

03

**AFRICAN WOMEN
AND GIRLS:
LEADING A
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The art of the pivot: African women as critical problem solvers in the 21st century

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The pivot is an art form that women leaders have perfected globally, making them critical problem solvers that are more responsive and effective during times of crisis.

While rebuilding a country previously engulfed in civil war for over 14 years, my administration oversaw, then, one of the deadliest health crises of the 21st century. I, Africa's first democratically elected woman president and Liberia's first elected president of the post-conflict period, had to pivot quickly in both attitude and action, as a means of responding to the Ebola outbreak of 2014. The outbreak posed a devastating threat to Liberia's people and to the gains we had made in recovery and development. Rather than falter, we leaned into the complex challenges the outbreak posed, crafting and embarking upon an approach that embraced the strategies called for by community health workers and ordinary people fighting to save their loved ones. During this period, we lost many lives but averted a national crisis and found an inclusive and sustainable path of hope. In most African countries, strengthening the national health structure requires investing in and prioritizing community health workers and systems. Local community health workers are crucial in times of crisis because of their proximity to those most impacted. Utilizing community leadership ensures communities feel empowered and share in the responsibility, creating genuinely inclusive and responsive approaches. Liberia's early success in addressing the COVID-19 pandemic relied on the same community health workers and leaders from the Ebola crisis. They were central in the dissemination of reliable information, coordination efforts across the country, building partnerships both internally and internationally, and leading their communities.

Women's leadership in Africa is not a new phenomenon. Throughout Africa's history, women were critical problem solvers, leading militaries during the precolonial period, as freedom fighters during independence movements, as transitional leaders during post-conflict periods, and as leaders during some of the worst economic, political, and health crises of the 21st century.¹ Moving forward, Africa must harness women's knowledge, skills, and talents at all levels of the problem-solving process, as a means of reclaiming the continent's future.

The pivot is an art form that women leaders have perfected globally, making them critical problem solvers that are more responsive and effective during times of crisis. In public leadership, effective pivoters engage in critical reflection and decisive decisionmaking as well as take on—simultaneously and seriously—a diversity of voices throughout the problem-solving process. Though pivoting requires a shift in direction or approach, the ultimate vision remains the same.

While shifting strategies during the COVID-19 pandemic, women leaders continued to prioritize lives and livelihoods.² Though not surprising to many of us in Africa, as my leadership journey highlights, women continue to be vital in crafting complex responses to complicated problems. Across the continent, women were/are at the frontlines as medical and health experts and community healthcare workers.

DESPITE THEIR LEADERSHIP, AFRICAN WOMEN REMAIN UNDERREPRESENTED IN OFFICIAL ROLES

Though women's leadership in certain countries has come under renewed focus, globally, women still only occupy 25.7 percent of the available parliamentary positions, 7.2 percent

1 Tripp, A. M. (2017). "Women and politics in Africa." Oxford Research Encyclopedia of African History.

2 UN Women. (2020). "COVID-19 and Women's Leadership: From an Effective Response to Building Back Better." UN Women. Policy Brief, 18.

African women's growing presence as public leaders is not confined to national institutions, and African women now hold leadership positions in the World Trade Organization, African Union, and United Nations, among others.

of head-of-state positions, 6.2 percent of head-of-government positions, and 21.3 percent of cabinet positions.³ In Africa, women occupy about 24 percent of parliamentary seats, significantly close to the global average. Unfortunately, only two subregions, Southern Africa and East Africa, largely account for Africa's high rates of women's representation, boasting 31 percent and 32.4 percent women's parliamentary representation, respectively.⁴ The other three subregions fall over 10 percentage points behind. In short, many African countries have come a long way, but the majority still fall far behind even the 1995 Beijing Platform for Action's diffident 30 percent and the African Union Agenda 2063 goal of 50 percent women's representation. (For more on enhancing women's participation in politics, please see the viewpoint on page 64.)

Notwithstanding the data, Africa is still a global leader in women's public leadership. Five African countries are in the top 20 nations for women's parliamentary representation, and, at 60 percent, Rwanda still leads the world in terms of women in parliament.⁵ Four African countries, each with over 45 percent women's representation in cabinets, are among the top 20 countries globally. Moreover, African women's growing presence as public leaders is not confined to national institutions, and African women now hold leadership positions in the World Trade Organization, African Union (AU), and United Nations, among others. More importantly, they directly contribute to and conduct regional and international efforts that address Africa's most pressing issues today: peace and security, gender justice, climate change, and technology and economic development.

PRESSING CONCERNS OF THE 21ST CENTURY

*** Peace and security**

Peace and security are of renewed importance in Africa, given the rise of militarism, extremism, assaults on democratic processes, and the global withdrawal from transnational cooperation and coordination. In fact, in 2021 alone, West Africa experienced three military coups. Importantly, history has shown us that often increased militarism leads to increased marginalization, particularly for women. Furthermore, the work of African women scholars has repeatedly called for us to conceive of security outside of simply borders and imagine the security of the individual.⁶ In this sense, we might raise essential questions about what security looks like for African women and how existing institutions can better involve the voices of women. Madame Bineta Diop, the African Union Special Envoy on Women, Peace, and Security (WPS) is working to raise and answer these questions. Under her leadership, the AU developed the Continental Results Framework for measuring and mapping the implementation of the WPS agenda.⁷ In addressing issues such as gender-based violence, economic insecurity, poverty, and education, we not only secure lives but can potentially better secure the state.

*** Gender justice**

Intrinsically tied to peace and security issues is *gender justice*. The language of gender justice activists in Africa is fundamental. They prioritize the development of a world where men and women are equals and strive to achieve a world that is also equitable. In a fair world, frameworks, resources, and laws are implemented and provided to ensure that women and girls have access to the necessary financial resources and tools that will close the gaps created by gender inequality and marginalization, directly transforming communities as a whole. The recent activism of Sudanese women in 2019 and 2020, which ushered in a new leadership, sheds light on the power of gender activism today in Africa.⁸ Their demands for reform extended far beyond equality, ensuring that the transitional government and constitution guaranteed 40 percent women's representation, expanded women's rights to travel alone, banned execution

3 UN Women. (2021). "Women in politics map: 2021." UN Women.

4 IPU Parline. (2021). "Global and regional averages of women in national parliaments." Inter-Parliamentary Union.

5 UN Women. (2021). "Women in politics map: 2021." UN Women.

6 AWDF. (2021). "Gender and Security in Africa: Primer 2 2016." African Women's Development Fund.

7 African Union. (2019). "Continental results framework for reporting and monitoring on the implementation of the Women, Peace and Security Agenda in Africa (2018 - 2028)." African Union.

8 Cooper, J. (2020). "Women lead in Sudan's clamour for good governance." African Renewal.

of children, and outlawed female genital cutting. Of course, we remain watchful as women have still not been afforded their rightful leadership places in Sudan. (For more on the efforts and success of this activism, see the viewpoint on page 54.)

* **Climate change**

Our ability to transform communities will depend on responding to one of the most pressing global issues: climate change. As some parts of Africa become hotter and drier, the agricultural sector and, in turn, economic livelihoods are directly affected. In Africa, agriculture, a climate-sensitive industry, provides for 70 percent of African livelihoods, 30 percent of the continent's GDP, 50 percent of the continent's export value, and 65 percent of the continent's labor force.⁹ African women account for a large share¹⁰ of the agricultural labor force, and they are far more likely to work in vulnerable employment, increasing their risk of livelihood insecurity.¹¹ To equitably address climate change, we must craft multi-stakeholder and multisectoral approaches that take women and girls' distinct vulnerabilities, capacities and leadership at the community and national levels seriously. We know that women lead the way in crafting equitable and sustainable solutions to climate change, transforming lives and livelihoods, increasing climate resistance, and improving overall well-being.¹² African women leaders are already taking the lead in responding to climate change. For instance, Mayor Yvonne Aki-Sawyer¹³ of Sierra Leone launched a three-year plan to develop Freetown that addresses environmental degradation, and Hindou Oumarou Ibrahim¹⁴ of Chad works to ensure that climate change adaptation plans include the voices of indigenous communities. (For Mayor Aki-Sawyer's viewpoint on urban policies for addressing the impacts of climate change, see page 81.)

* **Technology and economic growth**

Climate change's economic implications raise essential questions about how African countries might strengthen their economies in an age dominated by technology. By expanding access to digital technologies, African nations will empower the poor with access to information, job opportunities, and services that will improve their lives.¹⁵ With a growing youth population and an ever-expanding workforce, investments in technology and technological infrastructure lay the foundations for economic growth. Such investments and developments could improve access to inclusive financing, modernize the agricultural sector, and improve healthcare systems. Technology poses new opportunities and possibilities for women's inclusion and advancement. For example, in the agricultural sector, African women are utilizing technology and technological innovations to improve agricultural processes and, in turn, improve livelihoods.¹⁶ Women and girls cannot and should not be left behind. (See the viewpoint on page 56 for boosting opportunities for women and girls in STEM.)

It is not enough to recognize that African women and girls deserve rights by adopting new laws and frameworks; countries must ensure that these rights are a lived reality.

PIVOTING TOWARD THE FUTURE

To craft inclusive and equitable approaches to the issues raised, African women and girls must play a leading role. It is not enough to recognize that African women and girls deserve rights by adopting new laws and frameworks; countries must ensure that these rights are a lived reality. Economic, political, institutional, and social barriers persist throughout the continent, limiting women's abilities to reach high-level leadership positions.¹⁷ We might turn to countries like Rwanda, Uganda, and Senegal as examples of nations that have ensured their legal and political commitments to women's leadership and gender equality are reflected in practice.

9 Okonjo-Iweala, N. "Africa can play a leading role in the fight against climate change." Brookings Africa Growth Initiative. Chapter 4 of *Foresight Africa 2020*.

10 Palacios-Lopez A, Christiaensen L, Kilic T. (2017). "How much of the labor in African agriculture is provided by women?" *Food Policy*. 67:52-63.

11 AfDB. (2011). "Climate Change, Gender, and Development in Africa." African Development Bank. Vol. 1 Issue 1.

12 IUCN. (2015). "Gender and Climate Change." International Union for Conservation of Nature. Issues Brief.

13 UNEP. (2020). "Transforming Sierra Leone's Capital." United Nations Environmental Programme.

14 Lipton, G. "Hindou Oumarou Ibrahim urges more rights for indigenous people to benefit landscapes." *Landscape News*.

15 Ndung'u, N. and Signé, L. (2020). "The Fourth Industrial Revolution and digitization will transform Africa into a global powerhouse." Brookings Africa Growth Initiative." Chapter 5 of *Foresight Africa 2020*.

16 UN Women. (2016). "Technologies for Rural Women in Africa." UN Women. Policy Brief.

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

Given the existing barriers women experience and Africa's pressing critical priorities for ensuring sustainable development, I offer some advice on how we might collectively chart a future for Africa that includes Africa's most extraordinary pivoters for transformation: women.

✿ **Country leadership**

Country leadership must take proper legal action to ensure that gender equality and equity are a lived reality. They must also lead on building a social consensus that women's rights are essential to sustainable human development. Implementation of laws and legal frameworks must be built on both new attitudes and ending impunity for the violation of those rights.

✿ **Invest in women and girls**

Outside of ensuring legal protections and rights, we must invest in women and girls financially. When governments and international organizations provide targeted and sufficient funding, we ensure women and girls have access to quality education and training, feel economically empowered, and participate politically.

✿ **Political structure**

The political structure, expressly political parties, must open space for women in their organizations, ensuring that women have the platforms to access high-level appointed and competitive positions across national, regional, and international institutions.

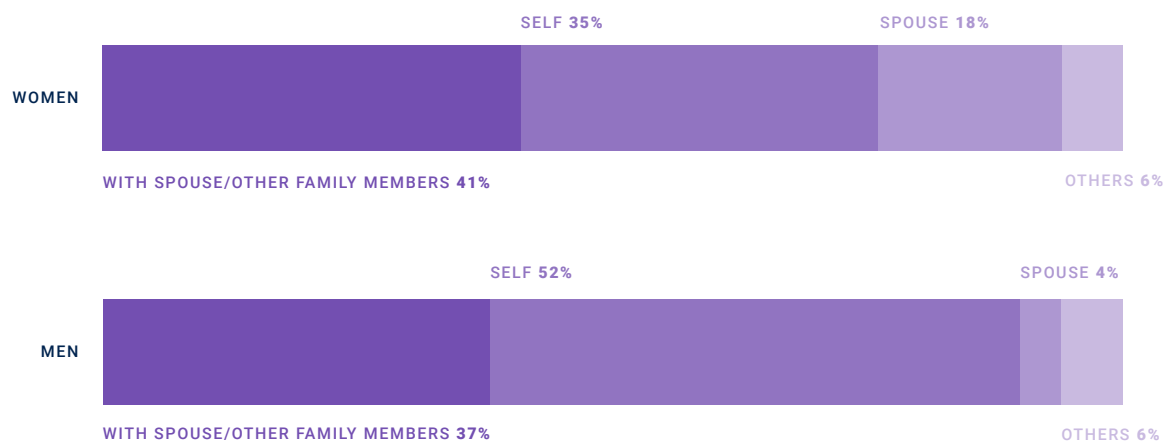
✿ **Women leaders must support other women**

Women leaders must support other women, making room for women when they can do so. As president of Liberia and as a leader at the United Nations Development Program, I appointed women to high-level positions, diversifying the organizational leadership structure within both institutions.

Tackling Africa's pressing issues and ensuring the continent's future success require engaging with and including women at all levels of leadership globally. Though there are many successes to celebrate, let us not allow this moment to pass without making concerted shifts in attitudes, policies, and implementation that harness African women's rich knowledge and experiences. This period calls for a collective **pivot** that ensures African nations succeed in the 21st century.

FIGURE 3.1. WHAT IS THE MAIN WAY THAT DECISIONS ARE MADE REGARDING FINANCIAL ASSETS?

Households across the world differ in how they manage their financial resources. Notably, an Afrobarometer survey found that men and women decide how to use money in consultation with each other and others at similar rates (41 percent with family and 6 percent with others). The major difference is that men report making more unilateral decisions.



NOTE: Respondents were asked: What is the main way that decisions are made about how to use any money that you have or earn, for example from a job, a business, selling things, or other activities?

SOURCE: "Gains and gaps: perceptions and experience of gender in Africa," Afrobarometer. 2019.

It is not yet Uhuru for the women of Uganda

WINNIE KIIZA

Former Leader of Opposition, Parliament of Uganda

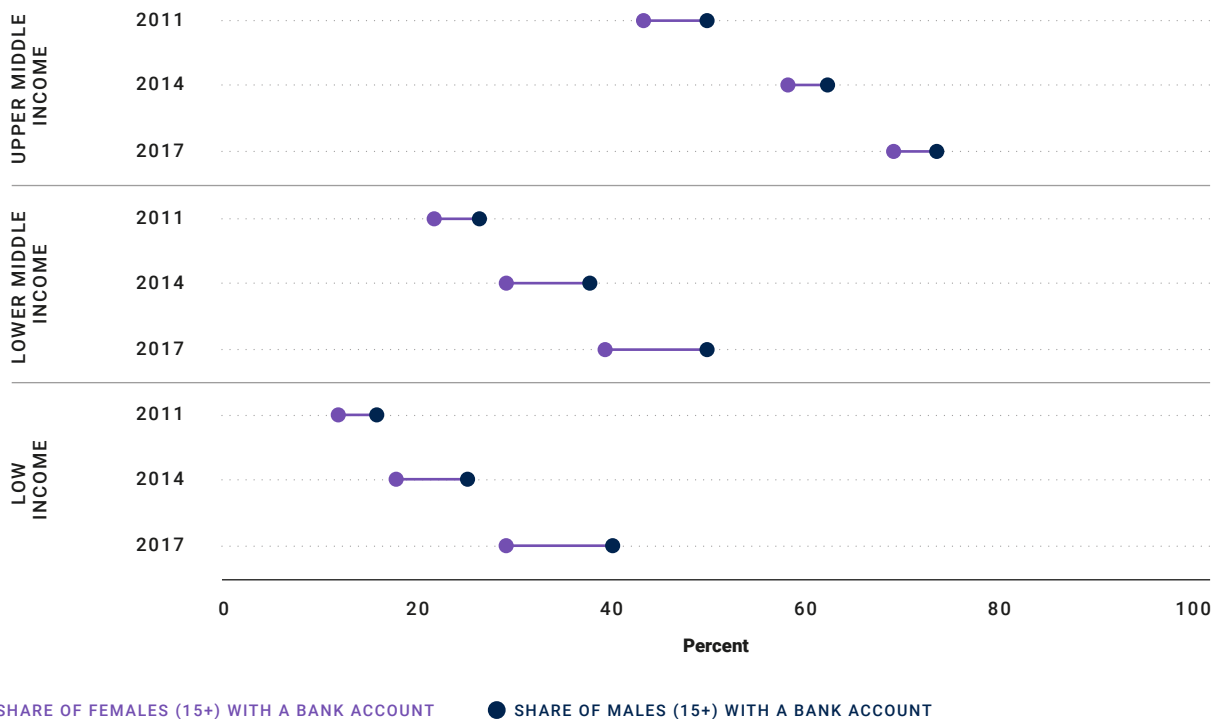
@WinnieKiiza

Women’s rights as human rights emerged as a global issue during the United Nations Decade for Women (1976-1985). Women across different geographic, cultural, religious, racial, and class backgrounds came together as part of a global movement and worked to improve the status of women. Over subsequent decades, women in different countries used various platforms to advocate for women’s recognition and rights.

In line with this movement, Uganda—with an approximate population of 45.74 million, 50.71 percent of whom are female—has, for over the past two decades, shown commitment towards achieving gender equality and women’s empowerment. The 1995 Constitution, on which all the country’s legislation is based, opposes laws and practices that violate women’s dignity. Importantly, its provisions aimed at protecting gender equality are based on international frameworks like The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)—a key international agreement on women’s human rights often described as an international bill of rights for women—and the Protocol to the African Charter on Human and People’s Rights on the Rights of Women in Africa (Maputo Protocol). CEDAW and the Maputo Protocol signal a successful

FIGURE 3.2. FEMALE BANK ACCOUNT OWNERSHIP IS GROWING, BUT SO IS THE GENDER GAP

Female bank account ownership is rising across sub-Saharan Africa. While the account ownership gap between men and women has been closing in upper-middle-income countries, the ownership gap in low- and lower-middle-income countries is widening.



SOURCE: "Global Findex Database 2017." World Bank Publications - Books, The World Bank Group, number 29510.

The COVID-19 pandemic has highlighted the government's inability to address women's rights in the "private" sphere.

mainstreaming of women's rights as human rights and impose the main obligation on member states to implement the frameworks.

Despite the positive steps that have been taken in Uganda to promote gender equality and women's empowerment, the position for women in Ugandan society is one of powerlessness influenced by a range of factors. These factors include cultural biases that unjustly stall women's career progression in public spaces, lack of qualifications and skills (given the already-marginalized position of women in education and training), and low self-confidence.

Furthermore, the COVID-19 pandemic has highlighted the government's inability to address women's rights in the "private" sphere (e.g., homes). Women and girls confined in their homes during COVID-19 lockdowns experienced increases in domestic violence, and about 90,000 girls under the age of 18 were reported pregnant in Uganda. Yet, private spheres are often thought to be beyond the purview of the State—exempt from governmental scrutiny and intervention. As a result, violence against women and girls that occur within families continue to remain hidden, where perpetrators of such human rights abuses typically enjoy impunity for their actions.

These biases and gaps impact women's ability to actively participate in public spaces and generate income and contribute to the economic growth as agents of development. It is not only women that feel the negative effects of failure to invest in women, their children's welfare and efforts to combat poverty and achieve economic growth are similarly affected. Therefore, the government—in an effort to make our communities inclusive, safe, resilient, and sustainable—should adequately invest in efforts to address these limitations and consider the following recommendations:

It is not only women that feel the negative effects of failure to invest in women, their children's welfare and efforts to combat poverty and achieve economic growth are similarly affected.

- ✿ Fund grassroots organizations that build the capacity of women so they can participate, both individually and collectively, in social, economic, political, and public life.
- ✿ Incorporate men and boys in trainings focused on supporting and promoting women and girls as leaders and decision makers.
- ✿ Launch a hotline to provide free counselling and legal services for people experiencing gender-based violence.
- ✿ Establish shelters for survivors of gender-based violence in all districts of Uganda and allocate sufficient resources to run the existing ones.
- ✿ Prioritize awareness programs on how to ensure women and girls are safe at home and know where they can turn for help in their communities.
- ✿ Develop gender-responsive education sector contingency plans and budgets, grounded in gender analyses of roles, risks, responsibilities, and social norms. These must consider mitigating care giving burdens, heightened risks of gender-based violence, and early pregnancy.

The women of Sudan will not accept setbacks

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Since the 2019 Sudanese Revolution that ousted the dictator Omar al-Bashir, the momentous role that women played in shaping the historic event has attracted considerable international attention. These women, who came to be known as “Kandakat” after powerful Nubian queens, have achieved critical acclaim. Their protests in front of the Army Central Command were extraordinary in the face of the systematic 30 years of suppression of their human rights. The Public Order Law that al-Bashir passed in 1996 was not only detrimental to ethnic minorities, but also to women who became ultimate targets of gender-based violence, public flogging, imprisonment, harassment, and confiscation of the property of those who toiled to eke out a living in the market. Although what the world has found to be an astonishing feat—Sudanese women’s role in the revolution—it is by no means new in the world of women’s rights activism. Their revolutionary zeal has, indeed, a long gestation period deeply steeped in history.

When the first Sudanese woman to be admitted in Kitchener Medical School, the formidable Khalda Zahir Soror Al-Sadat, and her schoolteacher friend, Fatima Talib, got together one afternoon in Omdurman, they felt it important to reach out to others in their neighborhood to establish a Sudanese woman’s union to agitate for the rights of women under British colonialism (1898-1956). Their idea gathered momentum as evidenced in an impressive gathering at the home of their compatriot Aziza Makki Osman Azraq. The effort came to fruition in 1952 with the founding of the Sudanese Women’s Union. Far from being an elitist, urban-based effort, the Union succeeded in including women of all regional, religious, ethnic, and socioeconomic backgrounds throughout the country. Along with significant milestones achieved since then such as the adoption of equal pay for equal work in 1953, the Union focused on a plethora of discriminatory practices often rationalized as revered traditions. They ended “Obedience Laws,” which forced a woman to return to her abusive partner and relinquish every right or entitlement due to her as a human being. These monumental struggles, however, were not without adversaries who mounted unjustified criticisms of the Union as foreign innovations that had no roots in Sudanese customs and traditions.

Despite the extraordinary struggle of Sudanese women and their unyielding search for gender justice, the challenges endure, the most prominent being the climate of impunity in the country.

Notwithstanding, the women of the Union ventured forth with prodigious efforts that mitigated some of the most inequitable acts meted at women in their flagship magazine Sawt Al-Marr’a (the Woman’s Voice). These women soon recognized that they were on the cusp of challenging oppression by locating allies and opinion leaders who could shatter the myths about their effort’s foreign roots. Indeed, one of the most critical accomplishments of the Union was its success in forging powerful alliances and solidarities across local, national, and international frontiers. At home, they organized workshops and community gatherings to further women’s agency in changing their own lives. Such a task warranted a conscious confrontation of prevailing gender ideologies that women accepted as dogma and deployed to their own detriment. Through extensive discussions with men and women, they took up cultural practices head-on and uncovered the political and legal contexts within which they operated. Despite the insurmountable obstacles imposed on the organization by military dictatorships, it managed to leave its mark on the Sudanese political landscape as it continues to do today to localize human rights principles in the Sudanese context underground. In this important historical context of gender activism in the country, it is not surprising to witness the extraordinary courage and fortitude of Sudanese women in protesting military rule. They resisted the systemic racism, classism, and sexism that engulfed the country from North to South, West to East. Nowhere has the impact of the prevailing political ideologies been so damaging than the tearing apart of the country and its entrapment in civil war and communal strife. Following independence, the political violence in South Sudan since 1955 culminated in

the region's secession in 2011. In 2003, Darfur witnessed atrocities that many observers described as genocide. These killing fields left the communities displaced, disseminated, and dead. In 2004, the International Commission of Inquiry confirmed the massive violations of International Human Rights and Humanitarian Law in Darfur. Although these conflicts have been devastating to the country at large, they have been particularly shattering for women and girls' lives. Gender-based violence and crimes against humanity—as evidenced by rape, as well as the destruction of property and lives—continued with impunity.

The Sudanese women's revolutionary fervor has, therefore, a long history. Gender-based violence and curtailment of women's mobility have inflamed women's desire for resistance and change. The most recent example is when General Abdel-Fatah Al-Burhan, the commander-in-chief and president of the Sovereign Council of the transitional government of Sudan, decided to oust the civilian government in October 25, 2021. Sudanese women from all socioeconomic backgrounds rose again. They joined rallies and civil disobedience organized by their local resistance committees and the Union of Sudanese Professionals. Time was of the essence when they jumped into action once more, propelled by the insidious military oppression that loomed threateningly over their lives. They rejected the coup d'état that represented a dangerous setback and would have exacerbated their suffering.

Despite the extraordinary struggle of Sudanese women and their unyielding search for gender justice, the challenges endure, the most prominent being the climate of impunity in the country. None of the perpetrators of political violence in the South or in Darfur have been held accountable. Not only were these perpetrators not held to account for waging war crimes and crimes against humanity, but they continue to do so as authority figures in the current regime. In the North, the families of the disappeared and summarily executed implored Prime Minister Abdulla Hamdok to intercede in the effort to locate the graves of their sons, fathers, and brothers. So far, these demands have been met with silence.

Despite these challenges to their struggle for gender equality and justice, the determination of Sudanese women to bring about a measure of fairness remains unshakeable. The continued participation of Sudanese women in the unfinished revolution is a major resource for hope. Today, their protests in the country are accompanied by others. Sudanese migrants and refugees all over the world joined in solidarity, and in so doing kept the plight of Sudanese people on the radar as a complex emergency that warrants immediate attention. The strong civil society associations in the country will benefit from systematic media coverage exposing the scale of violence in the country and supporting their plea for democracy and respect for human rights. International women's organizations also have an important role to play in strengthening the role of their local counterparts in Sudan. The quest for gender justice in the country will only succeed if women see justice being served.

Despite these challenges to their struggle for gender equality and justice, the determination of Sudanese women to bring about a measure of fairness remains unshakeable.

Making the future of African STEM female

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Without a huge investment in science, technology, engineering, and mathematics (STEM) education, Africa will not achieve the goals the African Union has laid out in her 2063 agenda. Indeed, given the complexity facing the developing world, economic growth, and improvements in the standard of living there will continue to rely on innovations and technological breakthroughs.

Moreover, such revolutions can only happen for Africa if there is active participation in STEM at all levels of education—especially for girls. Despite the fact that women comprise half the population, they are grossly underrepresented in STEM careers.¹ In sub-Saharan Africa, between a mere 18 to 31 percent of science researchers are women, compared to 49 percent in Southeast Europe and in the Caribbean; 44 percent in Central Asia and Latin America; and 37 percent in the Arab States.² In Nigeria specifically, women represent between 17 and 20 percent of science researchers. Notably, at the primary school-level, girls perform as well as or even better than boys globally according to the reports of PISA and TIMSS on mathematics and science performance; however, between only 3 and 7 percent of girls who attend higher education actually study STEM-related courses when they get there. More specifically, 3 percent of girls in higher education are enrolled in ICT, compared to 8 percent of boys. Similarly, 7 percent of girls enroll in engineering and construction courses compared with 22 percent of boys who enrolled for the same fields of study.³

WHY IS FEMALE PARTICIPATION IN STEM IMPORTANT?

Getting girls and women into STEM is not only a matter of human rights but also makes economic sense.⁴ Adopting diversity and gender inclusion in STEM is critical for increasing creativity, innovation, gender-sensitive perspective for products, and productivity, considering that women make up half of the world's population.⁵

Unfortunately, the COVID-19 pandemic has not only hindered overall STEM education, but particularly exacerbated the already-wide gender gap in those subjects. The switch to digital platforms hindered learning for those without access to such tools given the region's digital divide. Teachers also struggled with the use of technology for online lesson delivery, and often ended up just replicating their physical classrooms on online platforms. The impact on STEM education has been colossal given the loss of the requisite hands-on activities in such subjects. This is because for girls, the traditional mode of learning—without authentic learning experiences demystifying STEM concepts—has neither been effective nor motivating.⁶

1 "A lack of good education in STEM subjects is holding back African growth and depriving its youth of career opportunities." ACCA, 2018.

2 "One in three researchers is a woman." The United Nations Educational, Scientific and Cultural Organization, 2021.

3 "The Equality Equation: Advancing the Participation of Women and Girls in STEM." World Bank, 2020.

4 "Voice and Agency: Empowering women and girls for shared prosperity." World Bank, 2014.

5 "The Importance of Women in the Tech Industry." DeVry University, 2021.

6 Brodie, Karin. "Equipping Teachers for Inclusive Science Technology Engineering and Mathematics Methodologies for Sustainable Development." Gylg Foundation, 2019.

MORE GIRLS AND WOMEN INTO STEM! HOW?

Research has already identified specific strategies and tools for boosting girl child involvement in STEM. Such policies include:

- ### Use role models.

Girls between the ages of 8 and 16 learn better in a collaborative and non-competitive way.⁷ They can be inspired by connecting with female role models in STEM careers who can serve as both mentors and examples of success stories. Girls in 8th and 9th grade who are discovering their career interests and are at the very beginning of their career paths are influenced by role models who served as catalysts for young girls. Indeed, research shows that a role model approach can encourage and help young girls and women to excel in science.⁸

- ### Create learning resources that portray the girl child in STEM, among others.

Currently, most textbooks present a biased curriculum with content showcasing more male scientists, and only showing girls in non-STEM careers such as secretaries or only as nurses in the medical field. More demonstrated representation of women in STEM-related careers allows and encourages girls to envision themselves in such roles.^{9,10}

- ### Encourage interest in STEM early in education.

Early intervention is key to closing the gender gap in STEM as boys are encouraged very early to pursue careers in STEM while girls are not.¹¹ This problem is not unique to Africa. In addition, most current strategies for increasing STEM participation focus on

FIGURE 3.3. WOMEN IN AFRICA ARE INCREASINGLY REPRESENTED ON CORPORATE BOARDS

While corporate boards in Africa continue to add more women, representation remains below the world average.

WOMEN'S REPRESENTATION ON BOARDS IN SUB-SAHARAN AFRICA (2018)

24.3%

AFRICAN COMPANY BOARD SEATS
HELD BY WOMEN

24.5%

AFRICAN COMPANY BOARD CHAIRS
HELD BY WOMEN

27.0%

OF CORPORATE BOARD MEMBERS
WORLDWIDE ARE WOMEN

TOP INDUSTRIES WITH THE HIGHEST PERCENTAGE OF WOMEN ON BOARDS IN SUB-SAHARAN AFRICA (2018)



25.2%

ENERGY AND RESOURCES



24.5%

FINANCIAL SERVICES



24.3%

CONSUMER BUSINESS

NOTE: Data for sub-Saharan Africa includes 132 companies in Kenya, Nigeria, and South Africa.

SOURCE: Deloitte. "Data-driven change: Women in the boardroom – A global perspective." Sixth edition, 2018.

7 Ekine et al. "Improving Learning Opportunities and Outcomes for Girls in Africa." The Brookings Institution, 2013.

8 "Women in Science: Voices from Africa." The Network of African Science Academies, 2017.

9 Makarova et al. "The Gender Gap in STEM Fields: The Impact of the Gender Stereotype of Math and Science on Secondary Students' Career Aspirations." Frontiers in Education, vol. 4, no. 60, 2019.

10 Berwick, Carly. "Keeping Girls in STEM: 3 Barriers, 3 Solutions." Edutopia, George Lucas Educational Foundation, 2019.

11 "A Guide to Engaging Girls in Early STEM Learning." Winnie, 2021.

The STEM pipeline for girls is leaky, so efforts should be placed on the formative years where habits and traits are formed early so that girls can have a solid foundation in STEM.

higher education when girls are already lagging behind in this field or not represented at all. As girls progress through the school system, their numbers in STEM classes fall. In other words, the STEM pipeline for girls is leaky,¹² so efforts should be placed on the formative years where habits and traits are formed early so that girls can have a solid foundation in STEM.¹³

✱ **Ensure equal access to basic education.**

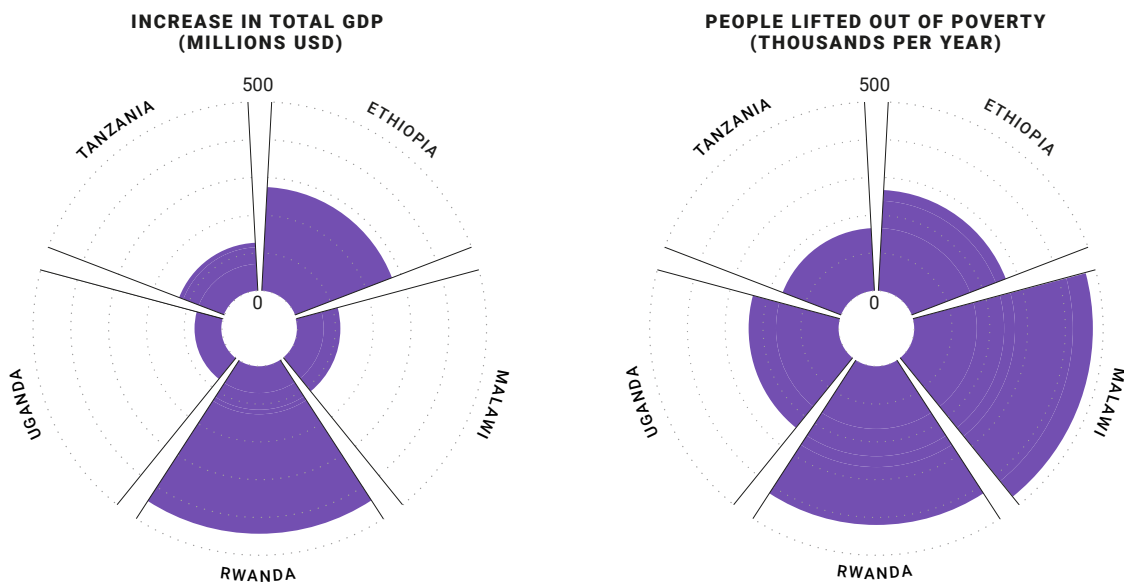
Girls can only learn when they are in school. However, no country in Africa has achieved gender parity in both primary and secondary schools.¹⁴ Moreover, not only should girls have access to basic education, they must be able to access digital literacy—meaning the government must bridge the digital divide early in their education, during primary school. Moreover, the pandemic further magnified the digital divide that already existed. In fact, it actually enhanced stereotypes as more boys had access to technologies and girls were made to do more house chores during this time. Providing digital devices for every girl child should be a top priority for governments in the wake of COVID-19 and in case of future, similar epidemics.¹⁵

✱ **Better equip teachers.**

African policymakers must prioritize building the capacity of teachers and STEM teachers in particular. They need to be intentionally equipped with strategies that encourage collaboration rather than competition, peer teaching, hands-on activities, mentoring by role models—whether online or in person.¹⁶ More specifically, teachers

FIGURE 3.4. THE CASCADING EFFECTS OF CLOSING THE GENDER GAP IN AGRICULTURE

The United Nations Entity for Gender Equality and the Empowerment of Women estimates that closing the gender gap in agriculture—i.e., providing women with the same access to productive resources as men—not only can contribute to increased agricultural production and food security for families, but economic growth and poverty reduction overall.



SOURCE: "The Cost of the Gender Gap in Agricultural Productivity," United Nations Women, World Bank, United Nations Development Program, and United Nations Development Program, Poverty Environment Initiative, 2018.

12 Dubois-Shaik, Farah and Fusulier, Bernard. "Academic Careers and Gender Inequality: Leaky Pipeline and Interrelated Phenomena in Seven European Countries." European Institute for Gender Equality, 2015.
 13 Ekine et al. "Improving Learning Opportunities and Outcomes for Girls in Africa." The Brookings Institution, 2013.
 14 "No country in sub-Saharan Africa has achieved gender parity in both primary and secondary education." The United Nations Educational, Scientific and Cultural Organization, 2015.
 15 Mlambo-Ngcuka, Phumzile and Albrechtsen, Anne-Birgitte. "Opinion: We cannot allow COVID-19 to reinforce the digital gender divide." Devex, 2020.
 16 "Factors which Contribute to or Inhibit Women in Science, Technology, Engineering, and Mathematics in Africa." The African Academy of Sciences, 2020.

need to be trained in using tools like learning packages, simulations, games, and storytelling to more effectively engage learners.¹⁷ These curriculum resources, including textbooks, should come with content that showcase females in various fields.

✱ **Support a shift in classroom dynamics.**

Finally, STEM education reforms should include a shift in classroom dynamics so that teachers can be gender responsive and gender sensitive.¹⁸ At the moment, teachers are too often prone to encourage boys more than girls in science classes and assign less-taxing roles to girls that are more domestic in nature, thus encouraging gender stereotypes.¹⁹

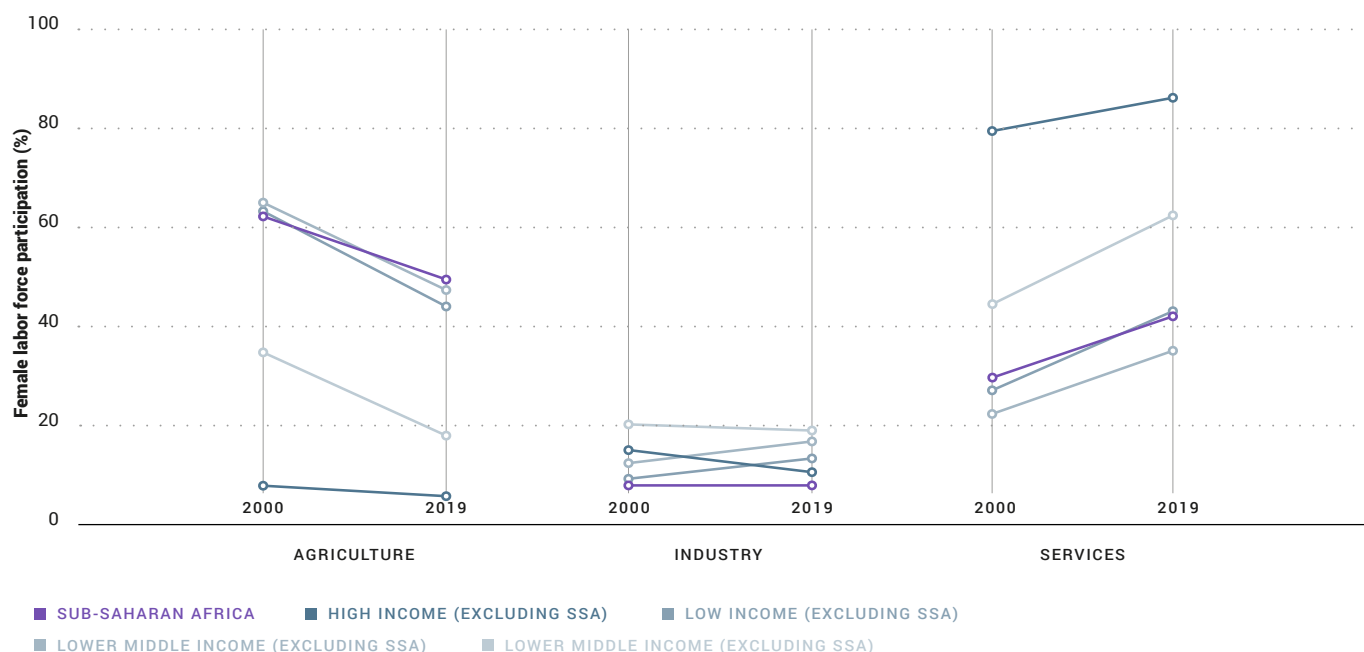
Innovative young thinkers and entrepreneurs emerging from Africa are not only changing the continent, but the world—but not nearly enough of them are women.

CONCLUSION

Innovative young thinkers and entrepreneurs emerging from Africa are not only changing the continent, but the world—but not nearly enough of them are women. Given the increased demand for STEM knowledge in a post-COVID world and education losses caused by the pandemic, support for girls in STEM education has never been more pressing. Indeed, the demographic makeup of girls and women in Africa must be intentionally harnessed to position Africa as the technology hub for the future.²⁰

FIGURE 3.5. FEMALE LABOR FORCE PARTICIPATION BY SECTOR DIFFERS MARKEDLY BETWEEN SUB-SAHARAN AFRICA AND THE REST OF THE WORLD

Women’s participation in the labor force looks very different in sub-Saharan Africa compared to the rest of the world more broadly. Although African women’s participation in industry and services has increased since 2010, they are still most often employed in the agricultural sector. In fact, in 2019, about female half of all workers in sub-Saharan Africa were still employed in agriculture.



SOURCE: World Bank. World Development Indicators. Labor force participation rate, female. 2021.

17 Kuchment, Anna. "To Attract More Girls to STEM, Bring More Storytelling to Science." Scientific American, 2013.
 18 "Training Tools for Curriculum Development: A Resource Pack for Gender-Responsive Stem Education." International Bureau of Education - United Nations Educational, Scientific and Cultural Organization, 2017.
 19 Ekine, Adefunke. "More Girls in STEM Means Improving STEM Teacher Training." Stanford Social Innovation Review, 2017.
 20 "STEM Education in Africa—the Past, Present, and Future." STEMpedia, 2019.

Strategies for advancing African women in academia

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Female students are more likely to enroll in graduate studies when they encounter successful women role models.

Despite the progress women in Africa have made in the professional sphere, they remain underrepresented in strategic and essential positions. In fact, in academia, the representation of women can be likened to a pyramid where very few women exist at the top and in key leadership positions, especially in Africa. Moreover, only six out of the 26 higher education institutions in South Africa—a country that houses many of Africa's top universities—are led by women. In Ghana, only 8 percent of professors from public universities are women.¹ More broadly, across sub-Saharan Africa, women constitute only 24 percent of academic staff and 2.5 percent of vice chancellors.² The African Evidence Research Database also indicates that, out of 2,510 African-led studies surveyed by the database, only 32 percent are led by women.³

Although institutional efforts to increase the representation of women in academia are increasing across the region, they tend to focus on increasing female enrollment in undergraduate studies rather than the hiring and retention of women in senior leadership positions. Obstacles such as structural barriers, traditional beliefs and norms, societal expectations, gender stereotypes, and the patriarchal nature of many African academic institutions make it challenging to make any significant progress. Moreover, the lack of female role models and mentors to guide young talented women through their academic careers exacerbates the gender gap: Female students are more likely to enroll in graduate studies when they encounter successful women role models.

In addition, the few existing women pushing academic frontiers through their research and leadership in Africa are held to higher standards, constantly scrutinized, barely recognized, receive lower pay and poorer evaluations, and are recommended less than their male counterparts. They are also excluded from the gendered informal decision-making process, which usually occurs through informal networks. The demanding role of women in the caregiving economy and in childrearing, coupled with excessive administrative burdens, further delays career progression. Female faculty and students also face sexual harassment, or, at the very least, are too often judged by their physical appearance rather than their intellectual capabilities, which further dissuades them from staying in academia.

African universities must first commit, develop, popularize, and be intentional about institutional inclusive gender policies such as affirmative action, adaptable work environments accommodating childcare, and sexual harassment policies to advance female representation to break the glass ceiling. This strategy requires a well-articulated mechanism to track, monitor, and evaluate the implementation process. In addition, academic institutions should implement gender sensitization initiatives, which are vital in reducing tensions between female and male colleagues.

Policies to make the environment safer and more open to opportunities must start even before young, academically minded women enter the labor market. Since the minimum requirement for most senior academic positions is a Ph.D., leaders must consider strategies to first increase the quantity and quality of women in post-graduate studies in Africa. Initiatives such as funding and research collaboration opportunities, institutional

1 "Demographics of African Faculty: A Pioneering Pilot in Ghana." Education Sub Saharan Africa, 2018.

2 "Women Leading." Education Sub Saharan Africa, 2020.

3 "African Education Research Database." Education Sub Saharan Africa, 2021.

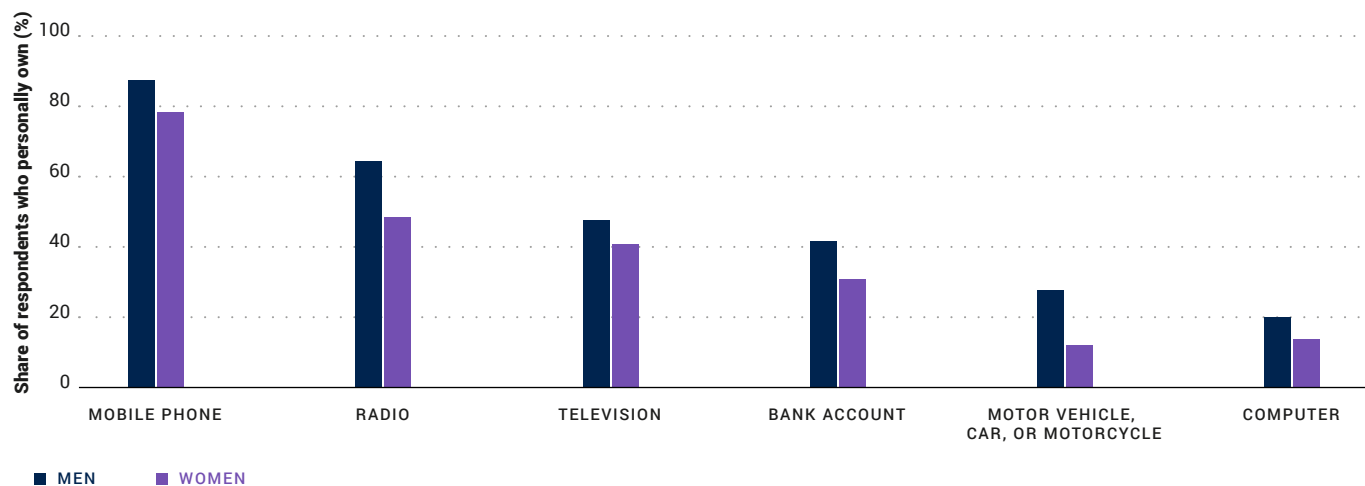
Policies to make the environment safer and more open to opportunities must start even before young, academically minded women enter the labor market.

capacity to run doctoral programs, and efficient supervisory processes are crucial to executing this strategy.

Given that representation matters, mentorship programs tailored for junior academic ranks and led by senior female faculty offer a tremendous motivational tool in the quest to attract more women. In addition, identifying and building alliances with both women and men who are passionate about the advancement of women is another way to avoid isolation and combat hostility. Finally, women should be offered equal pay as men, including all fringe benefits, to prevent them from pursuing better-paying jobs outside of academia. While implementing these strategies, university leaderships should facilitate the documentation and collection of gender-disaggregated data to help assess progress.

FIGURE 3.6. THE GENDER GAP IN ASSET OWNERSHIP PERSISTS

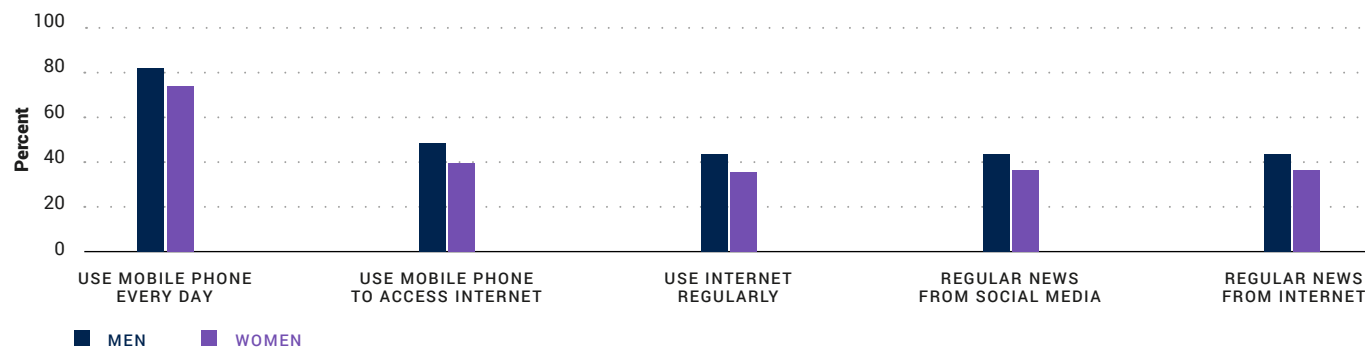
As Africa looks to rebuild after the COVID-19 pandemic, it is important to include women in its plan to boost economic growth. While studies show that asset ownership plays an important role in the economic empowerment of women, research shows they are still being left behind.



NOTE: Respondents were asked: Which of these things do you personally own?
SOURCE: "Gains and gaps: perceptions and experience of gender in Africa," Afrobarometer. 2019.

FIGURE 3.7. MEN IN AFRICA REPORT USING CERTAIN TECHNOLOGIES AT PERCENTAGES HIGHER THAN WOMEN

As technology becomes a more integrated part in the everyday lives of individuals, access to such tools is important for enabling men and women to harness the same opportunities.



NOTE: Respondents were asked: How often do you use a mobile phone to access the internet? How often do you use a mobile phone to access the internet? How often do you get news from social media? From the internet? The figure shows the share of respondents that answered "a few times a week" or "every day."
SOURCE: "Gains and gaps: perceptions and experience of gender in Africa," Afrobarometer. 2019.

Women and e-commerce in Africa: The \$15 billion opportunity

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Given that Africa's internet economy could reach \$180 billion by 2025 alone, we at International Finance Corporation (IFC) were keen to examine whether e-commerce platforms support women entrepreneurs, or whether such tools remain stymied by women's low access to the internet, mobile phone, and other fundamental tools of the digital economy. Combining vendor surveys and performance data from one of Africa's largest e-commerce platforms, Jumia, we produced the first regional view into women's challenges and successes in e-commerce and found that closing gender gaps in this arena could add nearly \$15 billion to the value of Africa's e-commerce industry between 2025-2030 alone—putting billions in the hands of women entrepreneurs.¹

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WOMEN ARE ACTIVE PARTICIPANTS IN E-COMMERCE

Women own between one-third (in Côte d'Ivoire) and just over half (in Kenya and Nigeria) of companies on Jumia. Encouragingly, there are signs e-commerce is supporting women in overcoming gender barriers: For instance, such platforms offer an entry point for women in new and larger markets or high-profit, male-dominated sectors like electronics. Notably, however, the COVID-19 pandemic reversed or stunted many of these early successes: Women's sales fell by 7 percent;² over the same period, men's rose by an equal amount.

ENSURING THE DIGITAL ECONOMY IS AN INCLUSIVE ECONOMY

Both the private and the public sector can ensure women grow and thrive in Africa's still nascent e-commerce industry. Key opportunities for action include:

- * **Targeting women with fintech**

Just 7 percent of women-owned businesses³ received a loan through the Jumia platform upon startup. Fintech platforms should target women who are already less likely to have access to finance elsewhere, but who could use sales history on platforms to provide proof of income.

- * **Recruiting from social commerce**

Women vendors are more likely than men to use social commerce tools like WhatsApp—and this is where many women get their start selling online. Supporting women's transition to a platform with increased support can help them grow and formalize their business.

- * **Training, training, training**

Women are less likely than men to use advertising and other paid features that allow them to stand out in a crowded market. But they also value training more—even when their self-reported skills match or exceed men's. Platforms can recruit women by offering training on entrepreneurship and digital skills.

Disruptive technologies too often reinforce, rather than reduce, inequalities. However, prior to COVID-19, women were beginning to thrive online. Action now can reverse the pandemic's impacts and ensure that women entrepreneurs can lead the future of Africa's digital economy.

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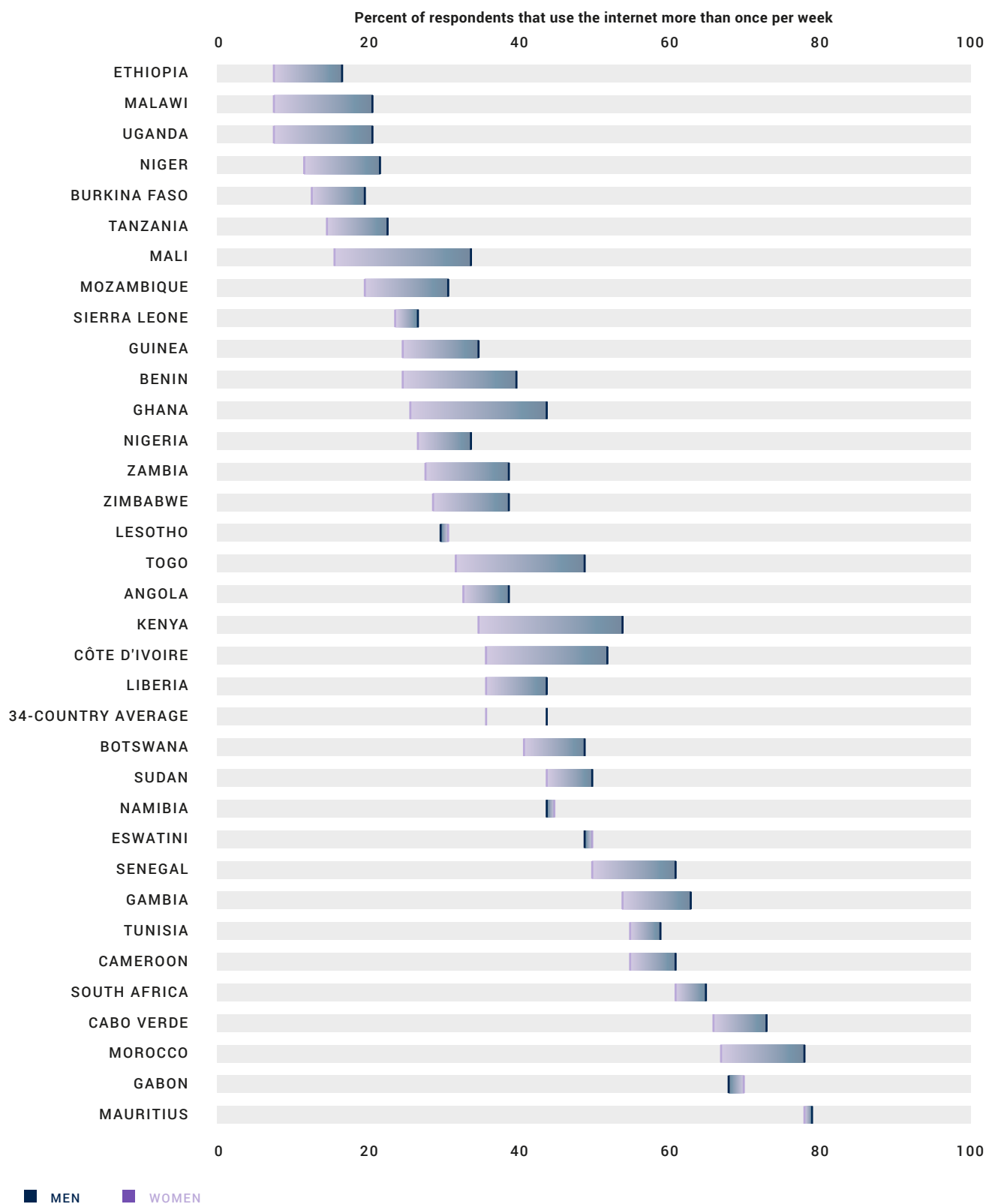
¹ "Women and e-commerce in Africa." International Finance Corporation, 2021.

² Ibid.

³ Ibid.

FIGURE 3.8. HOW OFTEN DO YOU USE THE INTERNET?

While there is an average 8 percentage-point gap in regular internet use between genders, women in some countries (e.g., Gabon and Namibia) report using the internet more regularly than men.



NOTE: Respondents were asked: How often do you use the Internet?
SOURCE: "Gains and gaps: perceptions and experience of gender in Africa," Afrobarometer. 2019.

Priorities for advancing women's equal political leadership in the coming year

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Women's equal participation in government is central to democracy and achieving sustainable development and egalitarian societies. While the struggle to redress the marginalization of women in leadership positions show a measure of success, this progress has been slow and uneven since 1995. Gender disparity persists in access to political leadership across local governments, national parliaments, and executive institutions of power—despite and in violation of an array of global, regional, and national laws that invest women with rights to equal political participation and representation as citizens. Women also face significant disparities within political parties, who serve as the gatekeepers to women's political access and competitiveness. For example, in Africa, 24 percent of national parliamentarians¹ and 21 percent of local government leaders are women. The continent also ranks far below the global average of 20 percent for women ministers in national cabinet positions.

Arguments for women's equal leadership participation in politics have highlighted its intrinsic value and instrumental justifications. Its fundamental goal—articulated within claims of democratic justice, equity and human rights—is expressed in the multiple international agreements, regional frameworks, and national laws driven by women's movements and feminists' mobilizations. The instrumental rationale centers on arguments of the policy-responsiveness of political representatives towards those they represent. Specifically, it supports the expectations that women's presence in political leadership will lead to inclusive decisions that reflect the needs and interests of a broader population, including women and girls. In effect, women's political leadership results in optimal governance outcomes for most of society.

While there is no shortage of intelligent, ambitious, and capable African women potential leaders, multiple obstacles hinder women's leadership aspirations and candidacy. These barriers are determined by contextual factors that combine formal and informal rules, institutions and other structural elements in unique ways to limit women's access to power as they shape opportunities and incentives for actors and actions.

Although unwritten, informal rules string together expectations from culture, religion, and social structures to exert powerful constraints on women's political agency alongside formal institutions. These structural and cultural barriers, including those of tradition, impose significant limitations on women's access to resources, and place high demands on their time as gender roles increase their responsibility of care in the home, thus creating vast resource and time deficits that benefit men and curtail opportunities of entry and electoral victory for women.

Women's equal participation is also impeded by conscious and unconscious biases, discriminatory attitudes and norms, and mobility limitations due to threats of (political) violence that continue to pose obstacles to meaningful leadership participation of women within state institutions.

Records of previous and ongoing interventions provide evidence of numerous effective strategies for advancing women's political participation across the region. Thus, I suggest four key policy areas decisionmakers might prioritize for promoting gender equality in political leadership, particularly in the coming year.

1 IPU Parline. (2021). "Global and regional averages of women in national parliaments." Inter-Parliamentary Union.

While there is no shortage of intelligent, ambitious, and capable African women potential leaders, multiple obstacles hinder women's leadership aspirations and candidacy.

Promoting a conducive and gender-inclusive society constitutes an important variable in the tension between positive changes in women's leadership participation and persistent sexist attitudes.

The starting point must be the transformation of formal, political institutions through constitutional amendments, legal reforms, and targeted affirmative action programs, including but not limited to legislated sex quotas, reservations, and party mandates when combined with adequate safeguards. Political parties must be key targets for transformation as they are central to women's political access and competitiveness. Their provision, or not, of a fair playing ground directly impacts women's access to appointed and elected positions in government.

Second, capacity-building interventions for women political leaders within established women parliamentary caucuses provide women leaders with skills and knowledge for effectiveness and success. Meaningful (substantive) representation from women leaders, or the perception thereof, reinforces role-modeling effects and meets voters' demand for performance accountability, which increases public's positive attitude and support for women's political leadership. Training should focus on key actors—gatekeepers and influencers, leadership models and networks, and understanding strategic influence and effective forms of social action for change.

Third, interventions towards promoting social mobilization and collective action contributes to changes in the nature of the state and expands space for women's inclusion. While these changes can be progressive, they could also advance a conservative agenda like religious and ethnicity-based civil society mobilizations. Policy entrepreneurs and implementers should be vigilant, therefore, in ensuring that, when mobilized, these coalitions and movements are not hijacked and used to promote myriad agendas that mask closet anti-gender propositions, including traditional notions of women's subjecthood that limits their opportunities for political leadership.

Finally, promoting a conducive and gender-inclusive society constitutes an important variable in the tension between positive changes in women's leadership participation and persistent sexist attitudes. Gender norms and behaviors have shaped women's experience in running for and holding political offices. For those women who are elected, norms also shape their leadership experience, including how they are perceived and treated by the public and by fellow political actors. Inequalities emanating from social discrimination are reflected in informal rules, which require more deep-seated structural reconfiguration. Interventions that aim to correct these norms can become catalysts for change. In the long term, exposure to female leadership can also alter social norms. While norms and social attitudes change in modest increments over long periods, interventions targeting traditional and regressive gender norms have been known to promote conducive and gender-inclusive societies.

The relationship between political change and social change is complex. Political change is nothing if there is no social change in the way men perceive women, and political change might be inaccessible without social change. As such, ensuring social change can guarantee political change, including equal women's political representation across formal bodies of the state.

As we contemplate the new year, we don't start from nothing; we have lessons on which to build. In fact, the COVID-19 pandemic highlighted two simultaneous and contrasting patterns in its impact on gender equality in general and specifically, women's political leadership. On the one hand, it spotlighted the fragility of progress on gender equality, evidenced in the stunning reversal of gains made over decades in just two years. On the other hand, it highlighted that inclusive politics provides a template for effective governance while women's equal political participation offers pathways for policy change by establishing stronger social nets and systems for more resilient societies. The future is equal.