
Global Challenges Like Climate Change Cannot Be Addressed without Africa

KADDU SEBUNYA

ABSTRACT

Conservationists in Africa have created pockets of protected land for wildlife disconnected from the surrounding human communities. This disconnect has made conservation irrelevant for many Africans. For conservation efforts to succeed, they must be linked to the aspirations of Africans. Conservation is critical not only for boosting Africa's economic growth but also as a key element in tackling climate change. As population pressure on land increases, there is an even greater urgency today for conservation efforts. Although conservation has often been seen as separate from economic development, each in its silo, it should not be. When climate change is added as a third distinct silo, we miss important synergies. We need to bring down these silos and connect the dots if we are to find real and lasting solutions to global challenges.

AFRICA: AS SEEN FROM THE WESTERN LENS

The Western iconic image of Africa is a legacy of Hemingway's portrayal of a continent teeming with wildlife that is only good for hunting big game. Conservation efforts have been stuck here for decades. The legacy of Western conservation has been to *protect* nature, caricatured by a lion crouched in the open savannah while a majestic herd of elephants strolls in the distance. What is missing from this picture is people.

Over the past fifty years, the lion population in Africa has been cut

Kaddu Sebunya is CEO of the African Wildlife Foundation, an Africa-based global conservation organization protecting wildlife and their habitats.

in half, extirpated from at least 92 percent of their historic range-wide distribution; elephant numbers are less than one-half; and rhinos are one-third of their historic population.¹ All of this has happened in our lifetime and has been blamed to an extent on the protectionist approach adopted by conservationists.²

Forests are often seen as the best solution to climate change. Intense efforts and extensive resources have been expended in increasing and protecting forest cover, but that’s only part of the story. Healthy forests require more than trees. They operate as systems. Biodiversity plays a significant role in keeping the system balanced, including insects, baboons, and elephants.³

Africa has been adversely impacted by climate change. In 2023, the longest tropical cyclone on record, Cyclone Freddy, caused severe damage across Southern Africa.⁴ Flash floods in the Democratic Republic of

..... Congo and Rwanda killed thousands.⁵

The road to addressing climate change runs straight through Africa’s Congo Basin, spanning six countries and absorbing more carbon than the Amazon.

Droughts in East Africa and across the Sahel affected millions.⁶ While Africa grapples with the effects of climate change, it also holds solutions. The road to addressing climate change runs straight through Africa’s Congo Basin, spanning six countries and absorbing more carbon than the Amazon.

..... One-third of the critical minerals such as copper, nickel, lithium, and rare earth elements used in green energy technologies including electric car batteries, solar panels, wind turbines, and electricity networks are found in Africa.

AFRICA’S GROWING DEMOGRAPHIC

With an estimated 140 million people living in Africa in 1900, the continent made up 9 percent of the world’s population at that time.⁷ Today, it has more than tripled to 1.4 billion (equal to China and India), with projections showing that by 2050, Africa will be home to nearly 2.5 billion people—more than 25 percent of the world’s population.⁸ To meet the needs of those 2.5 billion people, Africa’s economies must grow. The path that growth takes and how the continent consumes will affect everyone on the planet. There are choices to be made. For example, what will Africa use for energy supplies? How will food be grown? How will people and goods be transported? Will development compromise essential ecosystem services?

In the last two decades, Africa has made tremendous technological advances, leapfrogging development stages in once unimaginable ways, particularly in telecommunications and banking. That same tectonic shift is needed in energy, transportation, industry and green manufacturing, agriculture, tackling urbanization, and much more. A balance must be struck between the need for growth and the attendant emissions.

Although countries have promised to cut emissions to limit global warming to 1.5 degrees Celsius (2.7 degrees Fahrenheit), progress has been frighteningly slow.⁹ Africa's fifty-four countries today make up between 3 to 4 percent of total emissions,¹⁰ but if Africa follows the recent path of China or India, it will not matter how much others reduce.¹¹ We are fast approaching the red line where there is no turning back.

THE CURRENT POLICIES ARE INADEQUATE

An increasing interface between people and nature is inevitable. In 2019, scientists issued a report that biodiversity loss was occurring at an alarming rate. "We are eroding the very foundations of our economies, livelihoods, food security, health, and quality of life worldwide," warned the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.¹² From this stark warning was born the 30x30 movement which was agreed to at the Convention on Biological Diversity in 2020. Since then, almost 200 countries have signed on to 30x30, including the United States, under the Biden administration in 2021.¹³

What does *protecting* 30 percent of land really mean? Does it mean completely closing it off to human use or allowing people to coexist with nature sustainably? Rwanda boasts a significant forest cover, enveloping over 30 percent of the country. Despite allocating 37 percent of its land for conservation, only 9 percent is formally recognized as protected areas. Notably, Rwanda, among the most densely populated African countries, faces the challenge of accommodating its population on roughly 70 percent of the land.¹⁴ This scenario could potentially heighten tensions in a nation that has diligently emphasized peace and stability, especially in the aftermath of one of the worst genocides in history.

The negotiations around the implementation of 30x30 must address poor planning and land uses that have led to human/wildlife conflict. Sustainable agricultural practices will have a better and immediate impact on protecting biodiversity than conservation alone, however well-intentioned.¹⁵ All this comes down to good land use planning and regulation. When development is planned in ways that value ecosystem services

and stabilize natural systems, we can achieve growth that leverages high-producing land for agriculture, creates space for people *and* wildlife, and harnesses nature while protecting fresh water and biodiversity.

.....

When development is planned in ways that value ecosystem services and stabilize natural systems, we can achieve growth that leverages high-producing land for agriculture, creates space for people and wildlife, and harnesses nature while protecting fresh water and biodiversity.

.....

to meet its agricultural needs but requires the right policies and sustainable farming methods.¹⁸

Africa's natural resources are more than adequate for its growth needs. For instance, the Democratic Republic of Congo alone can generate 100,000 MW of hydropower, enough to provide electricity for most of Africa.¹⁶ In agriculture, the continent could stop importing wheat from countries like Ukraine, Russia, the EU, and the United States if African farmers were to effectively improve yields within existing cereal production farmlands.¹⁷ Kenya, for instance, produced 271,000 metric tonnes of wheat in 2022 against a consumption of 2.1 million metric tonnes. The country has enough land

BIODIVERSITY AS A DRIVER OF GROWTH

Some African nations are successfully incorporating biodiversity into their national development plans, highlighting it as a crucial driver for economic growth. South Africa, for instance, has established a biodiversity economy strategy to harness the potential of businesses reliant on biodiversity or contributing to its conservation. In addition, an investment portal has been implemented, providing investors with up-to-date information on various biodiversity economy development projects and business and investment opportunities in the country. Similarly, countries such as Zimbabwe are joining this trend, as evidenced by the recently launched Zimbabwe Biodiversity Economy Report. This report establishes a foundational framework for the integration and growth of the biodiversity economy in the country.¹⁹

Another good example is lithium, a mineral abundantly found in Africa. There would be no electric cars and other green energy solutions without it. Today, unrefined lithium is extracted from African mines and then shipped to China, which uses it as a key component in Chinese-made

batteries.²⁰ However, producing batteries closer to lithium mines would not only save the greenhouse gasses emitted in transporting raw lithium, but would also have an enormous impact on Africa in terms of job creation, skills development, and economic growth. As it currently stands, China manufactures these batteries because they have the skills and technology to do so. However, car companies should be investing in Africa and transferring such technology as part of global efforts toward reducing emissions.²¹ Not only would this benefit Africa, but it would also diversify the supply chain of an element essential to green growth.

THE JACKSON HOLE SOLUTION

I recently spent some time in Jackson Hole, Wyoming, an affluent community near Grand Teton and Yellowstone National Parks. Almost 70 percent of Jackson Hole's economy revolves around the parks.²² The region's economy largely depends on nature.

Every small town near a national park in Africa can have a Jackson Hole-style economy. The Climate and Development Knowledge Network in Costa Rica has done this to some extent.²³ Nearby villages have museums, tea houses, and schools with research centers that employ rural communities. The economy is closely intertwined with nature, so biodiversity has economic value for the surrounding communities. To venture into the forest and kill wild animals is regarded as stealing from the community. Costa Rica demonstrates that when nature has a clear value for local communities, conservation can actually stimulate development and become part of economic growth.

Creating wildlife-based economies is not limited to tourism and services. For example, in Rwanda, bamboo is the main food for mountain gorillas and is plentiful throughout the Volcanoes National Park, where they roam. Rwanda wants to expand the park to support a growing gorilla population while boosting cottage industries based on bamboo as a raw material.²⁴ Today, outside of the park, people grow potatoes and small crops to sell for marginal income in local markets, but with population growth, the land available for agriculture is increasingly limited. Rwanda recognizes this.

The African Wildlife Foundation is working with the government of Rwanda on ways to balance land needed for agriculture and biodiversity while encouraging neighboring communities to promote value chains from bamboo. The joint project will generate employment through local manufacturing of bamboo furniture, purses, household goods, bamboo building supplies, and such.

The perception of Africa as a wildlife-rich continent often overshadows North America's historical biodiversity, exemplified by the once vast bison herds in the Great Plains. Human expansion in the 1800s led to a drastic decline in bison numbers, motivating Ted Turner—an American philanthropist more famous as the founder of CNN—to reintroduce them for ecosystem restoration, furthering his commitment to wildlife conservation through investments such as his renowned restaurant, where sustainable practices and wildlife preservation intertwine.²⁵ This effort extends beyond ecological importance, contributing to broader discussions on native species restoration and the interplay of wildlife and human development, with the substantial recovery of the bison population highlighting the positive impact of such initiatives on biodiversity and ecosystem health, shifting from a few hundred in the late 1800s to over half a million today. Equally important are the accompanying biodiversity economy opportunities that come along with the sustainable use of this bison population.

In Africa, the elephant is among the most beloved animals, though also one of the most dangerous. People in rural Africa often live in fear of being trampled by elephants while working in nearby fields or walking their children to school, sometimes displaying less concern for an elephant's life compared to the theft of their chickens. However, this mindset is changing, with local communities increasingly embracing wildlife as a source of value. Successful strategies in places like Botswana, Namibia, and Zimbabwe have increased elephant populations by involving communities in ownership and decision-making regarding wildlife and fostering awareness of the value of conservation efforts.²⁶ In Tanzania, community-owned wildlife management areas surrounding parks, such as Tarangire and Manyara, have not only boosted local community earnings and livelihoods but also reinforced the imperative of conservation efforts.

CARBON CREDITS

Carbon credits have the potential to connect value with nature. However, the current design of the carbon credits system gives undue power to the buyers and carbon credit brokers (primarily based in Europe, North America, China, and the Middle East, some of whom have gained notoriety for being unscrupulous)²⁷ who determine the price and amount of carbon units in a country and their price; they have no obligation to invest in the people who live in and care for the forest.

Carbon credits, like cassava or maize, need to be seen as a commodity. Make it part of National Development Plans and create an open system so

Africans can value carbon as they do other cash crops. Above all, make sure local populations caring for the forest derive benefits directly.

Integrating carbon projects with ongoing conservation initiatives is key. National carbon policy frameworks must be established to set clear operational rules, especially in benefit sharing. At the same time, governments and project leaders must invest in governance capacity for fair benefit distribution. To streamline processes, simplify verification and the buyer-seller chain, minimize costly consultant fees, and prevent undue influence by carbon brokers.

Integrating carbon projects with ongoing conservation initiatives is key.

THE WAY FORWARD

The world often looks at what it can do for Africa, but there are lessons Africa can offer about living more sustainably. Low GDP does not necessarily equate to poverty: we must look beyond statistics and try to understand African lifestyle, culture, norms, and relationships that indicate strong social ties and cultural norms central to our identity.

Africa certainly needs development, but it must refrain from seeing the Western model of industrialization as the only guide. If the world does not want increased emissions from Africa's growth, it must urgently transfer green technology to Africa.²⁸ Approximately 70 percent of carbon sequestration occurs in tropical regions, making Africa a key player in solving a global existential problem.²⁹ We need to harness win-win solutions by mobilizing funds for local-led action in areas with the potential for sequestration.

Africa, unfortunately, is one of the areas most affected by chronic droughts and unpredictable weather patterns. For years, Africa has been asking for climate adaptation and climate reparations, and rightly so, but such reparations need not be in cash—they can be in the form of technology transfer, building capacity and skills, investing in building green economies, and creating more trade-friendly regulations for African goods.

CONCLUSION

In the 1950s, my father's generation fought for independence, leading to the liberation of almost the entire African continent. My generation tried to play by the Western model for financial independence, but

our economic revolution failed. Today, Africa's youth are increasingly angry and unapologetic, rightly demanding a say on the global stage about their future. They are increasingly unwilling to accept the unfair agreements for natural resources that Africa was either forced to sign or that were agreed to under a corrupt dictator propped up by foreign forces. With Africa's

.....
With Africa's growing population, huge labor force, and markets, in addition to the continent's raw materials, Africa's inevitable growing influence is a positive cog in the wheel of the global economy.

growing population, huge labor force, and markets, in addition to the continent's raw materials, Africa's inevitable growing influence is a positive cog in the wheel of the global economy. It is a sentiment espoused by government leaders worldwide but often not backed by actions.

The choices, and opportunities, before us are clear. COP28 showed that we must find new models if we are to make meaningful progress before it is too late. It is a welcome sign that the

African Union is now included in the G20 where it can advocate for the continent's agenda on the world stage. I believe we can be a source of solutions to global climate challenges, but only if we find a way to bond conservation and development. *f*

ENDNOTES

- 1 Andrew Sorel, "World's Wildlife Down by Half Since 1970, Report Says," *U.S. News & World Report*, September 30, 2014, <https://www.usnews.com/news/blogs/daminate/2014/09/30/worlds-wildlife-down-by-half-since-1970-report-says>.
- 2 Samantha K. Nicholson et. al., "Socio-political and ecological fragility of threatened, free-ranging African lion populations," *Communications Earth & Environment* 4, no. 302 (2023), <https://doi.org/10.1038/s43247-023-00959-3>.
- 3 "Why is Biodiversity Important?," *The Royal Society*, accessed February 10, 2024, <https://royalsociety.org/topics-policy/projects/biodiversity/why-is-biodiversity-important/>.
- 4 Jacob Reed et al., "NASA Tracks Freddy, Longest-lived Tropical Cyclone on Record," *NASA Scientific Visualization Studio*, last modified November 15, 2023, https://svs.gsfc.nasa.gov/14312#section_credits.
- 5 Daisy Dunne, "Analysis: Africa's extreme weather has killed at least 15,000 people in 2023," *Carbon Brief*, October 25, 2023, <https://www.carbonbrief.org/analysis-africas-extreme-weather-have-killed-at-least-15000-people-in-2023/>.
- 6 "Drought affects 36.1 million people in East Africa," *ReliefWeb*, November 5, 2022, <https://reliefweb.int/report/somalia/drought-affects-361-million-people-east-africa#>.
- 7 Andrew Stanley, "The African Century," *IMF: Finance & Development* 60, no. 3 (September 2023), <https://www.imf.org/en/Publications/fandd/issues/2023/09/PT-african-century>.

- 8 “Africa Population (LIVE),” *Worldometer*, accessed February 2, 2024, [https://www.worldometers.info/world-population/africa-population/#:~:text=Africa%20Population%20\(LIVE\)&text=The%20current%20population%20of%20Africa,the%20latest%20United%20Nations%20estimates.](https://www.worldometers.info/world-population/africa-population/#:~:text=Africa%20Population%20(LIVE)&text=The%20current%20population%20of%20Africa,the%20latest%20United%20Nations%20estimates.)
- 9 Martha Henriques, “Climate Crisis: The 1.5C Global Warming Threshold Explained,” *BBC*, accessed February 7, 2024, [https://www.bbc.com/future/article/20231130-climate-crisis-the-15c-global-warming-threshold-explained.](https://www.bbc.com/future/article/20231130-climate-crisis-the-15c-global-warming-threshold-explained)
- 10 Lacour M Ayompe et al., “Trends and drivers of African fossil fuel CO2 emissions 1990–2017,” *Environmental Research Letters* 15, no. 12 (February 2021), [https://iopscience.iop.org/article/10.1088/1748-9326/abc64f.](https://iopscience.iop.org/article/10.1088/1748-9326/abc64f)
- 11 Olawunmi Ola-Busari et al., “How Africa can help drive global climate change solutions” *ONE Campaign*, last modified August 8, 2023, [https://data.one.org/data-dives/climate/.](https://data.one.org/data-dives/climate/)
- 12 “UN Report: Nature’s Dangerous Decline ‘Unprecedented’; Species Extinction Rates ‘Accelerating’,” *United Nations Sustainable Development* (blog), May 6, 2019, [https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/.](https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/)
- 13 Helen O’Shea et al., “Biden Administration Lays Out 30x30 Vision to Conserve Nature,” *Natural Resources Defense Council*, accessed February 7, 2024, [https://www.nrdc.org/bio/helen-oshea/biden-administration-lays-out-30x30-vision-conserve-nature.](https://www.nrdc.org/bio/helen-oshea/biden-administration-lays-out-30x30-vision-conserve-nature)
- 14 “Biodiversity,” *Rwanda Environment Management Authority*, accessed January 25, 2024, [https://www.rema.gov.rw/our-work/link/biodiversity.](https://www.rema.gov.rw/our-work/link/biodiversity)
- 15 Seid Hussen Muhie, “Novel approaches and practices to sustainable agriculture,” *Journal of Agriculture and Food Research* 10, no. 100446 (December 2022), [https://doi.org/10.1016/j.jafr.2022.100446.](https://doi.org/10.1016/j.jafr.2022.100446)
- 16 Makhtar Diop, “Powering Africa’s Renewable Energy Revolution,” World Bank Blogs, accessed February 7, 2024, [https://blogs.worldbank.org/nasikiliza/powering-africa-s-renewable-energy-revolution.](https://blogs.worldbank.org/nasikiliza/powering-africa-s-renewable-energy-revolution)
- 17 Bitsat Yohannes-Kassahun, “One Year Later: The impact of the Russian conflict with Ukraine on Africa,” *Africa Renewal*, February 13, 2023, [https://www.un.org/africarenewal/magazine/february-2023/one-year-later-impact-russian-conflict-ukraine-africa.](https://www.un.org/africarenewal/magazine/february-2023/one-year-later-impact-russian-conflict-ukraine-africa)
- 18 Africa Check, “How Much Wheat Does Kenya Produce and Consume?,” Info Finder, accessed February 10, 2024, [https://africacheck.org/infofinder/explore-facts/how-much-wheat-does-kenya-produce-and-consume.](https://africacheck.org/infofinder/explore-facts/how-much-wheat-does-kenya-produce-and-consume)
- 19 Ministry of Environment, Climate, Tourism and Hospitality Industry, “Zimbabwe Biodiversity Economy: Status Report, Investment Blueprint and Framework for National Capital Accounting,” Government of Zimbabwe, May 2023, [https://www.awf.org/sites/default/files/2023-09/ZBE%20Report%20Final%20Copy%20-%20080923.pdf.](https://www.awf.org/sites/default/files/2023-09/ZBE%20Report%20Final%20Copy%20-%20080923.pdf)
- 20 “A rush for Lithium in Africa risks fuelling corruption and failing citizens,” Global Witness, November 14, 2023, [https://www.globalwitness.org/en/campaigns/natural-resource-governance/lithium-rush-africa/.](https://www.globalwitness.org/en/campaigns/natural-resource-governance/lithium-rush-africa/)
- 21 David Iaconangelo, “U.S. strikes at China with EV battery deal,” *E&E News*, January 20, 2023, [https://www.eenews.net/articles/u-s-strikes-at-china-with-ev-battery-deal/.](https://www.eenews.net/articles/u-s-strikes-at-china-with-ev-battery-deal/)
- 22 Jackson Teton County Comprehensive Plan, “2011 Jackson Hole Compass,” *Jackson Hole News & Guide* (2011): 6-7, <https://jacksontetonplan.com/DocumentCenter/View/1328/2011-Jackson-Hole-Compass?bidId=>

- 23 Ilmi Granoff et al., “Bridging Costa Rica’s green growth gap: How to support further transformation toward green economy in Costa Rica,” *Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH* (September 2015), <https://cdkn.org/sites/default/files/files/9997.pdf>.
- 24 Hannah Nielsen et al., “The success of tourism in Rwanda - Gorillas and more,” *World Bank and SNV* (April 2010): 14-15, https://www.researchgate.net/publication/286013202_The_success_of_tourism_in_Rwanda_-_Gorillas_and_more_Background_paper.
- 25 Todd Wilkinson, “The Power Of Bison As Muses And Sustenance For Social Change,” *Mountain Journal*, November 6, 2019, <https://mountainjournal.org/ted-turner-uses-bison-to-make-green-waves-in-american-restaurant-industry>.
- 26 David Cumming et al., “Elephants in Southern Africa: Management Issues and Options,” *WWF-SARPO Occasional*, May 11, 2005, 11, https://d2ouvy59p0dg6k.cloudfront.net/downloads/cumming___jones___2005___elephants_in_sthn___africa___mgmt_options___issues___wwf_sarpo_occ_.pdf.
- 27 Heidi Blake, “The Great Cash-for-Carbon Hustle,” *The New Yorker*, October 16, 2023, <https://www.newyorker.com/magazine/2023/10/23/the-great-cash-for-carbon-hustle>.
- 28 Lyes Bouchene et al., “Africa’s Green Manufacturing Crossroads: Choices for a Low-Carbon Industrial Future,” *McKinsey & Company*, September 2021, <https://www.mckinsey.com/capabilities/sustainability/our-insights/africas-green-manufacturing-crossroads-choices-for-a-low-carbon-industrial-future>.
- 29 Robert Mendelsohn et al., “Chapter 5. Forest Carbon Sequestration,” in Ruud A. de Mooij et al., *Fiscal Policy to Mitigate Climate Change* (Washington D.C. : International Monetary Fund, 2012), 218.