not as a sunk cost to reduce the impact of disasters. Rather, mainstreaming adaptation in economic sectors and selecting investments that enhance the resilience of communities and nations, can have high levels of economic benefit-to-cost ratios. The IMF projects growth in sub-Saharan Africa to slow sharply from the recovery path of 2021 when GDP grew 4.7 percent, down by one percentage point to 3.6 percent, and remain close to that level in 2023.[3] The global economic slowdown, tight finances, and inflation are impacting the region in areas such as food and energy prices. Public debt and local inflation are at very high levels. The IMF recommends tackling urgent socioeconomic crises while trying to build resilience to future shocks, including climate shocks. The IMF also recognizes the critical importance of high-quality growth and policies to set the stage for a sustainable recovery.[4]

To understand the benefits of a sustainable recovery investment program that puts adaptation and resilience at its core, together with UNECA, we modeled for several African countries (Senegal, Cote D'Ivoire, Democratic Republic of Congo (DRC), Egypt, Kenya, and South Africa) and compared a traditional stimulus package versus a package centered around the most needed adaptation and development programs.[5]

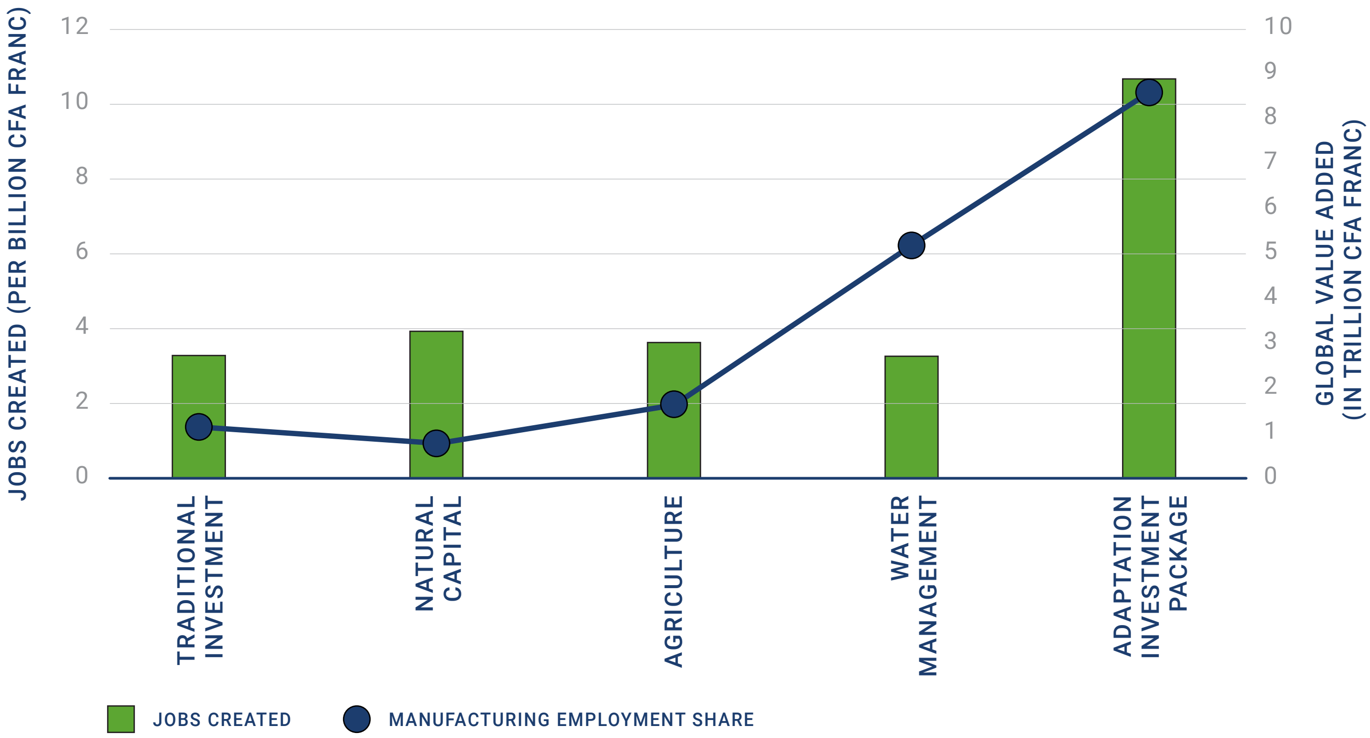
1 GCA. 2022. State and Trends in Adaptation Report 2022. Global Center on Adaptation.
2 CPI. 2022. The Landscape of Climate Finance in Africa. Climate Policy Initiative.
3 IMF. 2022. "World Economic Outlook." October 2022. International Monetary Fund.
4 IMF. 2022. "Regional economic outlook. Sub-Saharan Africa: Living on the edge." International Monetary Fund.
5 GCA. 2021. "State and Trends in Adaptation 2021. Global Center on Adaptation.

In every country, the economic returns and jobs generated are higher in an adaptation-focused stimulus package (see Figure 38 below). For example, our modelling shows that in Senegal, investment in adaptation initiatives could create over 200 percent more jobs within five years (600 percent within 20 years) and around 700 percent greater economic value in 20 years) relative to a traditional stimulus financial package focused on gold and phosphate mining and the extraction mining hub. The adaptation-focused package includes investments in natural capital (e.g., coastal protection, aquaculture, and reforestation), agriculture (e.g., resilient seeds and agroforestry), and water management (e.g., water demand management and flood mitigation).

Investments in adaptation to climate change are not to be seen as sunk costs but as an integral part of sustainable economic recovery packages with high benefit-to-cost ratios.

FIG.38 **TOTAL JOB CREATION AND GROSS VALUE ADDED BY DIFFERENT INVESTMENT PACKAGES: SENEGAL**

This graph displays the total jobs in the short term (5 years, left axis) and gross value added in the long term (20 years, right axis) generated by both traditional mining investment and adaptation investment packages. "Traditional investment" refers to investment planned in the PSE-PAP 2019–2023 to develop the gold and phosphate mining as well as the extraction mining hub. The adaptation investment package includes a set of "green" sectors, each consisting of a package of interventions. The different sectors (as well as the respective interventions covered by them) are: 1) natural capital (including coastal protection, aquaculture, and reforestation); 2) agriculture (including resilient seeds, and agroforestry); and 3) water management (including wastewater treatment, water demand management, and flood mitigation). "Adaptation investment package" refers to the sum of natural capital, agriculture, and water management.



Note: A technical note in the appendix of the State and Trends Report 2022 discusses estimation approaches and assumptions.
Source: GCA State and Trends Report. 2022.

Gold mining, climate change, and Africa's transition

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While global gold mine production has grown by 26 percent since 2010, in Africa it has risen by nearly 60 percent, and in at least 10 African countries it has more than doubled.

Gold mining has, over the last decade or so, been a growth industry in many host countries across Africa. For example, in Ghana–now Africa's largest gold producer–gold represents around a quarter of the value of its total annual exports. And while global gold mine production has grown by 26 percent since 2010, in Africa it has risen by nearly 60 percent, and in at least 10 African countries it has more than doubled.[1] The value of that gold and its contribution to the GDP of those host countries has risen even faster..

When undertaken responsibly, gold mining can be of strategic importance in catalysing positive change. This is highly relevant when we consider the challenges and opportunities presented by a changing climate, and the urgent need to mitigate its destructive impacts via rapid decarbonisation.

The carbon footprint of the whole gold supply chain is rooted in the gold mining process, and, to a large extent, how mining operations either generate or consume power. Research shows that through a pronounced shift away from higher carbon energy sources—such as local diesel and heavy-fuel oil generators or fossil fuel-fired grids—the industry can potentially decarbonise at a rate that is broadly aligned with Paris Agreement climate targets.[2] While the industry still needs to accelerate its transition to low carbon power, significant progress has been made in recent years and the opportunity for further transformative action is clear.

In seeking to decarbonize their operations, gold mining companies can also encourage development of (and investment in) renewable power in host countries. For example, by helping introduce new technologies and infrastructure in locations that might otherwise lack the capacity or incentive to initiate change.

In South Africa, for example, where gold mining's emissions are rooted in its connectivity to a largely coal-powered grid, the sector's ability to influence government policy to allow companies and sites to generate their own clean energy can have impacts well beyond the precious metals industry. Changes in the regulatory landscape would then support the economic viability of domestic renewable energy systems, prompting suppliers to grow their businesses and expand local capacity.

In countries, such as Mali, Mauritania, or Democratic Republic of the Congo (DRC), where gold mines are typically dependent on self-generation of power, they may be the "first movers" in developing renewables. These projects are often undertaken as joint ventures with local partners or governments, and this can create legacy power systems that should endure well beyond the life of the gold mines. In recent years, we have witnessed such projects result in the development of solar power at the Essakane mine in Burkina Faso and the expansion of hydro power at Kabili in the DRC.

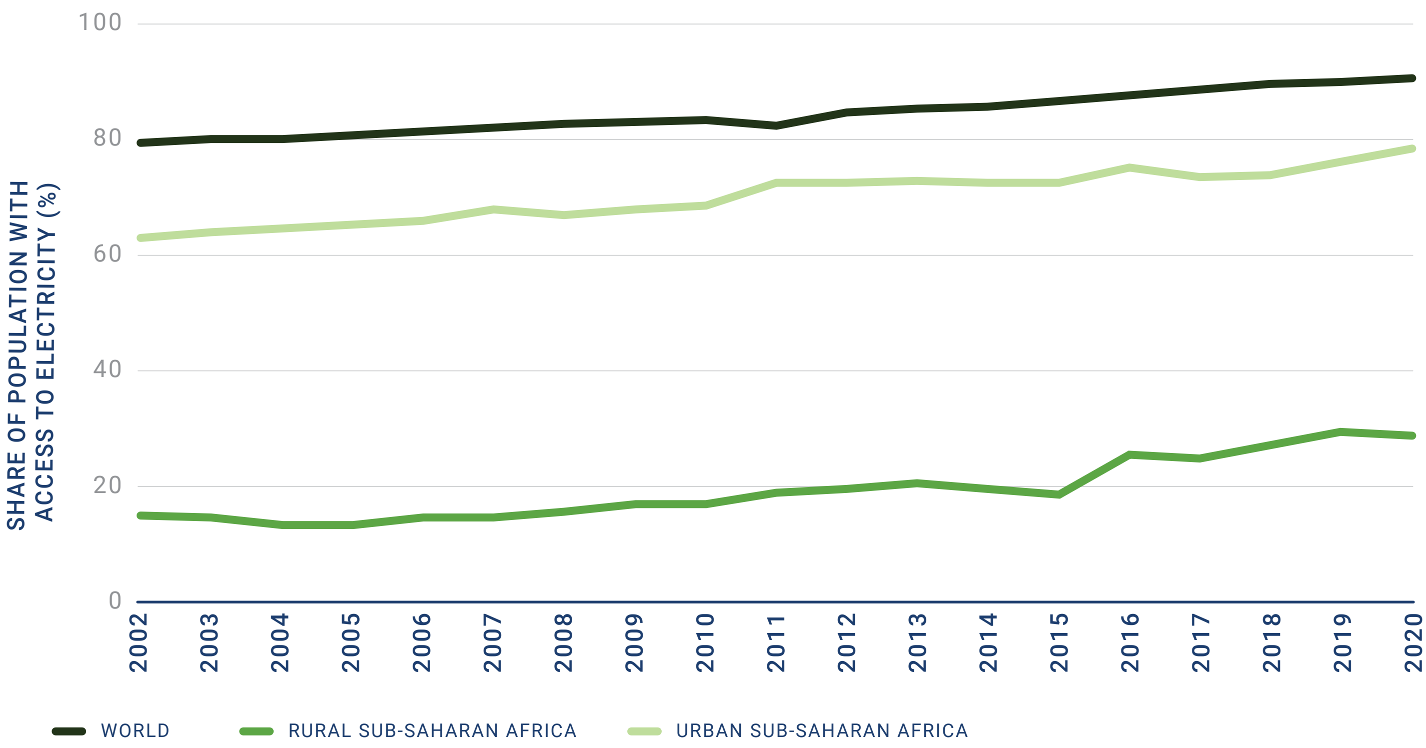
1 World Gold Council. 2022. Global Mining Production Volumes database. World Gold Council.
2 World Gold Council. 2020. "Gold and climate change: The energy transition." World Gold Council.

On a much smaller scale, gold mining companies are also promoting the use of mini-grids, often solar-powered, to support community infrastructure such as schools and medical centers.

The introduction of renewables can also spark a transformation in local skills and expertise—which can provide employment opportunities and wider socio-economic benefits. These benefits will need to be encouraged—with the ongoing support of gold mining in many African host nations—to help countries deliver a more inclusive and just transition.

FIG.39 **THE ELECTRIFICATION GAP PERSISTS IN AFRICA, BUT PRIMARILY FOR RURAL COMMUNITIES**

Approximately half (48 percent) of sub-Saharan Africa is connected to electricity, well below the global average of 91 percent. By and large, however, urban sub-Saharan Africa has access to electricity: Nearly four in five urban residents have access. The gap, therefore, is driven primarily by sub-Saharan Africa's rural population, of whom only 29 percent have access to electricity.



Source: World Bank. 2022. World Development Indicators. World Bank Group.

Global decarbonization: Industrial opportunities for Africa

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Decarbonization at a global level is happening and will be stepped up as the impacts of climate and weather extremes threaten social and economic systems worldwide. Already, we are seeing the deployment of huge quantities of renewable energy in advanced economies, and investments earmarked to make green energy transitions feasible. Countries that lag behind in low carbon technological innovations stand to lose, both in terms of the health and social co-benefits that come with the deployment of clean infrastructure, as well as the economic co-benefits that come from manufacturing the technologies of the future. Africa needs to pay close attention to the opportunities that lie.

As the world pursues low emissions ambitions, the demand for critical minerals including lithium, cobalt, and nickel will increase six-fold by 2040.[1] Africa holds considerable resources vital to a clean energy future, which includes commodities essential in renewable energy generation technologies and battery-associated materials. This presents transformative potential for Africa's economic growth, employment, welfare, and wider sustainable development. For example, the Democratic Republic of Congo (DRC) is known to have 50-70 percent of global reserves of cobalt, and South Africa and Gabon have nearly 40 percent of global manganese reserves.[2] Countries such as Zimbabwe and Namibia have among the largest reserves of lithium globally.

However, if Africa is to avoid repeating past errors, its role in the global decarbonisation journey needs to be broadened beyond mineral extraction. Converting raw resources into tangible value-added opportunities in downstream activities is crucial. It may not be feasible to localize all segments of the value chain in the short-term, but serious planning and preparation are required to mitigate the risks of having Africa locked out of the green manufacturing value chain. This requires bold industrial policies and strategies to create domestic demand, opportunities for value-added exports, and doing away with the business-as-usual model of mineral and raw material extraction.

Some of these policies and interventions could include:

- **African governments must invest in national capacity to produce high quality human resources and institutions.** Countries that have the capability and capacity to navigate the changing technological and regulatory environment are well positioned to spur greater investment, and to develop local content policies that are in line with their capabilities and aspirations.
- **Regional industrial policy coordination**: A single country cannot hope to industrialize without stronger regional synergies. As such, building cross-border,

1 IEA. 2021. "The Role of Critical Minerals in Clean Energy Transitions." In: "World Energy Outlook 2021." International Energy Agency.

2 IEA. 2022. Data and statistics. International Energy Agency.

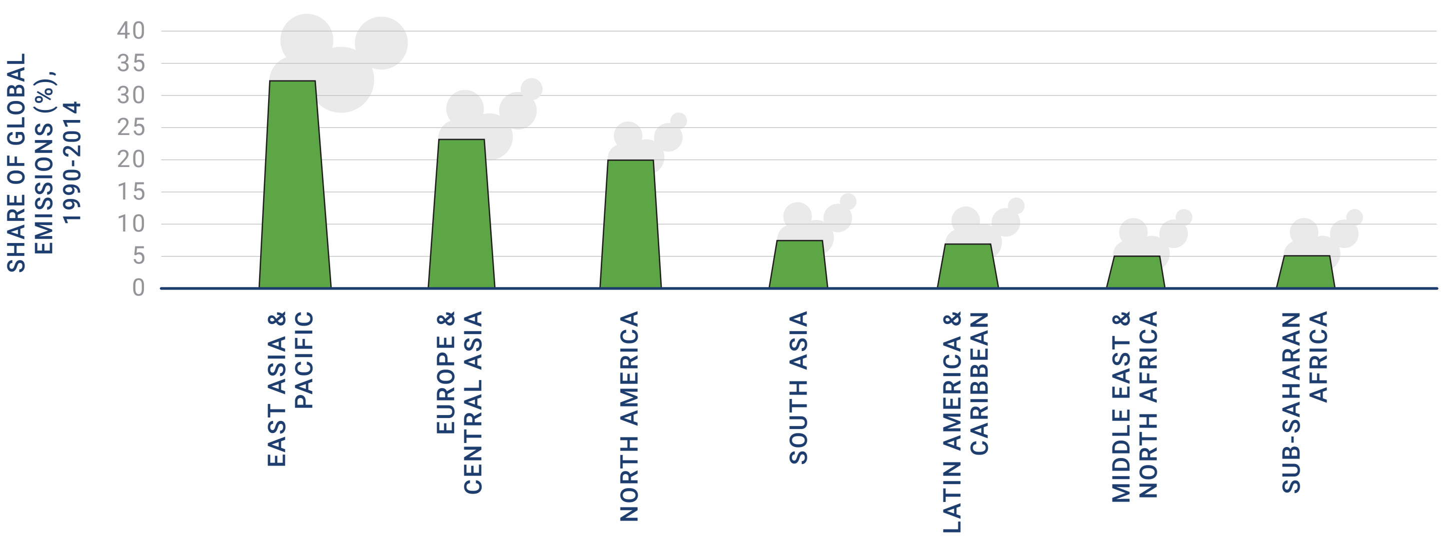
Demand for critical minerals including lithium, cobalt, and nickel will increase six-fold by 2040. Africa holds considerable resources vital to a clean energy future, which includes commodities essential in renewable energy generation technologies and battery-associated materials.

regional value chains can offer a pragmatic framework to boost collaboration and attract investment in downstream activities. This would involve trade and cooperation between countries based on their comparative advantage, such that some countries provide key mineral inputs while others manufacture technologies.

↘ **Develop justice-oriented national industrial policy**: The renewable energy sector offers a system-wide opportunity for industrialization. However, this needs to embrace equal opportunities and an equitable distribution of the benefits of industrialization to all stakeholders. At the heart of this is a governance framework that engages all stakeholders—including governments, mining companies, shareholders, investors, and affected communities—in a constructive dialogue to shape the direction and character of the industrialisation path.

FIG.40 **SHARE OF GLOBAL EMISSIONS BY REGION (1990 - 2014)**

Africa was responsible for only a marginal share of the more than 850,000 megatons of CO2 that was emitted between 1990 and 2014. East Asia & Pacific was responsible for almost a third of such emissions over this period. Sub-saharan Africa, on the other hand, accounted for only 5.1 percent of the world's global CO2 emissions.



Source: European Commission, Joint Research Centre (EC-JRC)/Netherlands Environmental Assessment Agency (PBL). Emissions Database for Global Atmospheric Research (EDGAR), release EDGAR v7.0_GHG (1970 - 2021) as of September 2022.

Managing the compounding debt and climate crises

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Sub-Saharan African countries (SSA) face twin challenges that are slowing growth and eroding decades of developmental gains: Rising debt levels and an increasing frequency and severity of climate shocks. The compounding nature of these challenges has left countries with deteriorated public finances, poor resilience to climate shocks, and limited capacity to finance adaptation.

Of the 38 sub-Saharan African countries covered in the debt sustainability analyses conducted through the joint World Bank-International Monetary Fund Debt Sustainability Framework for Low-Income Countries (LIC-DSF), seven are already in debt distress, 18 are at high risk, and 13 are at moderate risk.[1]

The second challenge is high climate risk exposure. The Notre Dame Global Adaptation Index, or ND-Gain,[2] assesses a country's susceptibility to the effects of climate changes like sea-level rise, disease, and drought, as well as its readiness to improve resilience and adapt to them. Currently, the average ND-Gain score for 183 countries globally is 49 (out of 100). But when looking at the performance of 47 SSA countries, only three achieved scores at or above the global average–Cabo Verde, Mauritius, and Seychelles.

Climate vulnerability is deepening SSA's debt challenges. Recent evidence from the IMF shows that when controlling for conventional determinants of sovereign defaults, countries with higher climate vulnerability have an increased probability of defaulting, compared to more resilient countries.[3] Of the 20 SSA countries with the highest levels of climate vulnerability in the ND-Gain Index, 30 percent are already in debt distress, and another 35 percent are at high risk.

There are three primary channels through which climate change is adversely affecting public finance and driving up debt.

- The first is via increased expenditure and borrowing required to respond to climatic shocks. In 2019, Cyclones Idai and Kenneth drove Mozambique's public debt to almost 110 percent of GDP, and the IMF gave the country a $118 million interest-free loan.
- The second is slowed economic growth and a decline in domestic revenue. This is due to a myriad of factors including business and supply chain disruptions, productivity losses, and property damage.
- Third, exposure to climate shocks can lead to a repricing of sovereign assets, which reduces creditworthiness and drives up borrowing costs. In 2020, Fitch (credit rating agency) announced that water risks (such as water scarcity or

1 WB.2022. "Debt Sustainability Analysis (DSA)." The World Bank Group.
2 ND-GAIN Country Index. 2022. "Notre Dame Global Adaptation Initiative". University of Notre Dame.
3 IMF.2020. "Feeling the Heat: Climate Shocks and Credit Ratings". International Monetary Fund.

extreme water events, such as droughts and floods) will likely become a more significant sovereign rating driver over the medium- to long-term, against the backdrop of severe climate change. Fitch further noted that African countries are especially exposed to flood risks, particularly Benin, Rwanda, and Mozambique. Countries where droughts or floods have been explicitly mentioned as hinderances to growth, external finances, and/or inflation in the context of a downgrade include Namibia (June 2020) and Zambia (April 2020).

Climate vulnerability is deepening SSA's debt challenges. Recent evidence shows that when controlling for conventional determinants of sovereign defaults, countries with higher climate vulnerability have an increased probability of defaulting, compared to more resilient countries.

But how do African policymakers manage these compounding crises? Here are three recommendations:

- Strengthen financial planning for disasters: Governments can adopt financial instruments to reduce the need for costly emergency borrowing and time-consuming budget reallocations. This can include contingency funds that are earmarked for disaster response, sovereign insurance that delivers payouts in the event of severe crises, and catastrophe bonds for pre-arranged, cheaper lending in the event of a shock. Such instruments can provide rapid disbursements to finance critical needs such as food security, public health, and shelter when a shock occurs.
- Improve efficiency of expenditures: Medium-term fiscal planning should prioritize investments in climate resilient infrastructure to reduce future recovery and reconstruction costs, in the event of a climate-related shock.
- Closely monitor implicit and explicit contingent liabilities: Climate-related contingent liabilities are obligations that only materialize when a shock occurs. The magnitude of these liabilities, which include sovereign guarantees, additional social security spending, relief expenditures, public health costs, extraordinary critical infrastructure replacement, and firm bailouts, often remains unknown, making them one of the biggest fiscal risks across African countries. Monitoring these liabilities enables countries to be more financially prepared and have less fiscal volatility.

Given the interconnected nature of the climate and debt crises, prioritizing the development of financial and physical resilience to climate change, is key to supporting long-term debt sustainability.

Africa's Blue Economy can continue to deliver huge benefits to the continent

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The Blue Economy (BE) consists of economic activities taking place below, on, or adjacent to the ocean, or aquatic systems more generally. These activities include subsistence and commercial fishing, as well as emerging sectors such as renewable energy and blue carbon. The African Union (AU) published the Africa Blue Economy Strategy in 2018 because the continent's BE could be a generator of jobs and livelihoods for millions of current and future generations. The BE currently generates about $300 billion in economic activities for the continent, supporting nearly 50 million jobs, and these numbers are projected to continue increasing[1].

A significant part of the BE depends on a thriving marine life. For instance, there will be no fisheries without fish and there will be no whale watching without whales. Marine fish stocks and the fisheries they support, as part of the BE, play a vital role in meeting the food and nutritional security of millions of Africans. These fish stocks generate about 10 million tonnes of catch annually—equivalent to about 10 million mature cows in weight. If most of this fish were caught, processed, and consumed on the continent, the fish economy would boost Africa's GDP by an estimated $50 billion annually, forever.[1] Unfortunately, marine ecosystems are seriously threatened by overfishing, climate change, and marine pollution. The continent's fisheries are also harmed by the activities of distant water fishing fleets; illegal, unreported, and unregulated (IUU) fishing vessels; and ineffective ocean management.

Marine fish stocks and the fisheries they support, as part of the BE, play a vital role in meeting the food and nutritional security of millions of Africans. These fish stocks generate about 10 million tonnes of catch annually—equivalent to about 10 million mature cows.

As we look ahead to 2023, African leaders need to focus on policy reforms that will help develop an "ecosystem of BE actors" who seek to develop an African BE that is sustainable and inclusive for all who call Africa home. Prerequisites for developing a thriving sustainable BE is having comprehensive knowledge of the natural and human aspects of the BE. This means that the continent and its leaders must invest in science and capacity building to ensure a successful continent-wide BE. Also, Africa needs to join the world in "buying insurance" in the form of protecting 30 percent of its waters by 2030; and supporting the effort of the World Trade Organization to remove and/or redirect harmful subsidies.[2]

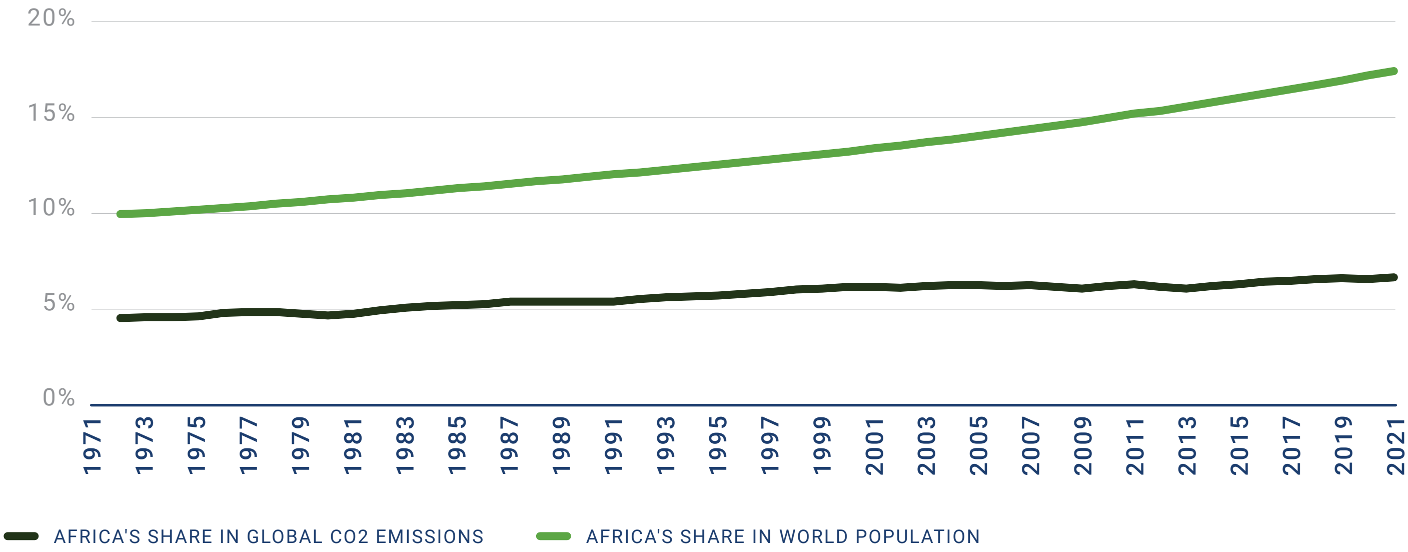
1 Sumaila, U. R. 2021. "Infinity Fish: Economics and the Future of Fish and Fisheries". Elsevier-Associated Press, Oxford, UK, 263 pages.

2 Sumaila, U. R., Skerritt, D. J., Schuhbauer, A., Villasante, S., Cisneros-Montemayor, A. M., Sinan, et al.2021. "WTO must ban harmful fisheries subsidies". Science, 374(6567), 544-544.

Good ideas and plans die at the altar of no finance. Therefore, to achieve AU's Africa Blue Economy Strategy, Africa's governments at all levels, private and non-governmental organizations and the continent's international supporters have to put their money where their mouth is by investing in a sustainable and inclusive BE. Creating an enabling environment for sustainable ocean finance that prioritizes cost-effective options to guide investments in the BE is crucially needed for Africa's ocean sustainability and climate change adaptation and mitigation goals.[3] Such policy reforms will help Africa maximize the prospects for development and poverty reduction in a sustainable manner.

FIG.41 **AFRICA'S SHARE OF GLOBAL CO2 EMISSIONS HAS REMAINED LOW DESPITE A RAPIDLY RISING SHARE OF THE GLOBAL POPULATION**

Africa's population grew rapidly over the past 50 years, nearly doubling from 10 percent of the global population in 1972, to 18 percent at present. Yet its contribution to global carbon dioxide (CO2) emissions, the greenhouse gas most responsible for climate change, has hardly changed over the same period: it increased just 2.2 percentage points over the past 40 years.



Source: European Commission, Joint Research Centre (EC-JRC)/Netherlands Environmental Assessment Agency (PBL). Emissions Database for Global Atmospheric Research (EDGAR), release EDGAR v7.0_GHG (1970 - 2021) as of September 2022. World Bank. (2022). World Development Indicators. World Bank Group.

3 Sumaila, U. R., Walsh, M., Hoareau, K., Cox, A., Teh, L. et al. 2021. "Financing a sustainable ocean economy". Nature communications, 12(1), 1-11.

AFRICA'S CITIES:

REALIZING THE NEW URBAN AGENDA

7

ESSAY

VIEWPOINT

Lagos: The challenges of managing a megacity

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To achieve sustainable resilience and inclusiveness, Africa's cities need to develop the confidence to innovate with a home-grown approach. It is all too easy to attempt to copy and paste what appears to be working elsewhere in the world in terms of city management and problem-solving. Ultimately, the only approach that works in the long-term, is tailoring the thinking and problem-solving to the local context.

All Africa's megacities are alike in many ways—the demographic pressures, the challenge of climate change, infrastructure renewal, fighting crime, and so on—but each one is also unique, in its own way, with a history, character, and journey that sets it apart from others.

It is therefore necessary to ensure that these unique characteristics are kept in mind, in devising unique, home-grown solutions to the challenges being faced. So, that is the starting point.

All Africa's megacities are alike in many ways—the demographic pressures, the challenge of climate change, infrastructure renewal, fighting crime, and so on—but each one is also unique, in its own way, with a history, character, and journey that sets it apart from others.

Moving on to the specifics of policy areas that should be focused on in the coming year, I would say that at the top of the list would be all things related to the demographic pressure that today's African megacities face. Rapidly rising populations require jobs, schools, hospitals, energy, transport infrastructure, and so on. Let's start with **jobs and skills**. Africa is the fastest growing continent in the world, home to the largest population of people below 20.[1] And yet, unemployment is rising rapidly, not necessarily because African economies are not creating any jobs at all, but because the jobs are not being created at a pace that can keep up with population growth.

What is now clear to us is that we cannot depend on the traditional modes of thinking about jobs and skills—trying to educate everyone to tertiary level and focusing on academic certificates as proof of education. In many African countries a lot of people are still obsessed with going to university, even if they're studying courses that eventually turn out to be economically ineffectual.

This is not to say that tertiary education is not vital, or necessary—only this year, our administration in Lagos State established two new universities; the Lagos State University of Science and Technology, and the Lagos State University of Education, to expand access to tertiary education for our teeming youth population. However, the point I am making is that we must acknowledge and come to terms with the fact that we have to focus on multiple alternatives and avenues to get our young people educated and skilled.

This is where Technical and Vocational Education (TVET) comes in. As we have seen from experience, technology is a necessary ingredient for creating opportunities for leapfrogging old models of learning and for making a living. Today, a growing proportion

1 United Nations. 2022. World Population Prospects 2022. Department of Economic and Social Affairs Population Division.

We cannot depend on the traditional modes of thinking about jobs and skills—trying to educate everyone to tertiary level and focusing on academic certificates as proof of education.

of our young people earn a living from e-commerce, selling goods and services on the internet, to customers not only in Nigeria, but globally. Any government serious about creating such jobs, must therefore be serious about creating an enabling environment, by making the following happen: Bringing down the cost of internet access; providing and facilitating financing support for entrepreneurs and startups; and building school curriculums that introduce young people to innovative thinking and technology early.

I'm pleased to say that we are doing all of this in Lagos State. We are at the forefront of supporting the deployment of cutting-edge technology to give our young people an edge in the world of the 21st century. Our Eko Excel initiative is putting digital tablets in the hands of teachers and pupils. Our School Modernization Program is delivering schools with interactive learning facilities.

Lagos State Research and Innovation Council (LASRIC) is providing seed-funding to student innovators with startup ideas. The Lagos State Employment Trust Fund (LSETF) supports individuals and micro-, small and medium-sized enterprises (MSMEs), including technology-focused ones. We are rolling out a network of 6,000km of fibre-optic infrastructure that will increase access and reduce cost.

Second, after jobs and skills, is the issue of **climate change**. Lagos is especially vulnerable to climate change, as a city on the Atlantic Ocean, and barely two meters above sea level for the most part. Also, about 30 percent of our land mass is composed of water—lagoons, creeks, swamps, and marshes.

Rising sea levels are therefore a constant challenge, complicating the potentials of flash flooding. One ambitious solution we have embarked upon in Lagos State has been the **Great Sea Wall of Lagos**, designed as an engineering solution which seeks to protect Victoria Island and environs from the rising Atlantic, while at the same time also enabling us the opportunity to eke out a brand-new city called the Eko Atlantic City. This new city is setting new national standards in terms of clean energy deployment, energy efficiency, and environmentally friendly practices.

Let me now highlight some of the challenges that we face as administrators of cities and subnational governments, particularly in the context of Lagos. I would list the following: High rates of inbound immigration, data collection for planning, revenue generation, the tensions between sub-national and national governments, literacy levels, and the constraints of the political cycle.

Every day, Lagos receives an estimated 2,000 new migrants, from other parts of Nigeria, and possibly even West Africa. These people are coming in search of jobs and better economic conditions, understandably. However, this also constitutes increased pressure on available infrastructure, and on our planning capabilities, which we must continually respond to.

Which leads to my third issue: **Data collection**. To guide effective service delivery, we need to know: Who are the residents of Lagos? How many are they? What do they do for a living? And so on. No city can develop optimally without the presence of credible data and evidence to inform budgeting, planning, and the allocation of resources.

We must acknowledge and come to terms with the fact that we have to focus on multiple alternatives and avenues to get our young people educated and skilled.

One solution in Lagos has been to establish the Lagos State Residents Registration Agency (LASSRA), which proved useful when we were delivering relief materials to the indigent at the height of the COVID-19 lockdown. Our goal is to have a comprehensive and updated database of all our people.

Finding the fiscal revenue to deliver on our electoral promises is another significant challenge. Nigeria's tax-to-GDP ratio is one of the lowest in the world, for various reasons.[2] This means that governments at all levels must keep finding creative ways to improve tax revenues, without necessarily raising taxes.

The only way to do this is by expanding the tax net, the number of people who are regularly paying their taxes. This will only happen if we simplify the tax filing system, given that many of our city residents are employed in the informal sector and may not be able to fill lengthy forms considering literacy levels.

Literacy also affects how well we as local leaders can communicate government policies and information and get the buy-in of critical stakeholders. It means that, in addition to adult literacy initiatives, efforts must also be focused on how to communicate in targeted ways that allow the population to better understand some of the complexities of policymaking.

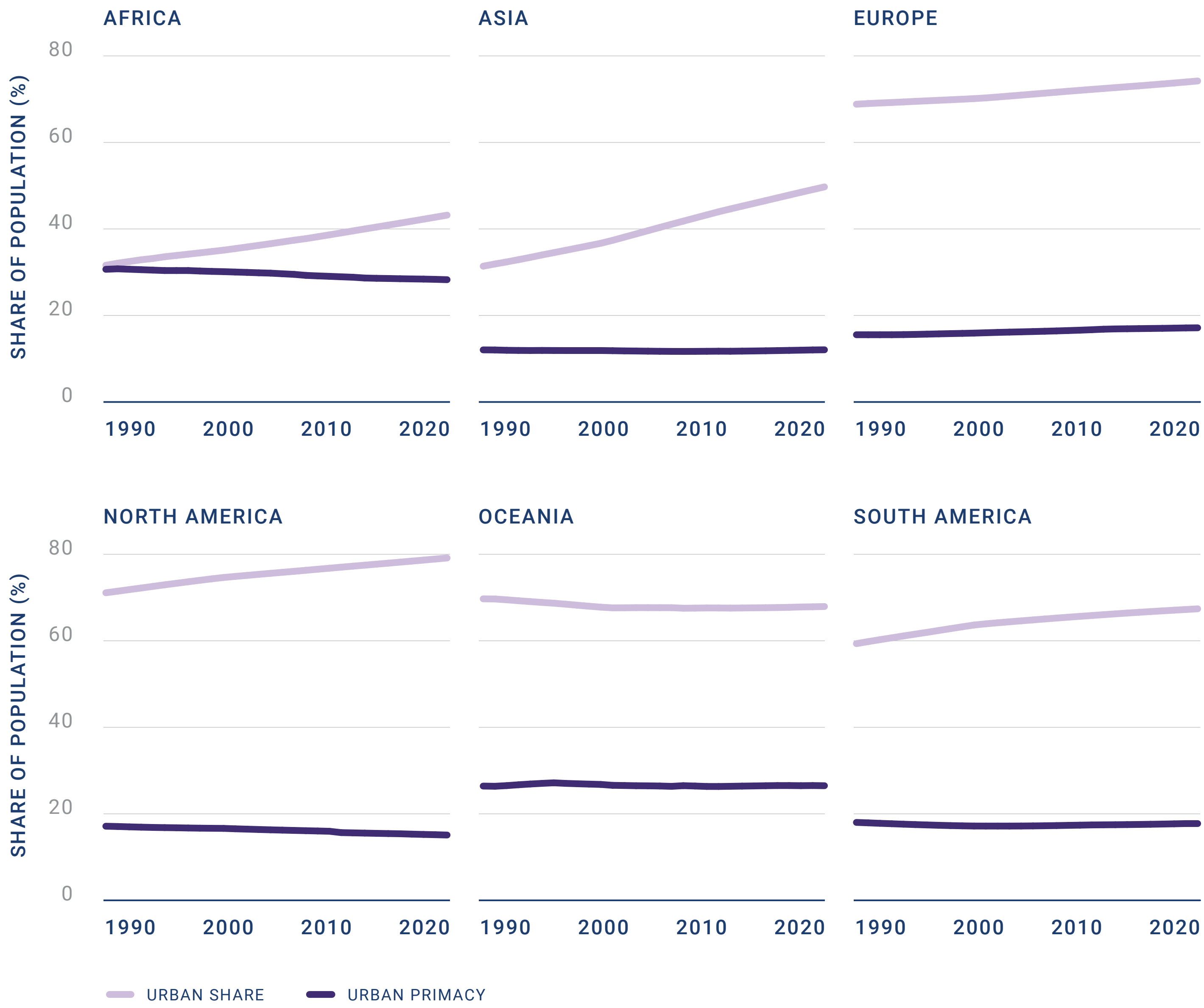
Finally, in a federal system like ours in Nigeria, there exists long-standing tensions between the national government and the sub-nationals, or states, regarding areas of responsibility. Often, the only way to gain clarity is to seek judicial interpretation, which means long journeys through the court system. This certainly affects the abilities of municipal administrations to take certain decisions or craft certain policies. One of the lessons we have tried to apply in Lagos is to constantly push for increased cooperation and engagement with the federal government. We always strive to minimize the space for antagonism as much as possible.

None of these challenges I have outlined are insurmountable. We must continue to work hard at tackling them, while also carrying the people along through effective communication and stakeholder engagements. And we must always be realistic. Real and lasting change takes time; there are no shortcuts or silver bullets.

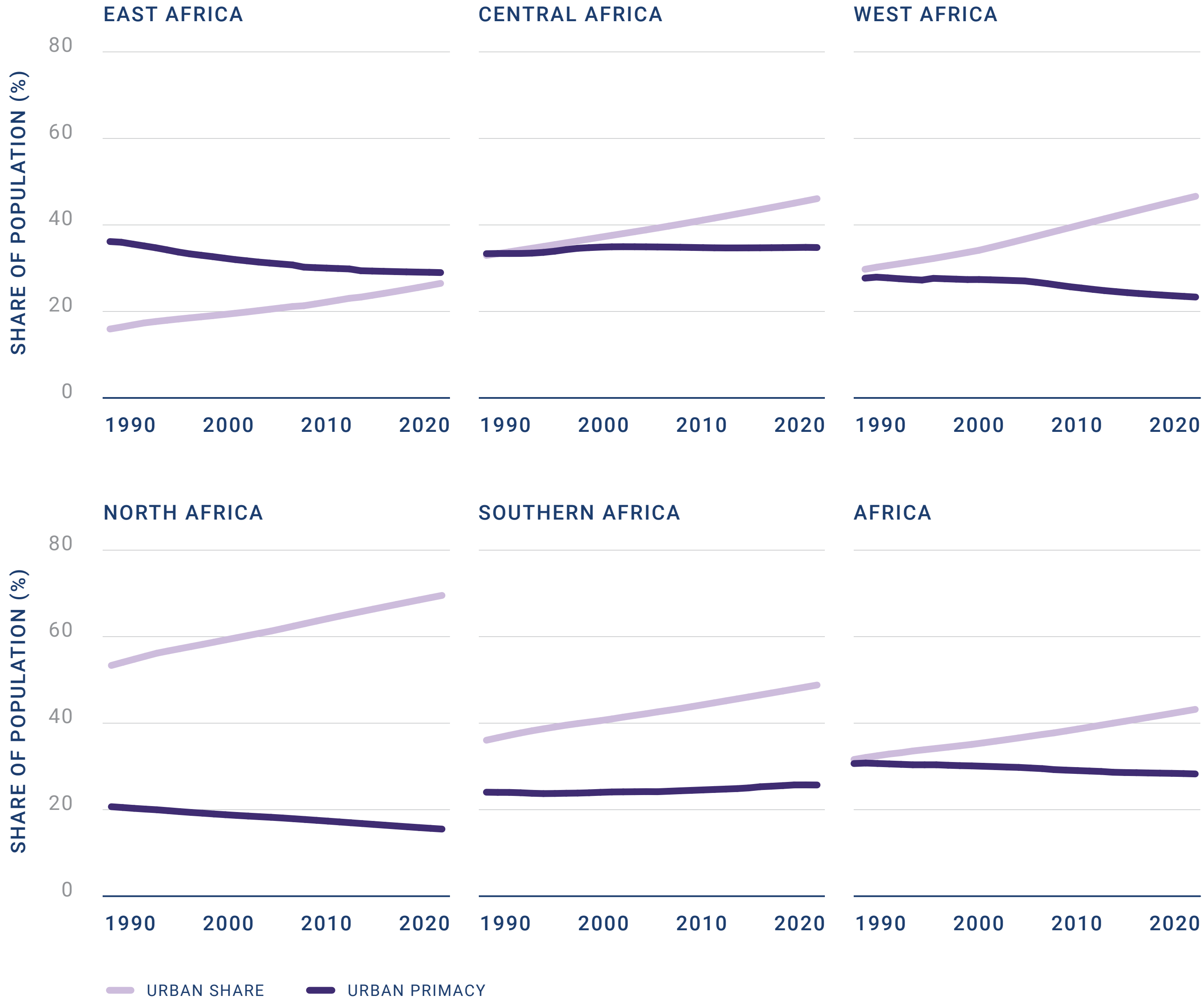
2 OECD. 2022. "Revenue Statistics in Africa 2022." Organization for Economic Cooperation and Development.

FIG.42 URBANIZATION AND URBAN PRIMACY BY REGION, 1990-2019

Urban share and primacy are distinct concepts that describe different aspects of a country or region's urbanization. The urban share measures the share of the population that resides in urban areas. Africa, though one of the least urbanized regions of the world, has among the fastest growing urban populations. All regions in Africa are displaying rapid growth in the urban share of the population. Urban primacy, meanwhile, measures the share of the urban population that resides in the biggest city. Africa's urban primacy is high, even compared to other regions at similar levels of urban share. Urban primacy is especially high in Central Africa and East Africa, where more than a third of the urban population lives in the biggest city.



Source: World Bank. 2022. World Development Indicators. World Bank Group.



Source: World Bank. 2022. World Development Indicators. World Bank Group.

Kisumu: A secondary city with grand ambition

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Building smart cities and urban areas for the future is compromised by the weak capacity of local governments to address financing of urban investments, as well as other infrastructural needs. This is due to inefficient own-source revenue collection and underfunding from the national treasuries.

As an economic hub and transport intersection for the greater western region of Kenya, Kisumu was heavily exposed to the vulnerability occasioned by stress factors emanating from the COVID-19 pandemic. The high concentration of people from diverse backgrounds attracted to economic activities within the city was a recipe for high infection rates.

The county administration had to quickly innovate and find solutions to the challenges posed by the COVID-19 pandemic.

The biggest hurdle was how to balance supporting and safeguarding livelihoods, and implementing health measures to address the spread, including lockdowns and closures of business premises.

To mitigate the effects of the pandemic, the city was re-planned to improve infrastructure within the city; for example: We built new modern markets, rehabilitated the city's green spaces, and improved the green cover, while also ensuring better sanitation by expanding water networks.

Implementing these strategies had the net effect of saving lives and making the city attractive for investments and trade.

This is a clear manifestation that even in the face of adversities, we can still build resilient and inclusive cities, where the citizens enjoy quality livelihood.

This resilience is further exhibited as Kisumu hosted the 9th edition of Africities Summit in May 2022, the most successful summit in the history of Africities. Not to mention that this was the first time the event was held in an intermediary city. Records show that the Summit was attended by 11,000 delegates from 100 countries across the world.[1]

The theme of the Summit *"The Role of Intermediary Cities in Implementing the United Nations Agenda 2030 and the African Union Agenda 2063,"* was very much in line with the quest for smart and resilient cities and towns in which over 50 percent of African population will live within the next 30 years.

Kisumu's success in hosting this event has opened the doors to other secondary cities to also venture out and seek opportunities to host similar events. It is also a message to national governments to support other emerging cities on the continent to host such seminal events, as they offer massive investment opportunities that may easily open doors for the growth and development of such cities.

The effects of hosting this summit will be felt long into the future just as the economic gains made in the short-term. Some of those short-term gains are already being seen

1 Odiwuor. 2022. "Africities Summit Kisumu Breaks Record with 11,000 Attendees & More." Kisumu Everyday.

in the county's infrastructure development such as the expansion of the airport, the construction of the Africities Convention Centre (the only convention center currently outside Nairobi), and the improvement of road networks within and around the city.

However, the demand for building smart cities and urban areas for the future is compromised by the weak capacity of local governments to address financing of urban investments, as well as other infrastructural needs. This is due to inefficient own-source revenue collection and underfunding from the national treasuries.

Local governments must therefore become innovative in finding avenues to raise resources for development, in order to supplement revenues from the central governments—which by and large only finance recurrent expenditures.

It is against this backdrop, that in the framework for the United Cities and Local Governments of Africa (UCLG Africa), Africa's local governments have mandated the umbrella continental body to develop a special purpose vehicle for local governments to access funding from capital markets and international financial institutions.

It is against this backdrop, that in the framework for the United Cities and Local Governments of Africa (UCLG Africa), Africa's local governments have mandated the umbrella continental body to develop a special purpose vehicle for local governments to access funding from capital markets and international financial institutions. This tripartite initiative by the UCLG Africa, the Africa Development Bank (AfDB), and Afreximbank is called ***"Africa Territorial Trade and Investment Agency (ATIA)."***

This financial vehicle, based on a pooling system, will enable local governments to provide much-needed service delivery.

This will be a game changer for local governments in the face of mounting economic difficulties, exacerbated by the serious impacts of climate change on every country in the world today.

The effects of climate change, ranging from prolonged droughts to extreme flooding, and rising water levels, are rendering families homeless, destroying crops, and killing livestock, as well as having devastating effects on the economies of local authorities.

As such, there is need to adopt interventions and responses based on implementable frameworks to urgently address impacts of climate change. Some of these, as in the case of Kisumu, include mainstreaming of climate change in local government policy and programs such as the "County Integrated Development Plans and Sector plans"; formation of County Climate Change Working Groups bringing together civil society, technical staff, the private sector, and research institutions; as well as building the capacity and awareness of citizens at the local level to prioritize actions that promote climate change resilience and adaptation.

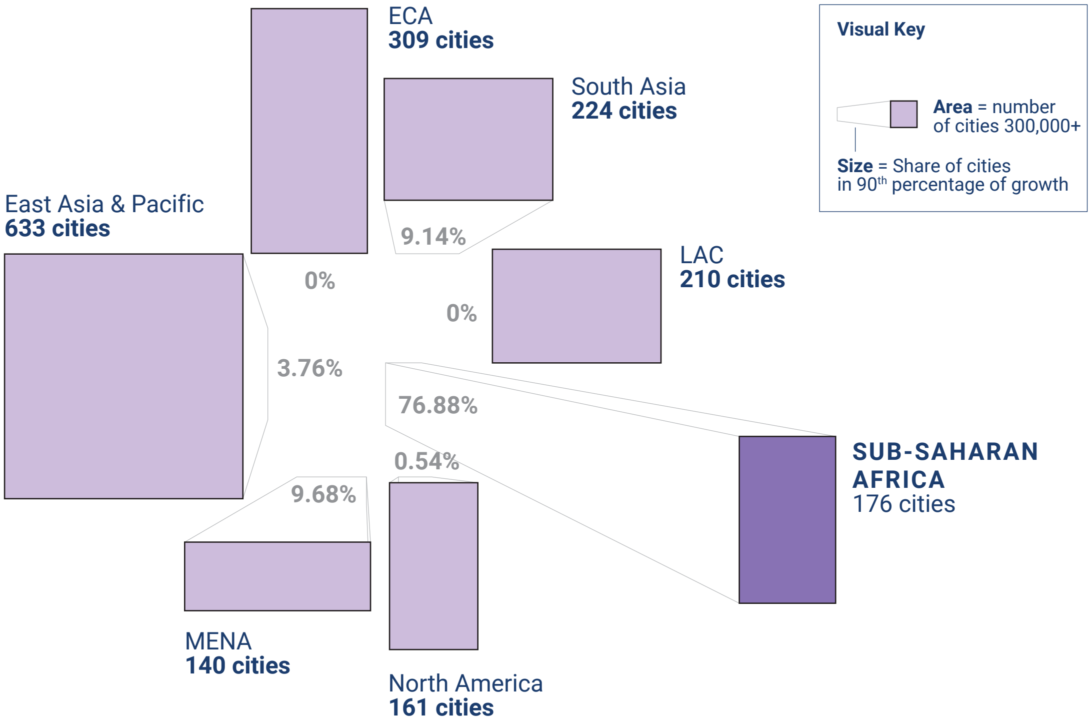
Climate resilience working groups at the local level are also critical in identifying climate change related vulnerabilities and risks for the populations, livelihoods, investments, and the environment. These groups can also provide information on current and possible future climate scenarios, thereby helping to identify potential adaptation and coping responses for climate risks.

Fostering digital transformation for climate resilience is important in helping generate accurate and decision-relevant climate information or evidence and to plan for and minimize the negative impacts of climate change on livelihoods and the economy. For example, agronomic information for farmers to monitor and predict current environmental situations and get them ahead of the game.

In the final analysis, the biggest lessons from the pandemic were that there is urgent need for a "re-think" on Africa's cities, especially with regards to planning for smart cities, environmental management, and improvement of air quality. As we look to 2023, several adversities remain, no doubt, but we must be prepared to seize opportunities that will help create livable, smart, and resilient cities for the future.

FIG.43 A MAJORITY OF THE WORLD'S FASTEST GROWING CITIES ARE FOUND IN AFRICA

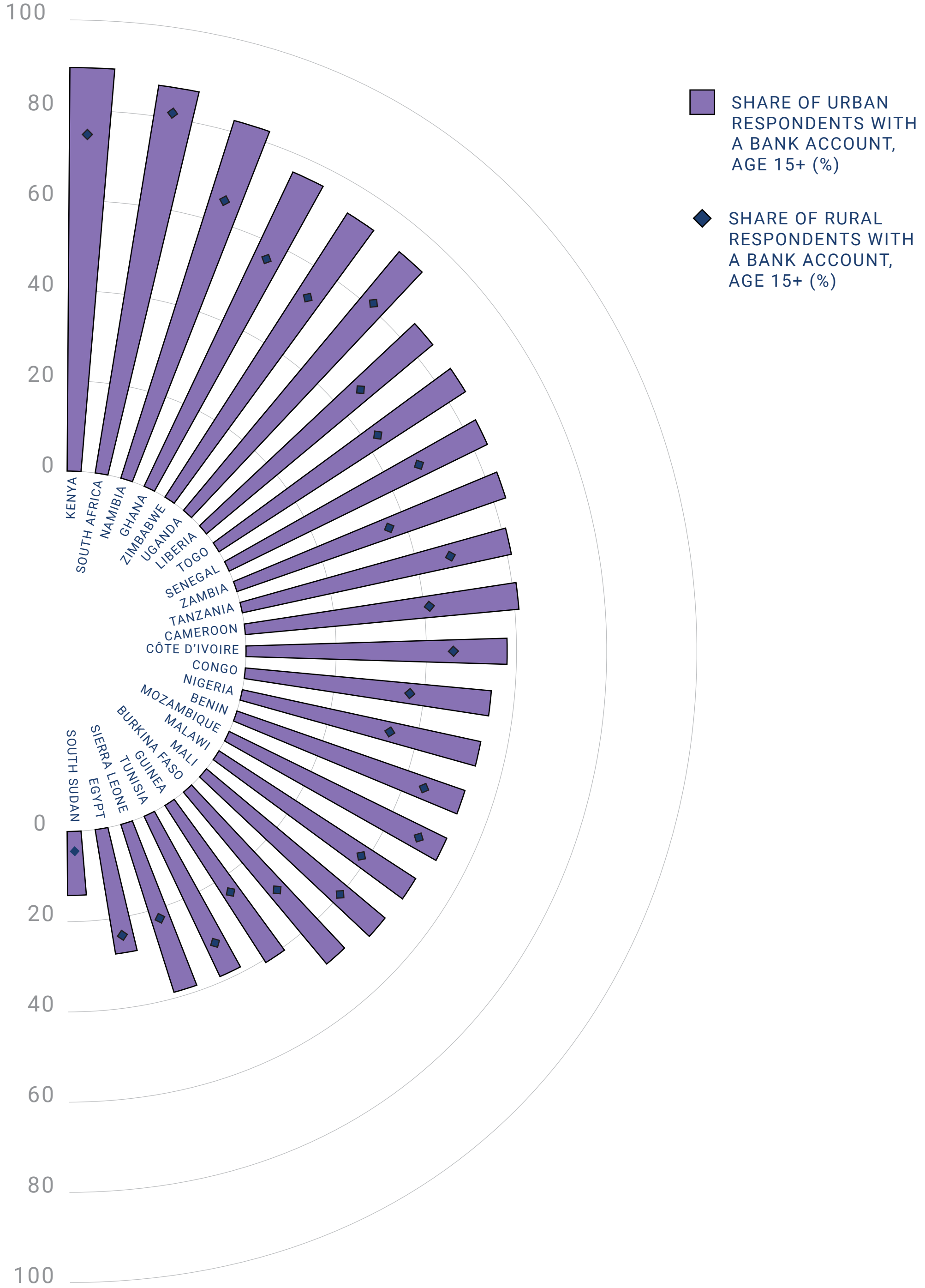
Africa has only 176 of the world's 1,853 cities with populations of at least 300,000 people. Yet, it has more than two-thirds of the fastest growing cities in the world.



Note: Only cities with a population of at least 300,000 are included. Population growth projections are done by the United Nations and are for the year 2030.
Source: United Nations. 2022. United Nations' World Population Prospects.

FIG.44 AFRICA'S RURAL POPULATIONS' ACCESS TO FINANCIAL SERVICES LAGS FAR BEHIND URBAN RESPONDENTS

In a given African country, chances are a majority of urban residents age 15+ have a bank account. In many cases, this figure is significantly higher than in rural areas. It is not uncommon for rural residents to face account ownership rates of 10 or even 20 percentage points less than their urban counterparts.



Note: Data are for 2021. Dataset includes data from 153 countries, including 41 from sub-Saharan Africa. The countries included in sub-Saharan Africa include Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Central African Republic; Chad; Comoros; Democratic Republicof Congo; Republic of Congo; Côte d'Ivoire; Eswatini; Ethiopia; Gabon; The Gambia; Ghana; Guinea; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Senegal; Sierra Leone; Somalia; South Africa; South Sudan; Sudan; Tanzania; Togo; Uganda; Zambia; Zimbabwe.
Source: World Bank. (2021). Global Findex Dataset. World Bank Group.

Urban economic development in Africa: A case study of Nairobi city

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At about 4.4 percent, Africa has the fastest urbanization rate globally.[1] Already, the region has reached 40 percent urbanization and by 2050, the number of urban residents will have doubled. Moreover, about 60 percent of Africa's urban population today lives in informal low-income neighborhoods.[2]

In most countries, urbanization leads to substantial productivity gains supported by scale, density, and agglomeration. Better connected people and firms lead to savings in transport and logistics, technological and information spillovers, and more efficient labor markets. However, Africa's urbanization has not realized the full potential and benefits of such agglomeration. The economic transformation and benefits of urbanization, observed in other regions, are yet to be achieved in sub-Saharan Africa.

To understand the barriers, and unlock the economic opportunities of urbanization, the Africa Growth Initiative (AGI) at the Brookings Institution developed an "Urban Economic Growth Framework for African cities." The framework focuses on the three primary constraints limiting a city's ability to benefit from agglomeration and generate productive jobs: **Accessibility, the business environment, and public sector governance**. The framework provides specific indicators and ways to identify these three critical constraints, with a view to inform and guide policymakers on specific actions and appropriate policies.

As a start, the AGI framework was applied to the city of Nairobi (Kenya's capital), to analyze Nairobi's key challenges and possible solutions for growth and employment.

Unemployment and underemployment in Nairobi are a top concern, especially as youth makeup 48 percent of the total unemployed workforce (15 to 64 years).[3] While the labor force in Kenya has been growing at an average annual rate of about 3 percent, Nairobi needs to generate many more (and better) jobs to offer improved livelihood opportunities to its large youth demographic. At the national level, Kenya has registered good progress in creating jobs, especially in the digital and gig economy. The report recommends two areas of focus. First, in coordination with the national government, Nairobi City County needs to support the gradual formalization of the large number of informal jobs and enterprises by easing business registration and motivating registration through targeted support programs. Second, better education and skills in targeted economic sectors are required to enhance productivity and earnings. Nairobi city should ensure that tertiary institutions provide training and skills consistent with emerging technologies.

1 United Nations. World Population Prospects. 2022. United Nations Department of Economic and Social Affairs: Population Division.

2 World Bank. 2015. "Growing African Cities Face Housing Challenge and Opportunity." Press Release. World Bank Group.

3 KNBS. 2020. Labor Force Survey 2020. Kenya National Bureau of Statistics.

Furthermore, enterprise data in Nairobi shows that businesses are likely to transition from micro- to medium-, and to large enterprises as the owners' levels of education attainment rises.

Accessibility within the city: Accessibility is vital for connecting workers to firms and firms to markets. Despite the excellent progress made on infrastructure development, there is a high concentration of unpaved roads in Nairobi's high-density informal settlements.

Consequently, as shown in the report, most jobs are not accessible within one hour of public transport commute i.e., commuting time by bus, *matatu* (shared taxi), or foot. The city also has a mismatch in zoning and land use. Nairobi therefore needs a new approach to urban planning that considers population growth, infrastructure, housing, and land use. Equally important is updating the land appraisal system and creating more public spaces.

Business environment: Many businesses in the city face several challenges, including complex processes to access licenses and permits, insufficient finance, expensive land, rigid labor regulations, inefficiency in tax administration, and crime risk. For example, a business takes about 92 days to secure an electricity connection.[4] A firm loses about KSh 2.3 million per year due to power outages on average. These are critical areas for Nairobi to enhance its business environment. Furthermore, it is essential to coordinate the implementation of business policy reforms between the national and county governments.

Public sector governance and finances: The devolution process in Kenya has given Nairobi City County a total of 14 constitutional functions. The city faces important challenges in terms of financing, despite the commendable increase in revenues and fiscal transfers from KSh 9.51 billion in FY 2013/14 to KSh 19.42 billion in FY 2020/21. Still, the city faces several financing shortfalls, from high levels of pending bills and fiscal deficits, to delays in receipt of equitable fiscal transfers. These challenges call for proper budget planning, improved budget execution, and higher levels of the city's source revenue.

The application of the AGI Urban Economic Growth Framework to Nairobi City County shows that the city has enormous potential to achieve the benefits of urban agglomeration and create productive jobs by paying particular attention to its challenges in accessibility and infrastructure, business environment, as well as public sector governance and finance.

4 World Bank. 2022. World Development Indicators. World Bank Group.

Cape Town: Lessons from managing water scarcity

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Between 2015 and 2018, Cape Town endured a one-in-400 year drought which took the city of around 4.6 million residents to the brink of "day zero," a point when Cape Town would run out of water.

What ultimately saved the day, was a combination of sustained public communications and innovative engineering solutions.

Cape Town's communications of the drought were successful due to the city administration's ability to accurately measure its daily drinking water production, as well as its dam levels. This enabled the city to set a target water usage for each resident per day, so that the reservoirs in the dams could last until the winter rainfall season.

Daily public communication stressed the need for residents to, inter alia, take short showers, flush only when necessary, and refrain from using drinking water for gardening. Campaigns also targeted visitors to the city, under the slogan "save (water) like a local." The city communicated a moving forecast of whether "day zero" was being pushed out as a result of successful water saving measures.

In addition to raising awareness, the city also looked to increase distribution efficiency and curb water losses. Recent studies have shown that pressure management in urban water distribution networks is one of the cost-effective ways to extend asset-life and reduce water leakages, which can sometimes account for up to 70 percent of total water losses.[1] Cape Town is fortunate to be a leading metro for pressure management technology, establishing 170 pressure management zones covering 68 percent of the water network as of June 2021. This upped the city's ability to reduce leaks, bursts, and especially consumption, with savings of 70 million liters per day (ML/d) at the peak of the 2018 drought.

As an incoming mayor post the drought crisis, my priority is to ensure that Cape Town's New Water Programme (NWP) delivers around 300 million liters (Ml) per day by 2030 from new alternative water sources.

To achieve this, one of my first actions was to quadruple the city's annual rate for water and sewer pipe replacement so that our supply network remains in good order, and water losses remain low.

Over the next three years, around R10 billion of the city's R30 billion capital expenditure plan will also be invested in water and sanitation infrastructure to ensure sustainable development.

1 Samir, Nourhan, Rawya Kansoh, Walid Elbarki, and Amr Fleifle. 2017. "Pressure control for minimizing leakage in water distribution systems." Alexandria Engineering Journal Volume 56, Issue 4, December 2017, Pages 601-612.

As an incoming mayor post the drought crisis, my priority is to ensure that Cape Town's New Water Programme (NWP) delivers around 300 million liters (Ml) per day by 2030 from new alternative water sources.

The city has further raised R1 billion through a Green Bond listed on the Johannesburg Stock Exchange (JSE), helping to fund key sustainability infrastructure projects, including upgrades to reservoirs, water pressure management, water re-use, and upgrades to sewer and water supply networks.

We are planning to invest about R4.7 billion to bring about 105 million liters of groundwater a day into our drinking supply by 2036. The Table Mountain Group Aquifer has already delivered its first water in 2020, and the first groundwater to be injected into the supply network from the Cape Flats Aquifer is expected towards the middle of 2023.

Water efficiency will be further enhanced through state-of-the-art, automated domestic water metering installations rolled out progressively over the next decade, as well as a robust alien vegetation[2] clearing program along waterways.

Regarding water reuse and desalination projects, the city has set up an Independent Advisory Panel and partnered with the South African Water Research Commission (WRC) to coordinate and provide research, development, transparency, and accountability.

Cape Town is proving that we have learned the right lessons from the drought crisis by converting water savings into a culture, with a proactive bid to use less than 950 million liters daily this summer. This will enable us to avoid low-level water restrictions next summer if we experience another below average winter rainfall.

2 Exotic, non-indigenous vegetation which tends to guzzle water supply from rivers and dams, crowding out indigenous vegetation.

Enhancing climate adaptation: The role of climate resilient housing in Africa's cities

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Housing is a key component for achieving social and economic development. As such, adequate, safe, and affordable housing is at the core of Goal 11 of the 2030 Agenda for Sustainable Development (i.e., attaining Sustainable Cities and Communities). Moreover, housing related activities and investment are major economic drivers, serving as an important contributor to economic activity and job creation.

The role of the housing and built environment in attending to the challenges of climate change

At the same time, it is widely acknowledged that climate change will affect the socio-economic development trajectory of Africa, threatening the region's attainment of the 2030 Sustainable Development Goals and the objectives of the Africa Union's Agenda 2063.

Climate change cannot be solved without delivering climate resilient housing and tackling building emissions, as buildings account for 19 percent of the world's Green House Gas (GHG) emissions.

However, a less acknowledged fact is that climate change cannot be solved without delivering climate resilient housing and tackling building emissions, as buildings account for 19 percent of the world's Green House Gas (GHG) emissions. According to the Intergovernmental Panel on Climate Change (IPCC) special report, by 2030, all new buildings must be zero net carbon, and existing buildings must be zero net carbon by 2050.[1]

What is climate-resilient housing?

Resilient housing can be described as housing that can resist, recover, and adapt to adverse effects of climate change or natural disasters. It is the capacity of human settlements to cope with shocks (environmental, economic, and social) and respond to these shocks over time. Thereby, resilient houses are required to be planned, designed, built, operated, and maintained to reduce vulnerability to these indicated threats.[2]

1 Rogelj, J., D. Shindell, K. Jiang, S. Fifita, P. Forster, V. Ginzburg, C. Handa, H. Kheshgi, S. Kobayashi, E. Kriegler, L. Mundaca, R. Séférian, and M.V. Vilariño. 2018. "Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development." In: "Global Warming of 1.5°C." Cambridge University Press, pp. 93-174, doi:10.1017/9781009157940.004.

2 Castillo, Sofia; Coachman, Natalia; Silva, Paloma. 2022. "Why is it necessary to finance climate-resilient housing?". August 2022. Inter-American Development Bank.

Recent developments in climate change initiatives in the construction industry in select African countries

Fortunately, progress is being made by city managers and other related stakeholders to tackle the challenge of climate change in the housing industry in Africa.

Kenya considers climate change a cross-cutting theme that is being mainstreamed in the medium-term plans of the County Integrated Development Plans (CIDPs), which in turn inform the country's development blueprint—Vision 2030. Under these plans, the Government has mandated that all affordable housing projects be aligned with Global Green Certification requirements. Elsewhere, Nigeria recently promulgated the 2021 Climate Change Act, which is the first standalone climate change legislation in West Africa. The act encapsulates critical components of the country's climate change policies, most of which were adopted in 2021. These include the revised National Climate Change Policy; National Climate Change Programmes; the 2050 Long-Term Low Emission Vision; and the first Nationally Determined Contribution (NDC).

Another example of resilient housing technology is in Malawi, where Durabric is increasingly being used as a more sustainable alternative to traditional burnt clay bricks for housing construction. The compressed earth stabilised block is made using a combination of locally sourced materials, comprising of earth, sand, cement, and water.

Additionally, it is worth noting that over the past few years, there have been notable cases of resilient housing initiatives in Africa. An example of these is the climate resilient housing initiative at Mozambique, which was delivered through the Coastal City Adaption Project (CCAP).

Mozambique has been severely impacted by the effects of climate change, where an estimated 60 percent of the country's 28 million people live in low-lying coastal areas, where sea-level rise and frequent intense storms cause flooding, erosion, and landslides, threatening communities, homes, and economic activities.

The CCAP programme was aimed at supporting local governments and communities in the cities of Pemba and Quelimane to develop affordable and resilient solutions and techniques for building.

The key design, construction elements, and techniques adopted in this initiative include low vulnerability site selection, which reduces potential impact of hazards (i.e., avoiding areas with high exposure to flooding and strong winds); raised foundation (i.e., elevated platform above the maximum level of flooding); reinforced wall (i.e., construction done with durable materials, such as coconut or bamboo wood) and secure roof with rainwater harvesting capacity (i.e., roofing design with an adequate slope to withstand strong winds and also facilitate rain harvesting system).[3]

Another example of resilient housing technology is in Malawi, where Durabric is increasingly being used as a more sustainable alternative to traditional burnt clay bricks for housing construction. The compressed earth stabilised block is made using a combination of locally sourced materials, comprising of earth, sand, cement, and water. Durabric has proved to be an affordable alternative for resilient housing delivery, with resultant impacts in terms of curbing deforestation and carbon emissions, in addition to building local capacity in the industry.[4]

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3 Nkhonjera, Maria; Mathibela, Nonhlanhla. 2019. "Climate Change and Resilient Housing: Lessons for Mozambique." Centre for Affordable Housing Finance in Africa.

4 Ibid.

Way forward and conclusion

While there have been moderate achievements in developing legislation, tools, and policies to enhance climate-resilient housing and urban development in select African countries, these initiatives have relied on global templates and standards, which may be difficult and expensive to replicate at scale in the African context.

Moreover, advocacy and awareness among stakeholders on climate change acts and standards are required. Public and private entities need to be proactively engaged, to understand the implication of these standards and laws on their activities, as well as their respective obligations.

Most importantly, housing delivery and built environment stakeholders should take advantage of the recently introduced climate-change policies and their incentives, to introduce technological innovations that can mitigate the impact of climate change in the industry.

In conclusion, as Africa continues to experience unprecedented rates of urbanization coupled with increasing climate related incidences, it is pertinent for stakeholders to put in more effort in making housing safe and resilient to climate change related impacts. This in turn can help protect lives and livelihoods from disasters and build sustainable communities.

How can cities create better jobs in sub-Saharan Africa?

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Structural transformation involves the movement of workers from low-productivity sectors to high-productivity sectors. It has historically been associated with a shift from agrarian economies to more industrial economies based around urban areas, as seen in many Western nations as well as the Southeast Asian giants. For these economies, it is thought to have been crucial to economic growth and poverty reduction, by creating jobs and improving labor productivity.

In many African countries, however, the prospect of a thriving manufacturing industry seems difficult to realize. Urbanization has taken place without structural transformation with the share of employment in manufacturing in sub-Saharan Africa far below South Asia, even though South Asia has a lower urbanization rate than sub-Saharan Africa (Figure 45). Further, African cities' economic sectors are dominated by low-productivity, informal enterprises,[1] most of which are found in the services sector—specifically wholesale and retail trade, while a few enterprises are engaged in informal manufacturing. Large segments of Africa's urban population work in the low-paid, informal wage economy, often self-employed.[2]

Urbanization has taken place without structural transformation with the share of employment in manufacturing in sub-Saharan Africa far below South Asia, even though South Asia has a lower urbanization rate.

Disentangling the connections between Africa's cities and the slow pace of structural change will be essential for creating growth and reducing poverty, as structural transformation has the potential to foster economic diversification and inclusive growth. For effective policymaking, it is important to understand the drivers of structural transformation at the city level. It is also crucial to understand what alternative patterns of structural transformation–that is, leapfrog development (economic transition from agriculture to services, jumping the manufacturing stage)–might mean for the sustainable growth of African cities.

For example, the economic landscape in Greater Accra, the capital of Ghana, provides a picture of this experience. At the sub-city level in Accra city region, economic activities are dominated by the services sector largely made up of informal enterprises. The share of manufacturing establishments and employment are very low compared to services (Figure 46). Productivity at the city region is generally low, but it is not homogenous across the different areas of the city. This leapfrog development (from agriculture to services) has not resulted in the creation of productive jobs in the city.

Moreover, the organizational type (private limited) and formality and institutional performance of city governments seem to correlate with low productivity of enterprises.[3] Some of the major constraints to enhancing productivity and economic

1 OECD, Africa's Urbanisation Dynamics .2022. The Economic Power of Africa's Cities.

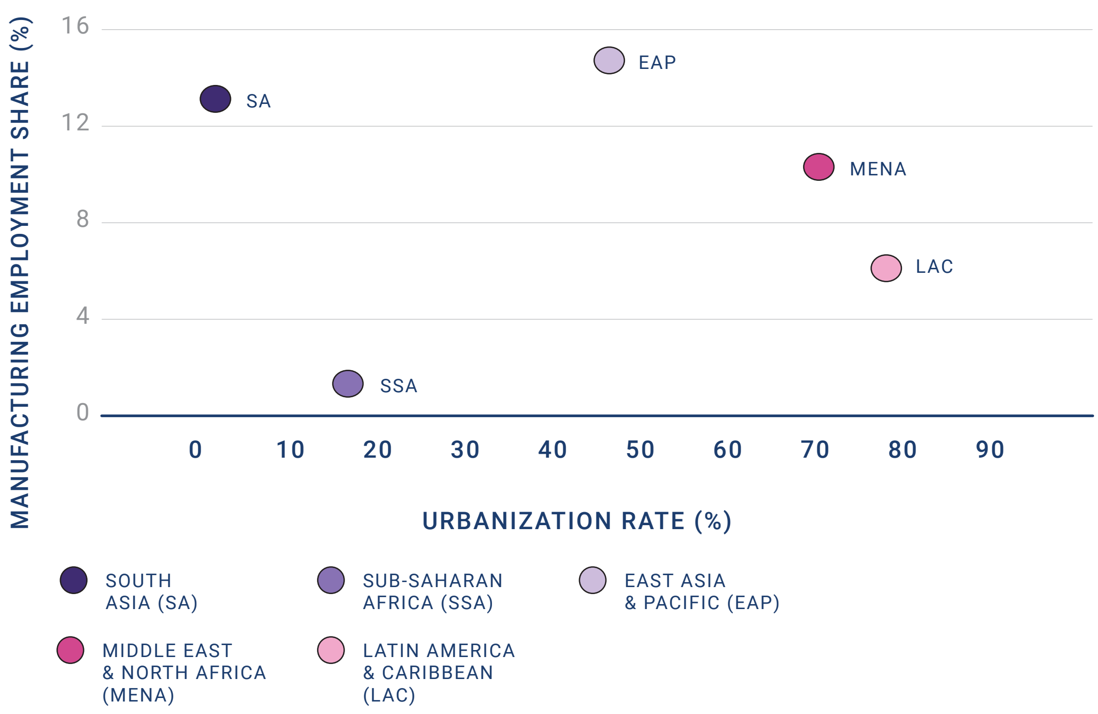
2 Danquah, M., S. Schotte and K. Sen. 2021. "Informal Work in Sub-Saharan Africa: Dead End or Stepping Stone?", IZA Journal of Migration and Development, Vol. 12(1), forthcoming.

3 Iddrisu, M., W. Ohemeng and M. Danquah. 2022. "Structural transformation in Accra" ACRC Quantitative Report on Accra, mimeo.

transformation in the city include access to long-term finance, high cost of production especially for energy, land, transportation, and space for business operations, higher costs for public services due to bureaucratic tendencies by city officials, and excessive influence of political leadership and interference at the sub-city level.[4] City governments would need greater capacities, resources, and support to improve the performance and productivity of enterprises—particularly the establishment of new manufacturing enterprises in the city. Further, there is room to transfer some of their services to the private sector, work together with relevant institutions to carry out appropriate land reforms, and seek investments in critical infrastructure that would help the growth of high-productivity enterprises. Given the rapid increase in the size of African cities, as more workers move to urban areas from rural areas in search for jobs, urbanization must be accompanied by structural transformation in Africa. Consequently, policies that foster productivity growth among formal and informal enterprises, as well as deliver productive jobs for Africa's urban workforce will be critical to the success of the continent in economic development in the years ahead.

FIG.45 **SHARE OF EMPLOYMENT IN MANUFACTURING VS URBANIZATION RATE (2015), BY REGION**

Sub-Saharan Africa's urbanization rate, or the share of the population that lives in urban areas, is low but growing rapidly. What is unique about sub-Saharan Africa's urbanization rate (compared to other regions), is that the region's urban population is expanding despite a notably smaller share of workers employed in manufacturing.

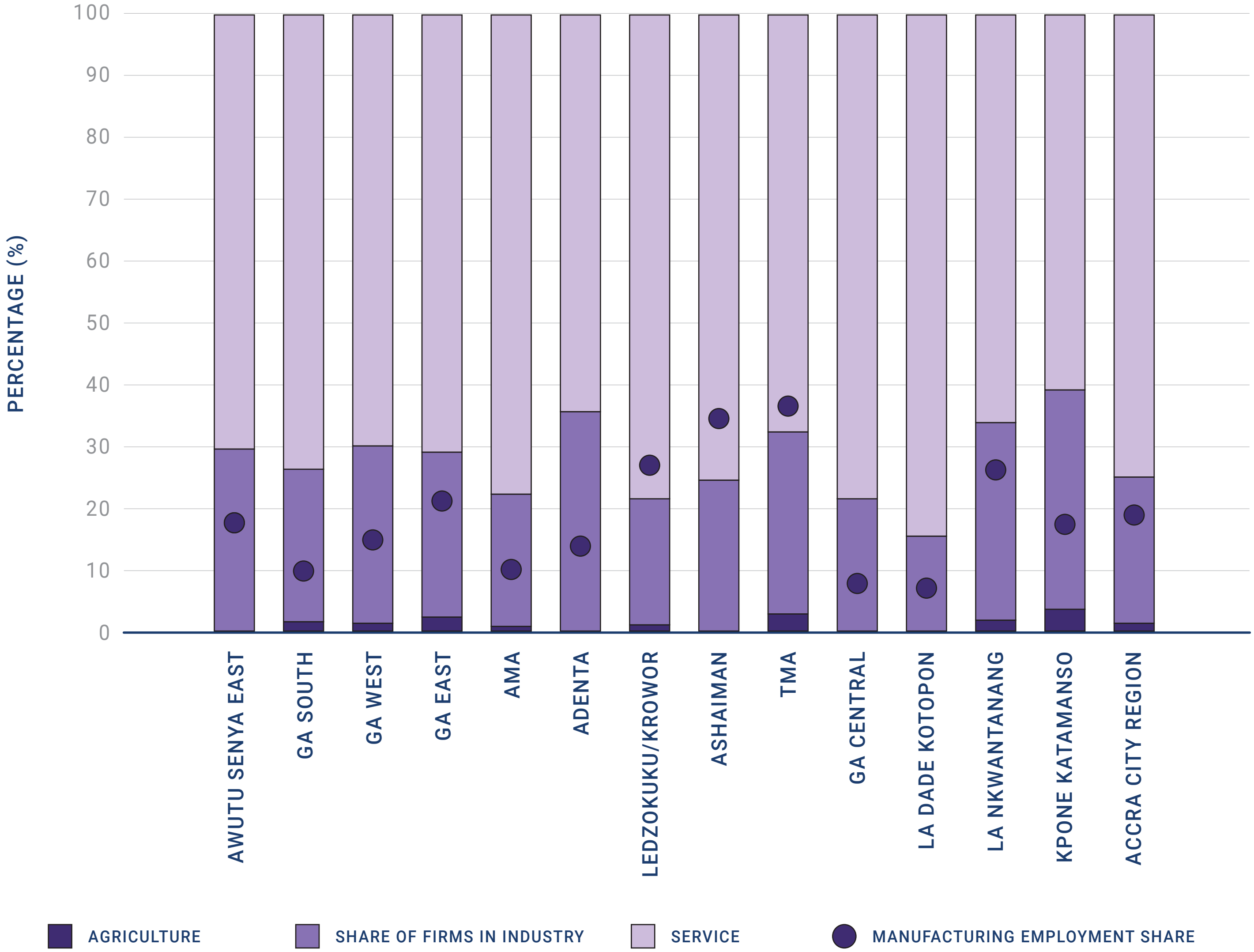


Note: Urbanization rate is calculated by dividing the urban population by the total population. Source: Authors calculations using the GGDC/UNU-WIDER's Economic Transformation Database and the World Bank's WDI.

4 Domfeh, G. (2022) "Structural transformation in Accra" ACRC Qualitative Report on Accra, mimeo.

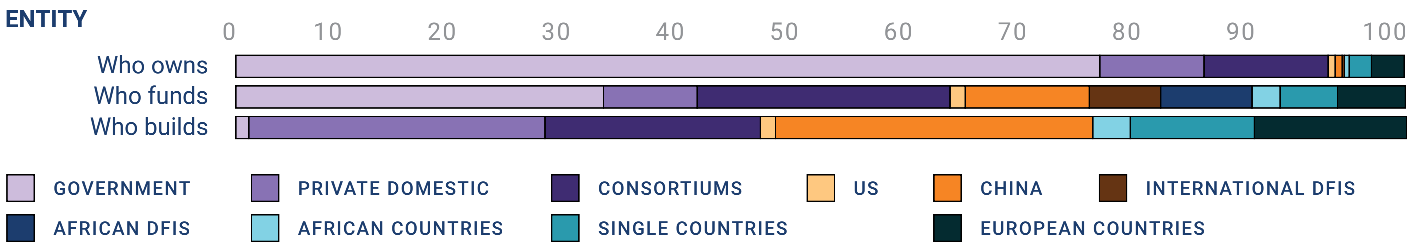
FIG.46 **SHARES OF ESTABLISHMENTS IN EACH SECTOR AND SHARES OF MANUFACTURING EMPLOYMENT ACROSS DISTRICTS IN ACCRA CITY REGION**

Most Ghanaian firms are engaged in the services sector, while only very few are involved in agriculture. The share of firms in industry varies from 15 percent to 36 percent, depending on the district. In Accra Metropolitan Assembly (AMA), only about one in ten workers is employed in manufacturing.

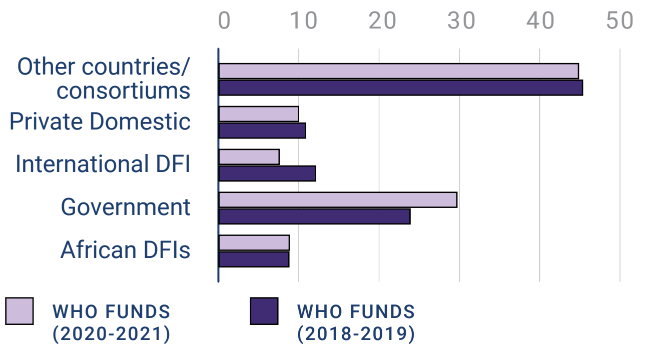


Source: Ghana Integrated Business and Establishment Survey (IBES), 2014/2015.

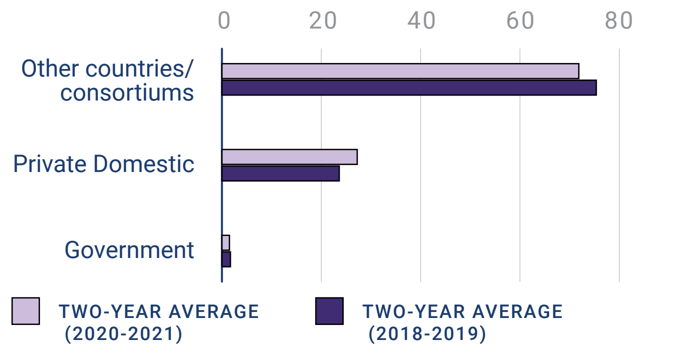
FIG.47 AFRICA'S INFRASTRUCTURE STORY



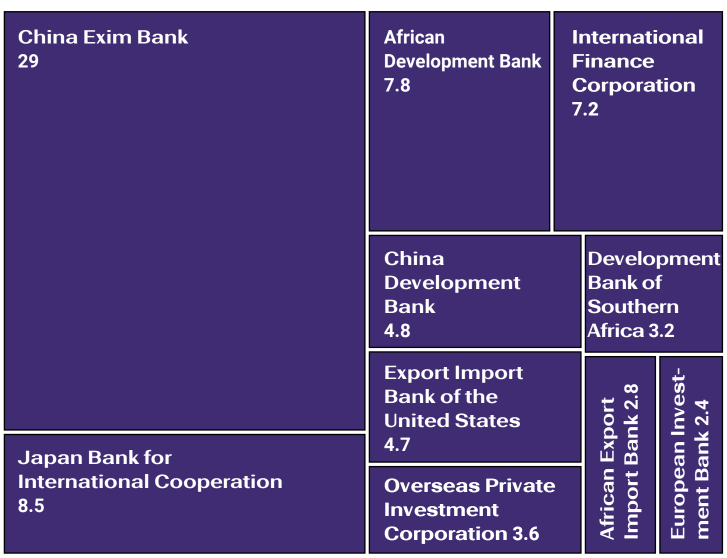
THE BURDEN OF INFRASTRUCTURE FINANCING HAS SHIFTED FROM INTERNATIONAL DFIS TO AFRICAN GOVERNMENTS

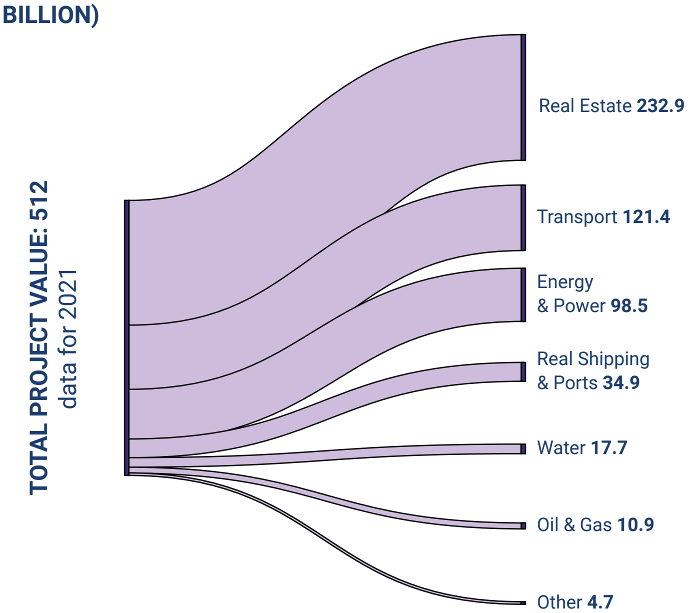


AFRICAN FIRMS ARE BUILDING MORE OF AFRICA'S INFRASTRUCTURE



TOP INFRASTRUCTURE LENDERS IN AFRICA (2018 TO 2020) (USD BILLION)





Note: **African DFIs** are Development Finance Institutions headquartered in Africa (e.g. the African Development Bank). **Consortiums** are two or more construction companies or governments holding an equal split of a project's ownership, building activities, or funding activities. **Governments** include governments or government departments within the African continent. **International DFIs** are those headquartered outside Africa (e.g. the World Bank). **Private Domestic firms** are African construction firms/financial institutions headquartered in the same African country where it is constructing or funding a project. **Single Countries** are those that could not be grouped together according to shared geography.
Source: Deloitte. 2021. Africa Construction Trends Report. IJ Global.

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