



ENVIRONMENTAL CHALLENGES IN AFRICA

By

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1. Introduction

Current continental policies in Africa are focused on sustainability. From trade to transportation, energy to agriculture and investments, sustainability is at the forefront of African policy conversations. Both the United Nation's (UN) Sustainable Development Goals (SDGs) and the African Union's (AU) Agenda 2063 highlight the importance of environmentally sustainable and climate resilient economies and communities.² Both goal propositions implicitly understand that presently, Africa's environment is not managed in a sustainable manner, and this has made it susceptible to further socioeconomic and socio-political issues affecting the continent. For example, Africa is at the forefront of areas adversely impacted by climate change, despite its negligible addition to global carbon emissions.³ The effects on climate change on land, agriculture, and urbanization has heightened latent security concerns, affected African economies and social structures and

influenced global migration patterns. It is therefore important to understand some of the environmental challenges affecting Africa and why addressing them may prove difficult.

2. An Overview of Africa's Environmental Challenges

Issues affecting the degradation of the environment generally fall under three major heads – pollution (air and water), climate change and land degradation.

Air Pollution

Household and ambient air pollution are major environmental concerns on the continent, with serious health implications.⁴ According to the World Health Organisation (WHO), air pollution is the world's largest single environmental health risk.⁵ In 2019, it accounted for 1.1 million deaths across the African continent.⁶ Household air pollution remains the predominant form of air pollution, though it is declining, and ambient

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² African Union, *Linking Agenda 2063 and the SDGs*. Retrieved March 1, 2022, from <https://au.int/agenda2063/sdgs>

³ Adelle, C., (2016, February 10). *How Africa can up its game to meet environmental challenges*. Retrieved March 1, 2022, from <https://theconversation.com/how-africa-can-up-its-game-to-meet-environmental-challenges-54204>

⁴ Fisher, S, et. al, (2021). *Air pollution and development in Africa: impacts on health, the economy and human capital*. Lancet Planet Health Vol. 5, pp. e681-e688. Retrieved March 1, 2022, from <https://www.thelancet.com/action/showPdf?pii=S2542-5196%2821%2900201-1>

⁵ Roy, R. (2016, September). *The cost of air pollution in Africa*. OECD Development Center Working Paper No. 333. Retrieved March 1, 2022, from https://www.un.org/africarenewal/sites/www.un.org.africarenewal/files/The_cost_of_air_pollution_in_Africa.pdf

⁶ Fisher, S, et. al, (2021). *Air pollution and development in Africa: impacts on health, the economy and human capital*. Lancet Planet Health Vol. 5, pp. e681-e688. Retrieved March 1, 2022, from <https://www.thelancet.com/action/showPdf?pii=S2542-5196%2821%2900201-1>





air pollution is experiencing a steady increase on the continent.⁷ Household air pollution occurs as a result of using unsustainable energy sources indoors such as biomass, kerosene and charcoal for household activities like cooking, heating and power.⁸ It is predominant in rural areas and low income communities. Ambient air pollution on the other hand is driven primarily by urbanization and its sources include electricity generation, industrial emissions, vehicular exhaust, windblown dust, and crop burning.⁹ Other causes of air pollution in Africa include Saharan dust storms and forest fires.

Water Pollution

Water insecurity is a grave concern on the African continent. Access to clean, portable and affordable drinking water is not universal and represents an environmental and developmental issue.¹⁰ Both the UN SDG Goal 6 and the African Union Agenda 2063 address water insecurity as a fundamental development goal. Water pollution is directly linked to water insecurity. In the African context, pollution-causing water insecurity occur from activities in the agricultural sector, the mining sector, deforestation, rapid urbanization and poor sanitary practices. These events have made

Africa a major water-risk area and have resulted in contamination of the freshwater sources on the continent.

Climate Change

Africa is at the forefront of the global climate change crisis. It is the continent most vulnerable to the effects of climate change and least capable of mitigation and adaptation. It is also the continent with the least global emission contribution to the problem of climate change, yet its effects are devastating, severe and present. Africa is particularly vulnerable to climate change as a significant part of its population is dependent on land for livelihood and survival. Variable climate and increased severe weather conditions have disrupted the socioeconomic conditions and ecological systems in Africa. It is estimated that by 2030, over 100 million Africans living in extreme poverty will be subject to extreme weather conditions from climate change including drought, flooding, and extreme heat.¹¹ With more than 60% of Africa's population reliant on rain-fed agriculture, climate change destabilizes local markets, increases food insecurity and limits economic growth on the continent.¹² Climate change also has implications for

⁷ *Id.*

⁸ World Health Organization, (2021, September 22). *Household air pollution and health*. Retrieved March 1, 2022, from <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>

⁹ Fisher, S, et. al, (2021). *Air pollution and development in Africa: impacts on health, the economy and human capital*. Lancet Planet Health Vol. 5, pp. e681-e688. Retrieved March 1, 2022, from <https://www.thelancet.com/action/showPdf?pii=S2542-5196%2821%2900201-1>

¹⁰ Holtz, L & Golubski, C. (2021, July 23). *Addressing Africa's extreme water insecurity*. Retrieved March 1, 2022, from <https://www.brookings.edu/blog/africa->

[in-focus/2021/07/23/addressing-africas-extreme-water-insecurity/](https://www.brookings.edu/blog/africa-in-focus/2021/07/23/addressing-africas-extreme-water-insecurity/)

¹¹ World Meteorological Organization, (2021, 19 October). *Climate change triggers mounting food insecurity, poverty and displacement in Africa*. Retrieved March 1, 2022, from <https://public.wmo.int/en/media/press-release/climate-change-triggers-mounting-food-insecurity-poverty-and-displacement-africa>

¹² Ray, C. (2021, October 29). *The impact of climate change on Africa's economies*. Retrieved March 1, 2022, from <https://www.fpri.org/article/2021/10/the-impact-of-climate-change-on-africas-economies/>





security in Africa.¹³ Adaptation to severe weather patterns leads to overuse of existing sources and depletion of resources, which in turn leads to increased tensions between communities. Communities around the Lake Chad basin, which has shrunk in size by over 90% have seen increased criminality as well as migration to urban centres as a result.¹⁴ Climate change is also regarded as a crisis amplifier and multiplier as it exacerbates existing communal tensions through its adverse effects on resources.

Land Degradation

Approximately two-third of Africa's productive land is degraded and has lost productive capacity to some extent.¹⁵ For a continent whose majority is dependent on land, this is a socioeconomic, ecological and security issue. Africa's land degradation concern is driven by years of overgrazing, inappropriate agricultural practices, severe weather events, deforestation, and the conversion of forests in agricultural farmland. With climate change, population growth and increased life expectancy, these events will continue to increase. Furthermore, Africa suffers from rapid and increased desertification, with over 45% of African land affected by it.¹⁶ Land degradation has direct impacts on crop production, food security, grazing and human security.

3. Fostering a Continental Workable Solution to Africa's Environmental Challenges

Africa's environmental challenges have resulted in socioeconomic issues such as urban and cross-border migration, inter-state security challenges, continental food security. These concerns are not restricted to any particular state or region but cut across the entire continent. However, differing state interests and dysfunctional governance systems have resulted in fragmented solutions to the problem. Sustainable environmental development requires integrated solutions that are local, national, regional and continental. Environmental concerns do not respect political borders and effects are generally transnational. Increasing desertification and land degradation has significantly reduced the amount of farmable and grazable lands resulting in competing interests in land. The competing land interests have resulted in increased tensions and violent conflict between the communities where these interests lie. Oftentimes those communities are not from the country. This means that solutions must be integrated across borders and yet be locally relevant to be sustainable. The African Union and other African regional organizations have important roles to play in formulating regional and

¹³ The Africa Center for Strategic Studies, (2021, October 29). *How Global Warming Threatens Human Security in Africa*. Retrieved March 1, 2022, from <https://africacenter.org/spotlight/how-global-warming-threatens-human-security-in-africa/>

¹⁴ *Id.*

¹⁵ Hughes, K. (2020, October 4). *Key insights into land degradation from seven African countries*. Retrieved March 1, 2022, from

<https://theconversation.com/key-insights-into-land-degradation-from-seven-african-countries-146449>

¹⁶ UN Environment Programme, (2015, October). *The economics of land degradation in Africa*. Retrieved March 1, 2022, from <https://www.unep.org/resources/report/economics-land-degradation-africa-benefits-action-outweigh-costsa-complementary>





continental solutions to Africa's environmental challenges.

Sustainable solutions must also be inter-related covering economic, social, ecological, physical, and political.¹⁷ A major concern with Africa and climate change is the fact that its adaptive capacity is hindered by poor national economies. Climate mitigation and adaptation in particular and environmental development in general require financing, investment and innovation which are foundations of thriving economies. In fact, African countries are less likely to promote and implement sustainable environmental development, where it affects economic growth and overburdens government spending, especially for lower income countries. Sustainable solutions must therefore balance the economic, social, ecological and political interests. Environmental financing should support innovation directly. Financing should target businesses that are providing solutions for these problems. Developmental financing to nations should be tied to results to drive implementation. Incentives should be created (locally and internationally) for local private investors to support these solutions. For example, the capacity for African businesses to participate in the international carbon trading market is an incentive for the development and financing of businesses providing green solutions.

Regulatory solutions must be backed by implementation processes, regular reporting mechanisms and timeframes within which regulatory goals must be achieved. Implementation processes must include

regulatory enforcement and information collection and tracking systems. For environmental challenges, this usually requires that the regulator directly or indirectly tracks and keeps record of changes in environmental phenomena. This is especially important for environmental challenges such as air and water pollution. Tracking ambient air pollution is important in setting standards that are workable, achievable, and reasonable in light of present pollution statistics. Regulatory solutions must be supported by earmarked funds from government budgets to fund them. Earmarking specific funding restrains successive administrations from reviewing budgetary allocations to the sustainable development and keeps it as a uniform goal regardless of the socio-political situation in a particular country.

4. Conclusion

Africa's environmental challenges are significant and require urgent attention. Pollution, climate change and land degradation are some of the most significant environmental challenges on the continent. Africa is struggling to address issues of food and energy security as well as rapid urbanization, while at the same time facing rapid environmental degradation. In attempting to solve the problems of food and energy security and urbanization, the traditional means adopted to address them have generally ignored environmental health concerns and resulted in further degradation. The pursuit of sustainable solutions requires that they be continental facing and integrated across different sectors. Proper regulation is also an important facet of sustainable solutions to

¹⁷ Walker, M. (2021, August 25). *The social and economic effects of climate change in Africa*. Retrieved March 1, 2022, from

<https://www.wilsoncenter.org/blog-post/social-and-economic-effects-climate-change-africa>





Africa's environmental challenges. Addressing environmental challenges has to be the forefront of African policy due to its effects on other socio-political and socio-economic issues on the continent.

