THE AFRICA FUTURES PROJECT

Africa Insights

Dialogue, Analysis, and Research on Current African Policy Issues

HARVARD Kennedy School
BELFER CENTER

50 YEARS OF RESEARCH, POLICY, AND LEADERSHIP

JULY 2024

The Africa Futures Project
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About this Publication

This publication captures a snapshot of Africa Futures Project (AFP) activities, research, and dialogue on Africa topics conducted during the 2023-2024 academic year. It also features several original research articles authored by Harvard Kennedy School (HKS) students. Article types in this publication include:

Faculty or Staff Analysis

Unique articles written for this journal by faculty or staff at HKS.

Student Analysis

Unique research written by students either originally for a class or solely for this publication. Student pieces are in the form of op-eds, policy papers, or data stories.

Event Takeaways

Synthesized analysis of the key themes from flagship events organized by AFP.

Student Policy Analysis Exercise (PAE)

The PAE is the capstone experience to the Masters in Public Policy (MPP) curriculum, providing an opportunity to integrate the skills and knowledge MPP candidates have gained during their time at HKS.

An applied thesis, the PAE is different from a traditional research paper in that students are required to engage with a client organization and to develop a series of recommendations to solve a policy or management problem or question for that organization. This publication includes articles capturing key findings from select PAEs focused on Africa. Full PAEs are accessible in full via the Harvard Library. This publication features executive summaries of several Africa focused PAEs.

Belfer Publication

Select AFP publications published by the Belfer Center during the past year, particularly those focused on original research.

The Africa Futures Project Team & Judd Devermont

Foreword

An Introduction to the Africa Futures Project

Africa is at the forefront of global trends. The size and dynamism of the region makes it crucial for the Harvard Kennedy School to foster diverse conversations, learning, and policy analysis focused on the continent. In its inaugural year, the Africa Futures Project (AFP) – an initiative of the Belfer Center for Science and International Affairs –significantly increased learning opportunities focused on Africa, convened lively debates about problems and policy solutions, generated new research, and began building a network of students, faculty, and fellows committed to better understanding and serving the fastest growing region in the world.

The Project is grounded in a commitment to engaging with stakeholders at all levels and centering the perspectives of African policymakers, scholars, and leaders. AFP prioritizes research and dialogue across three primary areas shaping Africa's future at the national, regional, and global levels: Politics and Security; Climate and the Energy Transition; and Geopolitical Competition and Cooperation.

In the 2023-2024 academic year, AFP launched a new study group to complement our popular elective course on Africa in Global Politics. We fostered dialogue between faculty, students, scholars, and visiting policymakers—including candid, off-the-record conversations with high-level visitors, such as former US national security officials and delegations from the Democratic Republic of Congo and Ghana. AFP also hosted the Kennedy School's first annual *AfriConnect* networking event, which brought together graduate students from across the University with a shared interest in African policy solutions. It featured a research and impact showcase with presentations on topics ranging from sustainable development and healthcare, to emerging technology and climate finance.

Key to AFP's success have been its partnerships and people. Our stellar research team helped launch this vision: thanks to Grace Jones, Nils Olsen, and Enitan Okediji; and Senior Program Coordinator for the Arctic Initiative, Tessa Varvares. Several of our stand-out events and guest speakers were only possible through the strong collaboration we have with colleagues at Harvard's Center for International Development and the student-led HKS Africa Caucus: special thanks to Co-Chairs Mimi Nzuzi, Edmond Kombat, and Tano Aka.

This first edition publication serves as a flagship product to highlight some of the original and innovative analysis being undertaken by HKS faculty and students. We hope by sharing it with the world, we can strengthen dialogue and discussion of African futures and contribute to the impressive array of knowledge and innovation emerging from African countries.

Welcome to the Africa Futures Project community; we look forward to the next chapter!

Natalie Colbert
Executive Director of the Belfer Center
Africa Futures Project Co-Chair
Harvard Kennedy School

Zoe Marks
Oppenheimer Faculty Director of the Center for Africa Studies
Lecturer in Public Policy
Africa Futures Project Co-Chair
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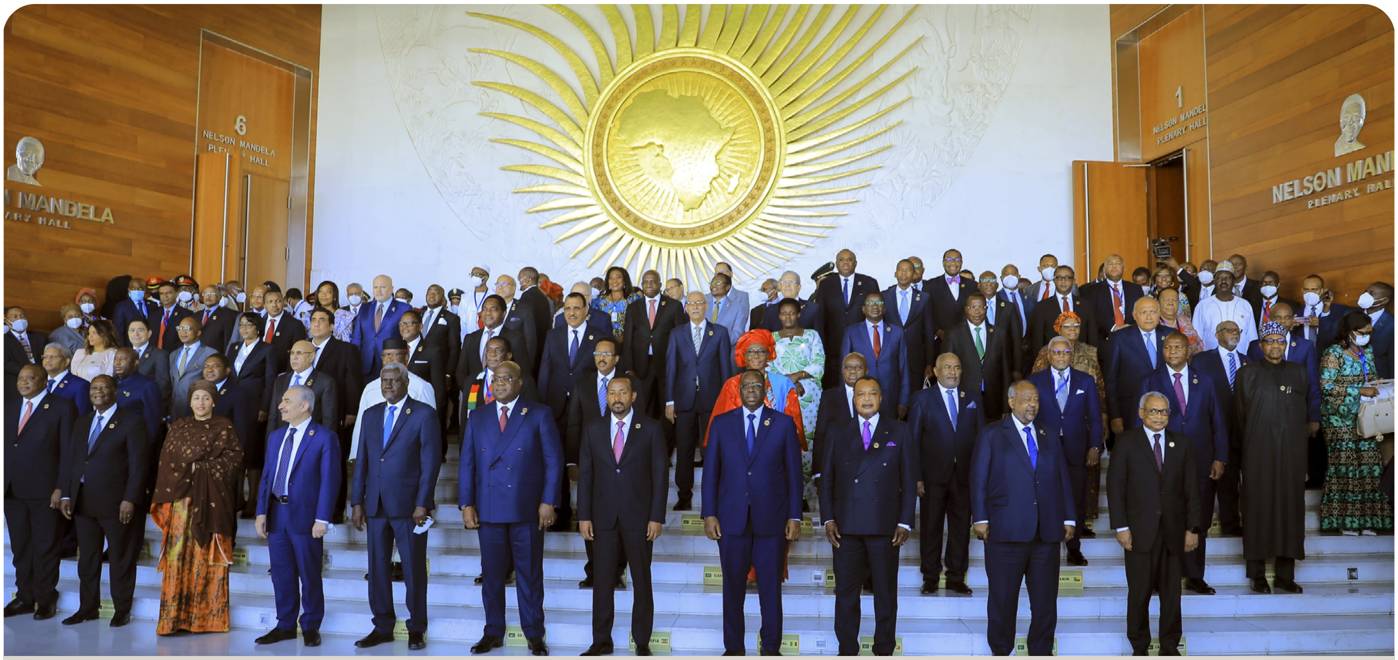


AP News

SECTION I

Conflict, Security, and Geopolitics

The shifting international landscape provides an opportunity for African countries and leaders to re-frame their role in geopolitics. A United Nations Security Council resolution proclaimed unanimous support for the African Union and other regional organizations as they seek increased peace and security on the continent; the Africa Union was granted full member status at the G20 in 2023; and today Africans lead several global institutions, including the World Health Organization (WHO), World Trade Organization (WTO), and International Finance Corporation (IFC). Many African leaders want to go further, finding common cause with other economic and political power players across the "Global South", and are calling for the post-Cold War world to be updated.

Yet recent regional conflicts, from the Sahel to the Horn of Africa, underscore the complexities of preserving stability and governance in a dynamic political landscape. External actors muddy already murky waters as they compete for relative influence against geopolitical rivals such as middle powers like Turkey, India, and the Gulf States - who offer African nations an alternative to the United States, China, and Russia.

This section explores some of these political and security challenges and their broader implications, the interplay of trade, economic development and political stability, and the role of technological innovation in shaping Africa's future.

Reflecting on the U.S. Strategy Towards Africa: Embracing Partnership & Pragmatism

This article is also published on the Belfer Website, *as is a comprehensive overview of the Africa in Focus discussion series.*

Author: Natalie Colbert, Executive Director of the Belfer Center & Co-Chair, Africa Futures Project

In August 2022, the White House unveiled a new U.S. Strategy for Sub-Saharan Africa, which marked a shift from previous administrations. Notably, it underscored African agency and partnership as central tenets, rather than afterthoughts, in U.S. foreign policy. As the world grapples with reinvigorated debates about the structure of the global order and the geopolitical balance of leadership across multilateral institutions, the Belfer Center's Africa in Focus discussion series offered opportunities for Harvard students and fellows to engage policymakers involved with the U.S. strategy to reflect on its successes to date, challenges, and the future of American engagement with the continent.

As a guest of the Africa in Focus series in Spring 2024, Judd Devermont, former Senior Director for African Affairs at the National Security Council and a central architect of the strategy, explained, "It was my view and the President's view that it was time to re-frame Africa's importance to U.S. national security interest. And that is because our key goals globally - whether it's climate change; or a free, open, prosperous stable, international system; addressing pandemic and other global health threats; dealing with democratic backsliding – all of those problems require an African voice, African leadership, African contributions, African input. And sometimes that's been missing in our policy."

The thematic focus of the 2023-24 Africa in Focus discussion series was **Reframing U.S.-Africa Policy**, examining the United States' strategy for engaging African partners. To dissect this policy shift, the Africa Futures Project hosted:

- **Chidi Blyden**, the Deputy CEO of the Millenium Challenge Corporation (MCC) and former Deputy Assistant Secretary of Defense for African Affairs;
- **Rama Yade**, the senior director of the Atlantic Council's Africa Center and former French ambassador to UNESCO
- **Judd Devermont**, Operating Partner for Innovation at Kupanda Capital and former Senior Director for African Affairs at the National Security Council.

Discussions between Harvard students and guests Chidi Blyden, Rama Yade, and Judd Devermont touched on trends in democratic backsliding, insecurity and civil conflict, and geopolitical tensions across the continent. Notably, however, discussions also elevated themes around African global leadership and its potential to further shape a shifting world order, the role of the private sector in generating growth and advancing economic development on the continent, and strategic engagement with the African diaspora as a foreign policy tool.

> *"Oftentimes, we talk about what we can do for Africa and not what we can do with Africa."*
> *– Judd Devermont*

The Africa Futures Project Team & Rama Yade

Both Blyden and Devermont highlighted the strategy's deliberate effort to embrace African agency and focus on opportunities, not just challenges. On the global stage, the U.S. supported the African Union's ascension to the G20 and voiced support for a permanent African seat on the UN Security Council.[1,2,3] Policymakers shaping the strategy also considered how unique and varied African interests could align with U.S. interests. For example, not all regimes are interested in long-term relationships to build norms and institutions, but may favor transactional deals to assist in a particular area of concern; not all states may be interested in democracy, but may seek collaboration on shared security concerns.

The latest U.S. strategy also reflects a more pragmatic stance in emphasizing opportunities for cooperation: with African partners or even with strategic competitors – in regions where geopolitical competition is fierce. This departure from a rigid ideological stance could allow the U.S. to engage constructively with African nations, irrespective of other global players' presence.

"Our policy can't be divorced from global competition with China, but it also can't be defined by it." - Judd Devermont

Nevertheless, commentary on the strategy has praised its lofty ambitions and purposeful rhetoric,[4] while also underscoring the challenge of translating this into actionable and sustainable policy. One review noted that "in practice, the Biden administration's expressed commitment to democratic values in Africa has been in tension with interests-based foreign policy goals, including countering violent extremism."[5] Others have highlighted Sudan and Niger as examples where U.S. efforts to date are not working.[6,7]

Sustaining robust and strategic U.S. engagement with Africa can be challenging across time and presidential administrations, particularly as other pressing national interests repeatedly push Africa down the priority list.

Rama Yade speaks to the HKS Africa Caucus

[1] House, The White. "Vision Statement for the U.S.-Africa Partnership." *The White House*, December 15, 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/12/15/vision-statement-for-the-u-s-africa-partnership/.

[2] *United States Institute of Peace*. "Will the U.S.-Africa Summit Address U.N. Security Council Reform?" Accessed July 28, 2024. https://www.usip.org/publications/2022/12/will-us-africa-summit-address-un-security-council-reform.

[3] Powell, Anita. "US Re-Affirms Africa Support." *Voice of America*, December 14, 2022. https://www.voaafrica.com/a/us-re-affirms-africa-support-/6875819.html.

[4] Chin, John J. and Bartos, Haleigh. "Rethinking U.S. Africa Policy Amid Changing Geopolitical Realities." *Texas National Security Review (TNSR)*. Spring 2024. https://tnsr.org/2024/05/rethinking-u-s-africa-policy-amid-changing-geopolitical-realities/

[5] Ibid.

[6] Mossberg, Benjamin. "Sudan Is an Abject Disaster. Is Anyone Listening?" *Atlantic Council*. May 28, 2024. https://www.atlanticcouncil.org/blogs/africasource/sudan-is-an-abject-disaster-is-anyone-listening/

[7] Walldorf, William. "The United States Needs to Get Troops Out of Niger." *The Hill*. April 2, 2024. https://thehill.com/opinion/4570792-the-united-states-needs-to-get-troops-out-of-niger/

This propels the role of the private sector into greater importance as an avenue for engagement that is not tied to political cycles and competing national security demands. How can U.S. businesses develop greater risk tolerance and see broader investment opportunities in Africa? How can the U.S. government – building on programs like Prosper Africa – facilitate deeper connections in both directions? How can new investments and partnerships meet profitability and also generate sustainable local economic growth?

The Africa Futures Project Team & Chidi Blyden

Ambassador Yade noted that African economic growth will be imperative for global prosperity this century. However, foreign capital still does not understand how to invest in Africa, while African businesses and entrepreneurs must learn how to unlock and tap into capital. Finding ways to develop more effective access for Western capital to generate African-driven growth that returns wealth to local communities rather than exporting it abroad will be key. Moreover, 25% of the world's population will be African by 2050, presenting a huge and under-served consumer base; countries or business sectors that don't recognize this reality will lose out. This point was echoed in conversations with Devermont, who added a nuanced point, noting, "I think that we need to get away from being so overly bullish that it doesn't make any sense, that it challenges what any businessperson would think about a new venture. But there are [business/investment] opportunities - in the creatives, in the tech sector, in agriculture, and increasingly in infrastructure."

A final highlight of the discussion series: Blyden and Yade raised points around the potential role of the African diaspora in shaping U.S. foreign policy priorities and implementation. Blyden – sharing her personal narrative and family's direct links to the African diaspora in the U.S. – noted that the African diaspora can be a tool to counter strategic competition. The diaspora has the knowledge of what challenges exist in their former home countries and ideas for how to address such issues. This new component of the U.S. strategy, the President's Advisory Council on African Diaspora Engagement in the United States,[8] holds the potential to strengthen particularly economic, cultural, and social ties between the U.S. and Africa, if not core geopolitical policies. However, the initiative is still in nascent stages, having been launched only in the fall of 2023.

Through these discussions, HKS students—poised to become future policymakers and change agents—had an opportunity to go deeper into the complexities involved in crafting foreign policy strategies and the challenges inherent in creating cohesive whole-of-government narratives. These conversations illuminated the limitations of traditional government policy tools and underscored the need for strengthening and mobilizing the roles of the private sector and civil society. Students were encouraged to think critically about how these external forces can complement and enhance government efforts, particularly in areas where government policy levers may fall short.

We hope students who engaged with our *Africa in Focus* discussion series left inspired to experiment with innovative solutions to mutual challenges and to harness the potential for more collaboration between Africa and the U.S.

8 "President Biden Announces the Inaugural Members of the President's Advisory Council on African Diaspora Engagement in the United States." *The White House*. September 26, 2023. https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/26/president-biden-announces-the-inaugural-members-of-the-presidents-advisory-council-on-african-diaspora-engagement-in-the-united-states/

The Other Side of the Strait: How Houthi Aggression Hurts East Africa

This piece was originally published March 6, 2024 on the Belfer Website.

Authors: Nils Olsen, MPP & MBA 2026 and Grace Jones, MPP 2024

Iranian-backed militants in Yemen are clashing with the United States and British naval forces in the Red Sea over Israel's operations in Gaza, all in a complex dance for geopolitical leverage in the Middle East. Yet, there is another region with a stake in the conflict brewing in the Bab al-Mandab strait, one seemingly beyond the world's purview – the Horn of Africa.

Attacks on merchant vessels by the Houthis, a Yemeni Shia militia group, put the nations of East Africa at risk of severe economic decline and have the potential to exacerbate political instability in an already fragile region. Shipping disruptions in the Red Sea have an amplified effect on these trade-reliant economies. The fallout from impeded commercial flows will likely worsen existing humanitarian crises and aggravate on-going regional tensions. Should the situation further deteriorate, regional and global actors with interests in East Africa may be affected to the point of altering their strategic position toward the region.

Houthi Attacks Diverting Shipping from the Red Sea

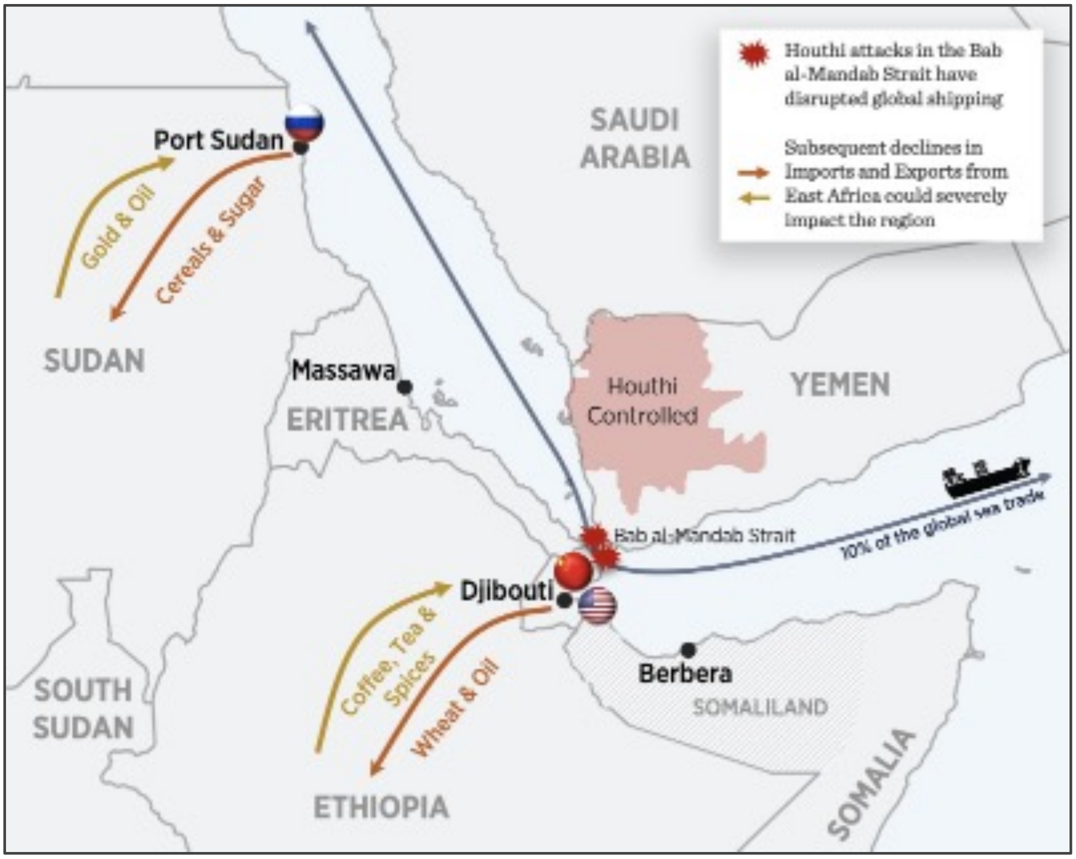
Late last fall, the Houthis began using anti-ship ballistic missiles fired from their territorial stronghold in northwest Yemen, as well as small boats and drones, to attack and even hijack merchant vessels in the Bab al-Mandab strait. The Houthi movement emerged from the mountainous northern region of Yemen, and their campaign has become a focal point for regional power dynamics. Funded and armed by Tehran, the Houthis claim the disruption is an economic lever to pressure Israel towards ending its operations in Gaza.

Since the first strike on November 19th, the Houthis have launched over 57 attacks on military and civilian merchant vessels, in addition to firing drones and missiles at U.S. and British naval ships. The result is massive disruptions to global shipping; as of January, nearly 25% of international shipping capacity has or will be diverted from the Red Sea, according to an analysis from Flexport, a global logistics firm.

These maritime route changes have directly impacted the economies of East African countries that rely heavily on seaborne imports and exports through the vital artery of the Bab al-Mandab. In particular, the attacks have drastically cut activity at two vital regional ports: the Port of Djibouti and Port Sudan. For example, on January 19th, Denmark's Maersk announced it was suspending booking to Djibouti from Asia, the Middle East, Oceania, East Africa, and South Africa. The situation has also had a tangible impact on all Red Sea shipping: roughly 150 ships sailed through the Suez Canal in the first two weeks of 2024, compared to 400 ships in the first two weeks of 2023.

Decreased Maritime Trade Impacts East African Economies

Trade with Europe and Asia is crucial for most economies of the Horn of Africa. As the conflict drags on, a continued decrease in economic activity could have severe implications across the region.



Trade flows and foreign military bases in the region. Source: Authors.

Trade Disruptions

The largest port in the Horn of Africa, the Port of Djibouti, is essential for Ethiopia, the second most populous country and the fifth largest economy in Africa. Land-locked, 95% of Ethiopia's trade by volume moves via the Addis-Djibouti corridor (a World Bank infrastructure project), including $334 million in exports to the United States and $851.8 million to Europe, according to Trading Economics. Yet, rising shipping costs will make Ethiopia's exports more expensive and less accessible, depressing overall economic growth.

The region's other central trade hub, Port Sudan, remains equally vulnerable to shipping disruption. According to S&P Global, nearly 90% of Sudan's $11 billion in exports and 30% of Sudan's GDP flow through the port, most of it gold or oil bound for Middle Eastern or Asian markets through the Bab al-Mandab. Additionally, the port is the gateway for food and imports headed to South Sudan, Chad, and the Central African Republic, all poor and fragile states currently experiencing civil wars and humanitarian crises.

Food Insecurity

The past three years have yielded record lows in rainfall throughout East Africa, and the resulting drought has affected 26 million people. East Africa relies heavily on wheat shipments from Ukraine and the European Union (E.U.) through the Red Sea to supplant domestic production. Djibouti and Somalia import all their wheat supply, while Kenya and Sudan are also heavily dependent, importing 86% and 77% percent, respectively. The global wheat trade is already under strain. Russia's invasion has destroyed crop production in Ukraine, while its blockage of Black Sea shipping has reduced export volume, both of which have resulted in volatile prices. Insurance premiums are set to spike for freighters who continue to sail through the Strait, while those who re-route around the Cape of Good Hope face higher fuel and overall transit costs. In either scenario, East African consumers will likely face increased prices on a critical food supply.

For fragile countries in the greater region, such as Chad or South Sudan, disruption to overland imports from maritime trade adds additional strain on a dismal food outlook. The IPC acute food insecurity scale lists many East African nations as "crisis," but below-average wheat imports or higher prices could push the region into "emergency" - indicative of malnutrition between 15% and 30% of the population. Houthi interference also threatens the movement of humanitarian assistance bound for destinations beyond the Horn of Africa, a concern highlighted in a Joint Statement on Houthi Attacks made by the U.S., E.U., and NATO leadership in December.

The direct effect of the Red Sea conflict on East African markets is clear. As the Bab al-Mandab Strait remains too dangerous, African economies with no alternative trade routes will suffer. Such disruption in a fragile region will likely destabilize development and governance.

Economic Pressure Could Fuel Regional Security Concerns

The economic pressure from impeded trade flows and inflated prices could aggravate current hostilities or spark the outbreak of suppressed conflicts.

Ethiopia-Somalia-Somaliland

Amid recovery from a brutal civil war in the northern region of Tigray, Ethiopian Prime Minister Abiy Ahmed is pivoting towards bolstering the economy through increased exports. Since losing its own Red Sea access when Eritrea gained independence in 1993, Ethiopia has relied on the Port of Djibouti for maritime trade. However, this arrangement costs $1.5 billion in fees annually. A hefty price tag and the Houthis' disruptive actions amplify Ethiopia's urgency to find alternative, more economical port access.

On January 1st, Abiy signed a treaty with the leader of the semi-autonomous Somaliland region, Muse Bihi Abdi. The deal allows Ethiopia access to the port of Berbera and 20 km of coastline, where Abiy plans to construct an Ethiopian naval base. Although expected operating fees remain unknown, they are presumed to be lower than those Djibouti charges.

The deal with Somaliland heightens regional tensions. As part of the agreement, Ethiopia promises to recognize the break-away region as an autonomous country. It would be the first formal international recognition of Somaliland since the region announced its independence from Somalia in 1991. This move has evoked criticism from the Somali government in Mogadishu, which does not recognize Somaliland's independence and views the leased land in the agreement as its sovereign territory.

Sudan

In contrast to Ethiopia, Sudan's civil war is still raging. According to the International Food Policy Research Institute, the conflict has shrunk Sudan's economy by nearly half. Disrupted maritime trade will only exacerbate increasing competition over scarce resources between the two warring parties: the Sudanese Armed Forces (SAF) and the paramilitary Rapid Support Forces (RSF). Although the SAF maintains control of Port Sudan (and its flow of resources, aid, and profits), recent victories for the RSF have brought speculation about an impending campaign to secure the port – whether by RSF main forces or local tribal militias who resent the government in Khartoum. Both sides in the war rely on trade through the Bab al-Mandab. The SAF's control of Port Sudan's exports is a source of revenue. Vital aid shipments have been diverted to alternate shipping routes or for air freight, increasing costs and delivery times and leading to significant shortages of medical and food supplies. The RSF finances much of its operations by selling gold mined in territories under its control. The gold is then shipped through the Bab al-Mandab to the UAE before heading around the world, so disruptions in the Strait could slow the RSF's main funding channel.

Regional and Global Players with Interests in East Africa

Framing the Houthi's actions within a larger "Middle East Crisis" reflects that for regional and global stakeholders, disruption of Red Sea trade is only a part of their strategic calculus to the area. However, the economic, political, and humanitarian effects in East Africa stemming from the attacks in the Bab al-Mandab may tip the scales and influence broader policy changes from Gulf Nations, Russia, China, or the United States.

Saudi Arabia has long backed the SAF and invested heavily in the Sudanese economy – namely in infrastructure, agriculture, and mining. Riyadh brokered a short-term cease-fire in Sudan last year, likely to secure Sudanese food imports on which Saudi Arabia relies. Prolonged instability in Sudan jeopardizes the Kingdom's Vision 2030 projects, such as Red Sea Global, while victory for the RSF would be a win for one of its regional competitors, the UAE.

The United Arab Emirates competes directly with Saudi Arabia in Sudan, despite being a partner to Saudi Arabia in the battle against the Houthis in Yemen. The Emiratis plan to invest over $6 billion in the country, including building a rival Red Sea port. Along with Russia's Wagner Group, the UAE supports the RSF to ensure access to gold exports, especially since the rebels took control of the Jebel Amer mines in North Darfur. The Houthi actions can be considered a boon for the Emiratis, as the SAF is affected more by shipping disruptions and because cargo bound for Sudan via the Strait has been diverted to Abu Dhabi or Dubai and then flown to Africa, boosting profits for the UAE.

Russia has penned a deal with Sudan's government to build a naval base in Port Sudan. Yet despite the formal agreement between Moscow and Khartoum, Wagner and its allies in Libya are supporting the RSF, ensuring that Russia wins regardless of the conflict's outcome.

China opened its first and only overseas military base in Djibouti in 2016 to secure its Doraleh Multipurpose Port and project power into the Bab al-Mandab. However, China has abstained from counter-Houthi operations, opting to stay neutral in the conflict. This move has resulted in vessels advertising their ties to China to win safe passage through the Strait, as the Houthis have not targeted ships flying Chinese colors.

The United States formally established Camp Lemonnier in Djibouti in 2003 to support "security, regional stability, and humanitarian efforts across the region," according to the US Department of State. The American footprint in the country also includes the Chabelley Airport, the launch point for armed drones conducting strikes in Yemen and the greater region. With more than 5,000 troops stationed across East Africa and a few of its largest embassies on the continent, the U.S. has a vested interest in regional partnerships and stability to maintain its forward presence.

Conclusion

Policymakers should not think of the Houthi conflict only in terms of the Arabian Peninsula and the broader Middle East but also consider its effects on East Africa. A prolonged conflict in the Bab al-Mandab strait and decreased maritime trade risk severe economic repercussions for nations heavily reliant on ship-bound commerce. Additional economic instability can exacerbate regional tensions and risk a humanitarian crisis. When calculating involvement and solutions for the region in the wake of the latest Western-Houthi clash, international policymakers must take a holistic view of all the regional stakeholders – including the major African players on the other side of the Strait.

The Expanding Role of Middle Powers in Africa

*This summary comes from "**The New Influencers: A Primer on the Expanding Role of Middle Powers in Africa,**" originally published August 5, 2024 on the Belfer Website.*

Authors: Grace Jones, MPP 2024 and Nils Olsen, MPP & MBA 2026

With Africa's share of the global population projected to reach 25% by 2050, many nations considered "middle powers" recognize the continent's growing role in their quest for increased geopolitical influence. This primer examines eight countries—**Brazil**, **India**, **Japan**, **North Korea** (formally known as the **Democratic People's Republic of Korea** or simply DPRK), **Saudi Arabia**, **Turkey**, the **United Arab Emirates** (UAE), and **Qatar**—that are significant due to their political, economic, or geographic importance to Africa, yet are often under-analyzed in discussions about external powers acting on the continent.

By predominantly focusing on Russian and Chinese actions on the continent, Western policymakers miss opportunities to view these middle powers as potential allies or counterweights. These states act independently of great powers' foreign policies, suggesting that long-standing partners of African nations—the U.S., China, and European states—should reevaluate Africa's dynamically evolving foreign political environment.

An Alternative to Great Powers

With Chinese loans to Africa declining and Western aid becoming sparser, middle powers are beginning to fill such vacuums, offering a "third option," distinct from alliances with superpowers. These nations have the potential to profoundly reshape the continent, driven by national interests that align with those of many African countries. For one, many middle powers and African states share a mutual geopolitical interest in reshaping the global order and international institutions to better represent voices from the Global South. Indeed, several African countries—such as Kenya, Nigeria, and South Africa—are often considered middle powers; however, this primer focuses on states external to the continent and their engagement with African nations. As these middle powers pursue diverse agendas, these partnerships are poised to fuel further shifting geopolitical realities.

Some observers assume that middle powers must choose between alignment with the U.S. or China. In Africa, some actions by middle power states are driven by their relationship with great powers; for example, Japan's naval participation in U.S.-led counterpiracy efforts off the Horn of Africa augments the U.S.-Japan security relationship in the Pacific. However, most actions by middle power states in Africa serve defined national interests and are agnostic to great power actions. Additionally, there are spaces in Africa where middle power states hold the upper hand, compete directly with larger states, or are the intermediaries that bring great powers like the U.S. or China to the table.

Geography Supports Geopolitical Freedom

While the U.S., Russia, and China maintain regional spheres of influence, Africa lies further afield and lacks a regional hegemon. Therefore, it is somewhere a non-African nation can grow its influence without directly antagonizing a great power. Moreover, as superpowers remain preoccupied with competing priorities—including wars in Ukraine and Gaza, domestic political turmoil, or economic slowdowns—middle powers have a growing window of opportunity to exert influence in Africa without provoking conflict with a great power.

No Middle Powers Consensus

The eight nations examined in this report do not form a unified bloc; instead, they often compete directly against one another and other countries. In the security domain, Gulf states and Turkey back opposing factions in conflicts in Libya, Sudan, and Somalia. Economically, our eight nations compete for African commodities, while airlines such as Emirates, Qatar Airways, and Turkish Airlines vie to be the air carriers of choice, linking the continent to Asia and beyond. While India and Brazil favor deeper diplomatic ties through established international institutions, like the United Nations or African Union, others prefer bilateral agreements with specific African partners.

This original primer is an initial exploration into the evolving roles and increasing influence of "middle powers" in Africa. It covers a diverse array of existing and aspiring middle powers, presenting key points for each nation under four distinct analytical lenses. The goal of this primer is to provide a foundational overview rather than an exhaustive analysis. Inspired by our preliminary findings, we hope that future research will deepen this analysis, including further studies on how middle powers' policies in Africa influence the rivalry between the United States (U.S.) and China.

Things You Might Not Know...

India: The Africa-India Field Training Exercise (AFINDEX) brings 25 African nations together to train alongside the Indian Army and hosts African partners at the Information Fusion Centre - Indian Ocean Region (IFC-IOR), a regional maritime integration center.

Saudi Arabia: Saudi private mining companies, supported by public financing, have entered into joint ventures with United States firms to extract critical minerals in Africa and export the ores to the U.S. to manufacture electric vehicle (EV) batteries and other green technologies.

Japan: Japan hosts one of the world's leading development conferences, the Tokyo International Conference on African Development (TICAD). At the 8th TICAD in 2022, Tokyo committed over $30 billion in assistance to the continent. The 9th TICAD is slated for 2025 in Yokohama.

DPRK: North Korea's Mansudae Art Studio has constructed monumental statues across Africa, including a 160-foot, $27 million African Renaissance Monument in Senegal. These statues promote DPRK ideology while providing much-needed revenue for the regime.

Turkey: Karpowership, a Turkish firm that operates natural gas-powered transformers installed on cargo ships, operates in eight African countries, supplying readily available, cheap power to governments unable to invest in expanding electrical grids or building new power plants.

Qatar: Seeking allies during the GCC rift, Qatar funded the 2017 presidential campaign of Mohammed Abdullahi Mohamed, aka Farmajo, in Somalia, ultimately leading to his victory at the polls.

UAE: Dubai Ports World (DP World) manages multiple ports, from the Red Sea to Tanzania, entrenching its position as a leading logistics interlocutor between Africa and Asia.

Brazil: The Brazilian Navy has been a critical leader of the Zone of Peace and Cooperation in the South Atlantic (ZOPACAS), a UN-backed initiative to support cooperation and collective peace between South American and African states.

Incentives for Instability: Eritrea and the War in Tigray

Author: Armughan Syed, MPA 2024

Before the Ukraine war took over the headlines at the end of February 2022, another international conflict, the Tigray War in northern Ethiopia, was making the rounds in newsrooms around the world. Much like the Ukraine conflict, the Tigray War remains an example of a conflict that can pull in multiple neighboring states, in this case Egypt, Sudan and Kenya. Reports in April 2024 of fresh political violence in southern Tigray point to the tenuousness of the "positive peace" that the Ethiopian government has clung to since a Cessation of Hostilities Agreement (CoHA) ended the conflict in November 2022.

If you are not familiar with the Tigray War by now, you should be: Over the span of two years (2020-2022), the bloody war pitted the Federal Democratic Republic of Ethiopia (GFDRE), the sitting government of Ethiopia led by the Nobel prize-winning prime minister Abiy Ahmed, against the Tigray People's Liberation Front (TPLF), a leftist-ethnonationalist group that had ruled Ethiopia for 30 years prior under the banner of Ethiopian People's Revolutionary Democratic Front (EPRDF). By the end of the conflict, at least 600,000 people had died (a number that is much higher when you consider war-related famine after the cessation of active conflict).

What remains mostly under-reported is how a particular neighboring state has a strong incentive to destabilize the negotiated peace settlement.

That state is Eritrea.

Dubbed "the most dangerous player in the Horn of Africa," Eritrea was a key military partner to Ethiopia during the Tigray war, despite both countries fighting their own war over two decades ago (1998-2000). Put simply, the Ethiopian government recruited a former warring neighbor to neutralize its domestic opponent, the TPLF. But when it came time for peace talks, Eritrea was excluded from the CoHA negotiations, despite the Eritrean forces occupying up to 40% of Tigray at one point in the conflict. The Abiy government's desire to pursue a disarmament, demobilization and reintegration (DDR) approach with the TPLF, which Eritrea sought to dismantle, further exacerbated Eritrean frustration with Ethiopia.

Eritrea has a strong incentive to destabilize the CoHA process, given Ethiopia's ambitions to re-establish Red Sea port access and the blurred territoriality of the areas in the Tigray region, which could trigger conflict with Ethiopia. While the Eritrean Defense Force (EDF) has withdrawn from some parts of Tigray, the Eritrean government is investing in building stronger ties with specific Ethiopian subnational ethnolinguistic entities,[1] like Amhara militias, with an eye to circumvent Prime Minister Abiy's government in protecting Eritrean interests. In fact, the EDF are still occupying parts of southern Tigray under existing ad hoc arrangements between the two governments. More importantly, the EDF's presence in Tigray has been riddled with documented reports of genocide and ethnic cleansing against the Kumana and Irob people of northwestern Tigray. Such violence and displacement has only worsened the effects of famine.

1 Eritrean overtures towards Amhara elites, who believe that the TPLF helped the GFDRE in its fight against Fano insurgents in Amhara region in August 2023 is an example of such a strategy.

So, how do we incentivize Eritrea not to undermine the CoHA process? Engagement by the international community with Eritrea would be a strong start. More specifically, Turkey and China's growing relations with Eritrea can be leveraged to ensure that Eritrea fully supports the CoHA process through robust monitoring and implementation. Similarly, Arab nations like the United Arab Emirates and Saudi Arabia, who were guarantors of the 2018 peace accords between Eritrea and Ethiopia, can play a pivotal role in ensuring Eritrean participation in Tigrayan confidence-building measures.

Secondly, reconstruction of the Tigray region will require $20 billion and international partners can step in to provide the funding and the technical resources to entities like the Intergovernmental Authority on Development and the Africa Union in rebuilding the war-ravaged region. The longer the effects of famine and economic underdevelopment are felt, spillover effects into other regions, including Amhara and Afar, could pull in more vested external interests (like Egypt and Sudan). The more countries that get involved, the harder it is to end potential wars, a fact that international players could emphasize to Eritrea.

Thirdly, Ethiopia and Eritrea must be encouraged to abide by common borders that have clear demarcation so that the current approach of ad hoc arrangements in the Tigray do not create conditions for escalation. Such clarity would dovetail with confidence-building measures like the GFDRE conducting regional elections in Tigray and strengthening the National Rehabilitation Commission, that are inclusive of the diasporic, opposition and civil society perspectives. Eritrean withdrawal from the Tigray, especially in the face of mounting atrocities, should be the main condition from countries like the US in providing any support to the Eritrean government.

But, what if conflict between Ethiopia and Eritrea is inevitable now that their shared enemy, the TPLF, has been neutralized and the above recommendations add up to naught? After signing the CoHA, Abiy famously stated that Ethiopia is willing to resort to non-peaceful means to reclaim its Red Sea port access, which it lost to Eriteria's 1991 secession. Much to Ethiopia's chagrin, Eritrea has been arming opposition groups in Ethiopia, like the Amhara militias and the Oromo Liberation Army. Not surprisingly, Eritrean withdrawal from the Tigray region is not yet complete, a sign of how it views the CoHA as an undesirable settlement in light of its own goals of fully dismantling the TPLF as mentioned earlier.

If Ethiopia and Eritrea are veering towards a war for Red Sea access, the Tigray and destabilizing the CoHA becomes a chain link in that sequence, especially if Sudan and Egypt's grievance against Ethiopia's Grand Ethiopian Renaissance Dam (GERD) are also factored into the equation. The Tigray War may be the first act in a larger sequence of conflicts that play out in the Horn of Africa over the next few years. The international community is best served in actively engaging with Eritrea and the region writ large in order to find ways to de-escalate conflicts and avoid the large-scale, long-term humanitarian crises and war crimes that the Tigray War perpetuated.

That may not be in the headlines yet. But it should be.

AFP's Africa Study Group Goes Beyond the Headlines

*Dr. Ayee's full analysis of the study group, "**Beyond the Headlines: A Kaleidoscopic Exploration of Contemporary African Politics and International Cooperation**," are published on the Belfer Website, as are complete takeaways of each of the five sessions.*

Author: Dr. Gloria Ayee

Africa is at a pivotal moment. By exploring the powerful shifts that are shaping Africa's complex political landscape today, collaborative relationships can be forged which will meet this decisive moment in history. With youthful populations, abundant resources, and growing economic and technological capacity, Africa holds solutions to global challenges from food security to climate change, solutions which have largely been ignored by Western nations. Yet inclusive, sustainable development in Africa largely depends on international cooperation and respecting the role that African leadership plays in decision-making and addressing the continent's problems.[1]

In Spring 2024, with support from the Belfer Center for Science and International Affairs, I organized an intensive five-session study group at the Harvard Kennedy School as part of the Africa Futures Project Initiative. The study group brought together students, researchers, and practitioners from diverse backgrounds, and our goal was to explore contemporary issues that are shaping African politics, economics, and international cooperation.

Over the course of our discussions — which were informed by background readings and guided by guest experts[2] — several cross-cutting lessons emerged.

An in-depth exploration of the political, economic, and social landscape in Africa reveals the complexity and diversity of development-related issues and other concerns across the continent. Through engaged discussions and analysis of on-the-ground realities, scholars, practitioners, policymakers, and government officials can gain a more nuanced understanding of the main issues facing the continent today.

Sustained dialogue, multifaceted approaches, and partnerships that take local contexts and realities fully into account can help craft more collaborative, mutually beneficial solutions to address shared global challenges broadly, but also specifically support African governments and local communities. Political stability, inclusive governance, and conflict prevention can effectively lay the groundwork for development across Africa, but achieving these goals remains immensely challenging. Fragile states and those that have been plagued by conflict continue to struggle with weak state institutions, violence, human rights abuses, corruption, and political repression, which will ultimately undermine stability and social cohesion for individual nations. This in turn exacerbates humanitarian crises by reducing resilience to external shocks like climate change impacts or global health crises and pandemics. Climate change,

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1 United Nations. 2024. "Security Council Calls for Strengthening Africa's Role in Addressing Global Security, Development Challenges, Adopting Presidential Statement ahead of Day-long Debate" (24 May 2024). https://press.un.org/en/2024/sc15706.doc.htm

2 The study group was privileged to have the participation of well-regarded authorities in their fields. We are grateful for the contributions of the following individuals: Dr. Antje Herrberg, Chief of Staff of the European Union Capacity Building Mission in Niger; Sabs K. Quereshi, senior-level leader in global health and gender equality; H.E. Patrick Achi, former Prime Minister of Côte d'Ivoire; Ely Sandler, Fellow at the Belfer Center for Science and International Affairs; Dr. Salma Abdalla, Assistant Professor in Global Health and Epidemiology at Boston University.

in particular, threatens to increase food insecurity, natural disasters, resource competition, and public health emergencies in Africa if adaptation efforts are not significantly scaled up.

Fostering economic development in Africa will depend not only on stability at the national level, but also increased regional cooperation to expand trade, pool resources, and address common threats like terrorism that transcend borders. However, many nations across the continent continue to face high levels of poverty and unemployment, and risk further instability if these issues are not addressed through job creation. Sustainable development models must also be considered and implemented to harness Africa's economic potential through investment in strategic sectors and green industries that can drive growth while building climate resilience over the long-term.

Cross-cutting issues like public health, climate change, and democratic transition intersect with both domestic development agendas and global partnerships. While support from international state and non-state actors plays a critical role, it is imperative to prioritize African-led solutions that strengthen autonomy and address common local vulnerabilities, like underfunding of social services and infrastructure due to limited domestic revenues. External influence, if not carefully managed, can undermine autonomy and political stability and undoubtedly weaken governance reforms and nationally defined development priorities. As global challenges intensify with events like the pandemic and war in Ukraine, it is important to have informed discussions about how to best support development priorities from within African societies. This study group on African politics and international cooperation emphasized the value of filling knowledge gaps to inform more collaborative, mutually beneficial partnerships going forward. The information shared by guest experts and the engaged conversations that characterized each session highlighted the need for sustained, multidisciplinary exploration of the realities on the continent. By fostering dialogue that brings varied perspectives to the fore, it is possible to design nuanced solutions to support Africa's development from within its diverse societies.

STUDENT PAE

Unlocking Opportunity: The Case for Enhancing Regular Pathways for Africa-EU Migration

Author: Ruvimbo Mushavi, MPP 2024

The Problem

Between 2010 and 2017 nearly 1 million sub-Saharan migrants filed for asylum in Europe,[1] and in 2023, Africans represented nearly half of all detected irregular migrants to Europe.[2] Among various policy instruments that have been used to stem irregular migration, European countries often focus on increasing border protection and the externalization of migrant protection through agreements with third countries or migrants' countries of origin to manage migrant inflows across their borders.

Expanding and streamlining regular pathways for immigration would decrease irregular migration, and "reduce [migrants] need to move, live, and work in unsafe circumstances." However, there is still limited availability and access to regular migration pathways. This is particularly true for migrants of African descent heading to the European Union (EU). As the EU has increasingly taken a harder line on migration policy focused on restricting migration, the conversation about the expansion of regular pathways has become particularly contentious.

The goal of this analysis is to provide the Immigration and Border Governance (IBG) Division of the International Organization for Migration (IOM) recommendations for future programming on regular pathways in the Africa-EU migration context, and measures to make IBG Division more effective in tackling irregular migration in the region.

Defining Irregular Migration

Irregular migration is the "movement of persons that takes place outside the laws, regulations, or international agreements governing the entry into or exit from the State of origin, transit or destination."* Why people migrate is understood by the push and pull model established on the basis that "migration tended to occur because of undesirable factors in a place that pushed the population to move to other places with better conditions." In this model, the factors influencing migration often fall into four distinct categories: economic, social, political, and environmental.

There is no fundamental difference between the motivations of a migrant traveling by regular means versus a migrant who uses irregular means. What differs, is the migrant's capability to access regular pathways, which is when irregular migration is often observed.

1 Connor, Phillip. "At Least a Million Sub-Saharan Africans Moved to Europe Since 2010." Pew Research Center (blog), March 22, 2018,https://www.pewresearch.org/global-migration-and-demography/2018/03/22/at-least-a-million-sub-saharan-africans-moved-to-europe-since-2010/

2 "Significant Rise in Irregular Border Crossings in 2023, Highest since 2016." Accessed June 13, 2024, https://www.frontex.europa.eu/media-centre/news/news-release/significant-rise-in-irregular-border-crossings-in-2023-highest-since-2016-C0gGpm.

* IOM Key Migration Terms. https://www.iom.int/key-migration-terms

Key Recommendations

1. **"Strength in Numbers" – Establish programming that links further IBG work to the work of other IOM thematic areas under the broad umbrella of migration management.**

IOM is a large UN agency that operates across several thematic areas. The IBG Division works on migration management, along with others, including Migration, Environment and Climate Change; Migration and Development; Migration and Health; Labor Migration; and Migration Protection and Assistance. Instead of individually embarking on parallel efforts to develop programs and initiatives on regular pathways, there can be partnership across these different divisions to produce a multi-pronged program to ensure a comprehensive approach to regular pathways.

2. **"Harness Cross-sector Collaboration" – Engage the private sector, trade unions, and workers organizations as key stakeholders in destination countries to encourage the diversification of regular pathways in order to meet future labor needs in the region.**

The IBG Division – and potentially IOM overall – should engage external stakeholders who can push the agenda forward for the enhancement of regular pathways. In my findings, a recurrent theme centered on how challenging it is for IOM to be seen to act in conflict with the interests of the member states that support this organization. By partnering with external actors such as private sector companies and labor organizations in destination countries, IOM could explore ways to achieve the goal of expanding regular pathways. This cross-sector collaboration could be guided by the following key objectives:

- **Objective 1:** Lobby governments directly to expand eligibility for existing legal pathways
- **Objective 2:** Identify gaps in the EU labor market where migrants could be an asset
- **Objective 3:** Create opportunities for the training and recruitment of migrants to fulfill anticipated labor needs
- **Objective 4:** Advocate for the recognition of the rights of migrant workers in EU member states

3. **"Predict the Surge" – Develop an Early Warning System aimed at estimating potential surges in irregular migration incidences.**

Early warning systems could be a potentially useful mechanism for IOM to better plan its programs and interventions across the different areas of its work. IOM has been developing its data collection capacity for several years and combining this with robust commercially available data on drivers of migration – including conflict, political instability, economic crises, and climate change – IOM could research the patterns of irregular migration and establish a set of indicators to monitor and predict potential surges in irregular migration numbers.[3]

3 This article is a synopsis of the author's Policy Analysis Exercise (PAE). The PAE is the capstone experience to the Masters in Public Policy (MPP) curriculum, providing an opportunity to integrate the skills and knowledge MPP candidates have gained during their time at HKS. An applied thesis, the PAE is different from a traditional research paper in that students are required to engage with a client organization and to develop a series of recommendations to solve a policy or management problem or question for that organization. This PAE's client was The Immigration and Border Governance (IBG) Division of the International Organization for Migration (IOM).

Belfer Center

SECTION II

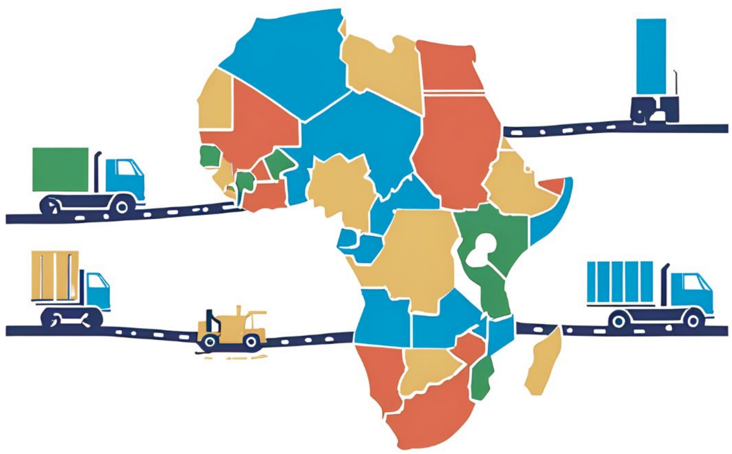
The Future of African Economic Growth and Trade

The African Continental Free Trade Area (AfCFTA) stands at a critical juncture. The implementation of AfCFTA promises to significantly alter Africa's trade dynamics, moving away from a model of raw material exports towards a more diversified and industrialized continental economy. This shift is critical as Africa currently accounts for less than 3% of global trade, a stark decline from previous decades, despite its growing population. The AfCFTA could lift millions out of poverty and significantly boost intra-African trade, which has remained low compared to other regions like Asia and Europe.

In this section, we begin by analyzing the AfCFTA's impact on infrastructure projects across the continent. Following this, three Harvard Kennedy School students debate whether the focus should be on increasing intra-African trade or expanding ties with foreign markets in Europe, Asia, and North America, offering critical insights into debates about the future of African economic strategies.

Infrastructure Development is Needed to Unlock African SME's Economic Potential

Author: Enitan Okediji



Introduction

The African Continental Free Trade Area (AfCFTA), which entered into force on May 30, 2019, represents a monumental shift towards economic integration and sustainable development within Africa. By aiming to create a single market for goods and services, the AfCFTA seeks to enhance trade across the continent bringing together 55 countries of the African Union.[1] Central to achieving this goal is the development of robust infrastructure.

Infrastructure development is a critical enabler of trade within the AfCFTA, with the potential to transform the economic landscape of Africa. Improvements in transportation networks, energy supply, digital connectivity, and logistics are vital for reducing trade costs, increasing efficiency, and fostering economic growth. Enhanced infrastructure facilitates the movement of goods and services, making it easier for businesses, especially SMEs, to access new markets and compete effectively. However, individual efforts by African countries to enhance infrastructure have faced significant funding deficits due to high costs. The resulting finance gap is a huge challenge in Africa according to the African Development Bank, an annual investment of $130 billion to $170 billion is needed for infrastructure development, resulting in a substantial financing gap of $68 to $108 billion.[2]

Small and Medium Enterprises (SMEs) are the backbone of the African economy, accounting for approximately 80% of jobs across the continent.[3] SMEs also tend to face proportionally higher supply chain barriers and costs.[4] Therefore, improved infrastructure development, particularly under the African Continental Free

1 "African Continental Free Trade Area (AfCFTA) Agreement." East African Community (EAC). https://www.eac.int/trade/international-trade/trade-agreements/african-continental-free-trade-area-afcfta-agreement.

2 "Public-Private Partnerships Needed to Bridge Africa's Infrastructure Development Gap." African Development Bank (AfDB). November 17, 2023. https://www.afdb.org/en/news-and-events/public-private-partnerships-needed-bridge-africas-infrastructure-development-gap-65936.

3 "Unlocking the Potential of Africa's SMEs Using Emerging Technologies." NEPAD. August 1, 2022. https://www.nepad.org/blog/unlocking-potential-of-africas-smes-using-emerging-technologies-africa.

4 "African Economic Outlook 2018: Chapter 3." African Development Bank (AfDB). https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2018AEO/African_Economic_Outlook_2018_-_EN_Chapter3.pdf.

Trade Area (AfCFTA), stands to greatly impact SMEs across various sectors in Africa, including agriculture, manufacturing, and services.

- In **agriculture**, better transportation infrastructure enables small-scale farmers to access wider markets and sell their produce at better prices. A reliable energy supply supports modern agricultural practices, while digital connectivity provides farmers with valuable market information and farming techniques.

- For **manufacturing**, infrastructure development is crucial in reducing production and distribution costs. Reliable transportation networks aid in sourcing raw materials and delivering finished goods efficiently, while a consistent energy supply is essential for running machinery. The digital infrastructure allows for the adoption of advanced manufacturing technologies and improves supply chain management.
-
- In the **services sector**, including retail, finance, and tourism, enhanced infrastructure facilitates tourism by making travel more accessible. Improved digital connectivity supports the growth of e-commerce and online financial services, offering SMEs more opportunities to reach customers and conduct transactions.

Overall, these improvements have the potential to significantly boost the productivity and competitiveness of SMEs across Africa's economy. More broadly, addressing the challenges of financing, political stability, and coordination will be key to realizing the full potential of infrastructure development and fostering sustainable economic growth across the continent.

Transportation Networks

Efficient transportation networks, including roads, railways, maritime routes and ports, and airports, are crucial for the seamless movement of goods across borders.[5] For SMEs, improved transportation infrastructure means reduced shipping times and costs, making their products more competitive. However, across Africa these networks are currently inadequate. To address these challenges, the African Union and regional economic communities have adopted the Programme for Infrastructure Development in Africa (PIDA). PIDA focuses on developing infrastructure in transport, energy, ICT, and trans-boundary water resources to enhance connectivity and improve living standards. The African Union Development Agency (AUDA-NEPAD) coordinates PIDA's planning, resource mobilization, and implementation, working closely with individual states, the African Union Commission, Regional Economic Communities, AfDB, UNECA, Pan African Institutions, development partners, and other stakeholders to advance infrastructure development across Africa.[6] However, the first phase of PIDA faced significant challenges, with about 50% of the 430 projects not reaching the construction stage and 30% failing to advance beyond feasibility.[7] The second Priority Action Plan of the PIDA Programme (PIDA-PAP 2) is now underway, featuring 69 large-scale projects with an estimated cost of over $160 billion over ten years. For instance, the development of the Trans-African Highway network will significantly cut down travel times and costs, thereby enabling SMEs to expand their reach and tap into new markets.

5 Economic Commission for Africa. "AfCFTA: Africa's Transport Sector to Benefit from Free Trade." Africa Renewal. February 11, 2022. https://www.un.org/africarenewal/magazine/afcfta-africa%E2%80%99s-transport-sector-benefit-free-trade.

6 "PIDA History." African Union Development Agency-NEPAD. https://www.au-pida.org/pida-history/.

7 "African Ministers Commit to Accelerate Infrastructural Development to Boost Africa's Growth." African Union. September 21, 2023. https://au.int/en/pressreleases/20230921/african-ministers-commit-accelerate-infrastructural-development-boost-africas.

Energy Supply

Many African countries face challenges related to inconsistent energy supply, which hampers business operations.[8] By investing in energy infrastructure, the AfCFTA can ensure that SMEs have access to the power they need to operate efficiently. This is particularly important for manufacturing and processing sectors, where energy costs constitute a significant portion of total expenses. On the 4th of June 2021, the African Union officially launched the African Single Electricity Market (AfSEM), the world's largest continent-wide energy trading program, designed to interconnect all 55 African Union Member States through an efficient, affordable, and sustainable electricity market. This launch recognizes that reliable and affordable energy is essential for industrial and commercial activities. The AfSEM will be implemented in phases and overseen by Pan African energy institutions, with full operation expected by 2040 and the aim to diversify energy sources, enhance trade and investment exchanges, bridge energy infrastructure gaps between regions and countries, and leverage the AfCFTA.[9]

Digital Connectivity

In the digital age, connectivity is as important as physical infrastructure. Better internet access and digital tools enable SMEs to engage in e-commerce, reach a wider audience, and utilize digital payment systems. Enhanced connectivity also supports the adoption of new technologies, which can improve productivity and innovation among SMEs. Africa lags behind in terms of penetration of the digital economy in retail with respect to other regions. In 2019, only 30% of the African population engaged in online shopping, compared to 45% and 50% in South America and Asia. The development of e-commerce and the digital economy is affected by a wide range of factors including digital and physical connectivity, the low number of people using the internet (30% of the total population), the low number of people using bank accounts or mobile money (40%), lack of secure internet servers and unreliable postal services.[10]

The digital gender divide further impedes the growth of e-commerce on the continent. Despite women conducting the majority of purchases both off-line and online (ITC, 2021), they are less likely to have a bank account or access to credit cards or mobile money.[11]

Drawing from UNCTAD's B2C e-commerce index for 2020 (UNCTAD, 2020), the table above highlights regional issues. It compares Africa with other regions, including transitional and developed economies. In the global context, the data reveals that African countries lag behind in digital trade and e-commerce support. The percentage of internet users in Africa stands at a mere 30%, the lowest among all regions, significantly lower than the global average of 60% and the Asian average of 57%. This suggests a smaller pool of potential digital commerce participants in Africa. The emphasis on improving digital infrastructure under AfCFTA can revolutionize how SMEs conduct business.

8 "Energy & Power." African Development Bank (AfDB). https://www.afdb.org/en/topics-and-sectors/sectors/energy-power.

9 African Single Electricity Market (AfSEM) Launched." Africa-EU Energy Partnership. June 28, 2021 https://africa-eu-energy-partnership.org/african-single-electricity-market-afsem-launched.

10 Lemma, A., Mendez-Parra, M., and Naliaka, L. "The AfCFTA: unlocking the potential of the digital economy in Africa." ODI report. July 2022. https://repository.uneca.org/bitstream/handle/10855/48749/b12019173.pdf?sequence=1&isAllowed=y.

11 Ibid.

Table 1 Regional values for the UNCTAD B2C e-commerce index, 2020

	Share of individuals using the internet (% of the population)	Share of individuals with a financial institution or mobile money account (% of 15+)	Secure Internet Servers (per 1 million population)	UPU Postal Reliability Score
Africa	30	40	28	21
East, South & Southeast Asia	57	60	54	58
Latin America & the Caribbean	64	53	50	29
Western Asia	77	58	45	50
Transition economies	71	58	60	59
Developed economies	88	93	84	80
World	60	60	53	47

Source: UNCTAD (2021a)

Financing

African governments and international partners, such as China, have been the main investors in infrastructure projects on the continent. However, financial constraints are prompting a shift towards public-private partnerships. These partnerships can leverage private investment, technology, and expertise, enhancing the efficiency and cost-effectiveness of service delivery.[12] Infrastructure projects are capital-intensive and require significant investment. Public-private partnerships (PPPs) can be a viable solution, leveraging the strengths of both sectors to fund and manage infrastructure projects. Additionally, international financial institutions and development banks can play a crucial role in providing the necessary capital.

Political Stability and Internal Coordination

Political instability can disrupt infrastructure projects and deter investment. Ensuring political stability and fostering a collaborative environment among AfCFTA member states are essential for the success of infrastructure initiatives. Effective coordination and harmonization of policies can streamline efforts and maximize the impact of infrastructure development.

12 "Public-Private Partnerships Needed to Bridge Africa's Infrastructure Development Gap." African Development Bank (AfDB). November 17, 2023. https://www.afdb.org/en/news-and-events/public-private-partnerships-needed-bridge-africas-infrastructure-development-gap-65936.

Harvard Kennedy School's Belfer Center for Science and the International Affairs and the Harvard Center for International Development hosted *AfriConnect* - a networking event for the HKS community of interest on Africa.

The event allowed participants to learn about the Africa-centered work and activities of research centers and student organizations.

Faculty Panel: from left to right: Dr. Gloria Ayee, Dr. Zoe Marks, Natalie Colbert, and Fatema Sumar

AfricConnect, convened in November 2023, included a short speaking program and a student showcase of research and policy ideas focused on Africa. Initial research presented at AfriConnect culminated in substantive analysis at the end of the academic year.

Student Speakers: left to right: Etta Madete, Michael Omole, Femi Olamijulo, Adebayo Alonge, Abjijabar Mohamed, and Ruvimbo Mushavi.

Key findings from select research projects presented at *AfriConnect* are included in this volume; analyses from research presented by **Ruvimbo Mushavi** and **Femi Olamijulo** can be found on page 18 and 52, respectively.

Let's Debate: The Future of the African Continental Free Trade Area

The AfCFTA has the potential to transform trade and economic growth across Africa. As part of a course on Africa in Global Politics, Harvard Kennedy School students debate whether the AfCFTA should prioritize working toward a continent-to-continent free trade agreement (FTA) with the European Union (EU) or focus on intra-African opportunities.

"Reading these pieces in conversation with one another as three distinctive and thought-provoking perspectives highlights the best of HKS student thinking and policy visioning."
- Dr. Zoe Marks, Lecturer for Africa in Global Politics

Optimizing the AfCFTA

Author: Uche Nwachukwu

"The AfCTFA needs to focus on its core objectives of intra-continental integration in order to improve the economic conditions of the region…The AfCFTA should remain inward-looking despite its challenges. Proper implementation would lead to greater competition between member states and ideally an increase in productivity."

Why AfCFTA Needs Smarter, Outward-Looking Trade Deals

Author: Biying Zhang

"Trade is important for development, but the issue is trading what and on whose terms: AfCFTA should prioritize intercontinental trading agreements that generate jobs and boost income."

Relying on European Markets Will Not Free African Trade

Author: Miguel Ventura

"African economies have long catered to markets across oceans at the expense of markets close to home. The AfCFTA should take both a positive and normative role in promoting intra-African opportunities for cooperation and growth."

Optimizing the AfCFTA: Focus on Intra or Inter Continental Trade?

Author: Uche Nwachukwu, MPA 2024

In February 2022, the presidents of the African Union (AU) and European Union (EU) met at a summit in Abidjan, Cote D'Ivoire, with the eventual outcome being a communique for greater trade and collaboration between the two regional blocks. The communique titled " a joint vision for 2030" promises that the EU will invest up to $150 Billion in Africa by 2030.[1] A casual observer might ask: given the rather dour implementation to-date of the Africa Continental Free Trade Area (AfCFTA), which was originally designed for greater intra African trade and integration, shouldn't the AU prioritize working toward a more continent-to-continent trade collaboration with the EU? The answer is NO! The AfCTFA needs to focus on its core objectives of intra continental integration in order to improve the economic conditions of the region.

More than 500 years of trade history with Europe should make any discerning African wary of European intentions when it comes to trade. What appeared like an arm's length trade opportunity with the Europeans in the 15th century rapidly transitioned to slave trading by the 16th century.[2] The next 400 years after that would include every sort of economic exploitation, remains of which are still present in some African countries today. These issues have persisted for centuries: Europe sees Africa only from a lens of exploitation. The joint vision 2030 amongst other things promises to help Africa with COVID vaccination roll out; help stem illicit financial flows out of Africa; and enhance knowledge and scientific cooperation between both continents. However, we still recall how Europe hoarded all available vaccines from Africa beyond what they needed at the height of the pandemic,[3] how Europe is the overwhelming beneficiary of illicit financial flows leaving Africa,[4] and, as for knowledge and scientific cooperation, Europe continues to drain Africa of almost all its available technical expertise with their preferential visas for high skilled individuals. These examples point to an established pattern of exploitation.

A detailed look at their proposal in the communique reveals the real intentions behind the EU's need for preference as trade partners to Africa. The $150 billion being committed to support Africa has the following top three priority areas: investment in energy and transport, investment in the energy transition, and investment in the green energy transition. As harmless as these may sound, a deeper look suggests an intention to continue exploitation of the African continent. Africa currently holds over 40% of the world's major mineral resources required for the transition to sustainable energy,[5] while almost no African country currently has the capacity for wholesale development of electric vehicles, solar apertures, or wind turbines. The intention of this investment then is to continue the extraction of raw materials from Africa, while selling finished goods back to us.

Competitiveness is the major factor that will drive production capacity in Africa. If African countries cannot compete with the rest of the world, they may as well compete with themselves internally to build capacity. Currently, the biggest exports from Africa include crude oil, minerals, and raw agricultural products while its biggest imports include automobiles, IT equipment, clothing, pharmaceuticals, and machines.[6] Basically, the

1 6th European Union - African Union Summit. (2022, February). A Joint Vision for 2030. Abidjan, Cote d'Ivoire.

2 Nunn, N. (2017). Understanding the Long Run Effects of Africa's Slave Trades. In The Long Economic and Political Shadow of History, Volume 2. VoxEU.org.

3 Kavanagh, M.M. & Singh, R. (2023) Vaccine politics: Law and inequality in the pandemic response to COVID-19. Global Policy, 14, 229–246. Available from: https://doi-org.ezp-prod1.hul.harvard.edu/10.1111/1758- 5899.13203

4 Financial Transparency Coalition . (2015). Five take-aways for Europe from the African Union's High-Level report on illicit financial flows. Retrieved from Financial Transparency: financialtransparency.org

5 International Energy Agency. (2022). Africa Energy Outlook 2022: Key Findings. Retrieved from iea.org: https://www.iea.org/reports/africa-energy-outlook-2022/key-findings

6 World Bank. (2022). Sub Saharan Africa Trade. https://wits.worldbank.org/CountrySnapshot/en/SSF/textview#:

world takes our raw materials on the cheap, processes them, and sells back to us on the high. The EU has enjoyed a trade surplus with Africa for decades now.[7] Intra-Africa trade represents only about 15% of all trade done by African countries.[8] This needs to change, this is why AfCFTA must work.

The main objective of the AfCFTA is to remove trade barriers, both physical and regulatory, as well as advance intra African value chain productivity.[9] Admittedly, this has not been very successful. In August 2019, barely three months after the AfCFTA became effective, Nigeria– which boasts the largest economy in Africa and a fifth of its population – closed its land borders to trade with all its neighboring countries (including Chad, Niger, Cameroon and Benin) citing pervasive smuggling of goods into the country. The real issue may be fear that other countries may be better positioned to exploit the AfCFTA and flood the Nigerian market with goods; despite its huge population, Nigeria has severe infrastructural deficits that hamper domestic production and the AfCFTA will further weaken production capacity.

The major issue of the AfCFTA seems to be the focus on trade in goods alone, as compared to the trade in services and businesses. The EU model is a good prototype to follow, beyond trade, there is freedom of movement of people to work in any country under EU (services) and freedom to invest in any EU country like it is your native country (businesses). These are all critical elements lacking within the African Union. The heterogeneity of currency also makes it difficult to set standards, and larger countries like Nigeria, South Africa and Ethiopia will always feel that they are being exploited for their populations if there is no freedom for their populace to be allowed to access work anywhere in the continent in return, or be able to open businesses as locals in any country.

AfCFTA should remain inward looking, despite its challenges. Proper implementation would lead to greater competition between member states and, ideally, an increase in productivity. However, the region needs to fix a few things for this to succeed, including upgrading its infrastructure (roads and ports) to enable transportation, removing bureaucratic bottle necks for doing business, improving compliance with standards and regulations, and ensuring political stability across the region.

7 African Leadership Magazine. (2023). EU-Africa Balance of Trade 2013. Retrieved from African Leadership Magazine: https://www.africanleadershipmagazine.co.uk/eu-africa-balance-of-trade-2023/

8 Chukwu, A. B., Agbanike, T., & Anochiwa, L. (2021). African Continental Free Trade Area (AfCFTA) Agreement and the Mega-Regional Trade Agreements (MRTAs): What are the underlying challenges and prospects for Africa-South-South trade? Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah, 9(5), 413–432. https://doi.org/10.22437/ppd.v9i5.13937

9 AfCFTA. (2024). About AfCFTA. Retrieved from afcta.org: https://au-afcfta.org/about

Why AfCFTA Needs Smarter, Outward-Looking Trade Deals

Author: Biying Zhang, MPA/ID 2024

Trade is important for development, but the issue is trading what and on whose terms: AfCFTA should prioritize intercontinental trading agreements that generate jobs and boost income. The African Continental Free Trade Area (AfCFTA) came into effect in 2021 with an ambitious goal of boosting growth, reducing poverty, and broadening economic inclusion for all its member states.[1] The World Bank estimates that AfCFTA will boost Africa's income by $450 billion by 2035, while adding $76 billion to the rest of the world.[2] Realizing this goal depends on how the trade agreements will be constructed and how well they are implemented.

There is no doubt that trade, especially export, plays a crucial role in countries' development journey. A country's GDP is closely correlated with its export diversity - the broader the country's export basket, the more developed the country is.[3] When it comes to African countries, primary and resource-based products dominate the export with the rest of the world,[4] while intra-African trade, which accounts only for 15% of Africa's trade, tends to be more diversified. Manufacturing products are the largest type, accounting for 45% of formal intra-African trade.[5] Due to this lopsided trade pattern with the rest of the world, and a reckoning with the harmful legacies of extractive colonial economic relations, many call for the AfCFTA to focus on reducing continental trade barriers and promoting intra-African trade instead. However, the long-term growth of Africa requires AfCFTA to take a stronger and more unified stance to actively correct the trade patterns externally, not to retreat inward.

Trading with the rest of the world offers access to a large and affluent market with higher purchasing power that none of the African countries can provide at this stage. Despite the relatively higher proportion of non-commodities traded between African countries, most of these products are consumables or low-skill manufacturing products that are low-value added. To induce meaningful growth through trade, African countries need to be able to move up the supply chain and develop manufacturing capabilities of higher-margin industrial products. Given the current consumption level, trading internally alone does not forge the path to accelerated growth as seen in East Asian countries in the 1980s to 2000s.

The concern about open trade with the rest of the world is partially due to restrictive and unfair trade arrangements currently observed with trade agreements such as the Economic Partnership Agreements (EPAs)[6] with the European Union (EU). Nascent industries in Africa are crushed by international competitors, and cheap subsidized food and agricultural products from the EU are flooding Africa.[7] Instead of perpetuating unfair arrangements that stifle African industry, AfCFTA has the potential to proactively nurture the continent's development priorities through more intentional trade agreements with the world.

Trade arrangements that boost growth must be designed to serve and advance the industrial policies and development agenda of Africa. According to David Luke's *How Africa Trades*,[8] prodevelopment trade agree-

1 The African Continental Free Trade Area. https://au-afcfta.org/about/

2 World Bank Group https://www.worldbank.org/en/topic/trade/publication/the-africancontinental-free-trade-area

3 Hausmann, Ricardo, and César A. Hidalgo. 2010. Country Diversification, Product Ubiquity, and Economic Divergence. HKS Faculty Research Working Paper Series RWP10-045, John F. Kennedy School of Government, Harvard University

4 UNCTAD Economic Development in Africa Report 2019: Made in Africa: Rules of origin for enhanced intra-African trade https://unctad.org/press-material/facts-figures-0

5 David Luke, "Why Trade Matters for Africa". LSE Africa Blog: https://blogs.lse.ac.uk/businessreview/2020/08/25/why-trade-matters-for-africandevelopment/

6 https://policy.trade.ec.europa.eu/development-and-sustainability/economic-partnerships_en

7 African Business: "Lopsided EU trade agreements are harming Africa", 2022 https://african.business/2022/02/energy-resources/lopsided-eu-trade-agreements-areharming-africa

8 David Luke (ed.) 2023. "How Africa Trades. London": LSE Press. DOI: https://doi.org/10.31389/lsepress.hat

ments should allow non-reciprocal access to advanced country markets such as the EU and US for a period of time before transitioning to reciprocal free market access. The recent economic success of Japan post-World War II and China after joining the WTO are good examples. With the formation of AfCFTA, African countries are now a larger negotiating block and therefore in a stronger negotiation position to demand favorable trade terms to promote industrialization. However, to achieve strategic leapfrogging in industrialization that promotes formal job creation and improves productivity, AfCFTA member states need to have a clear industrial policy roadmap and disciplined political will to implement it.

It is important to note that intercontinental-focused trade policy does not mean that there is no immediate gain in improving intra-Africa trade. It has long been recognized that intra-African trade is highly fragmented with some of the highest costs in the world.[9] The IMF estimates that reducing tariffs between African states to one tenth and other non-tariff trade barriers by half has the potential to increase trade flows by 15%.[10] However, this positive impact will be mostly enjoyed by small, landlocked countries, while the median African country would see its trade openness rise by just under 1 percentage point of GDP.

The high intra-Africa trade cost is not only due to high tariffs and policy barriers, which AfCFTA could potentially overcome, but also due to infrastructure challenges and historical legacies. Trade volume between African countries concentrates in a handful of large African countries led by South Africa, and trade activities often happen within the areas that share a common currency regime, colonial system, or language.

While the AfCFTA lays the groundwork, African nations must prioritize strategic industrial policies, and develop enabling infrastructure and institutions to boost productivity. Only then can trade catalyze formal job growth and shared prosperity for all African people.

9 U.S. Department of Agriculture Economic Research Service https://www.ers.usda.gov/topics/international-markets-u-s-trade/countriesregions/africa/#:~:text=First%2C%20intra%2DAfrican%20trade%20faces,still%20add%20to%20higher%20costs.

10 IMF "Trade Integration in Africa: Unleashing the Continent's Potential in a Changing World", 2023 https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2023/05/03/Trade-Integration-in-Africa-Unleashing-the-Continent-s-Potential-in-a-Changing-World-529215

Relying on European Markets Will Not Free African Trade

Author: Miguel Ventura, MPA/ID 2024

With a territorial span of the entire African continent, a population of 1.3 billion people, and an estimated GDP of US$ 3.4 trillion, one would believe that the African Continental Free Trade Area (AfCFTA)[1] would have more self-confidence in the heft of its internal markets. But the attention being given to enhancing EU-African trade through this vehicle is misallocated at best and irresponsible at worst. While the commitment to a Joint Vision for 2030[2] is aspirational, one wonders how long Europe can keep looking forward in the next five years. The past five years certainly do not lend much credibility to Europe's ability to support African industries.

Slowdowns in 2019 in response to the fallout from US-China trade tensions, the 2022 Russian invasion of Ukraine and the failure of containment, and economies like UK, Germany, and France teetering on recession this 2024 – all these dynamics reveal a Europe whose economic prospects have dimmed and whose political leadership has failed to arrest this decline. Mostly raw materials and commodity exporters, many African countries are already at the mercy of shocks to the global terms-of-trade and are further exposed by concentrating such exports to Europe. More widespread trends of de-globalization, domestic reshoring of supply chains, and the return of protectionism underscore that export-led manufacturing is no longer the dominant strategy for African growth.[3]

It bears emphasizing that AfCFTA's core purpose was to boost intra-Africa trade and industrialization through the removal of continental trade barriers. By official measures, African regional trade is worryingly low. As of 2022, intra-African trade was $197.2 billion, constituting only 13.8% of total African trade. By comparison, intra-Asian trade made up 55% of total Asian trade, and intra-Europe trade surpassed 70% of total European trade.[4] Official measures may underestimate the scale of intra-African trade for reasons such as the failure to capture the volume of informal trade across Africa; indeed, intra-African trade may be underreported by 11% to 40%.[5] But this strengthens the argument for an inward focus to Africa: Africans are building vibrant economies across the continent despite the prevalence of inadequate infrastructure and political mismanagement. It is high time we unshackle this entrepreneurial spirit and let Africans thrive.

There is also economic prudence in building the AfCFTA's internal markets. Free trade allows countries to diversify their economic production and synchronize their business cycles. In turn, this allows countries to reduce their exposure to trade shocks while mutually reinforcing their accumulation of skills and capital. Manufactured goods made up 41.9% of African regional exports in 2014, compared to only 14.8% of African exports leaving the continent, highlighting the benefits of intra-regional trade to building African value chains.[6] Regional trade blocs with more diversified exports, like the East African Community, may have stronger resilience to global output shocks compared to blocs with narrower export baskets, like the South

1 About the AfCFTA". African Continental Free Trade Area. Last accessed March 7, 2024. <https://au-afcfta.org/about/>

2 "6th European Union - African Union Summit: A Joint Vision for 2030". February 2022. <https://www.consilium.europa.eu/media/54412/final_declaration-en.pdf>

3 Dani Rodrik. "Africa after COVID-19: De-globalization and Recalibrating Nations' Growth Prospects." Contemporary Issues in African Trade and Trade Finance. COVID-19 Special Issue. Vol 6:1, Dec 2020. The African Export-Import Bank.

4 "African Trade Report 2023: Export Manufacturing and Regional Value Chains in Africa under a New World Order." The African Export-Import Bank.

5 Estimates given by Rebecca Harding (2019) "Africa: Trade Briefing". Cited by Andrew Mold and Samiha Chowdhury, "Why the extent of intra-African trade is much higher than commonly believed—and what this means for the AfCFTA." Brookings. May 19, 2021<https://www.brookings.edu/articles/why-the-extent-of-intra-african-trade-is-much-higher-than-commonly-believed-and-what-this-means-for-the-afcfta/>

6 Vera Songwe. "Intra-African trade: A path to economic diversification and inclusion." Brookings. January 11, 2019. <https://www.brookings.edu/articles/intra-african-trade-a-path-to-economic-diversification-and-inclusion/>

African Customs Union.[7]

This prudence keeps in mind both Africa's past and future. Historically, the management of African economies was fundamentally in the service of European markets.[8] The infusion of European capital into African colonies was made to "realize" the African comparative advantage in commodity exports with no clear roadmap to indigenous industrialization. While we do not absolve African failures to exercise good governance, the oil shocks of the 1970s and the debt crises of the 1980s made it clear that when Western consumption decreased in the face of crisis, developing nations also had to close their mouths and starve. With this history in mind, one must be cautious of advanced economies' surging demand for Africa's rare earth reserves to fuel 'green growth' and decarbonization. Coupling this trend with renewed intent to bolster EU-African trade risks repeating the same mistakes of overdeveloping extractive industries primarily through foreign owners while keeping local markets shallow, under-equipped, and poor.

African economies have long catered to markets across oceans at the expense of markets close to home. The AfCFTA should take both a positive and normative role in promoting intra-African opportunities for cooperation and growth. This is not to say that Africa must take an autarkic position to global trade. But to divert attention towards European markets belies the vision that 55 countries, 1.3 billion people, and US$ 3.4 billion worth of resources all put together in one continent are a potent force to shape Africa's future.

7 Mthuli Ncube, Zuzana Brixiova, Qingwei Meng. "Can Intra-Regional Trade Act as a Global Shock Absorber in Africa?" William Davidson Institute. Working Paper Number 1073. February 2014.

8 Walter Rodney. "Chapter 6.1 - The Supposed Benefits of Colonialism to Africa." How Europe Underdeveloped Africa. 1973.

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SECTION III

Africa and the Green Transition

The effects of the warming planet are acutely felt in Africa, despite the region contributing the least to global warming, including the lowest carbon emissions. Meanwhile, the critical minerals needed to power the transition to green energy are abundant in countries like the Democratic Republic of the Congo, yet are extracted and exported abroad, returning little value to local economies.

This section explores ways in which this complex landscape is unfolding, beginning with an insightful comparison of dynamics in Africa and the Arctic. Articles examine problems and opportunities in the mining sector and analyze a successful model of sustainable economic development found in Gabon. Although introductory rather than exhaustive, through this series of articles, we hope to shed light on the perils and promise of Africa's pivotal role in the green transition.

Africa and the Arctic: From the Margins to the Center

The full key takeaways from the event are published on the Belfer Website.

Authors: Elizabeth Hanlon and Tessa Varvares

Emerging global trends in the energy transition are impacting both Africa and the Arctic, two seemingly disparate regions. The global race for critical minerals, regional competition for energy resources, and a willingness by governments to pretend that large swathes of Africa and the Arctic are empty - could lead to a frontier mentality that sells short the value of people and assets and fails to benefit local communities.

Belfer fellows, students, and faculty explored the shared challenges and opportunities faced by both regions at an April community networking event hosted by the Belfer Center's Africa Futures Project (AFP) and Arctic Initiative.

AFP Co-Chair Professor Zoe Marks and Arctic Initiative Director Jennifer Spence provided an overview of the dynamics unfolding in both regions around the energy transition, resource management, and great power competition.

Belfer Center Executive Director Natalie Colbert (left) moderates the discussion between Zoe Marks (center) and Jennifer Spence (right)

"When we center spaces that have historically been valued less, we get a more diverse set of tools and approaches," said Marks.

"By ignoring Africa and the Arctic, there is a risk that the world will miss solutions to pressing issues."

Key insights from the session, summarized below, will inform the research priorities of AFP and the Arctic Initiative over the coming year.

On the Geopolitical Margins

Africa and the Arctic have been and continue to be marginalized in global economic and political systems. In the current geopolitical context, crises in Ukraine and the Middle East have overshadowed African and Arctic affairs. While Africa and the Arctic do encompass some of the largest intact wilderness areas left on Earth, both regions exhibit staggering environmental, social, cultural, and economic diversity - diversity that has "been undervalued by the ruling global powers," said Marks. All of this diversity, added Spence, means that "the needs, interests, and priorities of African and Arctic peoples are often hyper-context-specific."

Skyrocketing Interest in Natural Resources

The African continent has over a fifth of the world's known reserves of over a dozen critical energy transition minerals. In the Arctic, the energy transition is fueling an explosion of mining proposals. Norway recently greenlighted commercial deep-sea mining in its Arctic waters, and Greenland's abundant reserves of rare earths has attracted overtures by China and the United States. While African and Arctic countries struggle to adapt to the impacts of the growing climate crisis, they are also contending with a dramatic shift in the demand for and value of their raw material assets. The demand boom risks entrenching commodity dependence and worsening economic vulnerabilities and environmental degradation.

Legacies of Colonization

Africa and the Arctic share a common history of "outsiders" investing in regional development, leaving behind colonial legacies and systems not fit for purpose.

Marks explained that modern African governments are largely built on colonial systems, resulting in tensions over decentralization and power-sharing within countries. A key difference between colonization in Africa and the Arctic, Spence noted, is that in the Arctic, colonization is largely an internal process, occurring when national governments in southern capitals take interest in the northern regions of the same state. "This 'domestic' colonialism is less visible to external observers, especially because it is taking place in countries that are considered highly developed," said Spence.

There is increasing recognition of the need for local decision-making and agency in both regions, but implementation has met with mixed success.

Spence highlighted that Arctic Indigenous peoples "punch above their weight" in terms of influencing policy, thanks to their impressive, long-term commitment to participating in local, regional, and international governance through fora like the Arctic Council. Marks lamented the lack of a similar multilateral institution between African countries, but she was heartened by the fact that many parts of Africa are not yet locked into extractive Western models, such as land privatization. "Africa is still poised to do better than the West in many ways," said Marks.

Gabon's Green Growth: A Model for Sustainable Public-Private Partnerships

Author: Nils Olsen, MPP & MBA 2026[1]

In Central Africa, a nation long reliant on oil exports for economic growth is now earning revenue from carbon capture and providing innovative solutions to sustainable logging. Through government initiatives and partnerships with the private sector, Gabon has cultivated local jobs while preserving the global good of its forests' carbon capture.

The Gabon Special Economic Zone (GSEZ) is an innovative public-private partnership model that yields both profits for firms and public value for citizens and the government. By analyzing the GSEZ's strategic proximity to infrastructure and labor, its business-friendly regulatory environment, its successful integration of the private sector, and its demand-driven approach, this paper illustrates how these elements together create a replicable model for sustainable economic development that other emerging markets can emulate.

A Background on Gabon: From Petrostate to Green Economy

Since independence from France in 1960, Gabon has been governed as a single-family petrostate. President Omar Bongo and later his son, Ali, oversaw an export-driven economy in which a small group of elites grew rich while most of the country remained undeveloped. During the French colonization period, the mainstay of the economy was logging, supplemented by small-scale gold, diamonds, and manganese mining. Although logging remained a significant export industry, crude oil exports have dominated the economy since the establishment of the petroleum industry in 1955.[2] With all oil fields consolidated along the coast or offshore, most infrastructure and urban development has hugged the coastline; Libreville and Port-Gentil, the country's two main ports, are home to more than half of Gabon's citizens.[3]

Despite reliance on the oil sector – and because development was limited to the coast – 88% of Gabon's territory remains covered with tropical rainforest, the second-highest percentage in the world.[4] These trees pro-

1 Inspiration and information for this paper came from Macomber, John, and Wale, Lawal. "Gabon Special Economic Zone." Harvard Business School Case 224-012, November 2023.

2 The Observatory of Economic Complexity. "Gabon (GAB) Exports, Imports, and Trade Partners." Accessed March 20, 2024. https://oec.world/en.

3 United States Department of State. "Gabon." Accessed March 22, 2024. https://www.state.gov/reports/2023-investment-climate-statements/gabon/.

4 Gabonese Republic, "Gabon's Proposed National REDD+ Forest Reference Level," February 2021. https://redd.unfccc.int/files/gabon_frl_modified_oct2021_clean_final.pdf.

vide a global good, absorbing roughly 140 million tons of carbon dioxide annually.[5] Along with its neighbors, Gabon's rainforest comprises the Congo River Basin, the world's largest carbon sink, absorbing 1.5 billion tons of carbon dioxide a year.[6]

In 2009, President Ali Bongo's government launched Emergent Gabon, a sustainable development plan.[7] The program's aim was to diversify the economy away from fossil fuels while simultaneously preserving the forest and the thousands of unique species living there, which also serve as critical drivers of tourism.

The first component of the new strategy was designed to expand the non-oil economic sectors – namely palm oil – by 2025. Second, President Bongo banned exporting raw timber and demanded that 100% of wooden exports be processed products, such as specific cuts of lumber, or finished wood products, such as furniture. However, the local industry lacked the capacity and capital to scale as needed to meet these new requirements. The government, therefore, turned to private capital to drive the economic transformation.

The Gabon Special Economic Zone: In Theory and In Practice

Public-private partnerships (PPP) often form to increase efficiency between workers engaged in complementary methods of production. Within the PPP, roles and tasks can be specialized, assigned to government, business, and even non-profit agents based on their comparative advantage and unique skillsets. Formally binding public and private actors together in a distinct entity with an established hierarchy can also mitigate against exploitation or malingering by one party or another.

However, attracting private sector investment can be challenging for developing countries. To lure businesses into riskier markets, governments often provide incentives such as tax breaks, cheap land, or access to supporting infrastructure. Establishing a special economic zone (SEZ) is a mechanism to do just that.

Defined by the World Bank as a geographically defined area where "the rules for doing business are different – promoted by a set of policy instruments that are not generally applicable to the rest of the country," SEZs became popular in Africa following an endorsement from the United Nations Economic and Social Council (ECOSOC) in the 1970s.[8]

A World Bank report highlights four essential practices that contribute to the success of SEZs. Examining the Gabon Special Economic Zone through this lens underscores how it was able to achieve success and provides a replicable model:

1. Proximity: Successful ventures were established in locations that provided easy access to enabling resources, generally centered on crucial infrastructure, such as ports, and with direct access to labor and commodities.

- The GSEZ is connected by a national highway to Port Minéralier, the center of maritime trade, the primary urban center, Libreville, and to the resource extraction sites in the center of the country.[9]

5 UNDP. "Gabon leads Africa in the preservation and conservation of forests." Accessed June 4, 2024. https://www.undp.org/fr/gabon/actualites/gabon-leads-africa-preservation-and-conservation-forests.
6 UNEP. "Critical Ecosystems: Congo Basin Peatlands," February 27, 2023. http://www.unep.org/news-and-stories/story/critical-ecosystems-congo-basin-peatlands.
7 Gabonese Republic, "Gabon's Proposed National REDD+ Forest Reference Level," February 2021. https://redd.unfccc.int/files/gabon_frl_modified_oct2021_clean_final.pdf.
8 The World Bank Group, "Special Economic Zones: An Operational Review of Their Impacts," 2017.
9 Arise IIP. "Gabon Special Economic Zone - GSEZ." Accessed March 22, 2024. https://www.ariseiip.com/project/gsez/.

2. Regulatory Environment: Beyond tax breaks and cheap land, successful ventures often were "pilots" of legal, policy, and regulatory reforms, creating a business-friendly ecosystem.

- To entice foreign firms, the GSEZ offers tax-free operation for twenty-five years, eliminates duties on imported machinery and repair parts, and allows for full repatriation of funds.[10]

3. Greater Private Sector Inclusion: In contrast to earlier models, zones that integrated with the local economy rather than remaining an "enclave" and considered sustainability maximized positive spillovers and generated outsized effects.

- As a joint venture with Olam, an international food conglomerate seeking to rapidly expand domestic palm oil production, the GSEZ was conceived as a public-private partnership.[11]

4. Be Demand-Driven: Policymakers must ensure the project is carefully planned based on analysis of business demand. With a framework established, incorporating businesses via a partnership with the private sector increased the efficiency of operations and long-term success.

- By 2022, export revenues of over $500 million indicated strong and growing demand for Gabonese finished wood products. However, this was not initially the case. When the GSEZ was established in 2010, the market for palm oil had strong projections, but it was unclear whether foreign consumers would buy value-added wooden goods.

Compounding doubts about demand for exports, existing infrastructure lacked the utilities to support manufacturing. The Bongo government attempted to remedy these shortfalls via a "land improvement and re-sale business model," building roads, power lines, and water distribution networks financed by selling business plots to interested firms. Although GSEZ saw year-over-year increases in profits from 2011-2014, these gains were inherently transitory: eventually, all the 1,126 hectares within the GSEZ would be sold and the revenue stream would dry up.[12] The venture was likely to fail if it did not change its approach.

ARISE and the New Sustainable Ecosystem in the GSEZ

The private sector spurred the redesign of the GSEZ's approach in 2018. ARISE, an infrastructure and logistics company founded by Gagan Gupta, a former Olam executive, now serves as the parent company of the GSEZ. Gupta secured Bongo's backing by outlining a plan to ensure all timber logged in Gabon would be processed into finished goods prior to export, thus delivering on the president's Emergent Gabon promise. Once incorporated into the GSEZ, ARISE quickly shifted its trajectory in three critical ways.

First, **ARISE shifted from selling land in the GSEZ to leasing it**. Doing so provided two advantages: it ensured a steady stream of revenue rather than one with a limited supply and it lowered the barrier of entry for smaller firms that lacked the capital to purchase land outright or had a lower risk appetite. Thus, spending less on land payments, companies had more room on their balance sheets to grow and scale.

Second, **ARISE brought on additional public and private investors to improve the GSEZ's supporting infrastructure**. In 2016, the GSEZ initiated a recapitalization to raise cash and improve the operating environment in the ecosystem. The Africa Finance Corporation (AFC) joined as a 21% shareholder; later restructuring included the Africa Transformation and Industrialization Fund (ATIF).[13] The flagship project, the New Owendo International Port, constructed next to the existing Port Minéralier, is a PPP within the greater SEZ:

10 United States Department of State. "Gabon." Accessed March 22, 2024. https://www.state.gov/reports/2023-investment-climate-statements/gabon/.

11 Arise IIP. "Gabon Special Economic Zone - GSEZ." Accessed March 22, 2024. https://www.ariseiip.com/project/gsez/.

12 Company documents, accessed via Macomber, John, and Wale Lawal. "Gabon Special Economic Zone." Harvard Business School Case 224-012, November 2023.

13 Ibid.

financed by the Emerging Africa Infrastructure Fund, African Development Bank, and private asset managers, including Meridiam, it can deliver three million tons of exports annually.[14]

Third, **ARISE tapped into new sources of climate finance and developed innovative, sustainable practices to boost the value of its newly produced products**. In November 2022, Gabon monetized the global good its forest provides, selling 90 million carbon credits on public markets, earning roughly $2 billion.[15] Through a certification system called TraCer, the GSEZ developed a fully traceable system for every log, tracking each felled tree from stump through export. The zone launched a brand, "Made in Gabon," to showcase its portfolio of companies and highlight their sustainable production practices to consumers.

Assessing Success in the GSEZ

By 2022, according to company reports, all indicators suggested that the special economic zone was a success. That year, GSEZ reported $638 million in wood products, creating 8,200 direct and 26,000 indirect jobs and attracting $1.7 billion via its portfolio companies.[16] Such export numbers dispelled doubts about the demand for goods in export markets.

The same year, the country committed to net-negative emissions and to absorb at least 100 megatons of carbon annually until 2050.[17] In 2009, the year before the GSEZ was established, Gabon exported $5.2 billion worth of crude petroleum, accounting for 70.8% of exports.[18] By 2022, those figures had fallen to $4.88 billion and 62%, respectively. This shift, although modest in absolute terms (a drop of only $320 million), mark a significant first step toward reducing Gabon's dependency on oil and towards sustainable economic diversification.[19]

In August 2023, however, President Ali Bongo was overthrown in a coup. Ruling as a strongman who viewed the GSEZ as a vehicle to deliver on his economic and environmental policies, Bongo's support of the venture was as instrumental as it was necessary. Despite relative calm since the military has taken over, the ruling generals have committed to fresh elections by August 2025.[20] However, examples abound of African juntas who renege on promises to give up power or of chaos and violence erupting ahead of elections as factions vie for control.

For the people of Gabon and the world who rely on its rainforest, it is far from certain the sustainable growth in the last decade will characterize the next. This provides even more reason to apply this framework to create inclusive development in other emerging markets to hedge against future political instability.

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14 Alfers, Duncan. "EAIF Lends €40 Million for New Port Facilities at Owendo Port to Support Gabon Special Economic Zone." Emerging Africa Infrastructure Fund, August 5, 2019. https://www.eaif.com/eaif-lends-e40-million-for-new-port-facilities-at-owendo-port-to-support-gabon-special-economic-zone/, Meridiam. "Meridiam Acquires Shares in GSEZ Mineral Port, One of the Most Efficient Logistic Solution in Central Africa." Accessed March 22, 2024. https://www.meridiam.com/news/meridiam-acquires-shares-in-gsez-mineral-port-one-of-the-most-efficient-logistic-solution-in-central-africa/, and United States Department of State. "Gabon." Accessed March 22, 2024. https://www.state.gov/reports/2023-investment-climate-statements/gabon/.

15 The Africa Report.com. "Gabon to Sell $2bn Worth of Carbon Credits before COP27." https://www.theafricareport.com/219504/gabon-to-sell-e275m-worth-of-carbon-credits-before-cop27/.

16 Company documents, accessed via Macomber, John, and Wale Lawal. "Gabon Special Economic Zone." Harvard Business School Case 224-012, November 2023.

17 UNDP Climate Promise. "Gabon." Accessed March 22, 2024. https://climatepromise.undp.org/what-we-do/where-we-work/gabon.

18 The Observatory of Economic Complexity. "Gabon (GAB) Exports, Imports, and Trade Partners." Accessed March 20, 2024. https://oec.world/en.

19 Ibid.

20 Reuters. "US Officially Concludes Gabon Underwent a Coup, State Department Says," October 24, 2023. https://www.reuters.com/world/africa/us-officially-concludes-gabon-underwent-coup-state-department-says-2023-10-24/.

Countering China's Dominance: Leveraging US Unique Niche in Critical Minerals

Authors: Enitan Okediji and Boris Houenou, MPA 2024

China's dominance over Africa's critical mineral sector presents considerable vulnerabilities for the global supply chain of strategic resources needed for the energy transition and rapidly evolving technologies more generally. Despite this foothold in Africa's critical minerals sector, the United States (U.S.) maintains distinct advantages to counter China's dominance. The U.S. should leverage what many Africans view as a preferred economic model, as well as U.S. soft power to mitigate risks, capitalize on opportunities, and cultivate mutually beneficial relationships with African nations.

China's mining presence crosses the African continent,[1] and this extensive footprint has positioned China as a longstanding leader in refining lithium and cobalt, with a share of global supply reaching 72% and 68% respectively in 2022.[2] This control not only serves as a strategic asset for China but also enables it to leverage these critical resources as a subterranean diplomatic tool, exerting influence and pressure on other nations to align with its strategic objectives.

The U.S. has a national interest imperative to diversify from the critical minerals supply chain dominated by China. The U.S. possesses a unique opportunity to mitigate China's early advantages by capitalizing on American strengths in fostering the rule of law, nurturing private sector expansion and inclusive growth, and enhancing collaborative endeavors. The U.S. can effectively reposition itself as the partner of choice for African countries in the critical minerals sector by focusing on a partnership model that emphasizes sustainability and deploying ambitious and decisive financing tools to pump capital into the continent. This approach not only aids in securing critical mineral supply chains for the U.S. but also supports Africa's broader sustainable development goals, thereby offering a compelling alternative to China's exploitative influence on the continent.

The African continent possesses 40%[3] of the global critical mineral reserves and African nations are eager

1 Specific nations include: Malawi, Ghana, Gabon, Nigeria, Cameroun, Namibia, Zambia, Zimbabwe, and DRC https://www.bbc.com/news/world-68896707

2 BBC News. "Tensions Grow as China Ramps up Mining for Green Tech," April 30, 2024. https://www.bbc.com/news/world-68896707.

3 Natural Resource Governance Institute. "Critical Minerals and Africa: Avoiding a Zero-Sum Game." http://resourcegovernance.org/events/critical-minerals-and-africa-avoiding-zero-sum-game.

to climb the value chain and enhance local capabilities in processing and manufacturing critical minerals necessary for clean energy and advanced technologies. The U.S., with its significant soft power, capital, and a dynamic private sector, is poised to meet these aspirations and foster environments conducive to sustainable growth.

Although China has established a first-mover advantage in the African critical minerals sector, this has been predicated on heavy government subsidies[4] to Chinese state-owned enterprises (SOE) and precarious foundations that often sideline best business practices, transparency, accountability, and meaningful collaboration with local entrepreneurs. The guiding principles of China's economic engagements in Africa are predominantly driven by opportunistic market strategies and geopolitical objectives, rather than the promotion of sustainable development or the empowerment of local enterprises.[5]

China's dominance in Africa's critical mineral sector also carries significant environmental and social implications. The rapid expansion of mining activities often leads to environmental degradation, including deforestation, soil erosion, and water pollution. In addition, the influx of foreign investment, predominantly from Chinese companies, has resulted in the displacement of indigenous communities and land grabs. Furthermore, there are concerns about labor practices; for example, China is increasing its investment in the Democratic Republic of Congo (DRC), particularly in artisanal cobalt, lithium, and rare earth element (REE) mining, an industry in which over 40,000 children are estimated to be working.[6]

The U.S. should encourage American companies to invest in African mineral sectors, emphasizing responsible and sustainable practices that prioritize environmental protection, community engagement, and human rights. By offering incentives and support for ethical investment, the US can provide alternatives to Chinese investment while promoting values-aligned business practices.

In addition, the U.S. can work with African governments to strengthen regulatory frameworks governing mineral resource extraction, including laws related to environmental protection, labor rights, and revenue transparency. By promoting robust legal frameworks and enforcement mechanisms, the U.S. can help ensure that mineral exploitation in Africa adheres to international standards and best practices.

The U.S. can provide support for sustainable investment initiatives in Africa focusing on practical capacity building, infrastructure development, and genuine diversification of local economies to benefit local constituencies. Investing in education and technology transfers can support job creation and skill enhancement. The US economic diplomacy apparatus – including USAID, MCC, Prosper Africa, DFC, and AGOA – must not only ramp up capital deployment but succeed in moving faster and strategically with the US private sector. The U.S. should also consider extending benefits similar to those in the Inflation Reduction Act to private American companies operating in the critical minerals sector in African nations, which could make African minerals more commercially attractive to US companies for investment in exploration, production, and processing.

Furthermore, there must be a deep collaboration with African partners to accelerate the influx of capital into the continent through an assertive investment partnership that recognizes Africa's growing markets, middle class, and desire to retain the value of the critical mineral opportunity.

4 Reale, Hannah. "China's Stake in Africa's Mines." The Wire China, June 27, 2021. https://www.thewirechina.com/2021/06/27/chinas-stake-in-africas-mines/.

5 orfonline.org. "China in Africa: The Role of Trade, Investments, and Loans Amidst Shifting Geopolitical Ambitions." https://www.orfonline.org/research/china-in-africa.

6 "Examining China's Impact on Mining in Africa: Critiques and Credible Responses | Wilson Center." https://www.wilsoncenter.org/blog-post/examining-chinas-impact-mining-africa-critiques-and-credible-responses.

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SECTION IV

African Data Discoveries

Data-driven insights expand understanding of critical issues in Africa's resource sectors. Featuring two studies, this section highlights the fiscal and environmental challenges faced by Ghana and the Democratic Republic of Congo (DRC) and underscores the importance of rigorous quantitative analysis.

The first article reveals a significant fiscal gap in Ghana's gold mining sector. Analyzing public and corporate reports from 2010 to 2021, it estimates that the Ghanaian government has forfeited approximately $2.4 billion due to informality within the sector.

The second study utilizes Geographic Information System (GIS) technology to explore the relationship between mining and deforestation in the DRC. It finds that deforestation accounts for 60% of all land use changes annually, driven by fluctuating incomes from critical minerals. This study highlights the precarious balance between economic reliance on mining and environmental sustainability, emphasizing the need for integrated approaches to resource management.

How $2 Billion Goes Missing in Ghana's Gold Mining Industry

Author: Lynda Nwike, MPA/ID & MBA 2024

Research Overview

Ghana's gold mining sector is a cornerstone of its economy, contributing significantly to foreign exchange earnings and employing millions of people. However, it faces significant challenges that prevent the country's full realization of revenue benefits from this sector. Fiscal leakage refers to lost capital or revenues from business activities to, in this case, the government – revenues are being earned but not captured. There are **four major channels of fiscal leakage** - informality, trade mis-invoicing, suboptimal tax, and royalty rates. Based on an analysis of these pathways, Ghana's government has forfeited billions of dollars in lost revenue from the gold trade from 2010 - 2021, highlighting the urgent need for improved governance and fiscal efficiency to ensure sustainable economic growth and environmental stewardship.

A quantitative analysis of public and corporate reports from 2010 to 2021 reveals a troubling fiscal gap, estimating that the Ghanaian government has forfeited approximately $2.4 billion due to the informality pervasive in the gold mining sector. Furthermore, changes in royalty and tax regimes could have added $299 million and $294 million, respectively, within the same period. Trade mis-invoicing - a form of revenue loss explained by the deliberate undervaluation of gold exports by initial buyers, who later sell the commodity at a higher value in international markets - stands out as a fourth particularly egregious issue, accounting for an estimated $12.98 billion in lost revenue between 2011 and 2017, stemming from both international trade discrepancies and domestic export system failures. This substantial leakage points to a critical need for policy interventions that promote transparency and accountability, particularly within the domestic trade process, to curb informality levels.

Ghana Remains a Leading Global Producer of Gold

Gold mining continues to be a cornerstone of Ghanaian society and the Ghanaian economy, with very rich roots in the country's political, social, and economic history. As of 2022, it was the 6th largest global producer and the leading regional producer of gold in Africa, who produced 979mT of gold in 2022. Regionally, Asia (652mT produced in 2022) and the Commonwealth of Independent States (565mT of gold produced in 2022) followed Africa for 2nd and 3rd place in global production. (World Gold Council, 2023).

Within Africa, Ghana leads gold production, with 127mT of gold produced in 2022, followed by Mali's 101.7mT. Over the years, Ghana's abundance of gold has attracted many international investors and foreign entities to produce and export these resources. Ghana's gold production has generally continued to rise in line with increases in gold prices.

Recommendations

Addressing the opacity in Ghana's gold trade ecosystem should be the primary focus, as this will illuminate the underlying causes of trade failures within the sector. Tackling domestic transparency issues must precede international considerations. Enhancing the visibility of domestic export mechanisms is also expected to reveal informal trade channels, thereby potentially increasing formalization. Given the role of the Precious Minerals Marketing Company (PMMC) in gold exports, increasing transparency within their processes is particularly essential for understanding how informal and formal trade sectors intersect.

There are four key priorities to improve Ghana's visibility over their gold export processes, specifically those of the PMMC to help address system failures and improve industry formality.

- **Address mis-invoicing within the country's trade practices** before tackling failures on the international stage.

- Develop a **thorough understanding of local trade bottlenecks and increase transparency** in gold transactions. This can catalyze the transition towards a formal economy.

- **Enhance transparency and oversight of the Precious Minerals Marketing Company** (PMMC) trading activities.

- **Increase taxation and royalty levies** given Ghana's stature as a premier gold-producing nation in Africa and a significant player globally. Any augmentation in rates should be conservative to avert adverse effects on the investment climate.

Behind the Scenes: Data Analysis

Below are the key findings with supporting calculations and methodology notes. All estimates (excluding trade mis-invoicing) are based over the years 2010-2021 and assume a 100% collection efficiency:

- **Informality:** Estimated lost revenue from informality: *$2.4 billion dollars.* (Table 1)

- **Taxes:** Estimated revenue gains from a 2% increase in tax rates: *$147 million dollars*.[1]
  Estimated revenue gains from a 4% increase in tax rates: *$294 million dollars*.[2] (Table 2)

- **Royalties:** Estimated revenue gains from a 0.2% increase in royalty rate (resulting in a 5.2% royalty rate): *$60 million dollars*.
  Increasing the royalty rates to 6% results in an estimated revenue gain of *$299 million dollars*. (Table 3)

- **Mis-invoicing:** Estimated lost revenue from international trade mis-invoicing: *$12.98 billion dollars*.
  Estimated losses from 2011 – 2017 given available data. Losses are greatest in the South Africa-Ghana trade route, with South Africa making up over 40% of Ghana's gold trades.

1 This calculation assumes a transition to a 37% corporate tax rate.
2 This calculation assumes a transition to a 39% corporate tax rate.

Lost Revenue from Informality

With a 100% efficient tax collection, estimated lost revenue from informality (2010 – 2021) is $2.4 billion (Table 1). If the percentage of informality within the gold sector is greater than the conservative baseline assessment, the lost revenue could be as high as $4.4 billion (Table 2)

To better understand the extent of leakage through lost revenue from informality, a quantitative analysis was performed to quantify the extent to which the government has lost revenue between 1990 and 2021 through untaxed informal activities. Although there are several channels through which the government benefits from formalized mining production, our analysis focuses explicitly on corporate taxes and royalty payments.

Method

- We began by estimating the degree of informality within the gold production sector using figures from the 2020 Ghana EITI (Extractive Industries Transparency Initiative) Technical Report on the artisanal and small-scale mining sector produced by Ghana's Ministry of Finance.
- We then estimated gold production from these figures and applied the average gold prices from 1990 to 2021.
- Using a 5% royalty rate, we computed the royalty shortfall from informal operations.
- To ascertain the lost corporate tax revenue, we applied the average profit margins from major gold producers to the estimated taxable income and then a 35% corporate tax rate.
- The sum gives us an approximation of the total fiscal loss to the Ghanaian government due to untaxed informal activities from 1990 to 2021.
- We did not account for revenue losses from land damage caused by cocoa farming converting to informal mining, even though we have reason to believe that there are interaction effects between the two industries.
- Other taxes such as PAYE (Pay as You Earn), Reconstruction Levies (imposed at a rate of 5% of the taxable value of goods), Withholding Taxes, Rent Taxes amongst others have not been included in the analysis.

Informality and Tax Collection Sensitivity Analyses

Given the highly uncertain scale of informality, we perform two sensitivity analyses. The first captures the effects that changes in tax/royalty collection efficiency would have on lost income (presented in Table 1), while the second captures the effects of varying estimates of informality – assuming the baseline we provide (from the Minerals Commission) remains on the conservative end of informal activity estimates (presented in Table 2).

Table 1: Revenue Leakage from Informality - Variable Tax Collection

Sensitivity analysis performed with four different collection rates.
Source: Author's own calculations.

Revenue Lost to Informality between 2010 – 2021	100% efficient collection	90% efficient collection	70% efficient collection	50% efficient collection
TOTAL in billion cedis	GH₵12.0B	GH₵10.8B	GH₵8.4B	GH₵6.0B
TOTAL in billion dollars*	$2.4B	$2.1B	$1.7B	$1.2B

**Assuming a 2019 exchange rate of 5.07 Ghanian cedis to the dollar*

Table 2: Revenue Leakage from Informality - Variable Informality Rate

Sensitivity analysis performed with baseline figure from Table 1 at 100% efficient collection, and three subsequent increases in the rate of informality of the gold sector.
Source: Author's own calculations.

Revenue Lost to Informality between 2010 – 2021	Baseline assumptions of informality	5% increase in informality assumptions	10% increase in informality assumptions	15% increase in informality assumptions
TOTAL in billion cedis	GH₵12.0B	GH₵14.8B	GH₵18.1B	GH₵22.3B
TOTAL in billion dollars*	$2.4B	$2.9B	$3.6B	$4.4B

**Assuming a 2019 exchange rate of 5.07 Ghanian cedis to the dollar*

Revenue Gains from Tax Rates and Royalties

Estimated revenue gains from a 2% increase in tax rates totals $147 million, assuming a transition to a 37% corporate tax rate. A 0.2% increase in royalty rates would result in $60 million in additional revenue assuming a transition to a 5.2% royalty rate. (Table 3)

To grasp the impact of less-than-optimal tax and royalty frameworks in Ghana's gold mining sector, we conducted a quantitative study to assess how alterations in corporate tax rates and royalty fees might affect government revenues. This assessment was based solely on formal sector figures, excluding the informal mining sector.

Method

- The study included a benchmarking exercise, comparing Ghana's taxation and royalty structure against those of neighboring African gold-producing nations (such as Mali and Burkina Faso) and larger global players (such as Peru, Indonesia, and Mexico).

- This comparison helps in understanding whether a reform of the fiscal regime could be justified, considering the practices in these comparator nations. In examining global royalty frameworks, it appears there's potential to refine Ghana's, particularly when juxtaposed with the royalty structures of other major gold-producing countries like Peru, Indonesia, and Mexico, who rank just below Ghana in gold production. Nonetheless, it's worth mentioning that Ghana's royalty system aligns more closely with those of its regional counterparts.

- The study then modeled potential revenue changes under scenarios where corporate tax and royalty rates were raised incrementally by 2%, 3%, and 4% for corporate taxes, and by 0.2%, 0.5%, and 1% for royalties, to evaluate the potential fiscal impact.

Table 3: Revenue Gains from Tax and Royalty Hike

Sensitivity analysis performed with three sensitivities for corporate tax and three royalty rate hikes.
Source: Author's own calculations.

	Change in Tax Rates			Change in Royalty Rates		
2010 – 2021 additional revenue	plus 2% corporate tax hike 37%	plus 3% corporate tax hike 38%	plus 4% corporate tax hike 39%	plus 0.2% royalty hike 5.2%	plus 0.5% royalty hike 5.5%	plus 1% royalty tax hike 6%
Total additional revenue in million cedis	**GH₵**745M	**GH₵**1117M	**GH₵**1489M	**GH₵**304M		**GH₵**1518M
Total additional revenue in million dollars*	$147M	$220M	$294M	$60M	$150M	$299M

**Assuming a 2019 exchange rate of 5.07 Ghanian cedis to the dollar*

Lost Revenue from International Trade Mis-invoicing

Total estimated loss from trade mis-invoicing $12.98 billion dollars, based on available data from 2011 – 2017. Losses are greatest in the South Africa-Ghana trade route, with South Africa making up over 40% of Ghana's gold trades.

To evaluate the fiscal repercussions of trade mis-invoicing for the government, we turned to existing research due to constraints in data acquisition. Our approach involved scrutinizing publicly accessible data and existing scholarly work on this subject, and ultimately we found that Léonce Ndikumana and William Godfred Cantah's piece quoting $12.98 billion in revenue lost from 2011 - 2017 for trade mis-invoicing was the most accurate.

In our research, we aimed to lay out a process map for the system of exporting gold in Ghana to pinpoint critical stages within the trade process that are more susceptible to corrupt practices, potentially leading to trade mis invoicing. Our focus was particularly on two main conduits of capital outflow via trade mis invoicing:

- ***Channel 1:*** Misrepresentation of trade invoices, often relying on reports from foreign entities.
- ***Channel 2:*** Transactions via the Precious Minerals Marketing Company (PMMC) in Ghana.

A significant hurdle in addressing trade mis invoicing is the inherent difficulty in gathering comprehensive data due to the covert nature of these transactions. While sophisticated economic models exist that elucidate the patterns of illegal financial flows and offer tentative estimates of the fiscal impact of trade mis invoicing, our study did not employ these methodologies, which underscores the preliminary nature of our findings.

STUDENT PAE

How Cobalt Mining Drives Deforestation in Congo

Author: Olufemi Olamijulo, MPP & MUP 2024[1]

The Democratic Republic of Congo contributes 70% of the world's cobalt, a critical mineral in the global transition to clean energy. At the same time, the country's forest captures 600 million metric tons of carbon annually, making it the only forest in the world that is a net carbon sink. Combined, this makes the DRC the lodestar for averting global climate catastrophe. But advanced data analytics tell a worrying story about the connection between cobalt mining and deforestation in Congo. Using machine learning, AI-driven geospatial analysis, and Geographic Information Systems (GIS), this study's visual analysis provides a clearer understanding of how artisanal mining interacts with deforestation and labor rights violations in the DRC.

Key Findings

1. **Deforestation continues:** Yearly land use change in the DRC shows that deforestation alone accounts for 60% of all land use change yearly. Our analysis reveals that despite global efforts towards environmental sustainability, deforestation rates in the DRC have not significantly decreased over the last 20 years. Mapping data indicates extensive forest change, primarily in regions with high artisanal mining activity.

2. **Deforestation decreases when income from critical minerals is higher:** We found that fewer forests were cut down to farmland when mineral exports were good, and higher deforestation rates tend to occur in tough years when the income from mineral rents was low. This trend points to a local overdependence on an unpredictable mining sector; when demand for critical minerals decreases or the price drops, DRC laborers turn to deforestation to make farmland. This analysis reveals the precarious nature of forest preservation or afforestation.

3. **High labor for mines:** Across all models, the number of mines is a highly significant predictor of the number of workers in mining areas, underscoring the intensive labor required for artisanal mining. The land type (classified as Disturbance, Healthy forest, or Recovery) does not significantly impact worker distribution when controlling for the number of mines; or, alternatively put, worker distribution is influenced more by the number of mines present than by the condition or classification of the land.

Methodology: Analysis with GIS & R

This study employed a mixed-methods research design, integrating quantitative analysis with spatial analysis (GIS) and qualitative insights from expert interviews.

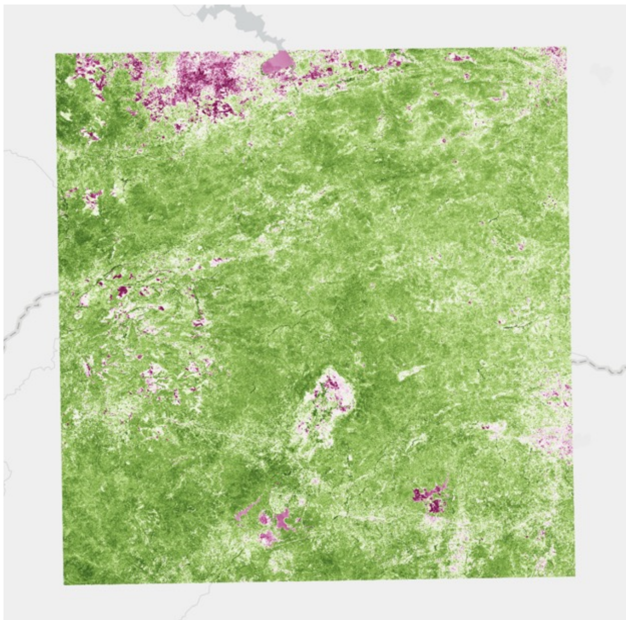
1 This article is a synopsis of the author's Policy Analysis Exercise (PAE). The PAE is the capstone experience to the Masters in Public Policy (MPP) curriculum, providing an opportunity to integrate the skills and knowledge MPP candidates have gained during their time at HKS. An applied thesis, the PAE is different from a traditional research paper in that students are required to engage with a client organization and to develop a series of recommendations to solve a policy or management problem or question for that organization. This PAE's client was the United Nations Office of the Special Adviser on Africa. Augmenting analysis and additional GIS insights are available on this StoryMap.

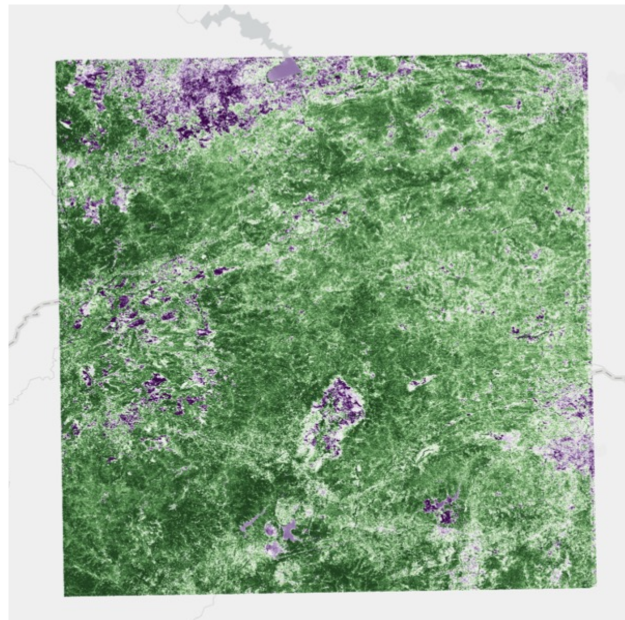
Step 1: Define the Sample Area

Imagery from US Geological Survey (USGS) satellite images from 2019 to 2024 were organized into a multi-dimensional raster format, ideal for time-series analysis. The dataset for the study focused on South Katanga, DRC, chosen because it had a good number of artisanal mines in the north and a lot of free land with no mining activity.

Step 2: Calculating the Normalized Burn Ratio (NBR) Index

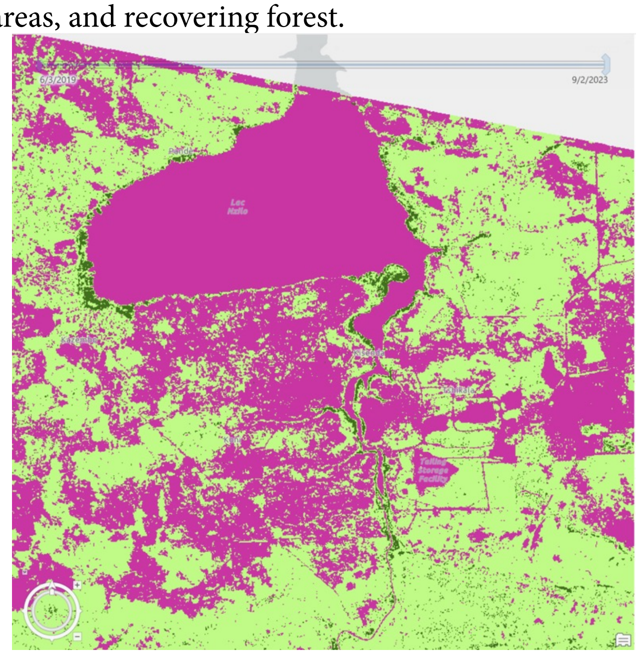
We estimate the NBR index by mathematically comparing the near-infrared and shortwave infrared bands on our image to differentiate between healthy vegetation and deforested areas:

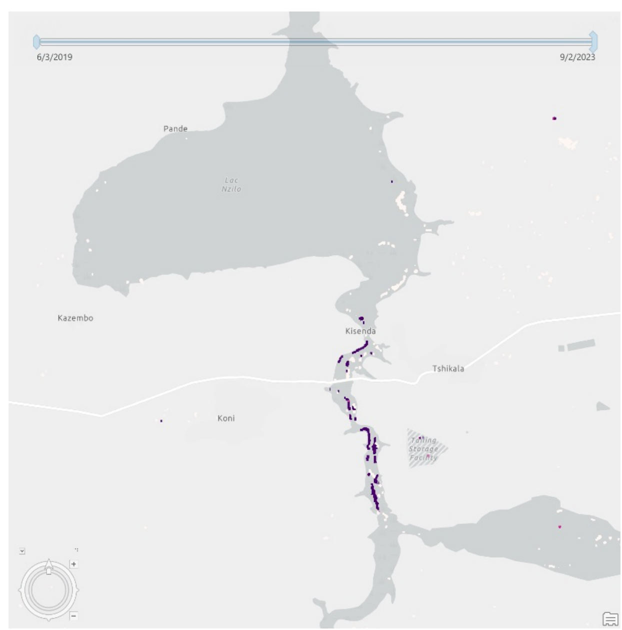




Step 3: Change Detection with LandTrendr

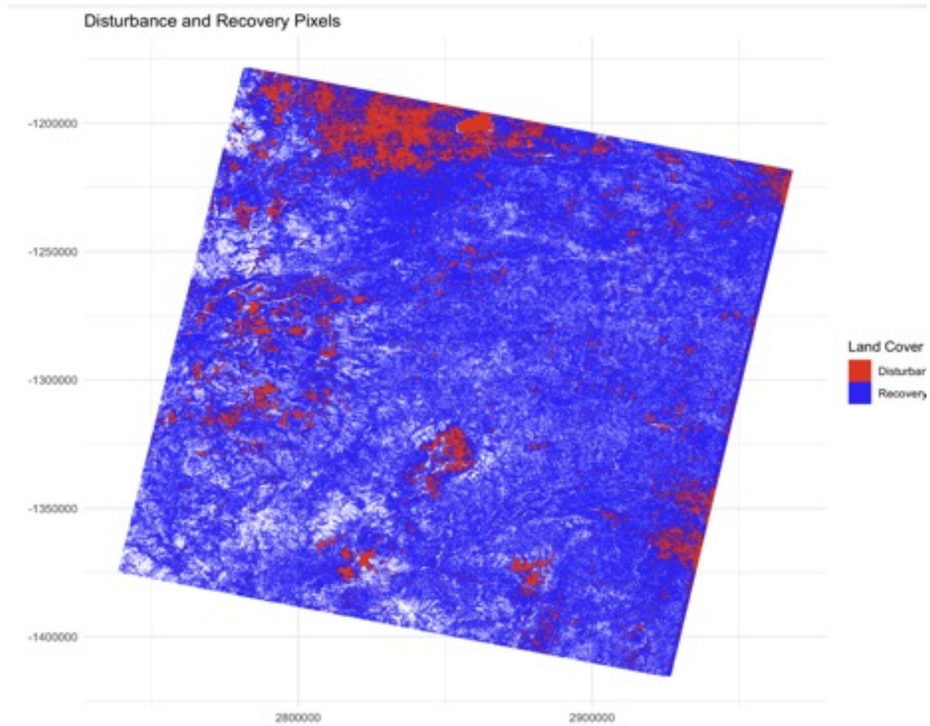
We employed the LandTrendr algorithm to detect changes in pixel values over time (dimensions), indicating disturbances and subsequent recovery. We configured the algorithm to analyze the prepared time series, detecting and characterizing significant changes in forest cover, from tree cutting and natural regrowth. Next, we classified the time series to delineate areas by their change status: healthy forest, disturbed areas, and recovering forest.





Step 4: Forest Disturbance Analysis and Classification

This classification used the change information derived from the LandTrendr outputs, combined with additional spectral data from Landsat 8 images, to categorize each pixel accurately throughout the entire study period.

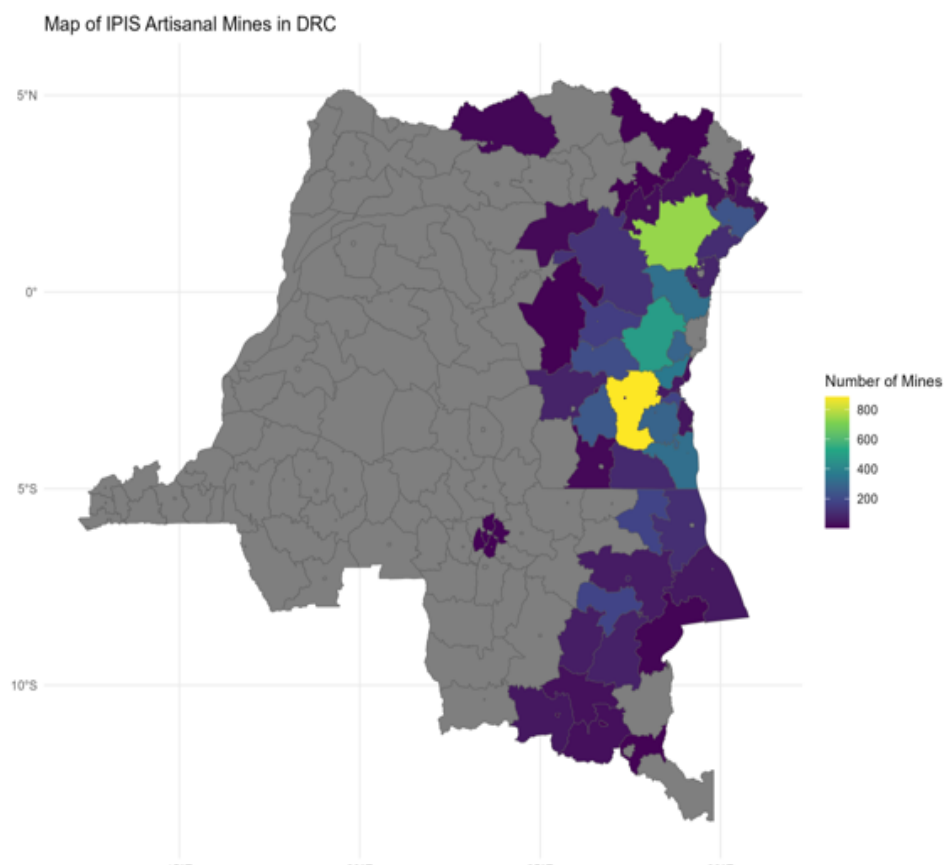


This study highlights the significant human and environmental impacts of artisanal mining in the DRC, driven largely by the demand for cobalt essential for the green energy transition.

Step 5: Analysis with R

Further analysis was then carried out using R Studio to check for correlation between artisanal mines reported by International Peace Information Service (IPIS) and land use change.

The map to the right shows artisanal mines in each city observed in the DRC from 2009 - 2023.



Recommendations

Based on our findings, below are several of the key recommendations offered to the United Nations Office of the Special Adviser on Africa (OSAA):

1. **Expand Geographic Coverage of Studies and Data Collection:** Our study is based on data from a limited area in the southern part of the DRC. This limits the generalizability of our findings; the OSAA should support expanded geographic coverage for future studies and data collection efforts. This should include diverse terrain types such as rocky areas, urban regions, water bodies, and mountainous areas to gain a comprehensive understanding of the impacts of mining.

2. **Enhance Regulatory Frameworks:** The study highlights significant environmental degradation associated with artisanal mining. The OSAA could implement stricter regulations to protect forests and other critical ecosystems from deforestation and degradation due to mining activities.

3. **Support Capacity Building and Skill Development:** Local communities often lack the skills and resources to engage in more sustainable and higher-value economic activities. Invest in capacity building and skill development programs for local communities. This can help diversify the local economy, reduce dependency on artisanal mining, and promote sustainable development.

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