



CONGRESSIONAL
PROGRAM
aspen institute

Partnering with Africa: Advancing National Security, Development, and Economic Interests

Cape Town, South Africa
February 17-24, 2024





CONGRESSIONAL PROGRAM

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TABLE OF CONTENTS

AGENDA.....	2
CONFERENCE PARTICIPANTS.....	12
RAPPORTEUR'S SUMMARY.....	15
POLICY ACTION MEMORANDUM FOR MEMBERS OF CONGRESS.....	28
CONFERENCE ESSAYS.....	30
<i>A Diplomacy and Development Toolkit Is Essential to U.S. China Strategy.....</i>	<i>30</i>
Joseph Votel and Liz Schrayner	
<i>Stopping Malaria from Killing Children Is a Matter of Urgency.....</i>	<i>33</i>
Peter Sands	
<i>Lessons Learnt from the COVID-19 Pandemic for Future Pandemic Preparedness.....</i>	<i>35</i>
Helen Rees	
<i>Why and How the United States Must Invest in Food and Nutrition Security in Africa.....</i>	<i>43</i>
Christopher Barrett	
<i>The Importance of the Energy Sector to Sub-Saharan Africa's Economic Growth.....</i>	<i>52</i>
David Thompson	
<i>Understanding Africa's Energy Security Imperative.....</i>	<i>61</i>
Brian Dames	
<i>South Africa's Role in BRICS and China's Influence on the Continent.....</i>	<i>68</i>
Sanusha Naidu	
<i>Investing in Science: Africa's Untapped Potential.....</i>	<i>73</i>
Glenda Gray	
SITE VISITS.....	79
THE GLOBAL FUND.....	79
PEPFAR/DREAMS.....	81
AMAZON WEB SERVICES SKILLS CENTER.....	85
ENER-G-AFRICA.....	86
CITRUS FARM, AFRICAN GROWTH OPPORTUNITY ACT (AGOA).....	87
KLEIN GOEDERUST WINERY.....	88
His Mom Labored on a Winery Under Apartheid. Now, He Owns One.....	88
ROBBEN ISLAND AND THE NELSON MANDELA PRISON CELL.....	93
RECOMMENDED READINGS.....	94
<i>South Africa Takes Israel to Court.....</i>	<i>95</i>
<i>Why the Global South Supports Pretoria's ICJ Genocide Case.....</i>	<i>100</i>
<i>Growth Through Inclusion in South Africa: Final Report Summary.....</i>	<i>105</i>
<i>An Interview with Michale E. Langley.....</i>	<i>118</i>

AGENDA

SATURDAY, FEBRUARY 17:

U.S. participants depart the U.S.

SUNDAY, FEBRUARY 18:

U.S. participants arrive in Cape Town, South Africa throughout the day.

7 - 9 PM: Working Dinner

Seating is arranged to expose participants to a diverse range of views and provide the opportunity for a meaningful exchange of ideas. Scholars and lawmakers are rotated daily. Discussions will focus on food security and health challenges across Africa.

MONDAY, FEBRUARY 19:

6:30 - 8 AM: Breakfast

8 - 9 AM: Welcome Remarks

Reuben Brigety, *U.S. Ambassador to the Republic of South Africa*

The U.S. partnership with Africa is a multifaceted and dynamic relationship that encompasses a wide array of political, economic, and social dimensions. As home to one of the world's fastest growing populations, largest free trade areas, and a significant U.N. voting bloc, Africa's importance to American national security and economic priorities is growing. To elevate the U.S.-African partnership, President Biden hosted leaders from across the continent at a summit in December 2022. Diplomats operating in this context play a crucial role in fostering cooperation, understanding, and mutual benefit between the United States and African nations. They navigate complex geopolitical landscapes, engage in high-level dialogue, and work towards common objectives such as promoting regional stability, countering terrorism and transnational crime, reverse democratic backsliding, and advancing economic development and trade, while also addressing global challenges like climate change, food insecurity and health crises. A diplomat's perspective on the U.S.-Africa partnership highlights the enduring commitment to forging stronger ties and partnerships that can lead to a brighter and more prosperous future for both sides. Ambassador Reuben Brigety is a seasoned diplomatic veteran having served as the U.S. top representative to the African Union a decade ago and as ambassador to South Africa since August 2022.

9 - 9:10 AM: Break

9:10 - 9:15 AM: Introduction and Framework of the Conference

This conference is organized into roundtable conversations, working lunches, site visits, pre-dinner remarks, and working dinners. This segment will highlight how the

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conference will be conducted, how those with questions will be recognized, and how responses will be timed to allow for as much engagement as possible. Charlie Dent moderates the discussion sessions. He recognizes Members of Congress with questions, and a timekeeper ensures that every Member of Congress has an opportunity to participate in a discussion with scholars.

Speaker:

Charlie Dent, *Vice President, Aspen Institute*
Executive Director, Aspen Institute Congressional Program

9:15 - 10:15 AM: Roundtable Discussion

BRICS and South Africa: Perspectives from the South African Government

The original BRICS membership consisting of Brazil, Russia, India, China and South Africa represents a quarter of the world's wealth and 42 percent of the global population. Founded in 2009/2010, BRICS nations came together to improve the global economy, reform international financial institutions, and forge greater cooperation among its members. BRICS, however, has always faced challenges given their diverse set of priorities, unequal growth, and rivaling interests. Moreover, some members do not want their trade relations with the United States undermined by bloc policies and want to avoid being dragged into tensions between the U.S. and Russia as well as American competition with China. South Africa's participation in BRICS underscores its significance as a key player in global geopolitics and economics. As the only original African nation in the BRICS alliance, South Africa holds a unique position as a bridge between the African continent and the rest of the BRICS nations. This strategic role allows South Africa to facilitate economic cooperation, trade, and investment between Africa and the BRICS bloc. This panel will uncover South Africa's perspective on its geopolitical role in BRICS.

Speaker:

Anil Sooklal, *Ambassador at Large: Asia and BRICS, South Africa's Department of International Relations and Cooperation*

10:15 - 10:30 AM: Break

10:30 AM - Noon: Fireside Chat

U.S. National Security Interests in Africa

Although African nations have infrequently been perceived as central partners in the pursuit of U.S. national security and economic interests, currently and in the years to come, the people and countries in Africa will play a critical role in confronting global threats and challenges that are equally vital to America's well-being. Terrorist organizations, including ISIS, Al-Qaeda, and Al-Shabaab, take advantage of pockets of fragility in Africa, and their presence on the continent poses a direct threat to U.S. interests. The region is home to 30 percent of the world's supply of critical minerals, which are viewed as essential for U.S. national, economic, and environmental security. As U.S. competition and confrontation with China and Russia increases, Africa is becoming a focus of this entanglement. This panel will highlight U.S. national security interests on the continent, the nexus of security with American development and

diplomatic efforts, as well as discuss policy opportunities to tackle pressing security challenges.

Moderator:

Liz Schrayner, *President & CEO, U.S. Global Leadership Coalition*

Speakers:

Richard Myers, *Retired U.S. Air Force General and 15th Chairman of the Joint Chiefs of Staff*

Kenneth Ekman, *Major General, United States Air Force; Director, Strategy, Engagement and Programs, U.S. Africa Command, Stuttgart Möhringen, Germany*

Noon - 12:45 PM: Working Lunch

Discussion continues between members of Congress and scholars on U.S. national security interests with Africa.

1 - 4 PM: Educational Site Visit – Global Fund

The Global Fund has been actively involved in supporting and funding various initiatives across Africa to combat HIV/AIDS, tuberculosis (TB), and malaria. Specifically, the organization has been instrumental in funding initiatives aimed at preventing the spread of HIV/AIDS, providing widespread testing, facilitating access to antiretroviral therapy (ART), and implementing prevention programs. Additionally, the Global Fund has supported TB control efforts, focusing on improving diagnosis, treatment, and prevention strategies. While malaria is not as widespread in South Africa compared to other African countries, the Global Fund contributes to malaria control by distributing bed nets, conducting malaria testing, and providing treatment. Recognizing the importance of robust healthcare systems, the Global Fund invests in health system strengthening, involving infrastructure improvement, healthcare worker training, and overall enhancement of healthcare delivery. The organization prioritizes community engagement and empowerment, working collaboratively with local communities to raise awareness, reduce stigma, and ensure accessible and responsive health services tailored to community needs. Members of Congress will visit a Global Fund facility and hear about the program's impact from beneficiaries.

6 - 8 PM: Pre-Dinner Group Conversation and Site Visit to Table Mountain

8 - 9:30 PM: Working Dinner

Seating is arranged to expose participants to a diverse range of views and provide the opportunity for a meaningful exchange of ideas. Scholars and lawmakers are rotated daily. Discussions will focus on the site visit today, BRICS, and Global Fund programs in Africa.

TUESDAY, FEBRUARY 20:

6:30 - 7:45 AM: Breakfast

8 - 9:30 AM: Roundtable Discussion: ***Supporting Africa's Health Challenges***

In recognition of the critical importance of a healthy population for economic and social development, the United States has long been committed to supporting the severe health difficulties facing the continent through various initiatives and partnerships. These efforts encompass a wide range of interventions, from combating infectious diseases like HIV/AIDS, malaria, and Ebola, to strengthening healthcare systems, building healthcare infrastructure, and promoting access to essential medicines and vaccines. The U.S. has also played a pivotal role in global health organizations and initiatives, collaborating with African governments, non-governmental organizations, and international partners to improve healthcare delivery and outcomes. Despite these successful efforts, much more needs to be done. This panel will focus on how the United States can increase efforts to save lives and build local capacity, but also foster long-term resilience and prosperity in Africa by addressing one of the most fundamental prerequisites for development – good health.

Speakers:

Peter Sands, *Executive Director, The Global Fund to Fight AIDS, Tuberculosis and Malaria*

John N. Nkengasong, *the U.S. Global AIDS Coordinator and Special Representative for Global Health Diplomacy, PEPFAR*

Helen Rees, *Executive Director, Wits Reproductive Health and HIV Institute (RHI)*

9:30 - 9:45 AM: Break

9:45 AM - 11:15 AM: Roundtable Discussion: ***The Growing Threats of Food Insecurity and Malnutrition Across Africa***

Food insecurity and malnutrition, especially in sub-Saharan Africa, have increased dramatically in recent years due to multiple factors, including the global pandemic, a deepening climate crisis, high energy and fertilizer costs, weakened supply chains, and protracted conflicts, including the war in Ukraine. According to the United Nations International Children's Emergency Fund (UNICEF), in 2022, over 20 million people and at least 10 million children faced severe food shortages in Africa following crop failures and four consecutive dry seasons. Diplomats and aid workers believe that Africa is experiencing a food crisis that is bigger and more complex than the continent has ever seen.

One consequence of the rise in food insecurity is the acute degree of malnutrition. In sub-Saharan Africa, the morbidity and mortality rate from malnutrition is increasing more than in any other place in the world. Young children especially are experiencing

the brunt of the lack of adequate nutrition. Globally, malnutrition is responsible for nearly 3 million lives of children under the age of five, representing nearly half of all deaths of young children. Malnutrition kills more children than malaria, tuberculosis, and HIV/AIDS combined. Moreover, child malnutrition has a lifelong compounding impact on health, society, and economies. Malnourished children are subject to physical and cognitive delays, often impeding them from reaching their complete developmental potential with significant and lifelong health, social, and economic implications. The U.S. Government is addressing food security and nutrition challenges through programs such as USAID's Feed the Future and humanitarian food aid support. This panel will brainstorm other policy opportunities that can address malnutrition in Africa.

Speakers:

Christopher Barrett, *Professor of Applied Economics and Management, Cornell University*

William Moore, *Chief Executive Officer, the Eleanor Crook Foundation*

11:30 AM - 12:30 PM: Working Lunch

Discussion continues between members of Congress and scholars on addressing health and malnutrition issues in Africa.

1 - 3:30 PM: Educational Site Visit – PEPFAR/DREAMS

As part of the President's Emergency Plan for AIDS Relief (PEPFAR), the DREAMS program, launched in 2015, offers a comprehensive, multi-sectoral, age-appropriate package of core interventions to address key factors that make girls and young women particularly vulnerable to HIV. Adolescent girls and young women account for 74 percent of new HIV infections among all adolescents in sub-Saharan Africa, and nearly 1,000 adolescent girls and young women are infected with HIV daily. Social isolation, poverty, discriminatory cultural norms, orphanhood, gender-based violence, and inadequate schooling all contribute to their vulnerability to HIV and a life not lived to its full potential. The DREAMS partnership goes beyond individual health initiatives to address these factors. In countries where DREAMS programs are active, including South Africa, new HIV diagnoses among adolescent girls and young women are 25 percent less than in other parts of the continent. Members of Congress will visit a nearby [PEPFAR/DREAMS site](#).

5 - 7 PM: Meeting with Todd Haskell, U.S. Consul General in Cape Town, and Members of the South African Parliament and Other Government Officials

Members of Congress will have the opportunity to engage in small group and one-on-one conversations with members of the South African parliamentarians along with Consul General Haskell. These free-flowing discussions will cover topics addressed in the conference as well as other matters of importance to U.S.-South African relations.

7 - 9 PM: Working Dinner

Seating is arranged to expose participants to a diverse range of views and provide the opportunity for a meaningful exchange of ideas. Scholars and lawmakers are rotated daily. Discussions will focus on AIDS, malaria, and health challenges across Africa.

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WEDNESDAY, FEBRUARY 21:

6:30 - 8:45 AM: Breakfast

9 - 10:30 AM: Roundtable Discussion

The Importance of the Energy Sector to Africa's Economic Growth

Access to reliable and affordable energy is a linchpin for Africa's economic growth, holding the key to unlocking the continent's vast potential. It underpins industrialization by providing the necessary power for manufacturing and technological advancement, stimulates agricultural productivity, and supports infrastructure development critical for trade and connectivity. Furthermore, access to reliable energy improves education and healthcare services, fostering human capital development. Africa's substantial energy resources, including renewables, also offer opportunities for sustainable development and global leadership in the transition to cleaner energy sources. A well-functioning energy sector not only attracts foreign investment but also mitigates economic vulnerabilities, making it an essential driver of prosperity and resilience across the continent. There are numerous opportunities for the United States, particularly through the multi-agency Power Africa Initiative that includes investments supported by the U.S. Agency for International Development, the U.S. Development Finance Corporation, the Millennium Challenge Corporation, and others, to partner with African nations and the private sector to strengthen energy capacity across the continent that is critical to Africa's long-term and sustainable economic growth.

Speakers:

David Thompson, *Acting Coordinator, U.S. Power Africa*

Brian Dames, *Chief Executive Officer, African Rainbow Energy and Power*

10:30 - 10:45 AM: Break

10:45 AM - 12:15 PM: Roundtable Discussion:

China and Russia: Geopolitical Interests and Influences in Africa

China and Russia, in particular, exerts considerable influence on the African continent, given its status as Africa's largest trading partner and its growing diplomatic presence and political influence. South Africa's inclusion in BRICS has further amplified this influence, as it enables the country to leverage collective BRICS resources and negotiate more effectively with China. China's extensive investments in African infrastructure, industries, and development projects have reshaped the continent's economic landscape, making South Africa's role in BRICS crucial in navigating these complex dynamics and ensuring mutually beneficial partnerships between China and Africa.

Speaker:

Sanusha Naidu, *Senior Research Fellow, Institute for Global Dialogue, Pretoria*

Philani Mthembu, *Executive Director, Institute for Global Dialogue, Pretoria*

12:30 - 1:15 PM: Working Lunch

Discussion continues between members of Congress and scholars on Russia's and China's engagement with Africa.

1:30 - 5 PM: Site Visit (TBD)

6 - 7 PM: Pre-Dinner Remarks

Glenda Gray, *CEO and President, South African Medical Research Council*

Established in 1969, the South African Medical Research Council (SAMRC) mandate is to improve the health of South Africans through research, innovation, development and technology transfer. SAMRC's work focuses on four areas: maternal, newborn and child health; HIV/AIDS and TB, non-communicable diseases, and interpersonal violence. In September 2023, USAID awarded a \$45 million contract to SAMRC for HIV vaccine research and development. This five-year contract will allow SAMRC and its partners across Africa the opportunity for local scientists and institutions across the continent to design and test improved HIV vaccine candidates. Glenda Gray, SAMRC's CEO and President, will discuss the work of her organization and the critical importance of local African institutions and experts being at the forefront of developing an HIV vaccine, contributing to the sustainability of efforts to fight the disease and achieving the goal of ending HIV as a public health threat by 2030.

7 - 9 PM: Working Dinner

Seating is arranged to expose participants to a diverse range of views and provide the opportunity for a meaningful exchange of ideas. Scholars and lawmakers are rotated daily. Discussions will focus on energy as a catalyst for African economic growth, the role of BRICS in the global economy, and China's influence in Africa.

THURSDAY, FEBRUARY 22:

6:30 - 8:45 AM: Breakfast

9 - 11 AM: Site Visit – Amazon Web Services Skills Center

Amazon Web Services (AWS) provides cloud computing services globally, often investing in education and training programs to help individuals and organizations acquire the skills needed to use AWS technologies effectively.

Since 2004, South African organizations have leveraged AWS to bring their visions to life, enhancing the daily experiences of individuals and communities not only within the country but also across the broader African continent and the globe. Innovation persists in ushering in a promising new era, enhancing support for the 43 million South Africans reliant on public healthcare with innovations such as pharmacy dispensing units and smart lockers. South Africa has one of the highest youth unemployment levels in the world with 43 percent of those under 35 without a job. The AWS Skills Center in Cape Town offers free training for young community members with aspirations of working in cloud computing, providing career networking and job placement events with local employers and organizations. Members of Congress will visit the AWS facility to hear more about how the Center helps local job seekers and tech companies in times of employment shortages in South Africa, the continent's most developed economy.

11 AM - 1:30 PM: Lunch and Site Visit – Ener-G-Africa (EGA)

Ener-G-Africa (EGA) was founded in 2017 in Malawi as a solar wholesale company after recognizing the demand for quality sustainable energy products, including solar panels and biomass stoves, outpaced supplies in the country. As only the second such facility in sub-Saharan Africa, Ener-G is 100 percent women operated and partners with the U.S. multi-agency Power Africa Initiative.

Ener-G-Africa is a champion of sustainability in Africa, addressing the obstacles posed by climate change through locally developed sustainable energy solutions and clean energy products, spanning the entire continent. The African continent is rich in possibility and EGA is at the forefront of unlocking its renewable energy potential and building a value chain of manufacturers, suppliers, and distributors across the product spectrum.

Within the last three years, EGA has experienced remarkable growth and diversification. In 2020, the company witnessed a 500 percent surge in stove manufacturing capacity, a doubling of solar product sales, and a 300 percent increase in stove implementation programs. The following year, EGA expanded its operations by establishing a new stove manufacturing facility in Cape Town, resulting in a twofold increase in production output. In 2022, the company took a significant step by commissioning a solar panel assembly plant at its Cape Town headquarters. As of 2023, the solar plant has commenced production, and EGA has inaugurated its second manufacturing plant in Paarl, South Africa, specializing in Advanced Biomass Stoves, cookstove components, and a cookware line. During this site visit, members of Congress will learn more about how these strategic moves position EGA for continued growth and progress in the renewable energy sector and how the United States supports those efforts.

1:30 - 4 PM: Site Visit – Citrus Farm, African Growth Opportunity Act (AGOA) Discussion

The African Growth and Opportunity Act, a U.S. trade preference program, provides eligible sub-Saharan African countries, including South Africa, with duty-free access to the U.S. market for a wide range of goods. AGOA aims to promote economic development and integration of African economies into the global trading system.

Among the multiple sectors supported by AGOA is citrus farming in South Africa involving both large commercial farms and smaller-scale operations. South Africa is a major exporter of citrus fruits, including oranges, grapefruits, and lemons. The country's citrus industry is well-established and plays a significant role in the agricultural sector. During this visit to a citrus farm, members of Congress will get a better understanding of how the AGOA initiative, which is up for reauthorization in 2025, contributes to U.S. and local economies.

5 - 6 PM: Pre-Dinner discussion with Paul Siguqa, *Founder, Klein Goederust*

Paul Siguqa, born during the apartheid era in South Africa to a mother who worked as a wine farm laborer and cellar worker for 37 years, is owner of the only fully black-owned

winery in Franschhoek, one of South Africa's most prestigious wine valleys. He has an inspiring story about how a poor, black South African, raised in his early years under the apartheid regime, graduated from university, started his own business, and after 15 years of saving money, in 2019 purchased and restored the Klein Goederust Winery. Together with his childhood friend and now winemaker, Rodney Zimba, they transformed the 1905-established winery that had fallen into serious disrepair into a high-quality boutique Franschhoek winery. Members of Congress will hear about his long road to success.

6 - 7:30 PM: Working Dinner

Seating is arranged to expose participants to a diverse range of views and provide the opportunity for a meaningful exchange of ideas. Scholars and lawmakers are rotated daily. Discussions will focus on U.S. opportunities and challenges in Africa.

FRIDAY, FEBRUARY 23:

6:30 - 7:30 AM: Breakfast

7:45 AM - Noon: Educational Site Visit – Robben Island and the Nelson Mandela Prison Cell

Robben Island, situated 6.9 kilometers west of Cape Town, is renowned for its historical role as a political prison during the apartheid era. Operating as a maximum-security prison from the 17th century until 1996, Robben Island held political prisoners, notably Nelson Mandela, for 18 years of his 27-year sentence. Mandela's spartan cell, measuring 2.4 by 2.1 meters, symbolized resistance to apartheid, showcasing harsh conditions and a demanding daily routine. Post-apartheid, the island became a UNESCO World Heritage Site and a museum. Members of Congress will visit these significant symbols in South Africa's history, marking the transition from apartheid oppression to the triumph of democracy.

12:30 - 2 PM: Policy Reflections for Members of Congress

All attendees may remain in the meeting room; however, speaking time is granted only to Members of Congress to discuss policy ideas.

This time is set aside for members of Congress to reflect on what they learned during the conference and discuss their views on implications for U.S. policy.

3 - 6 PM: Participants depart the hotel for the airport to return to the U.S.

SATURDAY, FEBRUARY 24:

U.S. participants arrive in the United States.

CONFERENCE PARTICIPANTS

MEMBERS OF CONGRESS AND THEIR SPOUSES:

Rep. Jim Baird and Danise Baird

Rep. Earl Blumenauer and Margaret Kirkpatrick

Rep. Julia Brownley

Rep. Larry Bucshon and Kathryn Bucshon

Rep. Lou Correa and Esther Reynoso

Sen. Richard Durbin

Rep. John Garamendi and Patti Garamendi

Sen. Martin Heinrich and Julie Heinrich

Rep. Robin Kelly

Rep. Darin LaHood and Kristen LaHood

Rep. Doug Lamborn and Jeanie Lamborn

Rep. Rick Larsen and Tiia Karlén

Rep. Kathy Manning and Randall Kaplan

Rep. Lucy McBath and Curtis McBath

Rep. Jim McGovern and Lisa McGovern

Rep. Dan Newhouse and Joan Galvin

Sen. Raphael Warnock

Sen. Peter Welch and Margaret Cheney

SCHOLARS AND EXPERTS:

Christopher Barrett	<i>Stephen B. & Janice G. Ashley Professor of Applied Economics and Management, and International Professor of Agriculture, Charles H. Dyson School of Applied Economics and Management, and Professor, Jeb E. Brooks School of Public Policy, Cornell University</i>
Reuben Brigety	<i>U.S. Ambassador to the Republic of South Africa</i>
Brian Dames	<i>CEO, African Rainbow Energy</i>
Kenneth Ekman	<i>Major General, United States Air Force; Director, Strategy, Engagement and Programs, U.S. Africa Command, Stuttgart Möhringen, Germany</i>
Glenda Gray	<i>CEO and President, South African Medical Research Council</i>
Todd Haskell	<i>U.S. Consul General in Cape Town</i>
Philani Mthembu	<i>Executive Director, Institute for Global Dialogue, Pretoria</i>
Richard Myers	<i>Retired U.S. Air Force General and 15th Chairman of the Joint Chiefs of Staff</i>
Sanusha Naidu	<i>Senior Research Associate, Institute for Global Dialogue, Pretoria</i>
John Nkengasong	<i>U.S. Global AIDS Coordinator and Special Representative for Global Health Diplomacy, PEPFAR</i>
Helen Rees	<i>Executive Director, Wits RHI</i>
Peter Sands	<i>Executive Director, The Global Fund to Fight AIDS, Tuberculosis and Malaria</i>
Liz Schraye	<i>President & CEO, U.S. Global Leadership Coalition (USGLC)</i>
Anil Sooklal	<i>Ambassador at Large: Asia and BRICS, South Africa's Department of International Relations and Cooperation</i>
David Thompson	<i>Acting Coordinator, Power Africa</i>

RAPPORTEUR:

Larry Nowels	<i>Co-Chair, Modernizing Foreign Assistance Network</i>
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FOUNDATION REPRESENTATIVES:

William Moore *CEO, The Eleanor Crook Foundation*

Rip Rapson *President and CEO, The Kresge Foundation*

Kim Webber *Senior Program Officer, The Bill & Melinda Gates
Foundation*

ASPEN INSTITUTE CONGRESSIONAL PROGRAM:

Charlie Dent *Executive Director, Congressional Program and Vice
President, Aspen Institute*

Tyler Denton *Deputy Director*

Carrie Rowell *Conference Director*

Jennifer Harthan *Manager of Congressional Engagement*

Ketevan Chinchradze *Consultant on Policy*

RAPPORTEUR'S SUMMARY

Larry Nowels

Co-Chair, Modernizing Foreign Assistance Network

Introduction

Between February 19 and 23, 2024, eighteen Members of Congress met in Cape Town, South Africa, to discuss U.S. foreign policy opportunities and challenges in Africa and assess how best to build robust partnerships across the continent. Members were joined by more than a dozen scholars, experts, U.S. government officials, South African ministers, and Members of South African Parliament who led a series of discussions on various topics concerning U.S. interests in Africa, geopolitical competition with U.S. adversaries, and initiatives that will require congressional reauthorization in the coming months. Members also visited sites that illustrated issues raised at the roundtables and highlighted U.S. government programs on the continent.

Partnering with Africa: A Diplomat's Perspective

Since the early 2000s, American foreign policy and national security have been grounded on the principle of the 3-Ds – the nexus of Defense, Diplomacy, and Development – as the three-legged stool that is critical to advancing U.S. interests in Africa and beyond. The conference began with comments from a senior U.S. diplomat focusing on the importance of Africa and the current state of the U.S.-South Africa relations.

On Africa, he noted the four priorities of the Biden administration: (1) openness, (2) democratic dividends, (3) pandemic preparedness, and (4) conservation and climate. He argued that Africa will represent a quarter of the global population by 2050 with youth representing a disproportionate share of that population. Africa is the only continent that identifies itself as a “region”, he noted, with a sense of Pan-Africa shaping policies across sub-Saharan Africa, including the free trade agreement signed in 2018. Minerals on the continent, he suggested, are critical to both Africa's economies and to U.S. national security. It is a region that is a contested space with U.S. adversaries and competitors and, as such, is a place where the United States must engage or be left behind.

Regarding South Africa, this senior American diplomat argued that until recently, nostalgia (Nelson Mandela's inspiration), inertia (South Africa's economy as an engine for growth across the continent), and guilt (being on the wrong side of apartheid) had

defined U.S. policy towards Pretoria. Stressing that South Africa is America's friend, he noted that the U.S. has some significant concerns with policies of the African National Congress (ANC), the ruling party in South Africa since the end of apartheid, and to some extent, with the government itself. Pretoria's unwillingness to condemn Russia's invasion of Ukraine and its genocide case against Israel at the International Court of Justice are two of the most prominent examples of tensions between the two governments. This diplomat recommended the continuation of a strong American diplomatic stance with South Africa, emphasizing positive aspects of the relationship in public while engaging the government on problematic matters in private. He further noted that in the upcoming elections in May 2024, the ANC might not secure more than 50% of the votes, a scenario that would lead to uncertainty over South Africa's political future.

The discussion elicited many questions and comments from members of the U.S. delegation. One lawmaker asked how the United States could best demonstrate that we can be good partners. The diplomat suggested that the U.S. emphasizes the accomplishments of PEPFAR (U.S. President's Emergency Plan for AIDS Relief) and the African Growth and Opportunity Act (AGOA) as evidence of successful partnership, encourage South Africa to remain a stable democracy, observe basic human rights, and "not undermine" U.S. national security interests. Another member asked how the United States could best cultivate positive relations with South Africa's youth and its future leadership. The diplomat recommended that the State Department should expand its Young Africa Leadership Initiative (YALI) and the number of Mandela Fellows that participate in the program. How do we explain to colleagues the current state of U.S.-South Africa relations?-- another member asked. The senior diplomat observed that South Africa pays close attention to the views and actions of the American Congress, thus letters to the Secretary of State, legislation, hearings, and public statements are all tools that Congress can use to influence the relationship.

To conclude the discussion on U.S.-African partnership, several members of the Peace Corps leadership and returned Peace Corps volunteers living in South Africa joined the conference for informal conversations over dinner. Among topics discussed were the challenges faced in reestablishing a Peace Corps presence in South Africa following the pandemic and how the Peace Corps supports PEPFAR efforts in the country to combat HIV/AIDS.

BRICS and South Africa: Views of the South African Government

The delegation next heard from a senior representative of the South African government on the importance to Pretoria of BRICS, an economic entity that includes Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran, and the United Arab Emirates. This official explained that South Africa had joined BRICS in 2011 because there did not exist

a global south-south alliance that could advance their interests effectively. While the economic aspect of BRICS was fundamental, this member of the South African government observed that there are also security and social elements of the association. South Africa has benefited significantly, he asserted, from a surge in trade with other BRICS members and financing provided by a BRICS-created development bank. He further spoke about South Africa's strategic relationship with China that originated with the end of apartheid. Beijing became Pretoria's largest trading partner in 2011.

Members had numerous questions for the South African official. One member asked how BRICS views the continued use of the American dollar. The official asserted that de-dollarization was not on the BRICS agenda nor was the creation of a BRICS currency. He noted, however, that BRICS members were discussing the possibility of conducting trade in local currencies. On another question about why BRICS expanded recently, he observed that expansion had been under discussion for years and the addition of Ethiopia was beneficial for sub-Saharan Africa. When questioned by a member about the necessity of BRICS, this official contended that although South Africa's ties with the United States were crucial, the G7 did not explicitly represent Pretoria's interests or those of the continent. He emphasized that if the U.S. were to disengage from South Africa, it would constitute a significant setback for both nations.

On a question about people-to-people exchanges, including students, between South Africans and the U.S. and China, he believed that South Africans would strongly prefer engaging with America over China. He noted, however, the difficulty in obtaining a U.S. visa, as well as the financial costs of attending an American university. When asked about South Africa's position on the war in Ukraine and its discussions with Russia and China on human rights, the official spoke about Pretoria's long-standing tradition of remaining neutral, seeking solutions for peace in conflict zones, and avoiding interference with domestic matters in other countries.

U.S. National Security Interests in Africa

In a moderated discussion, two senior American military officers, one active and one retired, addressed the question of why Africa is important to U.S. national security interests and how development and diplomacy partner with the defense sector on the continent to advance those interests. On a question from the moderator regarding American re-engagement post-9/11, one of the officers noted that after a decade of retrenchment following the end of the Cold War, September 11 was the wake-up call. Responding to another question about security threats in Africa, the other officer offered four challenges confronting the United States: (1) violent extremism, especially in east and west Africa; (2) Russia and China as near-term threats; (3) the youth bulge; and (4) climate change. On a question regarding China specifically and whether the U.S. was doing enough to counter Chinese interests, one of the military officials argued that some Chinese activities on the continent were helpful for economic development.

Aspen Institute Congressional Program

Nevertheless, he believed, the United States was the third choice as a security partner in Africa behind China and Russia. He noted that the U.S. Africa Command (AFRICOM) had only limited tools to carry out its mission on the continent and relied to a significant extent on diplomacy to support the military's work. The other senior officer noted his frustration that he could not harness all tools of the U.S. government such as diplomacy, trade, and the judiciary while in Iraq and Afghanistan, stressing how underfunded the State Department was.

Members posed a number of questions to both military officers. When asked about the current status of the Wagner Group and its mercenary operations in Africa, one of the officers offered that the death of Wagner's leader, Yevgeny Prigozhin, temporarily disrupted the organization but that Wagner's relationship with Russia had not changed. He noted that Wagner's value to some African countries is its willingness to offer security services that no other group provides, even though these services were not good for Africa as a whole.

One member asked, how the U.S. addresses the colonial history and culture in Africa. The official suggested that it was important to take a balanced approach in engaging African nations and the former colonial powers. He added that it was especially significant that the U.S. did not terminate humanitarian assistance despite sanctions, setting America apart from the former colonial states. Another questioner asked whether U.S. development programs in the region made the military's job easier. One of the officers strongly believed that programs like USAID's Feed the Future and the State Department's YALI initiative significantly supported the military mission. The other officer noted both positive and negative aspects to the role of development programs: American food aid delivered by Somali military forces helped strengthen the U.S.-Somali military ties while the absence of development activities in Sudan weakened efforts to forge a security relationship in that country. He believed that the gold standard in combining the 3-Ds most effectively is the Global Fragility Act enacted by Congress in 2019.

Supporting Africa's Health Challenges

For over two decades, the United States has maintained a strong commitment to supporting the severe health challenges confronting Africa through a variety of initiatives and partnerships, including those combating infectious diseases like HIV/AIDS, malaria, and Ebola. The U.S. has helped strengthen healthcare systems by building healthcare infrastructure and promoting access to essential medicines and vaccines. Conference participants learned about these efforts from three speakers, including a senior U.S. global health official, the leader of one of the world's pre-eminent multilateral health organizations, and a distinguished global health scholar and practitioner.

In opening remarks, the American official spoke about the significant impact of the President's Emergency Program for AIDS Relief (PEPFAR), launched by President George W. Bush in 2004: 25 million lives saved, 5.5 million babies born HIV-free, 70,000 health facilities strengthened, and 340,000 health workers trained. His vision for the future included: (1) sustaining gains already achieved by driving down infection rates, especially among the youth in Africa; (2) encouraging African nations to continue and grow their financial investments in health; and (3) strengthening America's commitment to PEPFAR, including Congress reauthorizing the PEPFAR legislation.

Building on those remarks, the head of the multilateral organization focused on HIV/AIDS, malaria, and tuberculosis and spoke about the close strategic collaboration between PEPFAR and his institution, noting that the United States provides one-third of all contributions to his agency. He remarked that since 2002 his organization had collectively saved 59 million lives, reduced the death rate of AIDS, TB, and malaria by 55%, and most recently helped register strong recoveries from the impact of COVID-19. He emphasized how devastating the effects of malaria are felt on the continent where 12,000 die weekly, mostly children under five and pregnant women. He further observed that global health initiatives should not only focus on specific diseases like HIV, TB, malaria, and pandemics, but also on strengthening the broad health system.

Another scholar began by thanking the United States for its deep commitment to combating AIDS in South Africa, without which the country could not have achieved the results it did. She raised several shortcomings that became apparent during the pandemic that need to be corrected in the future: lack of surveillance, difficulties with vaccine distribution across the continent, and limited community participation in the COVID-19 response that led to cynicism and vaccine hesitancy. She noted that ultimately, South Africa used PEPFAR platforms to successfully distribute vaccines throughout the country.

Members voiced positive support for PEPFAR and the need for its re-authorization. The U.S. official reacted to some recent criticism of PEPFAR regarding its alleged funding of abortions by saying, "PEPFAR is a life-saving program, not an abortion program." One member asked about progress on malaria and dealing with mosquitoes. The multilateral agency head noted that a lot of creative work is underway and gene modification in isolated island states has been effective. But for now, there is no silver bullet. Another participant asked about an HIV vaccine to which the scholar expressed pessimism about having an HIV vaccine anytime soon. Others raised the issue of insufficient number of health care workers and doctors. The speakers mentioned the growing number of health professionals that have been trained but that a continuing problem is their migration to Europe and the United States. Another member asked about drivers that move infectious diseases from animals to humans. The American official observed that more recent causes stem from climate change and the movement of people, disinformation, and lack of communication on the part of the public sector.

Aspen Institute Congressional Program

Later in the program, during pre-dinner remarks on health challenges in Africa, Members also heard from the head of an organization that for over 50 years has improved the healthcare of South Africans through research, innovation, development, and technology transfer. Interventions have emphasized maternal, newborn and child health, HIV/AIDS and TB, non-communicable diseases, and interpersonal violence. In 2023, USAID awarded the institute a \$45 million grant to work with organizations and scientists across Africa to develop an HIV vaccine. In brief pre-dinner remarks, the institute's CEO briefed members on the work she and her colleagues will undertake with the USAID grant, testing the most promising HIV vaccine candidates and strengthening local research and development organizations throughout the continent with the goal of ending HIV as a public health threat by 2030. Her key message to the delegation was to believe in science and invest robustly in research and development.

The Growing Threats of Food Insecurity and Malnutrition Across Africa

Food insecurity and malnutrition have increased dramatically in recent years in sub-Saharan Africa due in part to the global pandemic, a deepening climate crisis, high energy and fertilizer costs, weakened supply chains, and protracted conflicts, including the war in Ukraine. The World Food Programme (WFP) estimates that 345 million Africans face severe hunger, a dramatic increase from 200 million in 2020. Rising food insecurity has further exacerbated the acute degree of malnutrition. The morbidity and mortality rate from malnutrition is increasing faster than in any other place globally.

During this roundtable, two scholars addressed these growing concerns. The malnutrition scholar noted that beginning in the early 1800s, global child mortality rates began to fall rapidly, dropping from over 50% in 1820 to about 4% by 2020, thanks largely to a series of interventions including clean water technology, child vaccines, improved agriculture practices, among others. While great strides have been achieved on child mortality, he argued that little attention has been paid to malnutrition and only 1% of healthcare focuses on malnutrition. He proposed scaling up efforts around four interventions that would make a significant impact: (1) prenatal vitamins for mothers; (2) increased breast feeding; (3) vitamin A supplements for children; and (4) treatment for the severely malnourished using the peanut-based RUTF (ready-to-use therapeutic food) product. We need another PEPFAR focused on malnutrition, he asserted, at a cost of about \$500 million per year.

The other scholar spoke on food security, noting that food is the single sector that impacts everyone, everyday, and therefore, agriculture is the largest source of employment in the world. He argued that a declining supply of healthy food contributes

to instability, pandemics, malnutrition, and other negative health outcomes. He expressed concern over the de-investment in agriculture research and development and called on the private sector to step up its investment in healthy commodities. He noted that the return on investment for agriculture R&D stood at 20 to 1, believing that a U.S. government investment of \$5 billion would yield a huge return.

During the question and comment period, a few members expressed concern over the costs associated with initiatives raised by the scholars and felt they first had to address food insecurity and malnutrition in the United States before launching a global campaign. One member noted the importance of clean water and expressed hopes that some modest changes in the upcoming Farm Bill debate could make a significant difference. On a question regarding the impact of COVID-19 on malnutrition, one scholar characterized it as “huge”, stressing that it was devastating in the early months due to shutdowns and the closure of severe malnutrition clinics. Malnutrition increased 300% in 2021, he noted. Another member asked about the future of genetically modified organisms. The scholar on food security explained that there was no evidence of GMOs having any harmful health effects, however there was a danger in a decreased intake of nutrients. He also noted that politics played a significant role in the GMO debate. Other questions and comments touched on the topics of cultivated meats, precision agriculture, the importance of agriculture extension services, food waste, and the overlay of politics in addressing hunger.

The Importance of the Energy Sector to Africa’s Economic Growth

Reliable and affordable sources of energy across Africa are critical to unlocking the continent’s potential and stimulating economic growth. Yet, inadequate energy infrastructure throughout sub-Saharan Africa is a significant barrier to realize the necessary power needed for manufacturing, agriculture, connectivity, health care, education and other sectors important to Africa’s economic well-being. Energy is also an issue linked with great power competition across the continent as Russia, China, and the United States compete for their influence in the region. Many see this as an opportunity for the U.S. to utilize the various tools of the decade-old Power Africa initiative to strengthen energy capacity throughout the continent and help Africa realize its full potential. To better understand Africa’s energy challenges, conference participants heard from two experts, one, a senior U.S. government official involved in Power Africa, and the other, a representative from the private sector engaged in bringing clean energy solutions to the continent.

The American government official briefed members on the operations and accomplishments of Power Africa, citing several examples of U.S. investments that have helped efforts to create universal power networks across Africa. The private sector representative spoke about the tremendous opportunities in the energy sector for the United States. He encouraged American businesses and government programs to

Aspen Institute Congressional Program

engage more deeply in energy diplomacy as a way of sparking economic growth on the continent and limiting the influence of Russia and China.

One member raised the question of corruption and its negative impact on expanding energy productivity in the region. The energy expert agreed that corruption was particularly acute in South Africa and the government needed to strengthen its rule of law practices. On the question of how the United States can help Africa's private sector, the U.S. government official said the best path was through public-private partnerships such as those included under Power Africa. When asked about whether there were success stories around reliable energy in Africa, the private sector expert noted that South Africa fell into that category ten years ago, but no longer does. He believed that Rwanda had made good progress and that Morocco and Egypt, in North Africa, had also made impressive gains. One member asked about the role of nuclear energy in South Africa. The energy expert explained that South Africa had developed a successful nuclear energy structure in the 1980s but due to the complexities of nuclear technology, he was doubtful of the country's skills and resources to expand.

China and Russia: Geopolitical Interests and Influences in Africa

A continuing theme raised throughout the conference was the growing competition for influence in Africa among the United States, Russia, and China. This roundtable focused specifically on Russian and Chinese efforts to advance their interests through economic, political and security engagement with countries across the continent and their role in BRICS, an organization that also includes South Africa, and more recently, Ethiopia. Two scholars, one a Russia expert, and the other a Chinese expert, led the discussion of how Africans, and specifically South Africa, view Russia and China and the complexities of those relationships.

The expert on Russia began by saying that Russia's economic engagement in Africa cannot be compared with Africa's far more robust relationships with China and the United States. Russia's diplomatic posture on the continent, however, is quite active and paying dividends, particularly regarding the war in Ukraine. While South Africa has not condemned Russian aggression in Ukraine, he noted that it has been a topic of intensive debate within the ANC. Russia realizes it cannot compete with U.S. and Chinese economic influence on the continent but tries to forge more informal relations through meetings such as the Russia-Africa Summit that has helped Moscow achieve its policy objectives at the U.N. and avoid more severe sanctions. Russia is stepping up its connections across Africa at the party-to-party level and through its engagement with African-based think tanks. For weak states in the region, Russia, through the Wagner Group, offers security services that are unavailable elsewhere.

The China expert traced Beijing's position on the continent back to the days of the Silk Road. Relations deepened during the post-colonial era when China became an important economic partner in Africa. She argued that resource security, establishment of markets, and economic development have been the foundation for Chinese investments in sub-Saharan Africa. More recently, however, she noted that the Chinese government has been reducing its lending on the continent, taking fewer economic risks and encouraging the Chinese private sector to play a greater role.

During questions and comments, one member asked how the United States can compete with China when their financial deals have been fraught with non-transparent arrangements. The Chinese scholar agreed that there has been a lack of transparency on the part of China, and the U.S. should remain open in its financial investments on the continent and encourage civil society to hold their governments accountable and demand transparency. Another member asked about Chinese lending practices which added to growing debt burdens assumed by many African nations. China should participate in debt-workout arrangements, the scholar said, as part of a comprehensive plan that included multilateral institutions, other public lenders, and the private sector.

Several participants pointed out inconsistencies between ANC's condemnation of Israel and support to the Palestinians versus its neutral stance on the war in Ukraine and Russian aggression. The scholar noted that the ANC regards the two issues in totally different terms; it views the war in Ukraine as a proxy war between Russia and the West and remains non-aligned during such perceived great power conflicts. He also observed that the ANC avoids commenting on the internal affairs of other countries so it is no surprise that the majority South African party had not issued a statement regarding the recent death of Alexei Navalny.

Another participant asked whether Russia and China saw each other as trade competitors in Africa. The scholar on China explained that this was not the case due to Russia's small level of economic engagement and asserted that China and Russia do not coordinate their policies on the continent. She additionally pointed out that Africans generally hold a favorable view of the United States, but they perceive China as being more receptive to their concerns and opinions.

Africans also admire the Chinese entrepreneurial spirit. As a final point, the scholar on Russia observed that given the choice between individual freedoms and economic opportunities, young Africans seem to be aligning with the economic opportunities. It is important for the United States to understand this trend when crafting American policies toward Africa going forward.

Members of Congress Meet with President Cyril Ramaphosa

President of South Africa Cyril Ramaphosa hosted a private session with only members of Congress and the U.S. Ambassador to South Africa, which was described as a

Aspen Institute Congressional Program

constructive and candid dialogue that covered a wide range of issues. The President's office issued a public statement saying that "The President and the U.S. congressional delegation discussed the importance of the relationship between South Africa and the U.S., which manifests in strong economic, political and social ties." "Our relationship is characterized by mutual respect and a willingness to engage in constructive dialogue even on issues where we may differ,"-- said President Ramaphosa.

View the full press release [here](#).

Educational Site Visits

Throughout the week, members visited a number of U.S. supported programs in South Africa that provided real-time examples of topics raised during the roundtable discussions, including health, energy, job creation and the private sector.

Schools supported by the Global Fund to Fight AIDS, Tuberculosis, and Malaria. The Global Fund, based in Geneva, is a multilateral organization that funds activities across Africa to combat HIV/AIDS, TB, and malaria. HIV programs specifically focus on prevention, testing, and access to antiretroviral therapy. The United States is the largest donor of the Global Fund, providing about one-third of the organization's resources.

The delegation divided into two groups and visited Chrystal and Beacon Hill High Schools located near Cape Town. Activities supported by the Global Fund in these secondary schools are part of the My Journey initiative, helping to create safe spaces for students who live in high crime and substance abuse neighborhoods. Members joined the student-led tours around the schools. They had the opportunity to engage with students and learn about their classes, home life, academic and professional goals as well as their daily challenges. With the Global Fund's help, the schools offer counseling services and a mobile clinic where students can be tested for HIV, receive education, and access a number of interventions designed to keep them safe and healthy.

PEPFAR and the DREAMS Program. Beginning in 2015, PEPFAR launched the DREAMS Program (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) aimed at lowering the risk of HIV infection among vulnerable girls and young women. DREAMS interventions seek to empower adolescent girls and young women, and in some cases boys and young men, and reduce risk through youth-friendly reproductive health care and social asset building while mobilizing communities for change with school- and community-based HIV and violence prevention.

Members divided into five groups and visited a variety of DREAMS supported activities, including (1) a high school where HIV and violence prevention activities were offered; (2) a community church center where young women, ages 19-24, at-risk for gender-based violence received self-defense training and educational information on

reproductive health through a mobile clinic; (3) a hospital that serves as a facility supporting women and children who have experienced abuse and require post-violence care; (4) a community health clinic and where members heard from care workers, social workers, nurses, as well as orphans and vulnerable children; and (5) a “ManUp” men’s clinic where vulnerable male populations who confront crime, violence, unemployment, and other social issues, can access convenient and confidential healthcare.

At each location, members interacted with many young men and women, hearing their inspiring stories and the DREAMS program’s impact on their lives and their future.

Amazon Web Services (AWS) Skills Center. South Africa has one of the highest unemployment levels (32%) in the world with 60% of young people between 18-35 without a job. Addressing issues related to the youth bulge across Africa, including education, jobs, healthcare and other social services, was identified by scholars and experts throughout the week as one of the most critical challenges facing the continent in terms of economic growth, security, and stability.

At the AWS Skills Center, young South Africans are offered free training in cloud computing, career networking, and job placement opportunities. AWS estimates that the services provided at the Cape Town skills center will add nearly \$4.2 billion to the South African GDP by 2029 and support 5,700 jobs annually at local vendors in the South African data center supply chain.

About 75% of AWS learners come from low-income and economically disadvantaged townships across the country. The Center’s leadership briefed members on the South Africa labor market profile and on the country’s education system that they argued was failing young South Africans. Members met with three Skills Center students who spoke about the bleak employment situation in the country, the importance of their learning experience at the AWS facility, and expressed their hope to successfully apply their new skills in their job search.

Ener-G Africa. As members learned during a roundtable earlier in the week, lack of reliable and affordable energy is one of the most critical obstacles to economic development across Africa. They also heard about U.S. investments in Africa’s energy sector through the bipartisan Power Africa initiative. This site visit took the delegation to one of Power Africa’s partners based in Cape Town, Ener-G Africa.

Founded in Malawi in 2017, Ener-G Africa manufactures sustainable energy products, including solar panels, biomass stoves, and cookware, distributing these products in stores in seven African countries. It is a 100% women-operated facility that has witnessed a significant increase in demand for its products during its brief history. Members toured the facility, stopping at the solar panel manufacturing floor, receiving a demonstration of several biomass stoves, and learning about the latest Ener-G Africa product, a line of energy efficient cookware. Along the way, the delegation spoke with plant managers and workers to better understand how the company was contributing to more sustainable, affordable, and reliable power sources in parts of Africa.

Citrus Farming in South Africa and Trade with the United States.

Members visited a citrus farm near Cape Town, producing oranges, clementines, limes, and other products. During the visit, they learned about how the African Growth and Opportunity Act (AGOA) has aided these farmers and exporters throughout Africa in generating employment opportunities and fostering economic growth by facilitating the export of their products to the United States. AGOA is a U.S. trade preference program, first authorized by Congress in 2000 and up for reauthorization in 2025, providing eligible sub-Saharan African countries, including South Africa, with duty-free access to the U.S. market for a wide range of goods. South Africa's citrus industry is well-established and plays a significant role in the agricultural sector. During this visit, members of Congress learned from three speakers representing different aspects of AGOA and its significance for South African trade with the United States.

The delegation first heard from the president of the local citrus growers association and his passion for farming that began at age 16. Farmers in the area first began exporting to the U.S. in 1999 and have seen a 12.5% growth in the past 10 years. This has led to 35,000 jobs in the West Cape of South Africa and 20,000 American jobs. The success of these farmers has allowed them to support a number of local community activities that provide more household food and better education. According to this farmer, none of these would have been possible, especially in their competition with Peru and Chile in the American market, without AGOA.

Members next heard from a senior South African minister who highlighted three mutual benefits of AGOA. First, it signals close U.S.-South African relations. South Africa is the continent's largest exporter under AGOA with agriculture and auto production accounting for the largest sectors. Second, as the Minister pointed out, trade and investment is a two-way street, and the United States also benefits with the presence of about 600 American businesses in South Africa. South Africa is a major importer of U.S. services, and 98% of American imports of chromium come from here. Third, the African Continental Free Trade Area (AFCFTA) was created in 2018 with 43 parties to the accord. Africa, he said, has a large industrialization gap and while the continent will soon be the world's largest market, it cannot grow economically on the export of raw materials alone. Africa needs to replace Chinese-made goods with African-produced goods. He encouraged the United States to see this as an opportunity to partner with Africa and AFCFTA. AGOA, he asserted, is a vital tool in the achievement of Africa's economic development goals.

The final speaker, a former CEO of a major African corporation who is also associated with the American Chamber of Commerce in South Africa, echoed these points. AGOA is a key lever of economic growth, job creation, and a catalyst for the private sector across the continent. AFCFTA unlocks opportunities for the private sector and none of that could be achieved without AGOA, he concluded.

During the discussion period, one member expressed support for AGOA and also called for a more in-depth round of negotiations, particularly on controversial sectors. He also stressed that the United States should get back some of the benefits in agriculture and

steel. Another member, while acknowledging the mutual benefits of AGOA, was troubled by past naval training exercises between Russia and South Africa. The senior minister noted that those exercises had been planned before the war in Ukraine broke out and stressed that, given the opportunity, South Africa would like to engage in similar activities with the United States. South Africa, he asserted, is not a partisan actor in the Russia-Ukraine war.

Conclusion

Africa, with help from the United States, has made substantial gains over the past 20+ years in economic growth, job creation, private sector expansion, education, and health care. As members heard throughout the week, however, some of these areas of success have seen some backsliding due to Covid-19, growing food insecurity, and armed conflict and terrorism that has led to large displacement of people and unprecedented levels of humanitarian aid. Nevertheless, members were told repeatedly by scholars, U.S. and South African officials, and representatives of the private sector that there are significant opportunities for reversing these negative trends and accelerating economic development, expanding investment and trade, increasing access to reliable energy, addressing climate change, and strengthening social services available to the people of Africa.

Throughout the week of the Aspen Institute Conference, members of Congress discussed U.S. policy adjustments that would best advance American and African interests. They saw first-hand a number of successful examples of U.S. partnerships with local counterparts in Africa, which are making a positive difference for the future of Africa and a stronger U.S.-African partnership.

POLICY ACTION MEMORANDUM FOR MEMBERS OF CONGRESS¹

Recommendations for U.S. Foreign Policy Strategy:

- China and Russia are America's great competitors on the continent that provide economic opportunities and security cooperation to African countries. The U.S., however, remains Africa's unique partner with its USAID programs, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and the African Growth and Opportunity Act (AGOA). No other partner offers greater development assistance and free trade. The U.S. government should continue supporting these initiatives to counter its competitors as well as contribute to economic development across Africa.
- The United States has a more favorable reputation as a partner than Russia and China, but this should not be taken for granted. Research shows that people are tolerant of authoritarian regimes when they succeed in areas like economic development and security.
- Indo-Pacific security is one of the top U.S. priorities, but it cannot be achieved without Africa. Thus, the U.S. should enhance partnerships across the continent for this purpose.
- In 2023, Russia hosted the Russia Economic and Humanitarian Forum in St. Petersburg, where Russian leaders met with African political parties in many important informal engagements, allowing Russia to gain more influence in Africa. The U.S. should hold close ties with African research institutions and monitor Russia's increased informal party-to-party engagements with African politicians.
- The U.S. employs various statecrafts, such as trade policy, development, diplomacy, and security. However, the implementation of these tools lacks a coherent and deliberate strategy, thereby diminishing the effectiveness of U.S. foreign policy. The U.S. should improve coordination among all statecrafts to achieve more favorable outcomes.

¹ Note: This policy action memorandum is compiled for Congressional participants and depicts policy ideas that emerged during the conference sessions in Cape Town, South Africa. The Aspen Institute is a neutral convener. We merely cataloged the ideas that came forth.

Addressing Healthcare Challenges:

- The African continent cannot continue depending on goodwill and charity to tackle its health-related issues. The U.S. government should support the development of local research centers, diagnostic centers, and drug manufacturing capabilities to set Africa up for sustainable success.
- Child malnutrition is the number one killer of children around the world, despite having proven methods to address this issue. The U.S. government needs to establish a coherent system and bilateral network, similar to PEPFAR, to successfully deploy ready-to-use therapeutic food (RUTF), vitamin A, and prenatal vitamins to malnourished children. Private and philanthropic investments along with USAID's efforts can make a difference in eliminating child malnutrition.
- Hunger causes people to be violent and increases crime rates and instability. Thus, dedicating efforts to end food insecurity is crucial for U.S. national security. It would be a step forward to fund more research and development on food and agriculture that are currently underfunded.

CONFERENCE ESSAYS

A Diplomacy and Development Toolkit Is Essential to U.S. China Strategy²

Joseph Votel

*Retired U.S. Army General Officer and
Former Commander of the U.S. Central Command*

and Liz Schrayner

President & CEO, U.S. Global Leadership Coalition (USGLC)

Seventy-five years ago, the Marshall Plan, conceived by Secretary of State George Marshall, was the crowning achievement of World War II. It helped consolidate our military victories and set us, and our allies, up for decades of economic growth and stability that formally influenced our interests.

Today this unique construct is under threat of being replaced by China.

The Chinese Communist Party (CCP) is using every element of its power to compete and win in a world they believe is up for grabs more than at any time since the fall of the Berlin Wall. Beijing's investments in the Belt and Road Initiative already far surpass the entire Marshall Plan.

Over the last 10 years of available data, China's development investments increased by more than 430 percent across Africa, the Indo-Pacific, Latin America and beyond. Per our teams analysis of data from William and Mary College's AidData Project, their public diplomacy investments skyrocketed more than 820 percent. Beijing is focused on the hearts, minds and wallets of the 1.4 billion people living in Africa, a potential \$3.4 trillion market where we're still playing catch-up. In Latin America, trade with China has grown 26-fold from 2000 to 2020.

China sees opportunity in an unstable world and is capturing relationships, influence, markets and access to critical supply chains. As they seek to rewrite the rules of the road, their alignment with autocratic regimes from Russia to Iran to North Korea is no coincidence.

Rep. Mike Gallagher (R-Wisc.), chairman of the China Select Committee, has warned for years of an emboldened China. In 2018, the U.S. Global Leadership Coalition hosted him during an event in Appleton, Wisc., in his home district as a newly elected

² This op-ed was originally published by [The Hill](#) on June 16, 2023.

freshman, where he stated then his fear that America was “failing to even show up for the game.” Talking with his constituents, he argued that when it comes to America’s diplomacy and development toolkit, “we don’t have the luxury of disengaging from the world. Every time we’ve tried that, it’s ended in disaster.”

China’s rise is not happening in a vacuum. Russia’s invasion of Ukraine is destabilizing not just Europe, but the entire world. Energy and commodity market disruptions accelerated the global food crisis and led to a dramatic spike in hunger impacting more than a quarter billion people. Doubling in just four years, more than 339 million people need humanitarian assistance. By 2050, the World Bank estimates that climate change could displace 216 million people within their own countries. With autocracies rising, growing global instability is driving conflict and extremism — as we are seeing in Sudan — creating new threats to American interests.

The question is what we are going to do about it.

Congress is in the midst of one of its most contentious budget debates ever, with the House Appropriations Committee just adopting dangerous cuts to America’s footprint in the world, despite the enormity of global threats. Yet there is a bipartisan space where lawmakers can agree: America’s diplomacy and global development toolkit is essential to our China strategy and to our core security and economic agenda.

To protect America’s interests, we see four areas where policymakers can make a difference, and each has garnered strong bipartisan support over decades.

First, fully integrate our diplomatic and development toolkit as a core pillar of America’s China strategy alongside critical military, cyber, technology and intelligence capabilities. From the State Department and USAID to the Development Finance Corporation (DFC) and our nation’s other development agencies, these are mission-critical tools. Last year, the DFC leveraged \$6.7 billion to mobilize an additional \$22.4 billion in private capital for energy, infrastructure, health and economic impact projects across the developing world. These investments are the tip of the spear in the competition with China and strengthening markets and supply chains for American exports.

Second, policymakers must continue to protect funding for America’s diplomacy and aid programs. With unprecedented humanitarian crises driven by a vicious cycle of hunger, conflict, migration and climate change, budget cuts would jeopardize U.S. security and economic stability at a time of great peril.

Third, Congress and the administration should work together on a bipartisan basis to strengthen, modernize and expand the capacity of U.S. foreign assistance programs. This includes driving new public-private partnerships to bring the full leverage, scale and power of America’s private sector and NGO community to bear.

Lastly, America must continue to rally our allies and partners to step up to tackle the global threats we collectively face from China, Russia and beyond. Burden sharing takes

diplomacy — and the staying power of the Ukraine coalition proves what’s possible with American leadership. The alternative is continued over-militarization of our national security policy.

If we don’t show up around the world, we cede the playing field to autocracies. America has the tools to engage, but we’re not using them at the scale required to compete in this century. Now chair of the newly created House China Committee, Gallagher warns, “Our policy over the next 10 years will set the stage for the next hundred.” He’s right.

It is a good reminder that when we bring together the full weight of our national security toolkit — especially diplomatic, economic and development approaches — we stand the best chance of preserving our influence and protecting American interests.

Stopping Malaria from Killing Children Is a Matter of Urgency³

Peter Sands

Executive Director, The Global Fund to Fight AIDS, Tuberculosis and Malaria

I was in Kano, an ancient city in the north of Nigeria recently, visiting health facilities with Nigeria's impressive new health minister professor Muhammad Ali Pate. This week [September 21, 2023] I will be in New York, along with the leaders of nearly 200 countries and many other agency heads like me, arguing that we should do more to protect the poorest in the world from the deadliest infectious diseases.

I would love to bring those leaders to the hospitals and clinics we visited in Kano. Nothing focuses the mind like visiting a ward where 24 infants with severe malaria are fighting for their lives. There is nothing like witnessing the silent desperation of a mother. No conversation has more impact than one with the overstretched doctors and nurses struggling to save these children's lives with insufficient beds, power outages, and rudimentary oxygen supplies.

None of these children should be in hospital. Malaria is preventable and curable. Insecticide-impregnated mosquito nets, seasonal chemoprevention, and other interventions significantly reduce the risk of infection. Prompt diagnosis and treatment, delivered in the community, is highly effective at preventing severe disease. Yet in Nigeria alone, over 500 people — mainly children and pregnant women — die every day from malaria.

As the world's biggest provider of external funding for malaria, my organization, the Global Fund, invests over US\$125 million a year in fighting the disease in Nigeria, working hand-in-hand with the government's National Malaria Elimination Programme, partners like the U.S. President's Malaria Initiative and the World Health Organization, as well as many civil society and community organizations. We have made significant progress. Despite Nigeria accounting for more than a quarter of malaria cases in the world, the malaria mortality rate has fallen by 55 percent since the beginning of the century. The health workers I met in Kano told us that the introduction of seasonal malaria chemoprevention had improved the situation compared to even a few years ago.

Yet no one can see so many children fighting for their lives without thinking that if this is better, it's not nearly good enough. We must do more — and do so now.

That sense of urgency intensifies when we consider all the factors fueling the threat. Climate change is changing malaria's epidemiology, affecting its geographical spread,

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and making it more volatile. Malaria is appearing in the highlands of countries like Ethiopia and Kenya, where previously it was too cold for the mosquitos. Extreme weather events such as cyclones and floods are causing surges in malaria infections in the most climate-exposed countries, as happened in Mozambique, Malawi, and Pakistan. Meanwhile, mosquitos are becoming resistant to the most commonly used insecticides and the malaria parasite is becoming resistant to artemisinin, the most often used treatment.

We have answers to some of these challenges, including innovative mosquito nets that are impregnated with a combination of two insecticides, and we also have the prospect of new vaccines, diagnostics and monoclonal treatments. But none of these is a “silver bullet,” and they will all take time.

And they will need money. The fundamental problem with the fight against malaria is the lack of money. We spend shockingly little on this disease — maybe because the people at the sharp end of it are too young and too poor to have a voice. The total of global expenditure on malaria was US\$3.5 billion in 2021, a shortfall of nearly US\$4 billion, and rising.

In Nigeria, health minister Pate has been in office for less than a month, with the full support of Nigeria’s President Bola Ahmed Tinubu, yet he is already moving swiftly and decisively to reinforce governance, improve coordination, and deliver better health outcomes. He is determined to upgrade the capabilities of Nigeria’s 120,000 community health workers, who play a critical role in ensuring children who get malaria are diagnosed and treated quickly. Despite acute economic and fiscal challenges, the Nigerian government is increasing spending on health.

But more external funding for malaria is also vital. Many of the countries most affected by malaria — such as Mali, Sudan, and Niger — are wracked with conflict. Many others, like Malawi or Mozambique, are economically constrained and heavily indebted. There is an alarming match between the list of countries most vulnerable to climate change and the list of those with the heaviest malaria burdens.

As leaders gather in New York, I suspect the children in Kano’s hospitals — and the hundreds of thousands like them elsewhere — will barely make the agenda. Climate change, conflict, and even how we prepare for the next pandemic will get the headlines and focus. All these topics are important and merit global attention. But I hope that somewhere in all the debates we recognize that malaria, arguably the oldest pandemic, is still here and still killing children. That if we’re serious about an equitable response to climate change we should protect the world’s poorest children from the way global warming is fueling this lethal disease. And that for a fraction of the money we are spending on these other challenges, we could save hundreds of thousands of young lives.

Lessons Learnt from the COVID-19 Pandemic for Future Pandemic Preparedness

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If the world had not realized it before the COVID-19 pandemic, it now knows that the risk of a global pandemic is real and unpredictable. It is not *if* there will be another pandemic but rather *when*. Changes in the way we live and interact with animals is increasing the risk of pathogen spillover, with the 'hot spots' mostly located in low-resource settings. But pathogens will not stop at country borders and with intercontinental travel, an emerging pathogen can be all over the world in a blink of an eye. The lessons learnt from COVID-19 were echoed in the oft repeated phrase that 'None of us are safe until we are all safe.' Investment in pandemic preparedness is not just for low resource countries but is essential for global health security irrespective of where you live.

The world has been here before. The Spanish flu pandemic of 1918-19 was caused by an avian flu virus that gained the ability to be easily transmitted between people. The result was the deaths of between 17-100 million people in just ten months. While flu epidemics have become less severe in this century, it is thought that a future flu pandemic could cause millions of deaths, affecting 30% of the world's population in just 80-90 days. The COVID-19 pandemic has killed between 7-21 million people and decimated economies, plunging millions of people into poverty. In the 21st century, there have been 13 epidemics or pandemics and the World Health Organisation (WHO) has declared seven of these 'Public Health Emergencies of International Concern (PHEIC).' Meanwhile, melting permafrost is releasing ancient microorganisms described as 'zombie viruses', with the potential to cause a pandemic.

The most powerful tools to prevent and respond to pandemics are vaccines. In 1979 the eradication of smallpox was declared thanks to the use of vaccines. In 2014, the unprecedented Ebola outbreak in West Africa was halted through a combination of infection control measures and the rapid development and introduction of a new Ebola vaccine. These vaccines are now routinely used in response to new Ebola outbreaks with very good effect. The COVID-19 pandemic saw the fastest development of vaccines in history, with the time between the identification of a new virus and the administration of safe, effective vaccines being under 12 months. Without these vaccines, the global mortality from COVID-19 would undoubtedly have been much higher.

It is not just epidemics of new viruses that are prevented by vaccines. Polio eradication has been a global ambition since 1988 and, thanks to polio vaccines, polio eradication is almost within grasp, with only a handful of cases of wild polio in two endemic countries detected in 2023 – compared to 350,000 cases in 125 endemic countries that occurred worldwide in 1988. Measles vaccination has averted 56 million deaths between 2000 and 2021, but in 2021 there were still 128,000 measles deaths globally, mostly among

unvaccinated or under vaccinated children under the age of 5 years and 30,000 cases were reported in Europe in 2023.

Between 2000-2023, the Global Alliance for Vaccines and Immunisation (Gavi) immunised over one billion children against 19 vaccine-preventable diseases, contributing to a reduction in global childhood mortality rates by more than half. Every year sees more progress: in 2024, new malaria vaccines are being introduced into African countries – combating a disease that kills almost half a million African children every year.

Conversely, low vaccination coverage in many low- and middle-income countries (LMICs) and in some high income countries during COVID-19 has resulted in large outbreaks of vaccine-preventable diseases, notably measles and diphtheria, leading to the deaths of tens of thousands of children.

As well as highlighting the vital importance of vaccines, the COVID-19 pandemic taught us many other lessons that can help us prepare for a future pandemic. Firstly, the world was ill-prepared for this emergency, even though it was well known that a new pathogen could emerge at any time and trigger a global pandemic. While scientists and public health experts had planned for years for an influenza pandemic, even well prepared countries were caught out by the COVID-19 pandemic. Similarly, although the unknown ‘pathogen X’ was being planned for, the systems were not sufficiently developed to support an effective COVID-19 response. Few LMICs had the laboratory surveillance networks required to detect the SARS-CoV-2 virus, resulting in delays in viral detection and persistently lower rates of testing when compared to high-income countries.

Similarly, the ability to sequence the genome of SARS-CoV-2, to understand how different strains were spreading and to inform vaccine design, was not equally shared across the globe: many LMICs had no capacity to undertake genome sequencing. Without these laboratory networks, the characterisation of disease outbreaks, monitoring of disease spread and tracking of viral variants is not possible. The emergence of COVID-19 variants that partially evaded both natural and vaccine-induced immune responses suggests that future pandemic pathogens are also likely to evolve and evade countermeasures such as vaccines.

There were exceptions to the rule, and a few LMICs, including South Africa, had established genome sequencing capacity. But there was a sting in the tail. When South Africa identified a new variant and rapidly reported this to the World Health Organisation (WHO), some countries immediately isolated South Africa – creating a massive disincentive for rapid information sharing, which is essential in a pandemic where speed is of the essence. Over the three years of the COVID-19 pandemic, global investment in infrastructure and human resources through agencies such as the African Centres for Disease Control has supported the establishment of laboratory networks in LMICs capable of tracking the virus and detecting variants. This increased capacity will improve both regional and global protection.

Equally essential were the networks of clinical trial sites that rapidly pivoted to COVID-19 vaccine and therapeutic trials. Many of these sites had been established to evaluate drugs and vaccines for other diseases, but the expertise and infrastructure in these networks allowed rapid transition to evaluate COVID-19 health products. There were also global epidemiological initiatives with agencies such as WHO supporting epidemiological networks across LMICs to map regional and global disease spread.

As the pandemic evolved, it became clear that insufficient attention had been given to pandemic preparedness in the training of laboratory, clinical and public health scientists in low-resource settings. Many of the centres of excellence in LMICs which were able to contribute to the global COVID-19 research agenda were established for research on other pathogens such as HIV or malaria, and it was these entities that were able to rapidly pivot to the COVID-19 response.

There were other issues that had not been foreseen. While the world was able to accelerate vaccine development, lack of access to vaccines in low resource settings, especially in the African region, resulted in delayed distribution. When the vaccine finally arrived, community indifference and suspicion contributed to low acceptance and coverage. At the outset of the pandemic, Gavi and partners established the COVAX Facility as a global pooled procurement and distribution mechanism for COVID-19 vaccines. COVAX provided over two billion doses of COVID-19 vaccines to 195 countries, with around 90% of vaccines being distributed in low income countries. Despite its ultimate success, COVAX was delayed in its mission by the early reluctance of some manufacturers to provide vaccines at a reasonable price to the facility.

In addition, the intellectual property (IP) of new vaccine development belonged almost solely to high income countries. While a few vaccine developers were willing to share their IP with developing country manufacturers, the majority were not and this contributed to delays in access to effective vaccines. This impact was most acutely felt in the African region, and the response of the African Union, the African CDC, and Gavi to support African vaccine manufacturing is a positive development. Beyond manufacturing, a realisation grew alongside manufacturing here was a lack of investment in regional science and innovation that is required for new product development. More investment in local solutions would avoid the reliance and controversy that occurs when the sharing of intellectual property or specimens arises between commercial interests or countries.

A second unforeseen challenge was the negative response of communities to government measures and to science. The lack of consultation with communities made it harder for governments to effectively counter the misinformation and disinformation that flooded social media. For many citizens living in low-resource countries, in particular in the African region, the result questioned whether the COVID-19 pandemic was as bad as people were told. In addition, the focus on COVID-19 resulted in neglect of already weak health services resulting in an increase in outbreaks and deaths from other diseases such as measles. The community skepticism that surrounded the COVID-19 response persists today and the negative impact on community trust in government would need to be anticipated and addressed in future pandemics. The importance of

health systems strengthening as a core pillar of a pandemic response will require significant national and global investment in the interpandemic period.

In summary, despite the global commitment to the Sustainable Development Goals, the world's response to the COVID-19 pandemic had successes and failures, but was overshadowed by the impact of global inequity that undermined the scientific, clinical, and public health response.

How Is the Research World Responding to Lessons Learnt from COVID-19?

While we cannot predict or prevent the emergence of a new 'pathogen X', the world is now prioritising pandemic preparedness and response. The Intergovernmental Negotiating Body convened by WHO, and involving all member states, aims to develop a treaty that addresses pandemic prevention, preparedness and response. However, conspiracy theories and disagreements on issues such as equitable access to countermeasures are detracting from building consensus. The WHO's International Health Regulations (2005), which outline countries' responsibilities and rights when outbreaks occur, are being revised based on lessons learnt from COVID-19.

In recognition of WHO's critical coordinating role, its structure has been overhauled and a new WHO Hub for Pandemic and Epidemic Intelligence has been established. In parallel, the Africa Centres for Disease Control and Prevention has been working to strengthen surveillance and outbreak response in the African region. Globally, there is renewed focus on pandemic preparedness financing, including a Pandemic Fund established by the World Bank. Alongside this, G7 countries have established the '100-day mission', which aims to create a state of readiness for the fast, efficient and equitable production of diagnostics, therapeutics and vaccines in response to emerging pandemic threats.

At the same time, efforts are being made to diversify manufacturing capacity, so that more regions can produce the vaccines they need during a pandemic. The African CDC, and the African Union, have prioritised vaccine manufacturing. Gavi's Board has approved the establishment of the African Vaccine Manufacturing Accelerator (AVMA), which will make up to US\$1 billion available to build sustainable vaccine-manufacturing capacity in Africa. The WHO has established a network of new African sites which will develop and manufacture a variety of mRNA vaccines.

There are other sources of funding not initially designed for pandemic preparedness that are also contributing to global health security. Through its investments in the PEPFAR programme and the Global Fund, the U.S. government has saved around 75 million lives worldwide from HIV, TB, and malaria. The global and national investments made in HIV programmes not only reduced global mortality but also reduced the numbers of people living with HIV who were immunocompromised – protecting them from the potentially devastating effects of COVID-19.

The multiple health challenges confronting the world including zoonotic diseases, climate change, conflict and human migration, all require interdisciplinary collaboration across multiple stakeholders to develop evidence driven strategies and policy. These collective global health investments will mean greater health security for the world.

So What Needs to Be Done?

For early detection of outbreaks, the concept of ‘smart surveillance’ is being introduced. This approach focuses on areas where the spillover risk is greatest between animal reservoirs and the local human population. Many of these ‘hotspots’ are in tropical locations or in low-resource settings. Building on this, WHO has introduced the concept of collaborative surveillance. This approach involves strengthened national integrated surveillance strategies to identify disease threats and vulnerabilities, increased diagnostic and laboratory capacity for pathogen surveillance and genomic analysis, and collaborative approaches for event detection, risk assessment, and response monitoring.

But there is a long way to go. In the ongoing outbreak of Mpox in the Democratic Republic of the Congo (DRC), it is estimated that only 10% of suspected cases are being tested. For COVID-19, funding in support of research in low-resource settings was inadequate and their main contribution was generally just to collect data rather than lead the research programmes. This inequity in global research investment still exists, with effectiveness studies for new COVID-19 vaccines being almost exclusively undertaken in high-income countries. Yet local data should be prioritised as it informs local decision making, builds community confidence in the solutions offered, and increases global knowledge.

A second global priority is to identify pathogens with pandemic or epidemic potential for which there are limited or no countermeasures available. Since November 2022, the WHO’s R&D Blueprint has led efforts to characterise entire classes of viruses or bacteria that pose a pandemic threat and have identified 30 viral families, one bacterial group and the unknown ‘pathogen X’ as prioritised pathogens.

This approach allows the development of prototype vaccines that target different antigens and are based on a diversity of vaccine platforms – increasing the likelihood of success. The ambition is to have prototype vaccines stockpiled which can be rapidly modified for a new pathogen in the event of an outbreak. The COVID-19 mRNA vaccines showed the world that a platform that can be rapidly adapted for new pathogens can greatly speed up vaccine development and introduction.

In addition, the WHO describes antimicrobial resistance as being in the top ten global health threats. The overuse of antibiotics and lack of development of new antimicrobials has allowed the emergence of AMR drug resistant pathogens including bacteria, parasites, viruses, and fungi. There are already millions of infections and thousands of

deaths caused by these organisms each year, and there is a real threat that these pathogens could pose a pandemic threat unless there is investment in new therapies and vaccines.

With the growing prioritisation of vaccines to respond to these disease threats, there is a new focus on ease of vaccine manufacturing, the equitable distribution of manufacturers, technology transfer, voluntary licensing, and affordability. Because of delays in access in the African region to COVID-19 vaccines, the African Union woke up to the fact that less than 1% of vaccines used on the continent were being locally manufactured. This has kickstarted a regional and global movement to increase manufacturing capacity for vaccines and medicines in Africa and other LMIC settings. A critical enabler for the success of local manufacturing is the ability of national regulatory authorities (NRAs) to provide the required oversight to ensure that health products are safe, good quality and efficacious. There is now a global move to increase the capacity of NRAs in low resource settings, and to improve collaboration between high income and low income NRAs. All these efforts should enhance vaccine availability during regional outbreaks and pandemics, increase vaccine access for routine vaccine services, and provide new scientific and business development opportunities for the region.

An essential element of a pandemic response which receives lip service but less action, is community dialogue. The perspectives of communities will inform policymakers and programme managers about issues that may change national strategies and which may influence community acceptance of countermeasures, therapies and vaccines. Communication strategies must be thought out now, so that communication is proactive and locally relevant rather than reactive to misleading messaging.

The momentum created by COVID-19 has provided the world with a unique opportunity to address pandemic preparedness. We must capitalize on this before memories fade. There are numerous excellent initiatives aimed at strengthening global surveillance, developing new vaccines, therapeutics and diagnostics, strengthening health systems, and building capacity and leadership in LMICs. The collective ambition of these efforts is to ensure that, from the outset, pandemic preparedness is underpinned by community trust, transparency, collaboration, and country ownership. Solutions should ensure equity that promotes rapid deployment on a global scale, including in low-resource settings.

These initiatives need expanded and sustained funding from different sources, including bilateral and multilateral donors, country coffers, philanthropic sources, the private sector, and high-net-worth individuals some of whom have committed to share their wealth for global good. New strategies, such as investments in LMIC vaccine manufacturing or surge funding for rapid outbreak response, should be established or extended. Existing large global health donor agencies should consider how their current agendas can be adapted or expanded to include pandemic preparedness activities consistent with their core mission. Global research investment should prioritise the sustainable strengthening of research centres of excellence in LMICs able to undertake basic and clinical and public health research.

In particular, in high-income countries, policymakers should embrace the fact that national and global investment in pandemic preparedness is good for the world, good for their citizens, and a worthy and justifiable use of their taxpayers' money. As Nelson Mandela said "Of course the task will not be easy. But not to do this would be a crime against humanity, against which I ask all humanity now to rise up."

Bibliography

- Abdool Karim SS, Devnarain N. Time to Stop Using Ineffective Covid-19 Drugs. *New England Journal of Medicine*. 2022 Aug 18;387(7):654-655. doi: 10.1056/NEJMe2209017. PMID: 36070715.
- Auerbach JD, Forsyth AD, Davey C, Hargreaves JR; Group for lessons from pandemic HIV prevention for the COVID-19 response. Living with COVID-19 and preparing for future pandemics: revisiting lessons from the HIV pandemic. *Lancet HIV*. 2023 Jan;10(1):e62-e68. doi: 10.1016/S2352-3018(22)00301-0. Epub 2022 Nov 10. PMID: 36370713; PMCID: PMC9764384.
- de Souza, L. E. P. F., de Castro, M. C., Hage Carmo, E., & Polidoro, M. 2022. The global failure of facing the pandemic. *Global Health Action*, 15(1), 2124645.
- Dron L, Kalatharan V, Gupta A, Haggstrom J, Zariffa N, Morris AD, Arora P, Park J. Data capture and sharing in the COVID-19 pandemic: a cause for concern. *Lancet Digit Health*. 2022 Oct;4(10):e748-e756. doi: 10.1016/S2589-7500(22)00147-9. PMID: 36150783; PMCID: PMC9489064.
- Fauci, A. S., & Folkers, G. K. (2023). Pandemic preparedness and response: lessons from COVID-19. *The Journal of Infectious Diseases*, 2023, 228(4), 422-425.
- Hotez PJ, Gilbert S, Saville M, Privor-Dumm L, Abdool-Karim S, Thompson D, Excler JL, Kim JH. COVID-19 vaccines and the pandemic: lessons learnt for other neglected diseases and future threats. *BMJ Global Health*. 2023 Jun;8(6):e011883. doi: 10.1136/bmjgh-2023-011883. PMID: 37277196; PMCID: PMC10254949.
- Park JJH, Mogg R, Smith GE, Nakimuli-Mpungu E, Jehan F, Rayner CR, Condo J, Decloedt EH, Nachege JB, Reis G, Mills EJ. How COVID-19 has fundamentally changed clinical research in global health. *Lancet Global Health*. 2021 May;9(5):e711-e720. doi: 10.1016/S2214-109X(20)30542-8. PMID: 33865476; PMCID: PMC8049590.
- Perlman S, Peiris M. Coronavirus research: knowledge gaps and research priorities. *Nature Reviews Microbiology*. 2023 Mar;21(3):125-126. doi: 10.1038/s41579-022-00837-3. PMID: 36792727.
- Poongavanan, J., Xavier, J., Dunaiski, M., Tegally, H., Oladejo, S. O., Ayorinde, O., ... & Oliveira, T. D. (2023). Managing and assembling population-scale data streams, tools and workflows to plan for future pandemics within the INFORM-Africa Consortium. *South African Journal of Science*, 119(5-6), 1-4.
- The COVID-19 Research Coalition, Pandemics move faster than funders. *The Lancet*. 402:367. 2023
- World Health Organisation, Poliomyelitis. 2023. <https://www.who.int/news-room/fact-sheets/detail/poliomyelitis#:~:text=Cases%20due%20to%20wild%20poliovirus,at%20risk%20of%20contracting%20polio>. Accessed 26 January 2024.
- World Health Organization, Framework for the Allocation of Limited Malaria Vaccine Supply. 2022.

https://urldefense.proofpoint.com/v2/url?u=https-3A__cdn.who.int_media_docs_default-2Dsource_immunization_mvip_framework-2Dfor-2Dallocation-2Dof-2Dlimited-2Dmalaria-2Dvaccine-2Dsupply.pdf-3Fsfvrsn-3D35b12e4-5F2-26download-3Dtrue&d=DwMFAG&c=WO-RGvefibhHBZq3fL85hQ&r=kUv55ENmq8NzHPJEkUiowUvUQlowIr5_7tDe-U8MA-8&m=xwfcwgj8wnsW7YUsaluWicvfHWnA--9bwYAGn62cSGsFFVruJ-Jc1pUeZ1SHdVR&s=b-BB7TyfDzVDniBHfcdSHubuKfJ2jLLO-iyO9HXe2U&e=. Accessed 24 January 2024.

- World Health Organisation, Research and Development Blueprint, virtual global consultations on **Vaccine research response to Pathogen X**.
Meeting 1, 9 January 2024. A Scientific Framework for Epidemic & Pandemic Preparedness
Meeting 2, 18 January 2024: Critical research for priority pathogens with epidemic potential
Meeting 3, 19 January 2024: Research response to pathogen X during a pandemic

Why and How the United States Must Invest in Food and Nutrition Security in Africa

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The world faces multiple food-related crises right now, leading some experts to label this an emergent ‘poly-crisis’. Global headline, food-related crises include:

- 700-800 million people around the world – more than twice the US population – go hungry today. After 50 years of continuous progress in reducing the number of undernourished people globally, we have backslid for 10 years.
- More than 3.1 billion people cannot afford a healthy diet. Consumer food prices rose quickly during the pandemic due to supply chain disruptions, remain at high levels, and continue rising quickly. As bad as food price inflation has been in the U.S., it is worse abroad as the strong dollar makes everything from fuel to fertilizer to imported grains more expensive.
- Since the 2008 global food price crisis, we have witnessed recurring episodes of sociopolitical unrest and violent conflict driven partly by food insecurity. Rising food insecurity highlights a government’s failure to safeguard its constituents’ ability to feed their family, sowing support for insurgents. It makes land and water more valuable resources over which groups become more likely to fight. A hungrier world is a more dangerous world.
- High food prices arise in part from rising concentration upstream – in seed and agrochemicals sectors – and downstream – especially in meat processing and grain trading. This squeezes both consumers and family farms. Most agricultural households – including in the U.S. – lose money on farming, reinforcing a rural youth exodus and rising median age of farmers (>57 in the U.S.).
- Healthcare cost increases arise primarily due to diet-related illnesses, stressing government budgets and slowing economic growth. Diet-related health problems arise mainly due to mineral and vitamin deficiencies and/or obesity caused by dietary imbalances that have complex origins, not undernourishment (i.e., insufficient intake of calories and protein, or hunger). Dietary imbalances are partly a product of relatively higher prices for healthier foods than for unhealthy ones and from commercial promotion of profitable but unhealthful foods.
- Outright hunger or undernourishment has been rising globally, but mainly because violent conflict disrupts agriculture and commerce and forces people to flee. UNHCR reports that as of May 2023 a record 110 million individuals were forcibly displaced and in need of humanitarian food assistance, which is far more expensive to deliver than food assistance provided to people who remain home.

- Agrifood systems are the source of most zoonoses emergent in humans since World War II. Plausibly COVID-19, and certainly Ebola, bird flu, swine flu, plague, and other zoonoses arise largely due to agricultural expansion into wildlands.
- We face a looming antimicrobial resistance crisis due in part to the rapidly rising use of (poorly managed) antibacterial agents in livestock and aquaculture production to meet the growing demand for animal-source foods.
- Agriculture is the world's and the U.S.' primary source of fine particulate (PM_{2.5}) air pollution, a leading cause of premature death. The main sources are biomass burning and the fumes emitted by nitrogen-rich fertilizers and livestock waste.
- Agrifood systems account for 25-35% of greenhouse gas emissions globally, especially methane (from rice and ruminant livestock), feeding the climate crisis.
- Agricultural expansion is the main driver of habitat loss that drives biodiversity loss and wild species extinction.
- Agricultural non-point source pollution is a major contributor to water pollution and harmful algal blooms – the dead zone in the Gulf of Mexico, HABs in the Great Lakes of North America and Africa.

Clearly, food issues are not just agricultural or humanitarian issues. The agrifood system is the only economic sector that touches every human each day. And a plurality of people live in households that work at least part-time in the agrifood system. Food issues transcend agriculture, with deep connections to broader economic, national security, environment, climate, and rural issues. We need to invest accordingly and do so now, at scale. Tackling the global agrifood systems poly-crisis is a high policy priority.

Why Africa Matters

These issues are especially pressing in Africa. Africa's 1.4 billion people today represent roughly 18% of humanity. Given Africa's low median age of just 19 years, it is the only major world region poised for significant population growth, to a projected 3.5 billion by 2100. Feeding an extra 2+ billion Africans will be a massive challenge because African farmers suffer the world's lowest agricultural productivity and the vast majority of the supply needed to meet that new demand must be produced in Africa, not imported from abroad. Roughly 60% of the world's remaining arable land is in Africa and >70% of food consumption occurs in the same country that grew the underlying commodity(ies), even more in poorer, land-locked countries.

Low agricultural productivity and limited import capacity, combined with pockets of recurring conflict, conspire to make Africa home to almost 40% of the world's hungry people. Africans are disproportionately unlikely to afford a nutritious diet, causing high rates of child stunting and diet-related diseases, especially those related to mineral and vitamin deficiencies. Children who suffer undernutrition early in life (especially before their 2nd birthday) run a high risk of irreversible loss of adult physical and neurocognitive function, as well as increased morbidity and mortality.

African food and nutrition security is strategically important to the U.S. for multiple reasons. First, the continent will account for most human population growth globally over the rest of this century. As the U.S. population ages, and soon begins to shrink, Africa will become a crucial source of working age adults, especially in high-demand sectors like health care and information technology, in which U.S. businesses and nonprofits already struggle to find qualified workers. Investments in African children today help ensure a high quality U.S. workforce of the future.

Second, although Africa today accounts for less than ten percent of a roughly US\$8 trillion global food market, that will change dramatically in the coming decades. Africa is the only world region where the market for food products will grow substantially in the years ahead. Africa will lead the world in population growth, and likely also in income growth rate, making it the fastest growing consumer goods market in the world. And because Africa is the poorest continent, the share of that income growth that converts into food demand (what economists call the “income elasticity of demand for food”) is also higher than elsewhere. As a result, 50-75 percent of global food demand growth to 2100 will occur in Africa, at least tripling the region’s global market share and making it an increasingly important market for U.S. farmers and food-related businesses. As African agricultural productivity grows, incomes rise and demand for U.S. products does as well. This trend is already evident. Inflation-adjusted annual revenue growth in Africa’s food retail and food service sectors far outpaced that of any other world region over the past decade, more than five times the U.S. growth rate.

Third, Africa is increasingly a locus of U.S.-China competition for global influence. China’s lending to African nations – and the resulting sovereign debt management issues – have received considerable attention. But the longer-term impacts will likely come from China hosting more than twice as many African university students as the U.S. (or Europe), building business, cultural, and political ties. A large share of those future leaders study agricultural and food issues in China, although the U.S. Land Grant University system remains the world’s finest.

Fourth, the cross-border flow of infectious disease, antimicrobial resistant bacteria, and violence is increasingly hard to stop as advances in communications and transport technologies steadily increase connectivity. The 2014 Ebola scare and the 2020 COVID-19 pandemic underscore how quickly local problems can spread, with calamitous consequences. We can and must preempt pandemics that arise from agrifood systems by identifying and stopping them at their point of origination.

Finally, Africa is home to a disproportionate share of the world’s remaining biodiversity and carbon-sequestering forests, making Africa central to global efforts to safeguard the planet. Future U.S. expenditures combatting sea level rise and extreme weather events at home depend partly on today’s investments in Africa’s agrifood systems.

The bottom line is that we cannot solve the world’s nor the U.S.’ food-related poly-crisis without devoting serious attention to Africa.

What To Do?

Today's food-related crises have a common structural cause: the slowdown since 2000 in agrifood system productivity growth in the face of rising food, fuel, fiber, and feed demand. This imbalance causes rising prices and lower stocks-to-use ratios, leaving us more vulnerable to price spikes due to disruptions from war, massive flooding or drought in a key producing region, an El Nino event, supply chain bottlenecks, etc. Higher prices drive poor and working-class people into food and nutrition insecurity and induce consumer and producer choices with adverse effects on environment, health, and military readiness. High prices also foster winner-take-all economic competitions that marginalize many while richly rewarding very few companies and individuals.

We must confront the structural causes, not the symptoms that manifest as crises, lest we get trapped in an expensive whack-a-mole game, knocking down one problem only to cause another one to rise more prominently. The structural solution to the food-related poly-crisis is science-driven agrifood systems transformation. But because that takes time, we must simultaneously provide shorter-term humanitarian assistance. That is especially true in Africa.

The highest single priority is to sustainably boost healthy food productivity growth. That requires investing more and differently. U.S. public agricultural research, development and extension (R&D&E) investment has fallen by one-third in 20 years and remains trapped in turn-of-the-millennium designs. The same is true of CGIAR, the international network of agricultural research centers that birthed the Green Revolution that rescued humanity from the last food-related poly-crisis, in the late 1960s and early 1970s, earning a plant breeder, Norman Borlaug, the 1970 Nobel Peace Prize. The returns to CGIAR research historically have been extremely high. But CGIAR funding and science have stagnated. There is a direct link from reduced and outdated R&D&E to poly-crisis.

Much of that R&D&E investment needs to occur in Africa because technological advances developed for U.S. agrifood systems do not translate well to radically different agroecosystems. Crop varieties developed for the U.S. lose ~80% of gains when used in Africa. African agricultural research and extension systems presently lack the scale and expertise to adapt, translate, and extend new agrifood systems discoveries. African farmers are not our competitors so much as they can be our customers and partners.

Five principles should guide policy design and implementation:

1) Move beyond staple crops. The U.S. should maintain R&D&E on calorie-rich staple grains, roots, and tubers, which get the lion's share of agricultural R&D&E funding now. But the U.S. should sharply expand R&D&E on micronutrient-rich foods to address diet-related health problems as well as farm profitability issues. There is tremendous promise in so-called 'specialty crops' – fruits, nuts, and vegetables – and many neglected – or 'orphan' – crops in Africa. Also, novel foods based on synthetic biology or chemosynthetic processes reduce reliance on conventional agriculture. Genetic advances to biofortify staple crops with essential micronutrients can address nutrient-deficient diets. Meanwhile, improved animal nutrition and genetics to reduce methane emissions and antibiotic resistance, and circular systems that recycle waste products into fertilizers and livestock feed can accommodate rising animal-source food consumption within planetary boundaries.

2) Focus on reducing water, land, antibiotics, and agrochemicals use. Nature and human health cannot endure expanded use of those and feedback – e.g., from climate change or soil nutrient loss – wipes out productivity gains. Novel production processes for familiar foods – e.g., cultivated proteins, vertical farming – as well as novel foods – including many ‘alternative proteins’ – are especially helpful here, complementing advances based on crop and livestock genetics accelerated by new genomic techniques such as those involving gene editing.

3) Look beyond the farm. Three-quarters of the value of global consumer food expenditures accrues to firms beyond the farmgate, such as processors, manufacturers, retailers, and restaurants. These are the most concentrated parts of agrifood value chains. Enforce competition policy, set clear, science-based standards for food manufacturing, retail, and wholesale – for example, around nutrient fortification and unhealthy ultra-processing – and use public food procurement policies to induce a race to the top, not the bottom, among food producers, processors, and wholesalers. Improved practices in the U.S. spill over into other markets, including Africa’s.

4) Leverage private sector financing. The public sector cannot and should not foot the R&D&E bill. An extra \$5 billion for public agricultural R&D&E is a heavy lift for the U.S. government, and especially for African ones. But it is pocket change for corporate America. We can better leverage taxpayers’ and philanthropists’ current investments by using policy tools that attract significant private agrifood systems R&D&E and disaster finance.

5) Respond promptly, generously, and cost-effectively to crises as they emerge. Humanitarian response has become considerably more cost-effective over the past generation, boosting the payoffs to modern emergency food assistance. Yet the U.S. – and especially other rich countries – respond inadequately, especially in Africa. Three of the four nations with the largest populations at risk (≥ 20 million each) are African: DR Congo, Ethiopia, and Sudan (Afghanistan is the fourth). In 2023, humanitarian assistance to those three countries covered only 34-43% of assessed needs. This is a penny-wise, pound-foolish policy. The costs of addressing food emergencies only rise the longer one waits. As children’s malnutrition intensifies, the cost per child increases dramatically, with irreversible cognitive and physical developmental impacts if response is too little or too late. Desperate families risk dangerous migrations to high-income countries, including the U.S., and serving displaced persons, much less refugees, is far more expensive than supporting them in their homes. Radical groups prey on the fears and needs of food-insecure people to sow sociopolitical instability.

What specific steps can the U.S. government, specifically Congress, take, based on those five guiding principles?

A. Set explicit productivity growth targets: 1.5-2.5% per annum growth in agrifood system total factor productivity (that is, the value of output divided by the value of all inputs), domestically and globally. Globally, we have dipped to about 1.1% annually, and essentially no growth in the U.S. and in Africa. Moreover, set targets in terms of essential nutrients (e.g., iron, calcium, vitamin A), not just in monetary value terms. We can and should grow the supply of essential nutrients by 3-4% per year. Add targets for reduced deforestation, agrochemicals, and water use. Then hold federal agencies – U.S. Environmental Protection Agency (EPA),

Millennium Challenge Corporation (MCC), U.S. Department of Agriculture (USDA), U.S. Agency for International Development (USAID) – and international partners – the World Bank, ⁴(CGIAR), Food and Agriculture Organization of the UN (FAO) – to those targets. Let agency leadership and their technical experts develop and implement strategies to deliver those results.

- B. **Give agencies the resources to meet those targets.** Double federal agrifood systems R&D&E budgets, by at least \$5 billion/year. Agricultural R&D&E is one of the very highest return public investments in the federal budget, with an average benefit/cost above 20! Yet U.S. public agricultural R&D&E has fallen by one-third over the past two decades. China has overtaken the U.S.; soon Brazil and India will too. Double USAID's budget for CGIAR and the Feed the Future Innovation Labs that put the best US science to work in service of the sorts of targets advanced above. Direct the US Executive Directors of the World Bank and the regional development banks to prioritize those same targets in their institutions' grant and loan portfolios.
- C. **Prioritize African-led agricultural R&D&E for Africa.** Africa outsources much of its agrifood systems R&D&E because it lacks adequate institutional capacity to reap the economies of scale and scope that drive much of the return on such investments. The high returns on U.S. and CGIAR R&D&E would rise considerably if complemented by African R&D&E institutions with the scale, scope, and scientists to do the adaptive research and extension needed to promote commercial distribution of improved genetic and other inputs and practices. U.S. matching funding, directly and through the multilateral development banks, can induce greater, concerted investment by African governments in multi-national regional programs organized around agroecological zones common to many countries, possibly under the direction of the Forum for Agricultural Research in Africa. Resolving the technology mismatch problem that plagues African agricultural R&D&E requires adequate funding for vibrant, problem-oriented science led by and serving Africans.
- D. **Focus increased public agrifood systems R&D&E on healthier, more resilient, sustainable products and methods,** not on conventional crops and methods. Do this via both guidance in Farm Bill Title VII (Research) and various foreign affairs appropriations (e.g., Feed the Future, Global Food Security Act (GFS), CGIAR via USAID) as well as through directives to U.S. Government representatives in multilateral organizations.
- E. **Leverage the private sector better.** Public and philanthropic R&D&E investments can be multiplied many times over by policies that incentivize private firms appropriately. Advanced market commitments – like those used to accelerate investment in and discovery and delivery of COVID-19 and pneumococcal vaccines – can be used in the agrifood space. For example, direct VA hospitals to commit to purchasing antibiotic-free alternative proteins with attractive nutrient profiles at the prevailing price of conventional protein sources. That ensures a profitable market for a high-quality product, eliciting private investment and accelerated R&D&E. Use benevolent patent extensions to induce cash-rich firms with expiring patents to support CGIAR or Africa-based laboratories presently starved for funding. Use

⁴ Formerly Constructive Group on International Agricultural Research

modern financial tools – such as catastrophic drought insurance – that have proved highly impactful and more cost-effective than many cash transfer programs.

- F. **Expand federal investment in renewable energy** in rural and small-town America (like the Rural Energy America Program - REAP) and in African development projects. Help farmers harness sunlight, methane from manure lagoons, wind, and geothermal energy to boost post-harvest processing, reduce food loss and waste, and stimulate job creation and economic growth to reduce hunger. Enable small cities and towns to convert vacant factory, military, and warehouse space to controlled environment agriculture and novel feeds/foods production, which can restore high quality jobs to rural areas while reducing the use of land, water, antibiotics, and toxic chemicals as well as crop loss to pathogens and pests.
- G. **Support safety nets.** For generations, the United States has been the world's most generous humanitarian donor. That must continue and our diplomats must push others to offer their fair share of support, too. That support needs to heed the evidence of the past twenty years, using the most flexible, cost-effective, contextually appropriate policy instruments in emergency and non-emergency food assistance. Safety nets to protect lives and livelihoods during emergencies are an essential complement to technological advances. R&D&E inevitably causes 'creative destruction' and people who might otherwise be casualties of broader progress commonly need transitional help. Bundling safety nets with technological innovation was central to the remarkable recovery of the U.S. Midwest from the Dust Bowl and Depression of the 1930s and to Asia's Green Revolution successes in the 1960s-80s. Effective safety nets for Africa must be a priority.
- H. **Stand firm against anti-science**, wherever and whenever it appears. Humankind has flourished due to crop and livestock genetic modification, which has proved the most reliable source of sustainable agricultural intensification. New genomic techniques enable rapid, precise adaptation of organisms to today's evolutionarily-unprecedented rate of climate and environmental toxicological change. New genomic techniques enable progress far faster than was ever feasible with slow, random natural selection or traditional plant and livestock breeding methods (often using harmful irradiation). Europe has suffered from its resistance to transgenic plant varieties and now to the use of gene editing. In the midst of a poly-crisis, the accelerated discoveries enabled by modern scientific methods are essential to finding solutions. Call out privileged anti-scientists whose fear-mongering misinformation hurts not just their own communities but also Africa's hungry youth and America's future.

Producing affordable, healthy food in Africa using environmentally sustainable practices will be the biggest social, environmental, technical, and humanitarian challenge the world faces in the final two-thirds of the 21st century. Directing public investment, diplomatic efforts, and private sector activity towards meeting this challenge promises enormous national security, diplomatic, and economic gains in the coming decades.

Further Reading

- Alston, Julian M., Philip G Pardey, and Xudong Rao. "Payoffs to a half century of CGIAR research." *American Journal of Agricultural Economics* 104.2 (2022): 502-529.
- Bai, Yan, et al. "Cost and affordability of nutritious diets at retail prices: Evidence from 177 countries." *Food Policy* 99 (2021): 101983.
- Barrett, Christopher B., ed., *Food security and sociopolitical stability*. Oxford University Press (2013).
- Barrett, Christopher B. "Overcoming global food security challenges through science and solidarity." *American Journal Agricultural Economics* 103.2 (2021):422-47.
- Barrett, Christopher B. "The Global Food Crisis Shouldn't Have Come As a Surprise: How to Finally Fix the Broken System for Alleviating Hunger," *Foreign Affairs* (2022).
- Barrett, Christopher B. "'Benevolent' patent extensions could raise billions for R&D in poorer countries." *Nature* 621.7980 (2023): 687-690.
- Barrett, Christopher B. "A New Way to Fight Disease and Boost Agriculture in Poor Countries: How an Innovative Patent Law Could Incentivize R & D and Save Millions of Lives," *Foreign Affairs* (2023).
- Barrett, Christopher B., et al. *Socio-technical innovation bundles for agri-food systems transformation*. Springer Nature (2022).
- Barrett, Christopher B., and Dan Maxwell. *Food aid after fifty years: Recasting its role*. Routledge (2005).
- Barrett, Christopher B. et al. "Agri-food value chain revolutions in low-and middle-income countries." *Journal of Economic Literature* 60, 4 (2022): 1316-1377.
- Bauer, Susanne E., Kostas Tsigaridis, and Ron Miller. "Significant atmospheric aerosol pollution caused by world food cultivation." *Geophysical Research Letters* 43.10 (2016): 5394-5400.
- Fuglie, Keith, et al. *Harvesting prosperity: Technology and productivity growth in agriculture*. World Bank (2019).
- Gollin, Douglas, Casper Worm Hansen, and Asger Mose Wingender. "Two blades of grass: The impact of the Green Revolution." *Journal of Political Economy* 129.8 (2021): 2344-2384.
- Jayne, Thomas S., et al. "Building twenty-first century agricultural research and extension capacity in Africa." *European Review of Agricultural Economics* 50.5 (2023): 1824-1846.
- Jensen, Nathaniel D. et al. *Escaping Poverty Traps And Unlocking Prosperity In The Face Of Climate Risk: Lessons From IBLI*. Cambridge University Press, 2024.

- Kremer, Michael, Jonathan Levin, and Christopher M. Snyder. "Advance market commitments: Insights from theory and experience." *AEA Papers and Proceedings* 110 (2020): 269-273.
- Moscona, Jacob, and Karthik Sastry. "Inappropriate technology: Evidence from global agriculture." Social Science Research Network working paper 3886019 (2022).
- Naylor, Rosamond, Safari Fang, and Jessica Fanzo. "A global view of aquaculture policy." *Food Policy* 116 (2023): 102422.
- Paarlberg, Robert, et al. "The uptake of new crop science: Explaining success, and failure." *Food Policy* 122 (2024): 102572.
- Rohr, Jason R., et al. "Emerging human infectious diseases and the links to global food production." *Nature Sustainability* 2.6 (2019): 445-456.
- Stads, Gert-Jan, Alejandro Nin-Pratt, and Nienke M. Beintema. *Building a case for increased investment in agricultural research in Africa*. International Food Policy Research Institute (2022).
- Tilman, David, et al. "Global food demand and the sustainable intensification of agriculture." *Proceedings of the National Academy of Sciences* 108.50 (2011): 20260-20264.
- Yi, Jing, et al. "Post-farmgate food value chains make up most of consumer food expenditures globally." *Nature Food* 2.6 (2021): 417-425.

The Importance of the Energy Sector to Sub-Saharan Africa's Economic Growth

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The U.S. Government, through Power Africa, advances sub-Saharan African (SSA) development through universal access to reliable energy

Summary

Electrification is a key enabler to economic growth; however, more than half of SSA's 1.2 billion people lack access to electricity—a significant impediment to SSA's economic progress.

SSA's population is expected to reach 1.8 billion by 2040.⁶ Population growth, coupled with economic aspirations across the continent mean SSA's energy demand will rise by six percent each year through 2040. To meet this demand, electricity generation capacity will need to rise nearly six-fold and a massive buildout of transmission infrastructure is required.⁷ The continent's diverse energy resources are more than sufficient to meet its needs.⁸ However, utilizing these resources will require more private sector investment and development, backed by enhanced legislative and regulatory frameworks and capacitated stakeholders in order to lower investment risk and open opportunities to finance projects.⁹

Power Africa, through its partnership approach, works hand-in-hand with host government nations and the private sector to implement locally-led solutions that improve lives and power economies in sub-Saharan Africa by increasing access to cleaner, more reliable energy. Since its inception in 2013, Power Africa has allocated over \$575 million to strategic investments in electricity generation, transmission, distribution, and enabling environment reforms. This investment has leveraged over \$25 billion for 152 power projects totaling over 14,250 megawatts (MW) of new

⁵ (Drafted by: Cheuka P., Sullivan P., Taylor M., Lee V.)

⁶<https://www.prb.org/resources/understanding-and-comparing-population-projections-in-sub-saharan-africa/>

⁷ The Infrastructure Consortium for Africa <https://www.icafrica.org/en/topics-programmes/energy/>

⁸ Mckinsey.com, Green energy in Africa presents significant growth opportunities: Solar and wind capacity are currently 15 gigawatts (GW) and 12 GW, respectively—and are projected to grow significantly by 2050: solar power by up to 100 times and wind power by up to 35 times. Hydropower, which currently represents 45 GW of installed capacity, is expected to quadruple by 2050.

⁹ Envisioned stakeholders include energy and environment government officials, regulators, utilities, power system planners, transmission system operators and energy consumers

electricity. This has translated into new and improved electricity services delivery to more than 200 million people across SSA.

Energy As a Key Pillar for Economic Growth and National Security

Energy is the foundation for economic development and industrialization in SSA given the way in which electricity access opens avenues for improved productivity, job creation, health, education, water, and communication services.

SSA is home to some of the fastest-growing economies in the world, with vast natural resources and a youthful population driving economic expansion. This growth is intricately tied to the availability and accessibility of energy supply. Insufficient and unreliable energy infrastructure has impeded economic and social development in many SSA nations. From manufacturing to technology development, many SSA industries struggle with access to stable, reliable, and affordable energy supply. Inadequate energy infrastructure hampers industry, limiting the economic diversification necessary for sustained growth and job creation.

Furthermore, investment in energy infrastructure is a cornerstone to alleviating poverty.^{10,11} Energy diversification can produce real economic gains, especially in developing economies like SSA.¹² For example, a 50-percent increase in renewable energy generation in Southern African Development Community (SADC) countries has demonstrated potential to increase the region's gross domestic product by nine percent.¹³ Investments in power generation projects can increase the flow of capital and create employment opportunities for workers who gain transferable knowledge and skills.¹⁴

Beyond building economic growth, investments in energy security can increase the political and economic security of SSA nations. Many African countries rely heavily on imported energy resources which are susceptible to geopolitical tensions, price fluctuations, and supply disruptions. By comprehensively and strategically diversifying

¹⁰ <https://www.sciencedirect.com/science/article/pii/S0973082622002344#:~:text=The need to increase access,balancing social and environmental dimensions>

¹¹ Leung, C.S. (2005). How electricity consumption affects social and economic development by comparing low, medium and high human development countries.

¹² Singh, N., Nyuur, R., & Richmond, B. (2019). Renewable energy development as a driver of economic growth: Evidence from multivariate panel data analysis. *Sustainability*, 11(8), 2418. <https://doi.org/10.3390/su11082418>

¹³ Cheuka, P., & Choga, I. (2022). The impact of renewable energy generation on productivity in selected developing countries. *Corporate Governance and Organizational Behavior Review*, 6(3), 138–149. <https://doi.org/10.22495/cgobrv6i3p13>

¹⁴ <https://www.sciencedirect.com/science/article/pii/S0928765522000306#bib41>

the energy mix and sources of energy supplies, SSA nations can enhance energy security and reduce vulnerability to external shocks.

Energy-Sector Challenges in SSA

SSA has one of the lowest electrification rates in the world. Nearly 600 million people, about half the population, live without access to electricity.^{15,16} Energy sectors in SSA are characterized by poor service delivery, high tariffs, and low revenue collection. Many SSA utilities run financial deficits and are unable to reinvest in the operations, maintenance, and construction of infrastructure, furthering the cycle of poor service delivery and insufficient revenue collection. Low supply and low consumption, coupled with aging plants – the majority of which are fossil-fuel based – and insufficient funding, discourage energy suppliers from innovating to improve service delivery.

The vulnerabilities in SSA’s energy infrastructure are both a cause and a symptom of some of the region’s stability and security concerns. Political uncertainty, corruption, and poor infrastructure increase investment risks and the cost of capital. Further, many SSA governments lack sound policies and development strategies that would lower risks and incentivize investment.

How SSA governments plan for their energy needs and lay the groundwork to attract the required investment that will allow them to meet the basic needs of their citizens and fuel economic growth will largely depend on how the continent’s energy systems evolve.

Affordable, Reliable, and Sustainable Electricity Is Key to SSA’s Energy Security

The Electrify Africa Act dictates an “all of the above” approach to support SSA’s electrification goals. Energy diversification is necessary for energy security and economic growth in SSA given the endowment of resources, technology developments, and falling costs of new energy technologies. To meet the Act’s objectives, Power Africa collaborates with more than 180 official private sector partners, 22 development partners and African host governments to unlock investment, institute regulatory reforms and align resources and programming.

¹⁵ World Energy Outlook, 2023

¹⁶<https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?end=2021&locations=ZG&start=1996&view=chart>

Sub-Saharan Africa is extraordinarily diverse, and no single approach will advance its energy future. The continent has vast resource potential in solar, wind, hydro, and geothermal, with half of the countries in SSA containing proven natural gas reserves,¹⁷ allowing for natural gas to play an important role as a transition fuel for the region. A diversified energy mix fosters resilience and will reconcile the prerogatives of strong economic growth and economic sustainability.

For the majority of Africans living without access to electricity, particularly those living in remote areas where grid development is challenging and expensive, distributed off-grid renewable energy¹⁸ is the quickest and cheapest solution to electrification. Likewise, for commerce and industries operating on inconsistent grid-connected electricity, new technologies can provide the agility and reliability necessary to run a competitive business. By balancing traditional energy sources with innovative solutions, SSA's energy sectors can boost affordability and industrial productivity. Many SSA nations recognize this potential and have committed to diversifying the energy mix of their grids.

Solutions: How Power Africa Can Help

In order for African countries to achieve their energy-related economic and sustainable development goals, investments need to reach over \$200 billion annually by 2030;¹⁹ far more than the funding available from African governments and international donors.

Power Africa uses its partnership approach to bring together African governments with the U.S. government, private sector companies, international development agencies, and financial institutions to attract and expand long-term private sector investment in SSA's energy sector by promoting policy and regulatory reforms that lower investment risk and open opportunities to finance projects.

Importantly, Power Africa works closely with African governments to implement locally-led solutions and priorities that are essential to strengthening the power sector and accelerating project development for a long-term sustainable future.

¹⁷ The African Energy Chamber

¹⁸ Distributed renewable energy is energy from small scale renewable energy resources, usually situated near sites of electricity use such as rooftop solar panels and battery storage.

¹⁹ IEA (2023), World Energy Outlook 2023, IEA, Paris

<https://www.iea.org/reports/world-energy-outlook-2023>, License: CC BY 4.0 (report); CC BY NC SA 4.0 (Annex A)

Enhancing Energy Investment in SSA

Power Africa employs a transaction-centered approach to directly address the constraints to project development and investment in sub-Saharan Africa's energy sector. The model works with the private sector to build local capacity by supporting innovative ways to make traditional assistance programs more effective and sustainable.

Instead of taking years or even decades to create an enabling environment for energy sector investment, Power Africa's transaction-centered approach focuses on facilitating more effective and efficient energy project transactions while simultaneously driving policy reform.

For example, many energy sector projects remain unfunded because of poor project preparation, the high cost of capital, supply chain issues, public procurement bottlenecks, and political or external risks. However, by leveraging the tools and resources from Power Africa's private sector partners, including project preparation funding, innovative guarantee and insurance products, concessional financing, and other blended finance tools, SSA governments and private sector developers can de-risk their projects and reduce project financing costs.

Power Africa mobilizes public and private capital into SSA's energy investments by:

- making early-stage investments that enhance project bankability and signal confidence to the market,
- de-risking opportunities to attract private capital, and
- supporting innovative financing structures that overcome the structural challenges to implementing power projects in SSA.

For example, the U.S. Trade and Development Agency (USTDA) is one of 12 U.S. Government interagency partners that Power Africa works with to provide a range of capital to assist projects progressing to bankability. Specifically, Power Africa and USTDA have funded feasibility studies, technical assistance, and other analyses that energy-sector projects need to move from concept to financing and implementation. With Power Africa's support, USTDA assisted 121 activities across 22 countries, comprising a combined potential of 7,072 MW of electricity, \$17 billion in financing, and over \$7 billion in opportunities for the export of U.S. goods and services since 2013.

Further, Power Africa provided a \$1.3 million repayable grant to CrossBoundary Energy (CBE) to address energy needs and financing constraints SSA firms face. CBE used Power Africa's funds to mobilize approximately \$40 million and successfully exited a

series I fund for distributed renewable energy, returning the initial investment plus 5 percent to the U.S. Treasury.

Power Africa also recently invested \$2 million into Acumen, a non-profit impact investment fund, which delivers energy access to over 72 million low-income customers in the least-developed and most climate-vulnerable countries in SSA. Power Africa's investment leveraged \$250 million to expand off-grid energy to underserved markets.

Strengthening the Regulatory and Enabling Environment

Sub-Saharan Africa's regulatory, strategic, and policy environments often increase risk for investors that rely on the clear and consistent institutions, laws, and regulations to govern the energy sector. Strong energy-sector reforms can carve a direct path to increasing generation and transmission investments needed to alleviate SSA's energy challenges.

Power Africa improves the enabling environment for energy-sector modernization through:

- transparent legal and regulatory frameworks,
- sound, strategic, and integrated power-sector planning,
- clear and transparent procurement processes,
- utility and electricity tariff reform, and
- improved adherence to international environmental and social standards.

For example, in Senegal, in response to the government's request, USAID partnered with the Ministry of Energy and national utility to improve demand forecasting, resulting in the Generation and Transmission Master Plan and an associated investment plan. The plan includes integration of 632 MW of grid-connected power. This work further builds on the Millennium Challenge Corporation's (MCC) \$550 million Power Sector Compact, which supports management of the transmission network and increased access to electricity.

In Nigeria, USAID worked with four distribution companies to improve service delivery, enhance commercial performance, and build staff capacity. In just over two years, each company cut losses by double digits, increased revenue collected by \$162 million, added 570,386 legal connections, and trained approximately 4,000 employees.

In Zambia, USAID helped the government develop a geospatial map, necessary for the Zambian National Electrification Strategy. The strategy allowed private developers to

Aspen Institute Congressional Program

plan their investments more effectively in the off-grid sector and increase sales.

In Malawi, MCC worked with the Government of Malawi to implement the country's own priority reforms for achieving sustainable economic growth and poverty reduction. Through this Malawi-led process, MCC facilitated the adoption of energy-sector reforms, allowing private-sector participation and unbundling Malawi's state-owned utility to increase its commercial viability. This new legal framework enabled the utility to conduct its first competitive tender, which attracted 21 bids from international companies and resulted in 80 MW of new solar power.

Strengthening Transmission, Distribution, and Regional Trade

Underfunded, weak, and insufficient grid infrastructure impedes the delivery of energy and integration of renewables, which hinders Power Africa's congressionally-mandated "all of the above" approach. In SSA, the transmission deficit is significant. The combined length of transmission in the 38 SSA countries is less than the length of the domestic transmission network of Brazil.²⁰ Far-reaching, modern, and interconnected grids can provide the system reliability necessary to propel economic growth and enhance energy security. The continent can realize this interconnected future through its five power pools and investments in domestic and cross-border transmission connections.

Power Africa seeks to address transmission and distribution bottlenecks by:

- expanding and improving networks,
- modernizing grids to improve transmission and integration of a diverse energy portfolio,
- working with electricity distribution utilities to improve operational efficiency and financial performance, and
- unlocking regional trade.

Since 2013, Power Africa has helped facilitate more than 7,665 km of power lines. Power Africa supported the Temane Transmission Project (TTP), the first phase of the Mozambique Integrated Transmission Backbone System. TTP includes a 560 km, 400 kV transmission line connecting power plants in the north with population centers in the south, including 1.2 million residents in the capital city, Maputo.

To enhance regional integration via power pools, Power Africa is partnering with the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) to

²⁰ https://cldp.doc.gov/sites/default/files/2021-10/Understanding_Transmission_Financing.pdf

evaluate the potential to support the scale-up of private investment in renewable energy generation capacity and interconnected infrastructure by better utilizing competitive wholesale electricity markets in the Southern Africa Power Pool.

Capacity-Building to Propel SSA's Energy Sectors

Energy-sector deals often involve complex legal and technical arrangements, requiring specialized skills to negotiate and implement—skills not always available in the local market. By increasing the ability of government and private stakeholders to plan because they are interested in energy diversification, develop, procure, and negotiate these deals, SSA economies can realize energy project pipelines more quickly.

According to the International Energy Agency, only 13 percent of energy jobs are considered low skilled, however, globally there is a skills gap to meet demand for labor, to which SSA is not immune. In renewable energy alone, the industry projects a global shortage of seven million skilled workers needed to build, operate, and manage climate and energy projects.²¹ The labor shortage is compounded by social and economic barriers to women's entry into the energy-sector workforce. Today, just 21 percent of Africa's energy utility employees are women, leaving a large and productive segment of the population completely un-tapped to support this energy transition.²² By training and retaining employees with the right skills, and by opening opportunities for women in the energy-sector workforce, SSA's energy sectors can support workforce demands created by the global energy transition.

The evolving energy landscape creates opportunities for investors, financiers, project developers, component manufacturers, and suppliers in the emerging energies sector. To help communities benefit from emerging job opportunities, Power Africa works to:

- provide transaction advisory services to the private sector and SSA governments, moving transactions through government procurement to financial close;
- provide training and capacity-building toward structuring PPAs and negotiating deals; and
- build capacity of technical and vocational education and training (TVET) institutions to train the current and future energy-sector workforce.

²¹<https://www.cleanenergywire.org/news/skills-shortage-delays-global-energy-transition-puts-climate-targets-risk-report>

²²<https://blogs.worldbank.org/energy/getting-snapshot-womens-employment-power-sector-africa-and-south-asia#:~:text=On%20average%2C%20women%20constituted%2021,countries%20and%202%25%20in%20Pakistan>

For example, Power Africa helps energy-sector stakeholders upskill and adapt to the new economy by collaborating with TVET institutions in South Africa to develop energy curricula and specialized skills training for the local labor force.

In Malawi, Power Africa has worked with the national utility, ESCOM, to develop the skills necessary to absorb higher volumes of clean energy, better manage frequency from its hydro resources, and plan for large volumes of energy trade anticipated through the Malawi-Mozambique interconnector, which will unlock regional energy trade opportunities for the country.

Conclusion

As SSA's population rapidly expands and urbanizes, its need for affordable, reliable, and sustainable energy supply grows. By meeting electricity demand SSA can realize its economic growth aspirations, create new jobs, increase national security, and harvest social and health benefits. The U.S. Government is playing a crucial role. To date, Power Africa and its partnership network has leveraged over \$25 billion in power projects throughout SSA totaling over 14,000 MW of new electricity, and bringing new or improved electricity services to more than 200 million homes and businesses.

Understanding Africa's Energy Security Imperative

Brian Dames

CEO, African Rainbow Energy and Power

Introduction

The vital role of energy access and security in Africa's development has moved to center stage amid intensifying global power struggles and deepening tensions involving the United States, Russia, and China.

Universal and affordable energy access across Africa is essential for prosperity and economic growth on a continent which remains a significant and largely unrealized market for developed nations. However, current energy infrastructure is inadequate, and the escalating challenges posed by high network losses and limited grid capacity limit progress.

But that could change as the great powers turn their attention back to Africa amid a fractious international regime riven by conflict more than at any time since the Cold War. In this uncertain context, Africa's energy security stands at a moment of opportunity. It is a problem that can be solved with resources and focus. To a power like the U.S., this is an opportunity to re-establish a partnership with a continent increasingly looking to Moscow and Beijing rather than to Washington.

Energy diplomacy has been an important arrow in the quiver of policy options for leading global actors and one that will unlock strategic and tactical options for the player who brings a comprehensive and proactive approach to address the continent's energy security concerns.

Understanding Africa's Energy Problem

Some 600 million people — of an estimated population of 1.4 billion — lack access to electricity, most of them in sub-Saharan Africa. The International Energy Agency (IEA) estimates that achieving universal access to affordable energy electricity will require additional annual connections to 90 million people — or triple the existing rate of growth.²³ But it would be money well spent.

The World Bank highlights that increasing access to electricity in African countries such as Rwanda, Malawi, Uganda, and Tanzania has already led to improvements in education, gender equity, economic growth, and development.²⁴

²³ International Energy Agency (IEA), "African Energy Outlook 2022": 15

²⁴ World Bank, "Transforming Lives Through Energy Access in Eastern and Southern Africa", <https://www.worldbank.org/en/results/2023/11/21/transforming-lives-through-energy-access-afe-1123-in-eastern-and-southern-africa>, (Accessed December 12, 2023)

In contrast, the challenges of energy access leave the average African with an energy diet that would be unimaginable to the average citizen of the U.S. or Europe. The average annual per capita electricity consumption in sub-Saharan Africa is only 488 kilowatt-hours — equivalent to about five percent of the consumption in the U.S.. If South Africa’s consumption is removed from the equation, annual per capita consumption in sub-Saharan Africa drops to 150kWh.²⁵ Put differently, this is only enough to run a refrigerator for 6.5 hours a day, let alone the other technologies which enable entrepreneurship, education and a connection to the global economy.²⁶

Despite this immense demand, energy grid expansion and investment has been woefully inadequate resulting in extremely high network losses, averaging 15 percent — almost twice the global average of 8 percent — across the continent in 2020.²⁷

For example, Nigeria, with a population of 206 million, has a power generation capacity of around 12 gigawatts (GW) where Brazil (with a similar population) has a generation capacity of 181GW. Nigeria’s grid infrastructure cannot handle more than around 5GW generation capacity at any given time which results in 43 percent of the Nigerian population effectively lacking electricity access.²⁸

South Africa’s well-documented energy crisis is crippling economic growth, contributing to the rise of crime and unemployment, and eroding social stability.

Without energy security and a dramatic and rapid extension of access to electricity for its population, Africa’s latent economic opportunity will never be realized.

Energy, it might be argued, is the key to the kingdom.

Amid an Energy Crisis, the Great Powers Heat Up

Unsurprisingly, energy is an issue with much texture. It is deep in the fabric of international politics, not only as an area of concern as the world seeks to slow or roll back climate change, but also as a factor in the economic and political competition that plays out in Africa between the great powers.

²⁵ Nkiruka Avila, Juan Pablo Carvallo, Brittany Shaw, and Daniel M. Kammen, “Oxfam Research Backgrounder, The energy challenge in sub-Saharan Africa: A guide for advocates and policy makers”, 2017:16

²⁶ Author’s own calculation. With 150kWh of annual consumption a person could run a refrigerator for approximately 6.58 hours each day, assuming an average refrigerator consumption of 1.5 kWh per day.

²⁷ IEA, “African Energy Outlook 2022”: 130

²⁸ William Tobin and Maia Sparkman, “To meet energy security and climate goals, Africa needs investment in infrastructure”, Atlantic Council, <https://www.atlanticcouncil.org/blogs/energysource/to-meet-energy-security-and-climate-goals-africa-needs-investment-in-infrastructure/>, (Accessed December 13, 2023)

An analysis by the RAND Corporation lays out an insightful view of the strategic arena, evaluating the opportunities for competition and conflict between the great powers in Africa.²⁹

The analysis shows that while the U.S. remains a leading military actor on the continent and a provider of aid, its influence on the continent has waned while China's and Russia's have grown. "The United States lacks a comprehensive vision for Africa and tends to approach it as a source of problems or a project that needs to be solved rather than as a prized strategic area of influence," the RAND study observes.

China is now Africa's largest trading partner and continues to seek influence through its Belt and Road Initiative (BRI) while Russia has renewed interest in the continent in the wake of its increased isolation and sanctions following its invasion of Ukraine.

In contrast, relations between Africa and the U.S. measured by trade have cooled remarkably with the value of trade between the U.S. and Africa from 2008 to 2021 decreasing by 55 percent to \$64 billion. The continent's trade with China in 2021 alone was valued at \$254 billion.³⁰

Within these shifting sands of influence, energy diplomacy plays a significant role. Russia exercises energy diplomacy in favor of its state-linked businesses involved in nuclear and other energy areas, among other sectors, while China is estimated to be active in key infrastructure projects — including energy — in 33 African countries.³¹

Illustratively, at the time of writing, South Africa had announced Russia's Gazprombank as its partner to refurbish a gas-to-liquids refinery in an agreement heavily criticized for being stacked in favor of the internationally sanctioned Russian entity.³²

The U.S. has moved on energy diplomacy too in the last decade with foreign policy committed to assisting African countries pursue their energy access goals. Initiatives like Power Africa, launched in 2013, aim to expand electricity generation and access, although its target of 30,000 new connections by 2030 will have negligible impact.

More ambitiously the U.S. Development Finance Corporation (DFC) has committed to expand electricity access to at least 10 million people by 2025, although that target is across developing markets and not specific to Africa.³³

²⁹ Marta Keep, Elina Treyger, Christian Curriden, Raphael S. Cohen, Kurt Klein, Ashley L. Rhoades, Erik Schuh, Nathan Vest, "Great-Power Competition and Conflict in Africa", Rand Corporation, 2023

³⁰ Tobin and Sparkman, "To meet energy security and climate goals, Africa needs investment in infrastructure", Atlantic Council

³¹ Keep et al, "Great-Power Competition and Conflict in Africa", Rand Corporation, 2023: 44

³² Ed Stoddard, "Cabinet signs off on controversial R3.7bn Gazprombank deal to reboot Mossel Bay refinery", Daily Maverick,

<https://www.dailymaverick.co.za/article/2023-12-11-cabinet-signs-off-on-controversial-r3-7bn-gazprom-bank-deal-to-reboot-mossel-bay-refinery/>, (Accessed December 14, 2023)

³³ Auth, "How the U.S. Can Better Support Africa's Energy Transition", Carnegie Endowment for International Peace,

The DFC's climate mandate since April 2021 incentivizes the agency to prioritize clean energy infrastructure wherever possible and positions the U.S. well amid the boom in renewable energy investments on the continent. However, the agency's focus on mobilizing private capital for investment-ready projects and its limited ability to meet the scale of infrastructure investment required in low-income countries are seen as significant weaknesses by its critics.³⁴

In June 2022, the G7 nations, including the Biden administration, announced the Partnership for Global Infrastructure Investment (PGII) to raise \$600 billion by 2027 for sustainable infrastructure developments — including clean and renewable energy infrastructure — in emerging markets. The PGII initiative is seen as an attempt to counter waning influence on the continent and most particularly to challenge the Chinese BRI which has resulted in an estimated \$1 trillion of direct infrastructure investment globally in the last decade.³⁵

While the size and scope of the PGII project is substantial, it faces significant criticism on several fronts, among them that it is a scaling back of the G7's earlier Build Back Better World initiative of 2021 which had pledged \$40 trillion in infrastructure investment by 2035.³⁶

There is a consensus among the plan's critics that it is unlikely that this initiative will significantly challenge the Chinese BRI or materially project the G7's soft power ambitions on the continent.³⁷

The Renewable Wave

The International Energy Agency (IEA) notes that energy investment in Africa has been declining thanks to the Covid-19 pandemic, global disruptions like Russia's invasion of Ukraine, and rising borrowing and debt servicing costs.

Clean energy investment in Africa accounts for less than two percent of the global total despite the continent representing some 20 percent of the world's population.³⁸ The

³⁴ Tobin and Sparkman, "To meet energy security and climate goals, Africa needs investment in infrastructure", Atlantic Council

³⁵ Conor M. Savoy and Shannon McKeown, "Future Considerations for the Partnership on Global Infrastructure and Investment", Center for Strategic and International Studies", <https://www.csis.org/analysis/future-considerations-partnership-global-infrastructure-and-investment>, (Accessed December 10, 2023)

³⁶ Savoy and McKeown, "Future Considerations for the Partnership on Global Infrastructure and Investment", Center for Strategic and International Studies

³⁷ Elizabeth C. Losos and T. Robert Fetter, "Building Bridges? PGII versus BRI", Brookings, <https://www.brookings.edu/articles/building-bridges-pgii-versus-bri/>, (Accessed December 10, 2023)

³⁸ IEA, "Financing Clean Energy in Africa World Energy Outlook Special Report", September 2023, <https://www.iea.org/reports/financing-clean-energy-in-africa>, (Accessed December 15, 2023): 17

agency calculates that energy investment will need to rise to \$200 billion a year by 2030 for African countries to meet their energy-related goals.³⁹

Yet, these investments will come to naught without an expansion of power grids. For example, South Africa, the poster child for the economic cost of an under-invested grid, is trying to unlock 13 gigawatts of power through an expansion of the grid to end rotating national power cuts.⁴⁰

Despite plentiful solar and wind opportunities, grid expansion is a significant challenge to the use of renewables to alleviate South Africa's energy crisis. The Renewable Energy Grid Survey by the country's power utility Eskom shows that there are 66GW of renewable energy projects in development in the country, but many are in areas where there is no grid capacity.

Some 23 wind projects, for instance, lost out in a recent round of procurement of energy by Eskom from independent renewable producers because of this. One estimate is that grid capacity must be expanded with an extra 2300 km per year against the 300km currently available.⁴¹

Some in the private sector believe this could be enabled by the \$8.5 billion pledged to South Africa as part of the Just Energy Transition package which aims to decarbonize the economy. The private sector might take a lead role in doing this but a framework for legislation and procurement is required.⁴²

In southern Africa, generally, regional grid expansion is vital to enable effective sharing of electricity resources among countries. The Southern Africa Power Pool (SAPP) represents regional electricity companies who have created a common market and grid in the Southern African Development region, but capacity and transmission constraints have resulted in a deficit of 2154MW which undermine the SAPP's ambitions.^{43,44}

³⁹ IEA, "Financing Clean Energy in Africa World Energy Outlook Special Report".

⁴⁰ Bella Genga, "South Africa to unlock 13 Gigawatts in Grid Expansion Plan", Bloomberg, <https://www.bloomberg.com/news/articles/2023-07-23/south-africa-aims-to-unlock-13-gigawatt-in-grid-expansion-plan>, (Accessed December 12, 2024)

⁴¹ Lameez Omarjee, "SA can add 30GW of wind energy in 10 years, but grid challenges will be our undoing - expert", News24, https://www.news24.com/fin24/climate_future/energy/sa-can-add-30gw-of-wind-energy-in-10-years-but-grid-challenges-will-be-our-undoing-expert-20230619, (Accessed December 12, 2023)

⁴² Omarjee

⁴³ Musara Beta, "Overview of the SAPP", <https://usea.org/sites/default/files/event-/SAPP%20Overview.pdf>, (Accessed December 14, 2023)

⁴⁴ Tonderayi Mukeredzi, "Power deficit, transmission constraints mar SAPP electricity trade", African Energy, <https://www.africa-energy.com/news-centre/article/power-deficit-transmission-constraints-mar-sapp-electricity>, (Accessed December 14, 2023)

These challenges, which include required reserve margins, regulatory and pricing policies, among other things, are replicated across other regional grids and power pools on the continent.⁴⁵

With enough investment and determination to solve the other challenges, the continent is rich in options to build energy access for hundreds of millions of people on the back of renewable energy.

For example, solar mini grids are being rolled out in sub-Saharan Africa, rising from about 500 installed in 2010 to 3000 installed today with a further 9000 planned. Some estimates predict that these grids can produce electricity for as low as \$0.20/kWh, the most cost-effective solution for most of Africa.

In Nigeria, Kenya, Ethiopia, and Zambia initiatives are underway to make mini grid investments attractive for the private sector but at the current pace only some 12,000 mini grids will be implemented by 2030, far off the 160 000 that are needed to provide power to 380 million people.⁴⁶

Gas also offers a significant transitional energy source. Africa's natural gas resources are abundant and are estimated at 800 trillion cubic feet with half the continent's countries having proven gas reserves⁴⁷ but, like many of the other opportunities for Africa, inadequate infrastructure, lack of financial resources and regulatory frameworks hinder progress.

To achieve progress, finding a new model for the financing of these energy projects is essential. The IEA argues that many projects will not be commercially viable, effectively excluding them from international infrastructure funding schemes. However, the IEA also says that there is a compelling case for "concessional finance" considering their social impact.⁴⁸

The IEA proposes:

- reducing the cost of capital for clean energy projects;
- scaling up financing across the clean energy spectrum with a range of financial instruments tailored to the development stage and commercial viability of different technologies and business models;

⁴⁵ Nomihla Wandile Ndlela, Innocent Ewean Davidson and Katleho Moloi, "Power Planning for a Reliable Southern African Regional Grid", *Energies* 16, no. 3 (2023): 1028, <https://doi.org/10.3390/en16031028>, (Accessed December 17, 2023)

⁴⁶ The World Bank, "Solar Mini Grids Could Sustainably Power 380 million People in Africa by 2030 – if Action is Taken Now", <https://www.worldbank.org/en/news/press-release/2023/02/26/solar-mini-grids-could-sustainably-power-380-million-people-in-afe-africa-by-2030-if-action-is-taken-now>, (Accessed December 14, 2023)

⁴⁷ Mortimer McKeachie, "How natural gas can play a role in Africa's energy transition", <https://www.marsh.com/tn/en/industries/energy-and-power/insights/how-natural-gas-can-play-a-role-in-africas-energy-transition.html> (Accessed December 16, 2023)

⁴⁸ IEA, "Financing Clean Energy in Africa", 18

- increasing the use of blended finance by concessional capital providers to unlock private investment, through instruments like guarantees and concessional equity; and
- strengthening domestic financial systems and local private capital participation in these investments.

Conclusion

This analysis has attempted to show that energy access and security is the key that unlocks Africa's latent economic potential and provides a route to prosperity for its 1.4 billion citizens.

With the right policies enabling investment in electricity infrastructure and renewables, hundreds of millions of Africans can be brought further into the modern economy, driving development and economic growth.

This also represents an important opportunity for policymakers in the U.S. to ensure Washington has the tools to rebuild influence on the continent after years of decline.

As Chinese and Russian energy diplomacy makes inroads, U.S. risks rise. But by enabling direct investments in African energy security, the U.S. can refresh or reclaim a partnership which is real, mutually beneficial, and advances its national interests.

South Africa's Role in BRICS and China's Influence on the Continent

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Introduction

South Africa's membership of the BRICS (an intergovernmental organization comprising Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran, and the United Arab Emirates) remains a contested issue in terms of the country's strategic foreign policy positioning and value. The value proposition is that South Africa has more to gain from the BRICS than offer to the grouping. Perhaps what should be noted with emphasis is that South Africa's admission into the BRICS is as much about Pretoria's soft power identity as it is about "the reorientation of South African foreign policy to fit, support and reflect its increasing status as a credible leader of the South, capable also of global leadership, and the constraints that inhibit its ability to fully realize these ambitions."⁴⁹

But the more pertinent question is to what extent the country's role in the BRICS amplifies Pretoria's voice and agency in the African continent towards supporting the continent's global political and economic integration. And whether joining the BRICS manifests complementary engagements with the other BRIC countries in respect of Africa's developmental agenda or does it represent a deeper set of strategic competition of interests in the continent, especially in respect of China.

This essay will explore these and other relevant issues that will consider whether South Africa's role in the BRICS and China's influence in Africa represent a level of cohesive interests aligned to the continent's common agenda of trade and development and political convergence. Or is it based on a narrow set of vested interests that is crafted on leveraging a competitive footprint in the continent?

South Africa's BRICS Agenda in Africa

From the onset South Africa's BRICS membership hinged on creating the platform as an outreach partnership with African partners. This focus of South Africa's foreign policy orientation is anchored in the view that Pretoria's post-apartheid relations with Africa is rooted in advancing the interests of the continent in global affairs and promoting multilateralism geared towards reforming the international system. In addition, South Africa perceives the African agenda and its broader normative international relations as part of the country's activist foreign policy (linked to a progressive internationalism

⁴⁹ Chris Alden and Maxi Schoeman (2013): 'South Africa in the company of giants: The search for leadership in a transforming global order' *International Affairs*, vol 89(1), pp.111-129.

approach) in aligning its national development priorities with the continental political and economic integration project and, thus, making a valuable contribution in influencing the transformation of global power relations, especially regarding the repositioning interests of Africa's agency and interests in global affairs.⁵⁰ Therefore critical to South Africa's BRICS engagement when Pretoria hosted the 2013 Summit and onwards was the central feature of the continent that was considered as the strategic context informing the country's national interests in the bloc.

The reaction by some African countries towards South Africa creating a platform of engagement and cooperation for Africa within the BRICS was welcomed as a part of the agency and voice that continental actors will have in shaping African interests on the global stage. The expectation was that South Africa's BRICS membership will lead to the establishment of a coordinated formal BRICS-Africa Forum that would advance the reforms advocated by the Kagame Report which will see a harmonized approach to how Africa defined a cohesive relationship with external actors on trade, development cooperation and the African Continental Free Trade Agreement (AfCFTA). In broader terms, the view, despite what some saw as South Africa punching above its weight in the BRICS,⁵¹ was that the ANC led government's motto: A Better Africa; A Better World would ultimately provide the continent with the vantage point of coordinating a Pan-African institutional framework of cooperation.

The inherent challenge was whether South Africa's BRICS membership was seen as a legitimate and credible outreach of African interests and not about Pretoria's parochial influence. As a result, the question of South Africa's African identity in the BRICS was juxtaposed by the following three approaches:

1. The 'South Africa first' approach in which state and capital would blindly pursue narrow economic interests irrespective of the damage they may inflict on the region;
2. The 'Integration under South African hegemony' – an approach in which South Africa would initiate large- scale regional cooperation and integration projects shaped by interests and aspirations to regional hegemony. These would be projects along the lines of the Lesotho hydro-electric power scheme; and
3. 'A non-hegemonic regional cooperation and integration' approach in which South African capital would sacrifice maximum profit in the interests of the long- term regeneration of the continent as a whole.

⁵⁰ John Daniel, Varusha Naidoo and Sanusha Naidu, 'The South Africans have arrived: Post Apartheid Corporate Expansion into Africa', in John Daniel, Adam Habib and Roger Southall (eds.): ***The State of the Nation 2003-2004***, Human Sciences Research Council Press, Cape Town, 2004, pp. 368-390.

⁵¹ Sanusha Naidu (2013): 'South Africa and the BRICS: Punching above it weight?' in Southall (et al) (eds.): ***A New South African Review: The Second Phase – Tragedy or Farce***, Johannesburg: Wits University Press.

South Africa's African Dilemma: An Exploitable Market or a Continental Renaissance?

The end of apartheid opened up African markets to South African capital. The footprint of South African Inc was never in any doubt but the pace at which South African capital invested in new African markets was fascinating. While South African business was based on the perspective of the *business of business is business*, for the newly democratic government it was caught in the headwinds of whether it will be seen as behaving like its apartheid predecessor.

To allay such perceptions and distrust, the post-apartheid state was convinced that democratic South Africa had to redress the past historical relationship of overlord and interventionist attitude with the continent. As a result the post-apartheid state saw its national security interests linked to former President Thabo Mbeki's African Renaissance promotion of a progressive internationalism, that essentially sought to advance a global ideological transformation agenda based on "acting against the apartheid era presumption that South Africa was 'an island of European civilization' on the continent. Mbeki articulated a discourse of South African inclusion in Africa bolstered by his commitment to fostering an African renaissance and the advance of regionally based multilateralism."⁵² The motivation behind adopting such an African narrative in South Africa's foreign policy stance was also aimed at mitigating the view that the focus on the continent could be interpreted as South Africa utilising its convening power for hegemonic economic and political interests.

The Continental Renaissance did not always resonate in African capitals. And South Africa became the subject of much criticism that it was an extension of its apartheid identity. Joining the BRICS while at face value was intended to mirror South Africa's middle power identity and about strengthening the country's South-South footprint, it was also about the perception of 'strengthening [the country's] status as a gateway to Africa.'⁵³ This did not inspire the confidence that South Africa's membership in the BRICS should be perceived in relation to Zuma's Presidency advocacy of Agenda 2063 based on the 'African We Want'.

Hence the notion between the South African government's interlocking role between its own interests and that of the Continent became complicated by whether Pretoria's strategic calculus in the BRICS focused more on strengthening political and economic bilateral ties with each of the BRICS partners, on advancing a more inclusive African engagement in the BRICS. This became noticeable in relation to South Africa's own agency in the continent which became less influential and overshadowed by domestic political challenges and views of xenophobia. The project of reconciliation and racial transformation still remained harder to achieve under the Rainbow nation.

⁵² Alden and Schoeman (2013).

⁵³ Alden and Schoeman (2013), pg. 8.

The China Factor: Partner or Competitor?

China's decision and timing to invite South Africa to join BRIC was a masterstroke on its part. First, it flagged the fact that Beijing was moving expeditiously to build its political capital in Africa and to stamp its footprint on key decisions affecting the continent. One of these related to its support for a referendum on Southern Sudan's future. With the outcome predictable, China gained the support of a reliable oil-producing African state, and one so weak and in need of aid that it could easily be turned to favour China's political will and whims.

Second, the fact that South Africa is perceived as a gateway into the markets of the Southern African Development Community (SADC) and beyond served Beijing's interests in the south of the continent and its corporates. The 'going out' strategy of Chinese companies is certainly being boosted by joining forces with South Africa corporates in exploring and exploiting market opportunities in African economies.

Lastly, it enabled Beijing to demonstrate its global leadership qualities, especially in the South and the developing world. In fact, this move reflects one of the four cornerstones of China's foreign policy priorities, namely its ensuing engagements with the Third World or as now called the Global South.

Of course China's Africa policy is based on Beijing's own historical and strategic calculus of being the leader and voice of the Global South. The point of departure is that China enjoys its own political and economic power based on bilateral relationships rather than having a proxy country to be an interlocker to ventilate its interests across the continent. The latter has been aptly captured through policy vehicles like the Forum on China-Africa Cooperation (FOCAC), and more recently the Belt and Road Initiative (BRI) and the unveiling of the Global Development Initiative (GDI), the Global Security Initiative (GSI), and the Global Civilisational Initiative (GCI).

In many ways China has emerged as a competitor to South Africa's influence in the continent which is based on Pretoria having to address the trust deficit that exists in its deliberations in Africa. The case in point could be seen when President Zuma tried to stall Morocco's readmission into the African Union. Or when Zuma broke protocol and successfully lobbied for Nkosana Dlamini-Zuma to become AU Commission Chair.

Moreover China has leveraged its rising global status and economic largesse to build political and diplomatic engagements with African partners. China's de facto leadership of the BRICS was significantly used in terms of how Beijing innovated on South Africa's African Outreach Partnership to unveil BRICS + and hence BRICS Expansion. This allowed China to optimise its African engagements by advocating for Africa's expansion (notably Egypt and Ethiopia) in the BRICS towards more alignment with Beijing's interests. In short, the nexus between security and development was built into China's African cooperation model, which enabled Beijing to become more embedded in Africa's development landscape. For South Africa this meant that it had to defer to how other African countries interpreted their relationship between Pretoria vis-à-vis Beijing where China had more influence and traction.

Conclusion

If South Africa's admission into the BRICS was aligned to deepening the African engagement, then Pretoria's gamble was less than attractive. The challenge is that South Africa has been at odds regarding its African identity based on Mbeki's view that the country is characterised by two South Africa's: one rich and developed and the other poor and underdeveloped.

With that said and returning to the three approaches noted above, South Africa's membership of the BRICS could be construed as a 'South Africa first approach' with the disclaimer that it was aligned to a 'non-hegemonic approach to regional cooperation and integration' aimed at advancing Africa's interests. But in reality the view from other African elites and ordinary citizens is that it was more about South Africa's national interest and soft power rather than about leveraging Africa's interests in global affairs.

Therefore in deliberating the topic it would seem that South Africa's role in the BRICS is now at a crossroads with the potential of membership expansion of African countries. What this suggests is that China and the other core BRIC actors (India, Russia and Brazil) prefer to keep their bilateral engagements intact with African countries under the banner of FOCAC, the India-Africa Forum Summit, Brazil-Africa Summit and the Russia-Africa Summit. To this end, South Africa has not established a specific Africa summit platform. And so the question is whether SA's BRICS engagement is becoming less dependent on its trajectory in Africa and more about how it navigates its broader foreign policy principles. It is also worth mentioning that as other African countries (regional actors like Nigeria/Ghana; Kenya/Tanzania; Morocco and Namibia) become potential members of the BRICS, South Africa role in the BRICS surely looks to be relegated to that of a regional actor in Southern Africa. And not one of elevating the voice of Africa in global affairs. A case in point here is the African Union as the 21st member of the G20 under India's Presidency.

Therefore, South Africa's BRICS engagement needs to be more than an African centric approach taking into account a changing geopolitical landscape across the continent.

Investing in Science: Africa's Untapped Potential

Glenda Gray

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“It is science alone that can solve the problems of hunger and poverty, of insanitation and literacy,... of vast resources running to waste, or a rich country inhabited by starving people... Who indeed could afford to ignore science today? At every turn we have to seek its aid...The future belongs to science and those who make friends with science.”

- Jawaharial Nehru.

In this essay, I describe the lack of investment in science and innovation in Africa, the value of Research and Development (R&D) on economic growth, and areas of science where Africa may be able to make an impact. As a medical researcher and physician, with an interest in infectious diseases and HIV, I will highlight a recent initiative from USAID – a co-operative agreement that has been awarded to the SAMRC to support an African-led initiative to discover and evaluate HIV vaccines, as part of USAID's localisation agenda.

Introduction

Despite being home to 15% of the world's population (1.3 billion people) and 25% of the global burden of disease, Africa produces just 2% of the world's research output (1). Africa has 60% of the world's arable lands, large areas of forests, 30% of the world's reserve of minerals and the youngest population of any continent (2). One could say we are “open for business”, yet we only produce 3% of global GDP and account for less than 3% of international trade. African Research and Development suffers from both local chronic underinvestment from the public sector and global underinvestment, with only 1% of global investment being spent in Africa. In terms of innovation, a minuscule 0,1% of the world's patents are held in Africa (3).

In addition, Africa has only 198 researchers per million people compared to 428 in Chile and over 4000 in the UK and US. To put our finger in the dike and correct this imbalance, we will need to inject another million new PhDs on the continent. The substantial migration of professionals to high-income countries each year is also an impediment to our ability to make sustainable progress in the area of innovation.

Presently, to do nothing is to go backwards.

“How can a continent that has fuelled the world's industrial revolutions, that helped drive the dominance of the mobile phone industry, and whose large store

of rare earth minerals that are integral to the global green energy transition tolerate such dismal statistics?”

- Ameenah Gurib-Fakim and Landry Signe (4)

This chronic lack of investment has undermined Africa’s economic transformation and has exacerbated Africa’s reliance on the colonial development model of resource extraction. This is unsustainable and perpetuates poverty and aid dependency.

Is there a silver lining for Africa R&D? Can Africa answer some of the most challenging global conundrums, reverse Afro pessimism and create an Africa that flourishes?

Rationale for Investing in Science and Innovation

There are examples of developing countries who invested in science and who are now reaping the dividends. For instance, in the mid-20th century, South Korea was one of the poorest countries in the world. The South Korean government made significant investments in education, research, and technology. This focus on science and technology laid the foundation for the country's economic transformation. South Korea is now known for its thriving technology and innovation sector, with companies like Samsung and LG gaining global prominence.

China, despite being a developing country just a few decades ago, has invested heavily in science and technology. The Chinese government's commitment to research and development has led to significant advancements in various fields. China is now a global leader in areas like telecommunications, renewable energy, and space exploration.

India, with a large population and diverse challenges, has invested in science and technology to address developmental issues. The Indian Space Research Organisation (ISRO) has achieved remarkable success, including cost-effective space missions like the Mars Orbiter Mission. India's information technology sector has also played a crucial role in its economic development.

Brazil has invested in scientific research and development to address issues related to agriculture, the environment, and healthcare. The Brazilian Agricultural Research Corporation (EMBRAPA) has contributed significantly to advancements in tropical agriculture, helping the country become a major player in global food production. Singapore, a small city-state with limited natural resources, has prioritized investment in science and education. The country's focus on research and innovation has made it a hub for technology and finance in the Asia-Pacific region.

In Africa, Rwanda has invested in science and technology to drive economic development and improve the quality of life. The country has made strides in information and communication technology (ICT) and has implemented initiatives to promote innovation and entrepreneurship. In South Africa, the Science, Technology and Innovation decadal plan 2022-2032 (5) sets forth a strategy that spans innovation from

manufacturing, agriculture and mining to the digital and circular economy, to health and energy amongst others. This strategy has the overall aim of reinvigorating science.

These examples demonstrate that investing in science and technology can lead to positive outcomes, including economic growth, improved living standards, and global competitiveness, even for countries that were once considered economically disadvantaged. Such investments contribute not only to the development of the countries themselves but also to global knowledge and innovation.

Role of Science in improving Economic Growth

Scientific research is a key driver of innovation and economic growth. Investing in science in Africa can spur the development of new technologies, industries, and businesses, leading to economic diversification and job creation. This not only benefits the continent but also contributes to the global economy.

The paucity of patents in Africa is of concern because patents are a proxy for measuring innovation. An increase in the stock of patents by 1 percent can increase productivity *per worker* by 0.04 percent (6). In this article, Philip Barrett and colleagues estimate that a 10 percent permanent increase in the stock of a country's own basic research can increase productivity by 0.3 percent. The impact of the same increase in the stock of *foreign* basic research is larger. Productivity increases by 0.6 percent.

Research and development (R&D) can have a positive impact on a country's Gross Domestic Product (GDP) in several ways:

- 1. Innovation and Technological Advancements:** R&D activities often lead to the development of new technologies and innovations. Technological advancements can increase productivity, efficiency, and the quality of goods and services in various industries. Improved technologies can lead to the creation of new products, processes, and markets, contributing to economic growth.
- 2. Increased Productivity:** Research and development can result in the discovery of more efficient production processes. Enhanced productivity, driven by technological innovations, allows businesses to produce more output with the same or fewer resources, ultimately boosting GDP.
- 3. Creation of New Industries and Jobs:** R&D can stimulate the emergence of new industries and sectors. The growth of new industries often leads to job creation and increased economic activity, contributing to higher GDP.
- 4. Competitiveness in Global Markets:** Nations that invest in R&D can gain a competitive edge in the global marketplace. Cutting-edge technologies and innovative products make a country's exports more attractive, leading to increased international trade and a positive impact on GDP.
- 5. Human Capital Development:** R&D activities contribute to the development of a skilled and knowledgeable workforce. Well-educated and skilled workers are more productive, and their contributions to the economy can result in higher GDP.

- 6. Health and Life Sciences Advances:** R&D in health and life sciences can lead to the development of new medicines, medical technologies, and healthcare practices. Improved health outcomes can lead to a more productive workforce, reducing absenteeism and increasing overall economic output.
- 7. Infrastructure Development:** Some R&D projects, especially in sectors like transportation and energy, contribute to the development of critical infrastructure. Improved infrastructure can facilitate economic activities and trade, positively impacting GDP.
- 8. Attracting Foreign Direct Investment (FDI):** Nations with a strong emphasis on R&D can attract foreign companies and investors seeking access to cutting-edge technologies and innovation. Increased FDI can lead to additional capital inflows, job creation, and economic growth.
- 9. Long-Term Economic Growth:** While the immediate impact of R&D may not always be apparent, its effects often contribute to sustained, long-term economic growth. R&D lays the groundwork for continuous innovation, driving economic development over extended periods.

It's important to note that the impact of R&D on GDP can vary based on the effectiveness of the research, the ability to commercialize innovations, and the overall economic and policy environment. Countries that prioritize and invest strategically in research and development tend to experience positive effects on their GDP over time.

Africa Has the Capability of Finding Answers to Global Challenges

Many global challenges, such as climate change, infectious diseases, and food security, require collaborative and international efforts. Many health challenges, including infectious diseases and access to healthcare, disproportionately affect African populations. Investing in scientific research in Africa can contribute to finding solutions to these health disparities, improving healthcare outcomes, and promoting global health security. By investing in science in Africa, Africa can contribute innovative insights to address these challenges on a global scale.

USAID, in a recent cooperative agreement, is funding African scientists and institutions to lead the discovery, design and testing of HIV vaccine candidates. For the first time, USAID will invest up to \$45 million over five years directly with a local partner, the South African Medical Research Council, for HIV vaccine research and development.

This award -- called HIV Vaccine Innovation, Science, Technology Acceleration in

Africa (HIV-VISTA) -- will provide even more opportunities for scientists across sub-Saharan Africa to advance HIV vaccine research and development and leverage the lessons learned from decades of U.S. government investments. South African scientists in collaboration with scientists in Uganda, Nigeria, and across sub-Saharan Africa will collaborate on this endeavor. As almost two-thirds of new HIV infections occur in sub-Saharan Africa, it is critical that African scientists lead this project. This new project led by the South African Medical Research Council will broaden the field of partners and

allow for greater leveraging of local resources, creative collaborations, and innovative science, which may be the source of a real breakthrough toward a safe and effective HIV vaccine.

“Adding new scientific thinking and talent to the established expertise in this field not only strengthens our chances of success in the fight against HIV—it strengthens global health security for us all.”

- USAID Deputy Administrator Paloma Adams-Allen.

Other communicable diseases, like tuberculosis, remain a threat, and scientific research in Africa will be critical for finding effective solutions such as an effective vaccine.

Additional Benefits of Supporting Science in Africa

Supporting scientific research in Africa helps build local scientific capacity. This includes training scientists, providing access to state-of-the-art equipment and technologies, and fostering a culture of innovation. Strengthening scientific capabilities in Africa contributes to a more equitable distribution of scientific knowledge and expertise worldwide.

Africa is home to a rich diversity of ecosystems, cultures, and challenges. Investing in science in Africa ensures that a broader range of perspectives and solutions are considered in addressing global issues. Local scientists bring unique insights and experiences that can enhance the overall quality and relevance of research outcomes.

Scientific research plays a crucial role in promoting sustainable development. By investing in science in Africa, funding bodies can support research that addresses local challenges related to health, agriculture, water resources, and other critical areas. This, in turn, contributes to the overall sustainable development of the continent.

Collaborative research efforts between African scientists and their international counterparts can lead to mutually beneficial partnerships. These collaborations can enhance the quality and impact of research, facilitate knowledge exchange, and promote a more interconnected global scientific community.

In summary, investing in science in Africa is not only beneficial for the continent itself but also for the global community. It promotes collaboration, diversity, and the development of solutions to shared challenges that transcend borders.

References

1. Kasprowicz, V.O., Chopera, D., Waddilove, K.D. *et al.* African-led health research and capacity building- is it working?. *BMC Public Health* **20**, 1104 (2020). <https://doi.org/10.1186/s12889-020-08875-3>
2. Natural capital, an option for African governments to finance Sustainable Development Goals, African Development Bank Group, 24-Apr-2023
3. Kariuki T, Kay S, There are not enough scientists in Africa. How can we turn this around? World Economic Forum on Africa, May 3, 2017.
4. Gurib-Fakin A, Signe L, Investment in science and technology is key to an African economic boom, a commentary, Brookings, January 22, 2022.
5. South African Science Technology Decadal Plan 2023-2033. *Published by dstsouthafrica, 2023-01-16 03:42:34*
6. Philip Barrett, Niels-Jakob Hansen, Jean-Marc Natal, Daa Noureldin, Why Basic Science Matters for Economic Growth, Public investment in basic research will pay for itself. October 6, 2021.

SITE VISITS

THE GLOBAL FUND⁵⁴

Background



The Global Fund is a worldwide partnership to defeat HIV, TB, and malaria and ensure a healthier, safer, more equitable future for all. The organization raises and invests more than US\$5 billion a year to fight the deadliest infectious diseases, challenge the injustice that fuels them, and strengthen health systems and pandemic preparedness in more than

100 of the hardest hit countries. In 2022, the Global Fund disbursed a record US\$5.2 billion to fight HIV, TB and malaria, support COVID-19 Response Mechanism (C19RM) activities and strengthen the systems for health that underpin any pandemic response. The Global Fund unites world leaders, communities, civil society, health workers, and the private sector to find solutions that have the most impact, and it takes them to scale worldwide.

To achieve the greatest impact against the deadliest infectious diseases, the Global Fund challenges power dynamics to ensure affected communities have an equal voice in the fight and an equal chance at a healthy future. Countries where the Global Fund invests take the lead in determining where and how to best fight the three diseases, and present funding applications for review by different Global Fund structures. Country ownership allows them to tailor their own response, considering their political, cultural and epidemiological context.

The Global Fund takes on rigorous reviews of funding applications. Once the applications have been approved, Principal Recipients and Global Fund Country Teams work together to prepare a grant that countries can then implement. Together with implementing countries, the Global Fund monitors and assesses activities through different review structures and mechanisms to ensure funding achieves its intended purpose. The results of these assessments are reported back to donors.

Impact

⁵⁴ Information and photo from theglobalfund.org
Aspen Institute Congressional Program

The coverage of treatment and prevention interventions for HIV, TB and malaria in countries where the Global Fund invests has grown markedly since 2002. Scientific advances, innovative ideas and private sector know-how are unlocking improvements in disease prevention, treatment and care.

Health programs supported by the Global Fund partnership have saved 59 million lives since we were created in 2002, reducing the combined death rate from HIV, TB and malaria by more than half. The lives saved include parents who care for their children, employers and workers that build thriving economies, neighbors and friends that contribute to their communities. They are children who have survived malaria, or who have been protected from HIV and are now young adults. They are community leaders who strive every day to make the lives of people in their communities better, healthier, and longer. Every life saved and every infection averted has a multiplier effect.

PEPFAR/DREAMS⁵⁵

Background

DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) is a public-private partnership providing a comprehensive, multi-sectoral package of core interventions to address key factors that make girls and young women particularly vulnerable to HIV.

The DREAMS partnership was announced on World AIDS Day in 2014 and in 2015. USAID began activities in ten countries in sub-Saharan Africa: Eswatini, Kenya, Lesotho, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe. These countries accounted for nearly half of all the new HIV infections among adolescent girls and young women (AGYW) globally. In 2017, DREAMS expanded to five new countries: Botswana, Côte d'Ivoire, Haiti, Rwanda, and Namibia. In 2020, South Sudan also began to implement a targeted package of DREAMS services including Violence Prevention and Economic Strengthening.



Adolescent girls and young women account for 74 percent of new HIV infections among all adolescents in sub-Saharan Africa, and nearly 1,000 adolescent girls and young women (AGYW) are infected with HIV daily. Social isolation, poverty, discriminatory cultural norms, orphanhood, gender-based violence, and inadequate schooling all contribute to their vulnerability to HIV and a life not lived to its full potential. The DREAMS partnership goes beyond individual health initiatives to address these factors, working toward meeting the Sustainable Development Goal of ending AIDS by 2030.

The DREAMS core package aims to:

- Empower adolescent girls and young women and reduce risk through youth-friendly reproductive health care and social asset building;
- Mobilize communities for change with school- and community-based HIV and violence prevention;
- Reduce risk of sex partners through PEPFAR programming, including HIV testing, treatment, and voluntary medical male circumcision; and
- Strengthen families with social protection (education subsidies, combination socio-economic approaches) and parent/caregiver programs.

⁵⁵ Information and photo from <https://www.usaid.gov/global-health/health-areas/hiv-and-aids/technical-areas/dreams>
Aspen Institute Congressional Program

USAID is the lead implementer of DREAMS in both funding and geographic reach. U.S. funding for PEPFAR grew from \$1.9 billion in FY 2004 to \$6.9 billion in FY 2023. DREAMS builds upon USAID's decades of experience empowering adolescent girls and young women and advancing gender equality across many sectors, including global health, education, and economic growth. USAID partners with community, faith-based, and non-governmental organizations to mobilize significant numbers of community leaders and members, helping to address the structural inequalities that impact vulnerability to HIV.⁵⁶

Impact

Preventing and treating HIV in AGYW not only leads to improved physical and mental health and outcomes, but also provides economic benefits by connecting them with social protection programs that help them attend school and participate in the workforce. While helping AGYW is viewed as a major moral imperative, PEPFAR can also help support economic and national security.

Experience 1: Saving the lives of orphans and vulnerable children affected by HIV/AIDS. In South Africa, U.S. foreign assistance supports hundreds of thousands of orphans and vulnerable children and their care-givers who have been affected by HIV/AIDS by partnering with the South African Government to improve access to primary health and social support services. The group will visit a public community clinic in one of the largest townships in South Africa, called Khayelitsha. In this visit, the group will meet U.S.-supported youth social workers, nurses, as well as orphans and their care-givers who are the beneficiaries of the program. In small group dialogues, the visitors will learn about how the U.S. has saved the lives of vulnerable children by ensuring they access HIV treatment and support and paving the way for an AIDS-free generation in the future.

Venue: Michael Mapongwana Community Health Clinic

Experience 2: Empowering girls against the threat of violence.

Gender-based violence is a profound and wide-spread problem in South Africa that is closely associated with the spread of HIV among vulnerable girls. In South Africa, the U.S. supports community-based organizations to educate and empower girls at risk for experiencing violence by providing social support and health services. In this visit, the group will visit a community church in Bloekombos, a township in the northern part of the Cape Town metro that has high rates of gender-based violence. The group will witness a U.S. supported self-defense and youth development class that empowers girls

⁵⁶All information from USAID.

<https://www.usaid.gov/global-health/health-areas/hiv-and-aids/technical-areas/dreams>

to detect and avoid harmful relationships that might lead to violence and defend themselves in case they experience violence. In small group dialogues, the visitors will talk to social workers, youth leaders, and girls participating in the program to learn about the impact of U.S. community support to address gender-based violence issues in Cape Town.

Venue: Community church in Bloekombos.

Experience 3: Saving the lives and mental health of victims of sexual violence

Each year, thousands of girls in Cape Town become victims of sexual violence. The U.S. supports South African hospitals by placing social workers and psycho-social support counselors in hospitals to aid victims of rape and sexual violence. The group will visit the Khayelitsha District Hospital, one of the largest public hospitals in South Africa, situated in one of the largest townships in the country. The group will meet hospital workers, social workers, and counselors as well as survivors of violence who have benefited from U.S. supported non-profit organizations. In small group dialogues, the visitors will learn about U.S.-led efforts to aid victims of sexual violence and meet exceptional women who overcome their victimhood and now serve as advocates for girls to end gender-based violence.

Venue: Khayelitsha Thuthuzela Care Center, Khayelitsha District Hospital

Experience 4: Partnering with schools to raise an AIDS-free generation

Each year in Cape Town, tens of thousands of boys and girls in school benefit from U.S. support by accessing curricula that prepares young people to negotiate and prevent situations that lead to HIV transmission. The U.S. partners with the South African Department of Basic Education's school principals and teachers to educate boys and girls about health topics that are crucial for keeping them free from HIV. The group will visit a high school that participates in the health promotion curricula to talk to students, teachers, and the school principal about challenges and opportunities to keep boys and girls in schools and protect them from HIV. In small group dialogues, the visitors will have the opportunity to learn about how issues of crime, education, safety, and economic development affect boys and girls' efforts to stay and succeed in school.

Venue: Leiden High School (Northern Tygerberg)

Experience 5: Delivering health services to underserved men and youth

Young men in South Africa disproportionately struggle to access health services and maintain healthy behaviors that prevent the transmission of HIV. In Cape Town, young men must face issues of crime, violence, unemployment, and other social issues that deter men from accessing life-saving health services. The U.S. provides health services

Aspen Institute Congressional Program

in communities where men gather to make accessing healthcare easier for vulnerable populations. The group will visit a private primary care facility located in an industrial zone of Cape Town. The clinic is located in areas where men work in manufacturing plants and other industry warehouses in order to provide convenient and confidential services to this crucial population. In small group dialogues on the health facility premises, the group will have the opportunity to meet clinicians, health promoters, and men who have benefited from receiving services at a U.S.-supported private facility.

Venue: Elsie's River Clinic

AMAZON WEB SERVICES SKILLS CENTER⁵⁷

Background



Amazon Web Services (AWS) Skills Center Cape Town is a free training center for anyone in the local community who is curious about cloud computing and future job possibilities in the cloud. Access fun and engaging cloud skills training and interactive exhibits, as well as career networking and job placement events with local employers and organizations—all for free.

AWS has a significant presence in South Africa, with data centers in Cape Town and Johannesburg, serving customers across the African continent. In line with its commitment to supporting skills development, AWS has collaborated with various organizations, educational institutions, and government entities in South Africa to offer training programs, workshops, and certification opportunities.

One notable initiative is the AWS re/Start program, which is designed to help individuals with little to no technology experience gain the skills needed to pursue careers in cloud computing. While AWS doesn't necessarily operate a physical "Skills Center," it partners with training providers and institutions to deliver these programs.

Impact

Firstly, by providing training and certification programs, AWS facilitates the acquisition of in-demand cloud computing skills, opening up employment opportunities both locally and globally across diverse industries. Secondly, the development of a skilled cloud computing workforce contributes to economic growth by attracting tech investment, fostering innovation, and meeting the rising demand for cloud professionals. Thirdly, the adoption of cloud technologies enabled by these skills accelerates digital transformation efforts, promoting modernization and efficiency across sectors. Through capacity building and community development, these initiatives bridge the skills gap, empower individuals from diverse backgrounds, and foster social inclusion within the tech industry, thereby advancing both individual careers and societal progress.

⁵⁷ Information and photo from aws.amazon.com
Aspen Institute Congressional Program

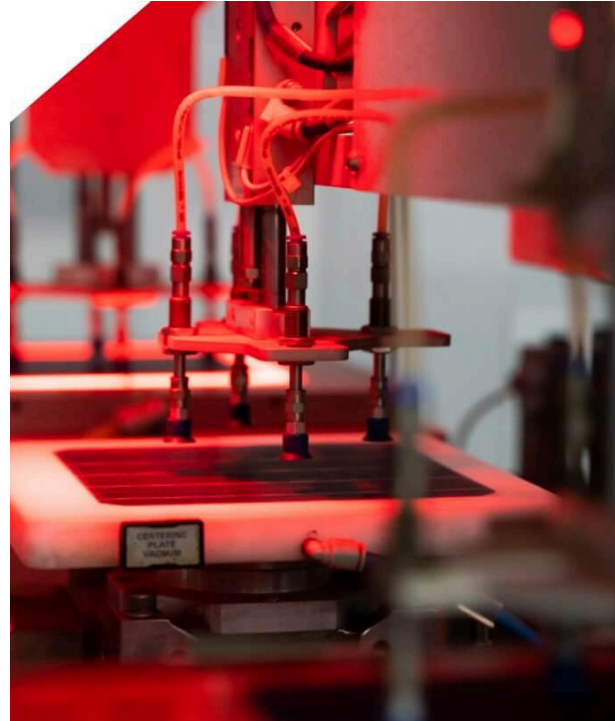
ENER-G-AFRICA

Background

Ener-G-Africa (EGA) is a champion of sustainability in Africa, addressing the obstacles posed by climate change through locally developed sustainable energy solutions and clean energy products, spanning the entire continent.

Ener-G-Africa was founded in 2017 in Malawi as a solar wholesale company after recognizing the demand for quality sustainable energy products, including solar panels and biomass stoves, outpaced supplies in the country. As only the second such facility in sub-Saharan Africa, Ener-G is 100 percent women operated and partners with the U.S. multi-agency Power Africa Initiative.

Ener-G-Africa is a champion of sustainability in Africa, addressing the obstacles posed by climate change through locally developed sustainable energy solutions and clean energy products, spanning the entire continent. The African continent is rich in possibility and EGA is at the forefront of unlocking its renewable energy potential and building a value chain of manufacturers, suppliers, and distributors across the product spectrum.



Impact

Within the last three years, EGA has experienced remarkable growth and diversification. In 2020, the company witnessed a 500 percent surge in stove manufacturing capacity, a doubling of solar product sales, and a 300 percent increase in stove implementation programs. The following year, EGA expanded its operations by establishing a new stove manufacturing facility in Cape Town, resulting in a twofold increase in production output. In 2022, the company took a significant step by commissioning a solar panel assembly plant at its Cape Town headquarters. As of 2023, the solar plant has commenced production, and EGA has inaugurated its second manufacturing plant in Paarl, South Africa, specializing in Advanced Biomass Stoves, cookstove components, and a cookware line. During this site visit, members of Congress will learn more about how these strategic moves position EGA for continued growth and progress in the renewable energy sector and how the United States supports those efforts.

CITRUS FARM, AFRICAN GROWTH OPPORTUNITY ACT (AGOA)

Background



The African Growth and Opportunity Act (AGOA) is a significant piece of legislation that was enacted by the United States Congress in 2000. AGOA's primary objective is to promote economic development and trade relations between the United States and eligible sub-Saharan African countries. Under AGOA, these countries are granted preferential access to the

U.S. market, allowing for duty-free and quota-free exports of a wide range of products, including textiles, apparel, agricultural goods, and manufactured goods.

South Africa boasts a thriving citrus industry, leveraging its favorable climate and diverse geographic regions to produce a wide range of citrus fruits, including oranges, lemons, grapefruits, and limes. Spread across various provinces, the industry adheres to stringent quality standards to meet international market demands. With a significant focus on exports, South Africa supplies citrus fruits to global markets, contributing substantially to the country's economy through foreign exchange earnings and rural livelihood support. The industry's seasonal harvest pattern ensures a consistent supply of citrus fruits year-round, reinforcing its position as a key player in the global citrus market with ample room for continued growth and innovation. The group will visit one of the AGOA-sponsored citrus farms near Cape Town to learn more about the program's benefits from local farmers.

Impact:

AGOA has had a profound impact on participating African countries, stimulating export-oriented industries, creating job opportunities, and fostering economic growth. Furthermore, AGOA has promoted good governance and reforms by incentivizing adherence to standards related to human rights, rule of law, and governance practices. While AGOA has brought significant benefits, challenges such as limited capacity and uneven distribution of benefits remain. AGOA represents an important mechanism for enhancing economic cooperation between Africa and the United States.

KLEIN GOEDERUST WINERY

His Mom Labored on a Winery Under Apartheid.

Now, He Owns One⁵⁸

Paul Siguqa grew up hating wineries because his mother toiled in their fields. But last year he opened the only fully Black-owned vineyard in Franschoek, one of South Africa's most prestigious wine towns.

Sameer Yasi



Paul Siguqa, owner of the Klein Goederust winery, inspecting a glass of his cabernet-merlot blend. Tommy Trenchard for The New York Times

RANSCHHOEK, South Africa — He grew up resenting the scenic winelands near Cape Town, watching his mother toil in the vineyards so that white people could sip their merlots and chardonnays in luxurious cellars.

Yet here was Paul Siguqa on a recent Saturday, swirling a chenin blanc in the airy tasting room he now owned.

What Mr. Siguqa, 41, has accomplished is nothing short of exceptional: The son of a farm laborer, he saved for 15 years to buy, restore and last year open Klein Goederust

⁵⁸ This profile was originally published by the [New York Times](#) on October 7, 2022.

Boutique Winery, the only fully Black-owned winery in Franschhoek, one of South Africa's two most prestigious wine valleys.

But his achievement also raises a frustrating question: How is it that, in 2022, in a country that's 80 percent Black, it's still remarkable when Black South Africans reach some of society's top rungs?

For all the progress South Africa has made since the days of the codified racial caste system of apartheid, its democracy remains 28 years young. The nation continues to struggle to shed entrenched inequalities that create a ceiling of sorts for economic success for the masses. There remain vexing racial disparities in wealth and land ownership.

White South Africans make up about 8 percent of the population, yet own 79 percent of privately held farmland, according to an analysis by Johann Kirsten, the director of [the Bureau for Economic Research in South Africa](#). The disparity is even wider in the wine industry. Black people own only about 2.5 percent of the country's vineyard acreage, [according to a report by Vinpro](#), an industry trade group.

"We inherited nothing," Mr. Siguqa said. "Because we are first generation, everything starts with us. So the burden's a lot heavier."

With charisma and a salesman's touch — he pitches his personal story with the same flair that he describes his wine — Mr. Siguqa is hoping to help upend that imbalance. And not just in the wine industry.

"If it's possible for a child of an uneducated farm laborer to be a farm owner, then it's possible for the child of a domestic worker to become a doctor, a scientist and whatever that they want to be," he said.

On a recent weekend, Mr. Siguqa discussed with a group of African-American visitors how he had come to own his winery, joining the handful of Black wine estate owners who have been pioneers in an industry that is difficult to access without generational wealth.

He told them he had operated on faith and that social mobility was possible, even as Black South Africans still have to battle for economic freedom. And by the time he got to explaining that every Black family had someone like his mother — "a strong Black woman that is a matriarch" — some of his guests were in tears.

"We're so proud of you," Jasmine Bowles, one of the teary-eyed guests from Atlanta, told him. "Thank you."

Growing up in a two-bedroom cottage with his mother and sister on a Franschhoek vineyard about 10 miles from the one he now owns, Mr. Siguqa had considered the wine industry as part of the dead-end future that the apartheid regime had designated for Black people: labor, often backbreaking, in service of white people. Part of his mother's

salary was paid in wine (which Mr. Siguqa said she did not drink), in what was known as the dop system.

His mother, Nomaroma Siguqa, 71, told him that she would be the last generation of their family to work the fields.

“I wanted my kids to have an option and not live the tough life of being restricted to a farm,” Ms. Siguqa said.

So she impressed upon her children the importance of education.

As Mr. Siguqa leaned into his studies, he also revealed his business savvy. Nearing the end of high school, to save money for university, he began buying fruit from area farmers in bulk and selling it at a busy intersection. On the first weekend, he said, he made 875 rand (about \$50), more than the 800 rand his mother earned in a month. Business became so brisk, he said, that he hired others to work for him.

It was around this time that Mr. Siguqa’s perspective on the wine industry began to change.

With apartheid over, he worked part time conducting tastings at the winery where he lived. He said he marveled at the sight of affluent Black visitors coming to enjoy the wine. It made him think that maybe there was more in the industry for people like him than hard, low-wage labor.

He resolved then, at 17, to own a winery someday.



Mr. Siguqa inspecting a grape vine. Tommy Trenchard for The New York Times

After university, he successfully launched a communications company and an events company, all while searching for a wine farm he could afford.

The hunt got serious in 2019 when Mr. Siguqa found a winery selling for 40 million rand (\$2.2 million). He asked his friend and winemaker, Rodney Zimba, to visit it. Mr. Zimba, 48, grew up with Mr. Siguqa, their parents laboring alongside each other on the same vineyard.

But when Mr. Zimba visited the winery, he knew it was not going to work because it was off the beaten path and difficult to find.

“We’re literally children of farm laborers, and I want people to see us,” Mr. Zimba said.

So he urged Mr. Siguqa to go with another property. It was smaller (24 acres), cheaper (12 million rand) and directly on the main road about five minutes outside of Franschhoek.

The only problem? It was dilapidated.

Still, Mr. Siguqa heeded Mr. Zimba’s advice and bought the property with cash in 2019. Mr. Zimba quit his job at an established winery to help lead the rehabilitation project and to become Mr. Siguqa’s winemaker.

“I think this is a legacy that we’re building here,” Mr. Zimba said.

Two years and 23 million rand (\$1.3 million) worth of renovations later, Mr. Siguqa opened his winery on Dec. 3 of last year. It offers five varieties, including a shiraz, a cabernet-merlot blend and a dessert wine.

He said he kept the original name, Klein Goederust, established in 1905, because he knows the psychology of his country. Consumers might associate a brand named Siguqa Wine with lower quality because of the African name, he said.

“Apartheid did a heavy one on us mentally,” he said.

Still, his winery is imbued with his heritage.

A relatively small operation, it has an intimate feel with two rustic, brilliant white Cape Dutch buildings — a tasting room and a restaurant — surrounded by 16 acres of vines. What once was a horse stable and repository for the cheap wine given to laborers has been converted into a haute bar with a glass top.

To the Klein Goederust seal, Mr. Siguqa has added a rain bird, a reference to his clan name. His signature wine, a sparkling brut, is named after his mother — the Nomaroma Method Cap Classic.

“I’m extremely happy and proud,” Ms. Siguqa said — though she also has high expectations. She once told her son that the color of the brut was off and that he needed to keep working on it because Black people are judged harshly.

“My experience has taught me that everything needs to be a certain way,” she said. “It needs to be perfect every time.”

That sentiment has not been lost on Mr. Siguqa, who said he wanted to establish his wine business as premium from the outset because “as Black people, already there’s doubt to say, ‘Do these guys know what they are doing?’”

An employee recently told him it would take eight to 10 weeks for labels for the sparkling brut to arrive, but that she could get them quicker from elsewhere.

“No, it’s not going to be the same,” he told her. “We can’t compromise on quality.”

He already appears to be influencing the next generation of potential winemakers.

Sidima Ganjana, 23, who is from a township in the winelands, also grew up thinking the only thing the wine industry offered Black people like him was hard labor. But then he discovered an academy that trains disadvantaged youth in the wine sector, and he read an article about Mr. Siguqa. He wanted to learn how a Black man was able to buy a patch of earth that seemed to be the preserve of white people, so he went to the vineyard and asked to intern there.

“I don’t feel to him like it’s a business,” Mr. Ganjana said. “It seems like it’s something bigger.”

As Mr. Siguqa strolled his farm, he pointed to the plot where he planned to build a production facility to make his wines (currently, he rents out other wineries’ facilities) and to where a 20-room hotel would go.

Then he pointed over the wire fence at the back of his property, toward a cluster of tightly packed tin shacks near the foot of a grand mountain. It was Langrug, an informal settlement for Black workers who tend the vineyards.

Someone once suggested planting trees along his property line to block the view of the settlement, but Mr. Siguqa said he couldn’t do that. Because that divide between the largely white wine estates and Black labor is his history, and still the present for many.

“It’s a reminder of inequality,” he said. “It’s a constant reminder of how far we must still go as a country.”

ROBBEN ISLAND AND THE NELSON MANDELA PRISON CELL

Background⁵⁹



Robben Island, located off the coast of Cape Town, South Africa, holds profound historical significance as a place of imprisonment and resistance. Most notably, it served as the site of Nelson Mandela's 18-year incarceration during the apartheid era, symbolizing the struggle against oppression and the resilience of those fighting for freedom and equality. However, its history extends far beyond Mandela's imprisonment,

dating back to the mid-17th century when it was used as a place of banishment and confinement under Dutch colonial rule. Throughout its history, Robben Island housed political prisoners who endured harsh conditions and forced labor, becoming a powerful symbol of the fight against apartheid.

Today, Robben Island is a UNESCO World Heritage Site and a popular destination for visitors seeking to learn about South Africa's past and its ongoing journey toward reconciliation. Guided tours offer insights into the lives of political prisoners, including visits to Mandela's former cell and other historical sites on the island. Conservation efforts also aim to protect the island's natural environment and preserve its historical significance for future generations, ensuring that the lessons of Robben Island continue to inspire efforts for human rights, social justice, and reconciliation worldwide.

Impact

Robben Island's impact is profound and far-reaching, spanning historical, cultural, and educational spheres. As a symbol of South Africa's struggle against apartheid, it serves as a poignant reminder of the injustices of the past and the resilience of those who fought for freedom and equality, notably including Nelson Mandela. Through guided tours and educational initiatives, it provides invaluable insights into the history of apartheid and the lives of political prisoners, fostering awareness, dialogue, and understanding among visitors.

⁵⁹ Photo from [Go2globe.com](https://www.go2globe.com)

RECOMMENDED READINGS

ORGANIZERS' RECOMMENDATIONS

Foreign Policy *South Africa Takes Israel to Court*

Foreign Policy *Why the Global South Supports Pretoria's ICJ Genocide Case*

PARTICIPANTS' RECOMMENDATIONS

Reuben Brigety *Growth Through Inclusion in South Africa: Final Report Summary*

Richard Myers *An Interview with Michael E. Langley*

South Africa Takes Israel to Court⁶⁰

Pretoria accuses the Israeli government of genocide before the ICJ in The Hague.

Nosmot Gbadamosi⁶¹

Can South Africa Win Its Case Against Israel?

South Africa's application to the International Court of Justice (ICJ) seeking to have the court declare Israel's military assault on Gaza a genocide will be heard starting on Thursday in The Hague.

Israel has called the allegations "baseless" and accused South Africa of "cooperating with a terrorist organization."

States including Turkey and Jordan have backed the case. Malaysia publicly offered South Africa its support. Malaysia's Foreign Ministry described the proceedings as a "timely and tangible step towards legal accountability for Israel's atrocities."

Israel finds it is having to defend itself against arguments based on a convention that was drawn up in part to prevent a repetition of the Holocaust, which killed 6 million Jews.

The application asked the ICJ to take interim measures to immediately suspend Israel's military operations in Gaza and "take all reasonable measures" to prevent genocide. In its 84-page brief, South Africa cites alleged incitement by top Israeli officials, including the defense minister, Yoav Gallant, who referred to Palestinians in Gaza as "human animals," as well as Prime Minister Benjamin Netanyahu's comparison of Palestinians to the biblical story of the Amalek nation, which God ordered the Israelites to destroy.

Pretoria argues Israel's military assault violates its obligations under the 1948 Genocide Convention, which defines genocide as "acts committed with intent to destroy, in whole or in part, a national, ethnical, racial, or religious group."

The application condemns Hamas's killing of 1,200 Israelis and foreign citizens and hostage-taking of around 247 people on Oct. 7 but argues that no attack can justify the killing of more than 22,000 Palestinians, including over 7,000 children—the number of dead at the time it was written.

Unlike previous cases at the International Criminal Court, which Israel has boycotted because it does not recognize that court's authority, Israel has no choice but to appear in front of the ICJ as it is a signatory to the Genocide Convention and subject to the jurisdiction of the ICJ, the United Nations' top legal body. Both sides are sending some of their best lawyers to The Hague. Pretoria is sending South African international law expert John Dugard, a former U.N. special rapporteur on human rights in the occupied

⁶⁰ This article was originally published by [Foreign Policy](#) on January 10, 2024

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Palestinian territories. Meanwhile, Israel will be represented at the ICJ by the British lawyer Malcolm Shaw, an expert on territorial disputes.

Israel is also sending Aharon Barak, a retired Israeli Supreme Court president who is a Holocaust survivor and a fierce critic of the Netanyahu government's judicial reform plan—which adds to his credibility in the eyes of Netanyahu's critics.

The application also raises possible reputational damage for the United States. As the International Crisis Group's Brian Finucane argues "U.S. officials risk complicity if Israel uses U.S. support to commit war crimes." The United States is increasingly isolated as one of the few countries that has stood resolutely behind Israel since the Oct. 7 Hamas attack and subsequent Israeli offensive in the Gaza Strip amid growing international criticism over the dire humanitarian crisis in Gaza.

"We find this submission meritless, counterproductive, and completely without any basis in fact whatsoever," White House National Security Council spokesperson John Kirby said last Wednesday.

Israel and South Africa's animosity has deep roots. After Israel was founded, the country's leaders cultivated close ties with newly independent African states while often condemning apartheid in South Africa. However, relations with most African nations soured after the 1973 Arab-Israeli War, while Israel's ties with South Africa grew stronger as it began to sell large quantities of arms to the apartheid regime. Israel became a key ally and defense partner for the white supremacist government during the 1970s and 1980s, even as other countries began to impose sanctions on Pretoria. In November, South Africa's Parliament voted to suspend diplomatic ties with the country until a cease-fire agreement in Gaza is reached.

The South African government, faced with domestic issues at home, has tried to assert itself as a moral beacon in the world, calling out the hypocrisy of the West over the war in Ukraine and campaigning for a multipolar global order where poorer nations have a voice.

While it is easy for some analysts to dismiss South Africa's case, any ruling could set legal precedents since Pretoria is basing its petition in part on Gambia's proceedings against Myanmar in 2020, in which Gambia successfully argued as party to the Genocide Convention that it has an obligation to act to prevent genocide against the ethnic Rohingya population in Rakhine State and therefore had standing. Myanmar had tried to argue that Gambia was not an "injured" party and therefore could not bring a case.

Since the war began, Israel has restricted the entry of medicine, water, and fuel to Gaza's population of 2.3 million people, except for limited aid through Egypt that U.N. workers say falls far short of what's needed with famine and disease around the corner.

By not seeking a definitive ruling—but only provisional measures under Article 74 of the ICJ rules—the threshold of what South Africa has to prove is lowered. The court could decide it does have jurisdiction to proceed with the case as in *The Gambia v. Myanmar*.

It could also choose to impose some of the interim measures requested by South Africa without making a decision that Israel's conduct in Gaza amounts to genocide.

Although ICJ orders are binding, they've not been enforceable. Russia has defied the court's judgment to suspend military operations in Ukraine. Regardless of the ICJ's eventual decision, Israel is becoming more isolated on the world stage.

What We're Watching

Hemeti's Africa tour. Sudan recalled its ambassador from Nairobi on Thursday in protest of Kenyan President William Ruto's hosting of talks with the leader of Sudan's paramilitary Rapid Support Forces (RSF), Mohamed Hamdan "Hemeti" Dagalo. Hemeti has been touring African countries on his first known tour abroad since war broke out in April with the Sudanese Army led by Gen. Abdel Fattah al-Burhan.

On Friday, he met with Rwandan President Paul Kagame and later visited the Genocide Memorial Museum in the Rwandan capital, Kigali, which angered many Sudanese. The RSF has been accused of carrying out mass atrocities including systematic ethnic cleansing and rape. He has also visited South Africa, Uganda, Ethiopia, and Djibouti at a time when the Sudanese Army has lost ground to the RSF, which now controls most of the capital, Khartoum, nearly all of Darfur, and the city of Wad Madani. The war has displaced 7.3 million people.

Ethiopia's Red Sea access. Somalia's president, Hassan Sheikh Mohamud, on Saturday signed a bill nullifying a landmark preliminary deal between Ethiopia and the breakaway region of Somaliland.

Somaliland signed a pact last week to lease landlocked Ethiopia port access to the Red Sea and a naval base in the Gulf of Aden in exchange for Addis Ababa recognizing Somaliland as a sovereign state. Somaliland declared independence from Somalia in 1991 and established its own parliament and presidential elections but is not internationally recognized as a separate country. Somalis in the capital, Mogadishu, protested against the deal. The Somali government recalled its ambassador to Ethiopia and lambasted the deal as a "hostile move" and a breach of Somalia's "territorial integrity."

It seems the pact has also ruffled Somaliland ministers. Defense Minister Abdiqani Mohamoud Ateye resigned in protest and criticized Somaliland President Muse Bihi Abdi "for not consulting the council of ministers on the port deal with Ethiopia," saying they "heard about it from the media."

Ethiopian Prime Minister Abiy Ahmed has previously sparked a row with Eritrea over port access to the Red Sea, raising tensions in an already volatile Horn of Africa. The Arab League has come out in support of Somalia; meanwhile, the African Union urged both sides to de-escalate tensions. United Arab Emirates-based DP World had upgraded Somaliland's Berbera port since winning a 30-year concession to run it in 2016 despite objections from Somalia. The UAE provided extensive military support to Ethiopia during its war with Tigray and is likely to unofficially support the deal.

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Formal recognition by Ethiopia could allow Somaliland to begin lobbying other nations to recognize it—particularly in its business dealings. It also sets back hopes of a peaceful resolution between Somalia and Somaliland after both sides had agreed to work toward reaching a sustainable solution during talks in Djibouti last month.

Canceled votes in DRC election. The Democratic Republic of the Congo’s election commission has disqualified 82 candidates over alleged fraud and violence in the contested general election that took place Dec. 20. However, the opposition has called the entire election a “sham” and demanded a rerun amid widespread logistical problems and claims of electoral irregularities. President Félix Tshisekedi was reelected for a second term with 73 percent of the vote, according to the electoral commission’s published results.

Former provincial governor Moise Katumbi gained 18 percent of votes and Martin Fayulu, a former oil executive, received 5 percent. Tshisekedi came to office in 2019 after a disputed election that many international and local observers said he had lost to Fayulu. The country’s Constitutional Court heard a challenge to annul the presidential results submitted last week by Théodore Ngoyi, who came last with 0.02 percent of the vote. The Court rejected the legal challenges and ruled Tuesday that Tshisekedi was the winner.

Senegal elections. Senegal’s Supreme Court on Friday rejected popular opposition leader Ousmane Sonko’s appeal against a libel conviction, potentially ruling him out of next month’s presidential election because of the conviction. Sonko was sentenced to six months in prison in May 2023 for defaming Minister of Tourism Mame Mbaye Niang after accusing him of stealing 29 billion CFA francs (about \$47 million) from a government agency. In 2021, Sonko was charged with rape and making death threats to a massage parlor employee and subsequently convicted in June 2023 of “corrupting youth”—a crime that involves using one’s position of power to have sex with or encourage the debauchery of an individual under the age of 21—a lesser offense than the initial rape charge.

Sonko’s supporters say the convictions are politically motivated to eliminate him from the presidential race. Senegal’s Constitutional Council is set to publish a final list of cleared presidential candidates on Jan. 20.

What We’re Reading

Western Sahara’s forgotten conflict. The collapse of a 29-year cease-fire in 2020 marked a resurgence of simmering conflict between Morocco and the Polisario Front over the sovereignty of the Western Sahara. Pasha Magid and Andrea Prada Bianchi argue in *New Lines Magazine* that the world has largely ignored and forgotten this conflict. “The Sahrawi people have been stuck in diplomatic limbo while living in the refugee camps in Algeria,” they write.

Egypt's cinematic history. The first-ever cinema show in Africa and the Arab region was screened at the Café Zawani in the Egyptian city Alexandria in November 1896. Egypt's role in the movie industry became one of the most significant forms of its soft power, writes Mohamed Helal in [Arab Reporters for Investigative Journalism](#). But censorship, state control, and monopolization have stifled the sector. In 1958, there were more than 350 cinemas in the country, but that number had fallen to just 53 in 2020, according to Egypt's statistics agency.

Why the Global South Supports Pretoria's ICJ Genocide Case⁶²

Namibia and Bangladesh are the most vocal of many countries backing South Africa's legal challenge to Israel.

Nosmot Gbadamosi⁶³

Namibia Backs South Africa's ICJ Case

Namibia has issued a statement in support of South Africa's genocide case against Israel at the International Court of Justice (ICJ), including a scathing criticism of Germany's decision to intervene in defense of Israel.

Namibian President Hage Geingob said on Saturday that Germany could not "morally express commitment to the United Nations Convention against genocide, including atonement for the genocide in Namibia, whilst supporting the equivalent of a holocaust and genocide in Gaza." Berlin has not responded yet.

The German government said on Jan. 12 that the accusation of genocide against Israel had "no basis" and amounted to a "political instrumentalization" of the convention. "In view of Germany's history and the crime against humanity of the [Holocaust], the Federal Government sees itself as particularly committed to the Convention against Genocide," it said.

The Namibian presidency said in response that "no peace-loving human being can ignore the carnage waged against Palestinians in Gaza" and slammed Germany's "inability to draw lessons from its horrific history."

About 80 percent of the Herero population and 50 percent of the Nama population in German South West Africa, now Namibia, were killed between 1904 and 1908 after German soldiers drove them into the desert and sealed off watering holes to stop survivors from returning. The majority died in concentration camps that were a precursor to the methods used in the Holocaust.

In what historians describe as the first genocide of the 20th century, Namibians resisting colonization were placed in concentration camps and a death camp known as Shark Island—a prototype for Auschwitz—in which Indigenous people and children born from the rape of imprisoned women by German soldiers were gruesomely experimented on to prove racial inferiority. About 65,000 Herero and 10,000 Nama were massacred. The severed heads of Namibian prisoners were sent back to Germany for research, and native Africans were put on display in human zoos. Hermann Wilhelm Göring, the son

⁶² This article was originally published by [Foreign Policy](#) on January 17, 2024

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of the colony's governor, Heinrich Göring, became one of Adolf Hitler's most notorious military leaders.

Beyond Africa, Bangladesh—another nation born amid genocidal violence—said in a statement released Sunday that it would intervene as a third party in defense of South Africa's case. It is the only nation so far to announce it will do so. Bangladesh's Ministry of Foreign Affairs said it “stands in support of South Africa's application” against Israel's “blatant disregard for and violation of international law” and “welcomes the opportunity to file a declaration of intervention in the proceedings in due course.”

The fact that South Africa has brought the case—and that the United States has reflexively opposed it—has further diminished U.S. credibility among Africans and shattered the notion that Washington stands for a rules-based order. Many nations in the so-called global south perceive blatant hypocrisy in Europe and the United States' condemnation of an illegal occupation in Ukraine while continuing to staunchly back Israel despite the rising death toll in Gaza and settler violence in the Israeli-occupied West Bank. “When you are on the wrong side of the U.N. secretary-general ... you are dismantling your house with the very tools that built it,” wrote Nesrine Malik in the *Guardian*.

South Africa has asked the ICJ to take provisional emergency measures to immediately suspend Israel's military operations in Gaza and “take all reasonable measures” to prevent genocide. Israeli Prime Minister Benjamin Netanyahu has remained defiant. “No one will stop us, not The Hague, not the [Iranian-led] axis of evil and not anyone else,” he said Saturday.

South Africa's governing African National Congress (ANC) party has long viewed the Palestinian cause through the lens of its own anti-apartheid struggle and has for years described Israel's policies in the occupied Palestinian territories as a form of apartheid. The ANC also has historical reasons to resent the Israeli government and military. Israel secretly supplied weapons to South Africa's apartheid regime, despite a U.N. arms embargo; leading Israeli generals advised South Africa's military; and the two countries cooperated on highly sensitive nuclear and missile programs.

After his release from prison, Nelson Mandela forged a relationship with Yasser Arafat's Palestine Liberation Organization, which had supported the ANC's fight against apartheid while Israel was bolstering the white minority regime. Even if Pretoria does not win at the ICJ, South Africans largely appear to support their government's case against Israel, as do the leaders of many nations in the Middle East, Africa, and Latin America.

Pretoria presented its case last Thursday under the 1948 Genocide Convention. Pretoria “unequivocally” condemned the atrocities committed by Hamas on Oct. 7 but argued no attack justifies the scale of Israel's offensive in Gaza inflicting on Palestinians “conditions of life calculated to bring about their physical destruction” as a group.

Pretoria argued Israel’s assault on Gaza had a “genocidal intent” and presented 20 minutes’ worth of statements made by top Israeli officials, including Netanyahu’s comparison of Palestinians to the biblical story of the Amalek nation, which God ordered the Israelites to destroy. The court heard that a deputy speaker of Israel’s parliament called “for the erasure of the Gaza Strip from the face of the earth.”

In its occupation, “Israel for years has regarded itself as beyond and above the law,” one of South Africa’s lawyers, Max Du Plessis, told the court.

Israel, in its response, asked the court to dismiss the case, insisting that it is acting within its right to defend itself against Hamas after the group and its allies killed 1,200 people and took more than 240 hostage. “The appalling suffering of civilians, both Israeli and Palestinian, is first and foremost the result of Hamas’s strategy,” said Israeli legal advisor Tal Becker.

Israel’s lawyers rejected the suggestion that the comments made by Netanyahu and other senior officials proved that Israel had genocidal intent and said the statements did not reflect official government policy. “Some of the comments to which South Africa refers are clearly rhetorical, made in the immediate aftermath of an event which severely traumatized Israel,” said Malcolm Shaw, a member of Israel’s legal team. In order for South Africa to win the case, it has to prove direct and public incitement to commit genocide. Pretoria’s lawyers argued that incitement filtered down from government officials to Israeli soldiers.

The war has, in just over three months, killed 1 percent of Gaza’s population—nearly 24,000 people, including more than 10,000 children. A further 7,000 are reportedly still under rubble, and around 1.9 million people—more than 80 percent of Gaza’s population—have been displaced, according to the United Nations.

Human Rights Watch said it had documented the crime of starvation being used as a weapon of war in Gaza through Israel’s blockade of the strip. In its annual global report, the nongovernmental organization highlighted the “double standards” of governments silent on “Israeli violations of international humanitarian law in Gaza.”

The ICJ is likely to announce an interim measure in the coming days, but a final verdict could take years.

What We’re Watching

China wades into Ethiopia-Somalia spat. Beijing, one of Ethiopia’s closest global allies, issued a statement on the ongoing row between Addis Ababa and Mogadishu. “China supports the federal government of Somalia in safeguarding national unity, sovereignty, and territorial integrity,” Chinese Foreign Ministry spokesperson Mao Ning said on Thursday, adding, “Somaliland is part of Somalia.”

Somaliland signed a provisional deal leasing naval and Red Sea port access to Ethiopia for 50 years in exchange for Addis Ababa recognizing Somaliland's sovereignty. The Somali government recalled its ambassador to Ethiopia and lambasted the deal as a "hostile move" and a breach of Somalia's "territorial integrity." Somalia's president, Hassan Sheikh Mohamud, last week visited his Eritrean counterpart, Isaias Afwerki, amid furor over the deal. Eritrea views Ethiopia's quest for port access as a potential threat to its own territorial integrity given Ethiopian Prime Minister Abiy Ahmed's recent antagonistic posturing. (Ethiopia became landlocked in 1993, when Eritrea gained independence.) The East African bloc IGAD is set to discuss the feud between Ethiopia and Somalia on Thursday.

Nigeria begins refining oil. Africa's biggest oil refinery has begun production in Nigeria. The Dangote Petroleum Refinery is the country's first privately owned oil refinery, inaugurated last May with the aim of ending the country's recurring fuel shortages. Nigeria is one of Africa's largest crude oil producers but has long imported processed petroleum for domestic use because it lacks adequate working refineries; Nigeria spent \$23.3 billion in 2022 on importing fuel. The plant is Nigeria's single largest investment at a cost of \$19 billion—some of it from the plant's wealthy namesake—with a capacity to produce 650,000 barrels per day.

Comoros elections. Comoros held a presidential election on Sunday, in which five candidates stood against 65-year-old incumbent President Azali Assoumani. Some opposition leaders on the island nation accused the election commission of "fraud" and "ballot box stuffing" in several localities, after opposition election observers were prevented from accessing some polling stations. Assoumani took office in a coup in 1999 and was first elected president in 2002. He changed the constitution in 2018 to stay in power and abolish the country's one-term rotational system between its three main islands. The constitutional change led to widespread protests that have since been banned. Full results are expected to be published later this week. If no presidential candidate wins outright, a second round of voting is set for Feb. 25.

What We're Reading

Aid before diplomacy in Sudan. In *Foreign Policy*, Suha Musa argues that international mediators need to prioritize humanitarian aid over failing negotiations between warring generals in a conflict in which 7.3 million people have been displaced and up to 80 percent of hospitals in affected states are nonfunctional. "As measles, cholera, and dengue fever spread, it becomes increasingly obvious that if guns and bombs don't kill Sudanese citizens, the failure of the health system and lack of medical supplies will," she wrote.

Liberia's war crimes investigation. Joseph Boakai, a 79-year-old former vice president under Ellen Johnson Sirleaf, is set to replace George Weah on Jan. 22 as Liberia's new president. In Al Jazeera, Liberian lawyer Dounard Bondo and writer Leshan Kroma

argue that Boakai's first term could be Liberia's last chance for war crimes accountability 20 years after two devastating episodes of civil war.

Only a small number of warlords have been put on trial in foreign courts that relied on poorly recorded eyewitness testimonies. "If Boakai does not institute a war crimes tribunal now, and ensure that testimony from all living witnesses is securely recorded, Liberia may never get a chance to meaningfully prosecute war crimes," the authors write.

Growth Through Inclusion in South Africa

Final Report Summary

It is painfully clear that South Africa is performing poorly, exacerbating problems such as inequality and exclusion. The economy's ability to create jobs is slowing, worsening South Africa's extreme levels of unemployment and inequality. South Africans are deeply disappointed with social progress and dislike the direction where the country seems to be heading. Despite its enviable productive capabilities, the national economy is losing international competitiveness. As the economy staggers, South Africa faces deteriorating social indicators and declining levels of public satisfaction with the *status quo*. After 15 years, attempts to stimulate the economy through fiscal policy and to address exclusion through social grants have failed to achieve their goals. Instead, they have sacrificed the country's investment grade, increasing the cost of capital to the whole economy, with little social progress to show for it. The underlying capabilities to achieve sustained growth by leveraging the full capability of its people, companies, assets, and knowhow remain underutilized. Three decades after the end of apartheid, the economy is defined by stagnation and exclusion, and current strategies are not achieving inclusion and empowerment in practice.

This report asks the question of why. Why is the economy growing far slower than any reasonable comparator countries? Why is exclusion so extraordinarily high, even after decades of various policies that have aimed to support socio-economic transformation? What would it take for South Africa to include more of its people, capabilities, assets, and ideas in the functioning of the economy, and why aren't such actions being undertaken already? The Growth Lab has completed a deep diagnostic of potential causes of South Africa's prolonged underperformance over a two-year research project. Building on the findings of [nine papers](#) and widespread collaboration with government, academics, business and NGOs, this report documents the project's central findings. Bluntly speaking, the report finds that South Africa is not accomplishing its goals of inclusion, empowerment and transformation, and new strategies and instruments will be needed to do so.

We found two broad classes of problems that undermine inclusive growth in the Rainbow Nation: collapsing state capacity and spatial exclusion. First, South Africa is facing the economic consequences of collapsing state capacity. This is the predominant driver of South Africa's weakening economic performance and is at the heart of intensifying macroeconomic stress. We find that current reform momentum is unlikely to reverse this collapse because reforms are encountering systemic, deep-seated, and underlying issues of political gridlock, ideology, patronage, and an over-burdening of state organizations with goals beyond their core missions and capabilities. South Africa needs a strategy to recover state capacity or else slowing growth and increasing exclusion will continue to worsen. Second, we find that South Africa faces a persistence of spatial exclusion, which has enormous consequences for the potential of its economy. Structures of spatial exclusion in both urban

and rural areas, have a long history in South Africa, but we find that these have been inadvertently entrenched through well-intentioned post-apartheid housing policies. These have undermined the development of denser and more inclusive cities, leaving too many South Africans forced to choose between formal housing far from opportunity and informal housing closer to opportunity. Effective inclusion of the marginalized black majority will require direct responses to spatial exclusion through urban and housing policies that will allow for more inclusive cities as well new strategies to bridge knowhow between the productive economy and rural areas of former homelands, which remain largely excluded.

In the presence of these supply-side problems, demand-side instruments of fiscal policy have not and cannot improve outcomes. Attempts to address a slowing economy through fiscal stimulus have been ineffective and have weakened the macroeconomic position of the country. We find that the impact of fiscal stimuli on growth have been on balance negative. Recently, the poor performance of SOEs has led to bailouts, which have had a significant impact on national debt accumulation and offset fiscal consolidation efforts. Total contingent liabilities coming from guarantees to public enterprises have increased at an annualized rate of 12.1% since 2005. This debt accumulation puts increasing pressure on the budget, leading to an increase in the cost of borrowing and a deterioration in the country's creditworthiness. South Africa's gross debt rose from 23.6% of GDP in 2008 to 71.1% in 2022, an increase of 47.5 percentage points in 15 years, leading to several downgrades of the credit rating to BB- in 2020, below investment grade. In 2022, interest payments represented 4.8% of GDP and 17% of total revenues, limiting the capacity of the government to use its revenues to address other needs. Looking ahead, South Africa needs to regain its investment grade if it wants to be competitive in the kinds of growth opportunities that we see on the horizon.

With unemployment and poverty high, there have been large pressures for social transfers and public employment. These transfers sharply increased with the onset of COVID-19 through the Social Relief of Distress Grant, but transfers to households were already on an upward trend prior to the pandemic. These grants are more palliative than curative. They are about redistribution more than inclusion. They merely compensate people and companies for their exclusion, rather than include them in the productive economy. They do not create the basis to increase sustainable employment in South Africa. These responses are a distant second best to policies that focus on bolstering the supply side by empowering more South Africans with the ability to participate in the productive process. We call this strategy *growth through inclusion*.

When looking at potential growth drivers for the future one set of opportunities looms especially large – South Africa's "green growth" potential. This report includes a chapter on green growth opportunities in South Africa because of their special importance to recovering and rebuilding South Africa's comparative advantage, which was historically dependent on cheap and reliable electricity based on coal. This advantage was squandered because of collapsing state capacity, making electricity neither cheap nor reliable and causing major damage to the industries whose competitiveness depended on them. But looking

forward, South Africa can now leverage its ample solar and wind resources to benefit from shifts in global demand in a world that is trying to decarbonize. Achieving green growth in South Africa is *not* a challenge of how rapidly the country can reduce its greenhouse gas emissions, which make up a very small share of global emissions and which have fallen as the nation's electricity system has collapsed. Rather, we find that South Africa has immense potential to supply the goods, services, and knowhow that a world that wants to decarbonize will need. We discuss three strategies through which South Africa is well-positioned to capture global demand by: (1) making the enablers of global decarbonization; (2) making green versions of grey products for the global market; and (3) exporting green knowhow. Achieving this potential requires addressing the issues of collapsing state capacity and spatial exclusion along with targeted strategies in each of these three dimensions.

South Africa's path to growth through inclusion must include a recovery of state capacity and empower all members of society with the ability to contribute and exercise choice.

For the economy to function and leverage all the human capabilities, productive knowledge, physical assets, and natural endowments that South Africa has, government needs to work. The collapse of state capacity has led to increasing exclusion, including through breakdowns in connecting infrastructure across the country. Increasing unemployment and inequality has been felt most by South Africa's black population. South Africa needs a more effective form of statism that does not overburden state organizations with additional goals that undermine their core mission, including the kind of (fragmented) preferential procurement rules that municipal and SOE managers find most disruptive. At the same time, South Africa needs to develop new and better mechanisms for black economic inclusion that connect much more of society to opportunities. Central to this challenge is spatial inclusion, which is ultimately about giving people the ability to choose housing in places where labor markets are accessible, where entrepreneurship is feasible, and where access to markets, technology and finance are facilitated.

Collapsing State Capacity

The consequences of collapsing state capacity have been felt across network industries (including electricity, rail, ports, and water) as well as in the provision of security and the functioning of municipal governments.

In particular, the collapse of the electricity system has squandered the country's comparative advantage in generating cheap and reliable electricity by exploiting its coal resources. This advantage underpinned the country's historic competitiveness in energy-intensive industries, including mineral processing among others. The loss of this advantage in cheap and reliable electricity has had outsized impacts on productivity, competitiveness, and output and has become the binding constraint to growth. SARB estimates that the electricity crisis is currently reducing growth by 2 percentage points, but we find that the electricity collapse became binding years before load-shedding became as severe as it has been lately, especially for the manufacturing sector. South Africa's current electricity crisis is just one case of state collapse among many failing state functions. When President Ramaphosa announced an official state of disaster in electricity in early 2023, it was

a striking recognition of a crisis that was as acute as a national disaster, but which was caused by state dysfunction. We identify four strongly interacting causes underlying such systematic collapse: gridlock in the ruling coalition that prevents action; an ideology that justifies excluding society from participating in state-reserved activities, over-burdening of public entities with goals beyond their core missions and capabilities, and political patronage that has corrupted both the state and the ruling coalition.

Reversing the collapse of state capabilities requires new strategies and actions to address the proximate causes of collapsing public systems along with actions on the deeper causes that have made state collapse so widespread. The report provides a deep dive on the case of electricity and emphasizes the need to end a 17-year tradition of treating the electricity system as an emergency management problem. We find that ending load-shedding is not a sufficient goal; rather, South Africa needs to restore its previous comparative advantage in low-cost and reliable electricity. Until recently, government maintained Draconian restrictions on private electricity provision. Even now, the main way for the private sector to provide electricity is through power purchase agreements with ESKOM or self-generation, rather than through a well-designed market. Generation is being constrained by lack of capacity in transmission and storage, but little is being done to promote investments in these areas. Provinces, metros, and municipalities have been restricted from buying power other than from ESKOM. Also, until August 2022, private investment in renewable energy was severely restricted. Even today, there is no viable way for society to invest in transmission or storage. Regulatory reform has been slow in coming, and legislative action to establish a market has not been pursued as rapidly as the crisis requires. The report puts forward principles for electricity market design, and several other recommended actions to help expand generation, storage, and transmission capacity more rapidly without locking into high long-term costs. These recommendations are not original, however. In fact, they align substantially with the direction of a 1998 white paper by the Department of Minerals and Energy. We find that gridlock and ideology have repeatedly undermined these actions. Thus, leaders must overcome these deeper causes of the electricity system failure.

While numerous state functions, like electricity provision, have collapsed over the last two decades, we find that many local municipal governments were never set up to succeed to begin with. The report also includes a deep dive into the widespread distress of local municipalities across the country. We find that decentralization at the turn of the century loaded numerous responsibilities on municipalities without a path to gaining the needed local capabilities to deliver. This problem of “premature load bearing” was especially pronounced in local expenditure responsibilities and the unusual responsibility of municipalities in the provision of electricity and water distribution and fee collection. This system was never set up for success for most smaller municipalities and problems have mounted in recent years. Public capacity at the local level is further challenged by preferential procurement systems which further over-burdened local governments. The South African Local Government Association (SALGA) finds that municipality governments, and rural municipalities in particular, are perhaps

most undermined by current procurement rules and systems.¹ The collapsing electricity system has further damaged already weak local fee collection and has created a chain of debts from households to municipalities to Eskom and the need for national bailouts. One result of this system of decentralization is that places that were left behind from the modern South African economy two decades ago lacked the effective delivery of public inputs and networks that would allow them to connect and participate in the economy.

In electricity and many other government functions, preferential procurement rules have been an especially important problem undermining effective public investment and service delivery. Preferential procurement in South Africa traces to a constitutional requirement and is structured according to the Preferential Procurement Policy Framework of 2000. The purpose of resulting preferential procurement rules is to enable socio-economic transformation by giving preference to previously disadvantaged groups, SMMEs, and local production. However, these systems appear to not only be falling short of this goal but also undermining it in important ways. For example, when procurement constraints lead to the failure of rural infrastructure, it excludes and disempowers the very people and businesses the framework is intended to benefit. As is the case with electricity market reforms, this is not a novel finding. Many critical issues were documented in a Public Sector Supply Chain Management Review by the National Treasury in 2015, which outlined paths forward based on system and process improvements to address severe fragmentation of rules together with the concept of “strategic sourcing” to better navigate the realities of procuring important goods and services and the complexity of the supply market. Yet, those changes were not implemented through a proposed bill to replace the existing framework, neither at the time of the study or when later introduced. In 2023, the IMF published an issue paper on the topic and noted that improved procurement practices as proposed by the Treasury’s review could amount to up to “20 percent of the cost of goods and services procured (3 percent of GDP or 12.7 billion US dollars)”.² By distorting the market for inputs, the system has increased costs, worsened the effectiveness of public spending, and expanded space for systems of patronage. Procurement rules have enabled the well-documented rise of the “tenderpreneur” economy, which has benefited an exceedingly narrow few at the expense of the rest of society. In our investigations into the drivers of state collapse in the electricity system and at the municipal government level, we find that preferential procurement systems are a critical component of state collapse and thus deserve serious attention.

Rebuilding state capacity is both a technical and political challenge. It is made increasingly difficult over time due to a vicious cycle where talent becomes harder and harder to attract and retain when state entities are seen to be in a state of collapse. Given the toll that collapsing state capacity is having, government leaders will have to exercise bolder leadership to overcome the four-fold causes of state collapse. Current leaders are presiding over a

¹ See SALGA’s 2020 “Policy Review Study: Public Procurement in the Local Government Context in South Africa over the Last 25 Years”

² See IMF’s Selected Issues Paper “Public Procurement in South Africa: Issues and Reform Options”

collapsing state and will need to overcome the underlying issues of gridlock, ideology, overburdening of public entities, and patronage that prevent proximate solutions from moving forward. The report makes specific recommendations regarding problems in electricity and municipal governments and recommendations to address deeper solutions to recover more general state capacity. Deeper solutions can be grouped into actions to unburden capacity, to build up and protect capacity, and to leverage existing capacity. Although South Africa currently faces widespread issues of collapsing state capacity, there also exist recent examples of turnaround and recovery. This is the case with the South African Revenue Service (SARS), which has recuperated the state’s capacity to collect tax revenues by addressing a mix of deeper causes discussed in this report.

Recommendations for Strengthening State Capacity	
On the Electricity Crisis	Create a functioning market for electricity with the following principles: (1) Greater participation of society in generation, transmission, distribution, and storage; (2) Efficient distribution markets that are not too small to benefit from economies of scale (as many municipalities currently are); (3) Clear rules for all market participants that eliminate conflicts of interest and prevent discriminatory treatment; and (4) Final prices that reflect the marginal cost of production, including intra-day pricing.
	Appoint a reform and unbundling sherpa/Czar to push implementation.
	Remove all preferential procurement requirements for the REIPPP. Develop strategic procurement programs that strengthen industries with clear potential to eventually compete in global markets (and move toward this targeted approach instead of widespread, ineffective preferential procurement).
	Use REIPPP design for investments in transmission and storage. Include transmission and storage (with geographical considerations) in the next REIPPP procurement window.
	Rent existing power plants to other operators incorporating high incentives for efficiency.
	Enable new comparative advantage in green electricity: (1) streamline approval of renewable generation, transmission, and storage projects; (2) promote private green industrial zones powered by renewable energy to attract energy-intensive industries that want to decarbonize quickly; (3) explore pumped storage hydropower with Lesotho to facilitate the absorption of more renewable projects.
On Municipal Governments	Reassign responsibility for electricity and water distribution to geographically efficient regulated monopolies. Such companies could then collect other fees on behalf of municipalities via their monthly bills.
	Develop public “capability banks” and position national/regional entities as service providers to municipalities for activities where local governments cannot be expected to have local expertise nationwide.

On State Capacity Overall	<i>Unburden Capacity</i> - Expand relaxation of preferential procurement requirements on all SOEs and other public entities.
	<i>Build Up and Protect Capacity</i> - Gradual civil service reform to replace the reliance on cadre deployment. Explore long-term system of civil service cadres that are recruited nationally but deployed across different municipalities and levels of government.
	<i>Leverage Existing Capacity</i> - Establish clear markets that allow for societal capabilities to help fill supply gaps in network industries.

On Spatial Exclusion

Even during stronger growth periods in South Africa, the limited growth that has occurred has been spatially concentrated. South African cities are plagued by large commute distances and very high transportation costs. Housing is dispersed in distant, low density residential areas, which are far from city centers and unattractive for local small business activity because of their low density. This undermines the dynamism of urban agglomerations by making formal labor expensive and self-employment and micro-businesses unattractive, which in turn limits the role that cities can play in creating jobs. Meanwhile, South Africa’s exceptionally low employment rate of the working-age population is concentrated in rural former homelands, where 29% of South Africa's population lives, but where employment rates are roughly half of what they are in all other parts of the country (including urban areas of former homelands and rural areas outside former homelands). The persistence of this situation relates to failures to expand connecting infrastructure, technology, and – critically – knowhow to excluded places. The report explores the causes behind urban and rural forms of spatial exclusion. This investigation leads to a set of housing and urban development policies that would make cities more inclusive. Rural exclusion is a deeper challenge, in part because collapsing state capacity makes it harder to provide needed infrastructure. However, we find that gaps in technology and market access can be addressed through partnerships between companies and communities in rural homelands, in ways that are compatible with current communal property regimes that are typical in these areas. We identify opportunities to expand the market for such partnerships.

Specific urban planning practices and housing policies must change to reverse the recurring patterns of spatial exclusion in South Africa’s major and secondary cities. South African cities show uniquely extreme patterns of low density and fragmented city structures, which result in extremely high transport costs that undermine inclusion and growth. These patterns date back to explicit efforts to keep populations divided, but they also continue to emerge in growing cities today, both inside and outside of former homelands. We find that post-apartheid housing policies have inadvertently caused these patterns to continue as South Africa’s efforts to provide quality housing through public programs have led to housing being located far from economic centers. RDP and other publicly subsidized housing have often been built in dispersed areas where land and construction costs are cheap rather than in denser and

smaller housing that households value more. Whenever possible, people vote with their feet to live in smaller housing units closer to job opportunities, including sometimes dangerous living conditions. We find that the regulatory environment of cities limits the construction of the types of high density but low-cost urban housing that many South Africans desire. Without such options, people too often expose themselves to unregulated and unsafe living conditions. Generating more inclusive and safer cities is possible through a relaxation of overly restrictive building and zoning regulations that greatly limit the development of denser housing. Zoning and building regulations are locally determined, but South Africa's national and provincial policies can incentivize a revolution in urban regulations that would allow city centers to "build up" and become centers of safe, accessible housing. Addressing restrictions in floor-area-ratios, parking requirements, building codes, and permitting may seem technically mundane, but the impacts of overhauls could have transformative impacts in the form of inclusive cities and generating a housing construction boom.

Regulatory reform must be coupled with changes in government spending to support more compact and inclusive cities. Regulatory changes alone will not necessarily lead to an immediate uptick in low-cost, higher-density housing. But government spending, especially via the Department of Human Settlements budget, can be better utilized to accelerate a change in urban housing and help individuals to access housing. Currently, large block grants for housing-related spending are made to municipalities and spent at local discretion. We recommend restructuring this spending for substantially more of this spending to take the form of demand-side subsidies to individuals to buy or rent housing of their choosing rather than as government-supplied housing programs. We also recommend linking more of housing-related spending to municipalities meeting new standards in relaxed housing regulations and/or to places with the most uptake of demand-side housing subsidies. Finally, the report discusses the importance of putting underutilized urban land to use in housing and mixed-use projects and increasing attention on transportation systems that are viable at the current density of cities.

While more compact and inclusive cities will enable South Africa to "bring more people to jobs," additional tools can help "bring more jobs to people." Since apartheid ended, former homelands have become more connected through infrastructure, but very long physical distances remain. In some cases, paved roads and other basic infrastructure are still glaringly lacking. Despite overall infrastructure improvements and improved living conditions, the economies of rural areas of former homelands remain outliers in their extremely low employment levels. As a consequence, workers from former homelands have been migrating out in search of work and – tellingly – landing jobs on par with others. This indicates that the problem is fundamentally with the places and not the people, their skills, or their education levels. A place-based approach for the former homelands would make it more attractive for businesses to move in rather than for workers to move out, and this can be informed by the experience of economies within former homelands that have achieved relatively more success in job creation. Such places are relatively more connected to markets and production networks and have managed to better interact with the surrounding market and partner with nearby

businesses. Even more disconnected areas have in some cases found ways to integrate into the modern economy through different types of commercial partnerships, especially in agriculture. What has worked in these cases echoes organizational structures in franchising, which is a very mature business sector and an important source of jobs in South Africa.

To include more residents of rural homelands in the modern economy, two responses are needed. The first is to better connect the most rural population centers through paved roads and other basic infrastructure. These network expansions remain incomplete and greatly reduce the development pathways for large parts of the country. But lack of physical connectivity is only one part of the problem. Even those areas that have much greater physical connectivity often lag far behind the surrounding areas in economic activity. The solution to this problem is an approach that we refer to as “bridging knowhow”. Productive knowhow needs to be bridged between competitive businesses and industries outside of homeland areas and communities within former homelands, and this takes place most directly through business partnerships. South Africa has reached a point where the benefits of such business models are proven, and several types of entities have emerged as connectors and enablers of partnerships, namely: partnership advisors, local NGOs, and community trusts. South African universities within the former homelands and university networks appear to be underleveraged toward enabling commercial partnerships. There are important challenges that must be overcome for partnerships to work – including developing trust and technology transfer – and issues of communal land and governance systems can be hurdles. However, a deeper and more dynamic market for such partnerships is possible, which would better connect businesses in need of land and labor with communities with complementary resources. As more areas of former homelands gain physical connectivity, these opportunities will expand further. We find evidence that these two strategies are more important for inclusion of rural former homelands than wholesale land reform. After all, places that have seen land reform still need transfer of knowhow, often through partnerships, to put land to more productive uses in the face of a variety of other constraints, and places without land reform have achieved growth in both rural and peri-urban settings in South Africa.

Recommendations for Achieving Spatial Inclusion	
On Urban Planning and Building Regulations	<p>Three main areas of regulatory change:</p> <ul style="list-style-type: none"> • Relax National Building Regulations (overly restrictive materials and accessibility restrictions). • Relax Local Building Regulations (FAR, BCR, parking and elevator requirements to allow for higher density). • Change zoning regulations to allow for greater density and mixed-use multi-family housing.

	<p>On urban planning and development:</p> <ul style="list-style-type: none"> • Incorporate underutilized urban land for housing and development. • Ensure that development impact fees are evenly applied in the city core and periphery.
	<p>Process rules: Move towards regional and provincial zoning standards to limit highly localized NIMBY vetoes to housing.</p>
	<p>Develop and incentivize active public-private problem-solving task forces for housing expansion.</p>
On Budget Reorientation	<p>Revise the human settlements budget to increase demand-side housing subsidies as opposed to direct supply programs that dictate where housing is built. Partner with the financial sector to expand mortgages/lending to those with limited credit histories.</p>
	<p>Link conditional grant funding for housing and related infrastructure to where local building and zoning regulations meet minimum standards for increasing density or where demand-side subsidies are mobilized.</p>
	<p>Reorient budget towards more experimental, innovative mixed-use urban projects, especially on well-located government-owned land.</p>
On Public transportation	<p>Prioritize the revival of passenger rail, especially by devolving key functioning routes to more capable metros.</p>
	<p>Additional pilots and scaling of efforts to formalize and expand the minibus taxi system in a way that can support public transport systems.</p>
On Bridging Knowhow	<p>Create and expand markets for business partnerships through supporting investments in hard infrastructure (i.e., roads) and soft infrastructure and services (information systems for matching, partnership advising).</p>
	<p>Leverage agents to enable partnerships through matching third-party trust: Partnership advisors, local NGOs, traditional governments (incl. trusts), possible new roles for universities.</p>

Green Growth Potential

South Africa has a role to play in a decarbonizing world. South Africa's comparative advantage in electricity was lost because of a collapsing state capacity, with enormous implications for the country's competitiveness in key export industries such as mining and mineral processing. South Africa must restore its comparative advantage in cheap and reliable electricity, but changing global demand and technological advancements in renewables assure that this will not be recovered through coal alone. Thankfully, South Africa has many opportunities to benefit economically from global decarbonization. These opportunities could be transformational drivers of future growth. South Africa has advantages for participating in

the supply of critical minerals, provide the world with many of the enablers of clean technology such as vanadium redox flow batteries (for grid-level storage), platinum-metal-group-based fuel cells, and electric vehicles – among other goods and services that the world will need to decarbonize. Moreover, South Africa could harness its ample resources of sun and wind to make products in a green way. This obviously cannot happen at full scale without a well-functioning electricity system, but the development of green industrial parks run on clean energy will be able to attract energy-intensive industries that want to decarbonize their footprint. Finally, South Africa could develop frontier knowledge and export its knowhow on green technologies and innovations to the rest of the world, though maximizing these opportunities requires more targeted industrial and R&D policies and more flexible immigration and entry of high-skill individuals into the country to complement the specialized knowhow of South Africans.

South Africa needs an active strategy for pursuing green growth opportunities that would allow the country to build new comparative advantages. The report discusses in detail how this strategy could be based on three pillars: (1) making the enablers of global decarbonization; (2) making green versions of grey products for the global market; and (3) exporting green knowhow. In addition to solving cross-cutting economic issues, this strategy requires industry-specific policies that target each of the areas of opportunity that have potential in South Africa. Rather than relying on import substitution and localization, which have become central to South Africa's industrial policy in practice as the economy has stagnated, the strategies explored here would be far more targeted and focused on capturing expanding demand in global markets in areas where South Africa has clear possibilities to grow. This has obvious advantages versus reliance on government's procurement power in a highly constrained fiscal environment with weakening domestic market.

Within Strategy 1 (making the enablers of global decarbonization), two main areas of opportunity are in taking advantage of the global mining boom and promoting the development of industries that are both likely to see rapid global demand growth and are consistent with South Africa's knowledge base. South Africa needs active industrial policies to solve the coordination failures and knowledge gaps that are particularly present in new markets. In the first case, the regulatory obstacles that have hampered mining activity need to be addressed lest the country repeat the lost mining decade of the last commodity super-cycle. Critical minerals production require innovation in separation and refining technologies. In the case of other green supply chains, active targeted industrial policies can play an outsized role. The global move from internal combustion engines to electric vehicles implies the need for change in South Africa's current automotive policy. Other opportunities in membrane technologies for fuel cells and electrolyzers and grid-scale batteries require R&D investment, demand guarantees and other public goods that could spearhead new globally competitive industries. Pursuing one-size-fits-all solutions such as localization requirements or procurement rules without considering the industries' specificity would be less effective than defining industry-specific policies. The analysis included in the report provides a starting point

for understanding emerging opportunities, and this information could be leveraged with emerging strategies and “masterplans” in development in South Africa today.

For Strategy 2 (making green versions of grey products), the electricity crisis is by far the most fundamental constraint, but green industrial parks would provide initial growth and positive spillovers. South Africa needs a boom in renewables to make green versions of grey products, and a boom in renewable generation also requires a rapid expansion of transmission and storage. South Africa has advantageous natural conditions for renewable energy generation but faces major disadvantages in electricity market design and the cost of capital for project development. Therefore, South African policymakers should focus on establishing the long-term market for electricity and lowering capital costs by reducing sovereign and other industry-specific risks. These improvements will take time, but South Africa also has high potential to kickstart this strategy through the development of green industrial parks. These parks would crowd in electricity-intensive manufacturing for exports and would become net exporters of electricity to the rest of the grid. Green industrial parks should not be a public investment but rather a private sector opportunity that is enabled by government policy, including expedited permitting, and supporting infrastructure. The operators of parks would then find tenants, which may include such industries as mineral processing, green steel, ammonia-based fertilizers, as well as highly electricity-intensive services like data centers. Also, SASOL's mastery of the Fischer-Tropsch process can be leveraged in the direction of making green hydrocarbons including sustainable aviation fuel (SAF).

Strategy 3 (exporting green knowhow) presents South Africa with the opportunity to employ its top-tier technological resources to address global and regional challenges. South Africa has several examples of companies and research organizations that have developed solutions that are much needed in a decarbonizing world. This includes Sasol and its unique knowhow in chemical processing, a wide range of private innovators in the green economy, and advantages in the research capacity of its university system. Building on these assets requires bringing capabilities of the private sector and academia together and mixing South African talent with global talent. But, for businesses that cannot bring in the complementary human resources that they need into South Africa, the natural response is to move their businesses out of South Africa. Thus, more open high-skill immigration is vital for success. Finally, South Africa should be well positioned to expand its position in engineering, procurement, and construction globally, and especially across Africa. But this too could be constrained by slow and passive participation in African integration and the African Continental Free Trade Area (AfCFTA).

On Green Growth Potential	
On Green Growth	<p>Targeted industrial policy for opportunities that are growing in global demand and where South Africa can develop comparative advantage:</p> <ul style="list-style-type: none"> • Pillar 1: Make the enablers of global decarbonization - mining strategies for critical minerals, targeted support actions for pioneers in emerging green supply chains and policies to transition the automotive industry towards electric vehicles. • Pillar 2: Make green versions of grey products for the global market - promote privately-operated Green Industrial Parks (w/ dedicated renewable power). Leverage SASOL's technological strengths to develop green fuels. • Pillar 3: Export green knowhow - Develop capabilities to export knowledge-intensive services in engineering, procurement, and construction (EPC) of green projects, develop new mastery over green technologies (e.g., Fischer-Tropsch for green products, Vanadium Redox Flow battery technology for grid-scale storage, membrane technology for fuel cells and electrolyzers). Strengthen R&D support policies for green technologies. Deepen international partnerships and allow for easy entry of talent through more open high-skill immigration and business travel.
	<p>Return South Africa to investment grade to lower the cost of capital of new investments in the electricity system and other green growth opportunities and develop a world-class electricity market to lower industry-specific risks.</p>
	<p>Prioritize actions to reduce development costs for investment in renewable generation, transmission, and storage infrastructure (e.g., easy permitting; grid interconnection, government-facilitated land).</p>
On Trade Policy	<p>Redirect industrial policy away from import substitution for a limited and stagnant domestic market and instead target industries that can leverage the domestic market but that have the potential to grow by supplying the global market.</p>
	<p>Move from laggard to leader in the African Continental Free Trade Area to increase market access and opportunities for South African companies.</p>
On Knowhow Access	<p>Make South Africa a competitive destination for global talent.</p>
	<p>Continue to reduce administrative delays and costs of business visas.</p>



An Interview with Michael E. Langley

Joint Force Quarterly: With the national focus on pacing and acute challenges in other theaters, how is the African continent strategic terrain for today's joint force?

General Langley: It is an honor to convey the USAFRICOM message in

General Michael E. Langley, USMC, is Commander of U.S. Africa Command.

this publication; *Joint Force Quarterly* is an important forum for strategic discussion.

Africa is both key strategic and geopolitical terrain due to its physical geography, wealth of resources, and fast-growing populations. These attributes make Africa an increasingly contested environment as strategic competitors, violent extremist organizations [VEOs], and transnational criminal organizations

collectively seek to exploit African nations for their gain. At the same time, African nations are facing new challenges that threaten to destabilize already fragile democracies. Climate change is increasing desertification, causing crop failures, and increasing tensions between historic herding and farming communities. VEOs are expanding and taking advantage of ungoverned spaces while strategic competitors exploit natural resources. The lack of good governance and the humanitarian crisis created by interstate conflicts results in migration that transnational criminal organizations exploit for human trafficking and other sources of profit. The lack of stability in Africa puts pressure on our allies and partners, causing them to focus time and resources on NATO [North Atlantic Treaty Organization]'s southern flank at a time when those resources are needed to support challenges in other theaters.

JFQ: Based on this assessment of the strategic importance of Africa, how does a commander in a posture-limited theater balance the need for resources to meet the Command's priorities within the globally integrated construct?

General Langley: DOD [Department of Defense] has a prioritization process for resource allocation that is aligned to match NDS [National Defense Strategy] priorities. With that said, the pool of DOD resources is increasingly limited because of the Service modernization and future readiness required to meet pacing and acute threats. From my perspective, the threats posed by strategic competition, transnational crime, and VEOs in Africa are growing in lethality and expanding across the continent, requiring both an expanded posture and increased resourcing to limit and prevent further spread.

USAFRICOM's campaign plan relies on a whole-of-government, "3D" approach—diplomacy, development, defense—to partner engagement. We use an African-led, U.S.-enabled framework to conduct operations focused on shared security challenges. Helping countries



Nigerian navy and police force personnel conduct visit, board, search, and seizure training during exercise Obangame Express 2023, in Lagos, Nigeria, January 25, 2023 (U.S. Navy/Andrea Rumble)

solve their security challenges, working through established regional frameworks, promotes stability.

Our limited posture means that we rely on allies and partners as regional security exporters. USAFRICOM does not give our African partners us-or-them ultimatums; Africa needs partners of all kinds, especially for investment and infrastructure.

In West Africa, we are working an initiative called the Combined Joint Interagency Coordination Group–West Africa that seeks both to utilize countries’ existing intelligence structures and to build sharing pathways to enable regional security. Coupled with some key security cooperation funding, we think building these types of partner-led, regional approaches to security will make headway

on preventing the spread of VEOs into the littorals and combating illegal, unreported, and unregulated fishing in the Gulf of Guinea.

I think that senior leadership in the State Department, DOD, and Congress recognizes the strategic importance of Africa and that they will take that into account when they make tough resourcing decisions.

JFQ: At a year in command, what have you learned and how have your views and approaches to Africa changed, and how have they remained the same?

General Langley: I’ve referred to my first year in command as my “campaign of learning,” and after many trips to

the continent and engagements with African leaders, I think the most important thing I have learned is the importance of being a good partner. African countries want to be our partner; they want America present in their countries standing by their side helping them work through their problems. They want African solutions to African problems, enabled by U.S. training and resources for the areas where we share congruency with them.

The more I learn about the diversity and complexity of Africa, the more I appreciate the wealth of issues these countries must deal with. We need to help African countries move toward good governance, which is *the* key to stability. That’s what America needs in Africa to deter our strategic competitors. Good



governance doesn't come from military security cooperation, although the more we can decrease the VEO threat the better it enables countries to focus on governing their people. The interagency community must work together to achieve unified action in Africa, and how to do that is the thing I continue to focus on learning and teaching to my staff at USAFRICOM.

I've learned that no crises are ever the same in Africa. We need to be resourced to respond to a variety of issues from support for pandemics and disease outbreaks to challenges to democracy and humanitarian relief.

JFQ: On the topic of defense diplomacy, how is USAFRICOM reinforcing Department of State country plans for diplomacy and development? Does that effort

include the U.S. Agency for International Development (USAID)?

General Langley: Through our 3D [diplomacy, development, defense] approach, USAFRICOM is lashed tight with the interagency community. In Africa, USAFRICOM honestly plays a supporting role to interagency efforts. The chiefs of mission in our Embassies across the continent are the ones calling the shots and setting the pace on security support. The nature of that support is diverse because it must be tailored to over 50 nations with unique needs and political environments.

Every time I travel to a country in Africa, my first stop is to meet with the Country Team at the Embassy. I engage constantly with our Ambassadors and senior officials in the State Department so that we can speak with one voice. We also

welcomed Ambassador Robert Scott to the team this summer as my new deputy for civil and military affairs. He brings a wealth of experience to the staff, and I rely on his knowledge and connections with the State Department as we work through the complexities of understanding the variety of African engagements.

I appreciate that you mentioned USAID because otherwise I would have. They are a key interagency partner. The security challenges facing Africa run deep, and military solutions don't get at the root of issues such as governance, infrastructure, jobs, education, and food and water security. For example, USAFRICOM regularly supports Somali soldiers in the field against al-Shabaab, but it's USAID that comes in and really makes sustainable, practical improvements to people's lives. It is only by combining USAID's development effort

with the State Department's diplomacy along with USAFRICOM's defense enablers that will give viable support to Somalia and all our African partners.

JFQ: In recent years, several African countries have experienced military coups or democratic backsliding. How does USAFRICOM reinforce the ideals of democracy, civilian governance, and human rights?

General Langley: This is a timely question, given the events unfolding in Niger and Gabon. I am honest with our African partners; democracy takes time and it's hard. However, democracy is the only system that codifies the rights and freedoms of the people, by the people, and for the people. When African military officers attend our schools, they see firsthand what right looks like for civilian control of the military. These officers need to exercise tactical and strategic patience and allow the rest of their whole of government to come online and to reach the full advantages and endstates of democracy. I use this as part of my narrative in all engagements and reinforce that coups will never achieve the freedom and prosperity that these countries so desperately desire.

JFQ: What is your vision for USAFRICOM interaction with neighboring geographic combatant commands, including U.S. Space Command [USSPACECOM]?

General Langley: We have strong relationships with all the functional combatant commands regardless of whether they are our geographic neighbors or not. Globally integrated operations are a team event, and we must work together to achieve common goals.

Since Africa straddles the geographic seams of four other commands, it's important that we understand how Africa fits into their operations. There are politically powerful issues, such as migration and transnational crime, that occur in Africa but affect Europe.

Strategic competitor activities like illegal, unreported, and unregulated fishing and exploitation of natural resources have implications in the Pacific. We share posture locations and resources with our fellow commands and over time have developed agreements that support equitable sharing and teaming, especially to get after seam issues. For example, we have shared intelligence, surveillance, and reconnaissance with USEUCOM [U.S. European Command] throughout the Ukraine crisis as the I&W [indications and warning] they provide on Russian activities informs our campaign in Africa.

The embedded LNOs [liaison officers] from USSOCOM [U.S. Special Operations Command], USTRANSCOM [U.S. Transportation Command], and NSA/USCYBERCOM [National Security Administration/U.S. Cyber Command] are critical to campaigning in Africa because we rely so much on these commands for support. These commands also enable our activities and provide us with the ability to respond to crises. We could not have evacuated the U.S. Embassy in Sudan earlier this year as rapidly and safely as we did without the capabilities that these commands brought to bear.

I'm glad you mentioned USSPACECOM. With the DOD pivot to space-based capabilities as the next modernization milestone, we're working with them to integrate space in support of strategic goals. USSPACECOM's embedded Joint Integrated Space Team and the soon-to-be established Space Force component are a critical resource for security cooperation and crisis response. One of the most important lessons we learned during the evacuation of the U.S. Embassy in Sudan was how much space-based solutions can enhance our C2 [command and control].

JFQ: Are our security cooperation efforts in Africa, such as the State Partnership Program that leverages the U.S. National Guard—particularly in the Sahel region—winning friends and helping build effective states?

General Langley: The State Partnership Program [SPP] is one of the most successful and popular programs in Africa, with 16 nations participating. African nations build enduring and deep relationships with their National Guard partners, who bring unique perspectives and capabilities to various security cooperation efforts and shared security challenges. This year marks the 20th anniversary of the SPP relationship between Morocco and Utah as well as South Africa and New York, the oldest SPP partnerships in the command. The effect of the program is clear at all our exercises, military-to-military engagements, and conferences.

JFQ: How does USAFRICOM currently assess the threat of terrorism in Africa as a national security risk?

General Langley: Africa-based terrorism is growing; the continent is increasingly seen as the center of gravity for global terrorism. We are seeing the so-called Islamic State and al-Qaeda affiliates increase attacks, expand their operating areas, and be featured in global propaganda. These groups threaten U.S. personnel and interests across Africa, hinder our diplomatic missions, and undermine partner-led, U.S.-enabled operations.

Somalia-based al-Shabaab is al-Qaeda's largest and wealthiest global affiliate. We've seen high-profile al-Shabaab attacks in the past, including against the Dusit D2 Hotel in Nairobi in 2019 and against U.S. and Kenyan forces at Manda Bay Airfield in 2020. Al-Shabaab maintains the intent and capability to conduct high-profile operations outside of Somalia and wants to replicate their past successes if we give them the opening to do so.

While the so-called Islamic State poses less of a direct threat to the homeland, they are concerning because of their rapid expansion across the continent due to their ability to co-opt and leverage existing groups. I'm specifically concerned about their expansion in West Africa, as they are poised to take advantage of the ungoverned space created by the current crisis in Niger.



U.S. Army Soldiers assigned to Task Force–Tomahawk conduct airfield clearance during base defense exercise at Cooperative Security Location Manda Bay, Kenya, August 4, 2023 (U.S. Air Force/Dhruv Gopinath)

JFQ: *How is Great Power competition playing out on the African continent with specific concerns, such as confronting Russia’s Wagner Group or expanding China’s economic influence?*

General Langley: We see strategic competitors take advantage of poorly governed spaces and the conflict created by VEOs to expand their access and influence. Strategic competitors actively exploit African countries’ resources and populations, and I stress during engagements with African leaders that their proposals are never a “good deal” due to the strings attached.

The PRC [People’s Republic of China] already has one naval base on the continent, and we think they are looking to expand basing into other parts of Africa. The PRC are predatory lenders, and we have seen them set investment traps through things like Safe City Smart City, the Belt and Road Initiative, or foreign military sales. Their illegal, unregulated, and unreported fishing in the Gulf of Guinea and other locations has a huge economic impact on African populations,

especially those that rely on fish as their primary source of nutrition.

Russia and the Wagner PMC [private military company] have been increasing ties with African nations in recent years, and we have seen several African nations, most recently Mali, turn away from the West and to Wagner to solve their security cooperation needs. We’re still assessing what the death of [Yevgeny] Prigozhin means for future Wagner activities on the continent, but I’m convinced that the Russians have invested in Africa and that they mean to remain there and expand their foothold.

JFQ: *What is your assessment of the evolving global integration process, and, if you see the need for enhancements, what would you suggest doing?*

General Langley: The joint force is continuously improving and streamlining global integration, but unity of actions is a difficult problem to solve because of the inherent limitations of our current joint force structure.

Our competitors are global actors that require a globally integrated response. Unified Campaign Plan boundaries and lack of Joint Staff authority to fully integrate the joint force against global problem sets result in largely regional solutions that don’t achieve the type of unity of action required for strategic competition.

Each Joint Staff directorate, OSD [Office of the Secretary of Defense], CSFG/RSI [China Strategic Focus Group/Russia Strategic Initiative], and CCMD CA [combatant command coordinating authority] leads some aspect of global integration. The coordination between the integrators is a point that could be improved. At various points in the past, combatant commands participated in multiple overlapping and seemingly uncoordinated integration efforts across the various product lines.

Most of the redundancy has worked its way out of the system, but global integration could benefit from a single overarching OSD or Joint Staff-led global integration process that includes plans, operations, and assessments. **JFQ**

