Effective Leadership as a Panacea for Climate Change Mitigation and Adaptation in Africa

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Abstract

Addressing climate change has become a top priority for the entire world because without urgent action, calamitous consequences are inevitable. This will result in humans paying a heavy price in the areas of food security, water resources and public health. Although Africa as a continent contributes less to global emissions, evidence shows that it is one of the most severely affected regions of the world. It is predicted that climate change will produce both social and political problems for Africa, weakening states and societies in the process. This will inevitably threaten economic and political stability on the continent. Having said this, what is disheartening is that the current climate change agenda continues to fail Africa. Time has come for the continent to engender the leadership necessary to deal with climate change in a sustainable way. Although research has shown leadership as a significant component in the mitigation of and adaptation to climate change, effective leadership continues to be elusive in Africa, more than six decades after the first country gained political independence. Despite the continent being blessed with both human and natural resources in abundance, it has unfortunately been plagued for a long time with poor, and ineffective leadership. There is need for transformational leaders who will advocate for substantial change in existing institutional and societal values in terms of ecologically sustainable practices. Mitigating climate change in Africa requires courageous leaders who are able to make decisions that maybe inconvenient in the short term. Innovative leaders should recognise and vigorously promote a shift from fossil fuels to renewable energy sources.

Key words: Africa; Climate Change; Effective leadership; Leadership.

1.1   Introduction

Addressing climate change has become a top priority for the entire world because without urgent action, calamitous consequences such as heat waves, floods, droughts and a substantial loss of biodiversity are inevitable (Raimi, Vivien & Oluwatoyin, 2021). Humans will pay a heavy price in the areas of food security, water resources and public health. Although climate change is a global threat, evidence shows that Africa will be the one severely affected. According to the Mo Ibrahim Foundation (2022) the ten most climate vulnerable countries in the world are found in Africa. These countries account for 20.1 percent of the continent's population.

Climate change will produce both social and political problems for Africa, weakening states and societies in the process (Tadesse, 2010). This may resultantly threaten economic and political stability on the continent. However, what is disheartening is that the current climate agenda continues to fail Africa (Mo Ibrahim Foundation, 2022). As such, Africa needs to urgently put its house in order and engender the leadership necessary to deal with climate change in a sustainable way. The following is a conceptual discussion which situates effective leadership as a panacea for climate change mitigation and adaptation in Africa. The discussion will proceed as follows; firstly, climate change and its effect of the continent of Africa will be discussed. This will be followed by a discussion of leadership in Africa. Finally, the paper will present leadership as a necessary tool for dealing with climate change in Africa.

1.2   Climate Change and its effect on Africa

Climate change has been categorised as the 21st century's leading human and environmental crisis (Tadesse, 2010). It is complex and poses significant threats to the environment, society and the global economy (Mirzabaev, 2023). Climate change has been caused by both human (anthropogenic) and natural causes (Tiamiyu & Salman, 2021; Christian, 2012). Human activities such as the burning of fossil fuels and deforestation are the key drivers of climate change (Shivanna, 2022). It is estimated that climate change will result in the loss of up to a third of the world's plant and animal species (Tadesse, 2010). Its effects are evident through extreme weather patterns and rising global temperatures (Shivanna, 2022). "The accumulation of greenhouse gases in the Earth's atmosphere traps heat and disrupts the natural balance, leading to a rise in global temperatures" (Moleka, 2023, p. 1).

The sea level has significantly risen due to the indiscriminate melting of the arctic ice cap. The world has been gradually experiencing extreme weather conditions resulting in several species of animals and plants becoming extinct (Christian, 2012). The continent of Africa has not been spared; It has been grappling with rising sea levels, changing rainfall patterns, higher temperatures and increased climate variability, all due to climate change (Tadesse, 2010). Temperatures have been increasing faster in Africa than the global average and projections are that they will continue to do so during the rest of the 21st century (Mo Ibrahim Foundation, 2022).

Although Africa contributes the least to the world's environmental challenges, it is the most vulnerable (Walker, 2022). The continent has accounted for only 3.3 percent of global emissions between 1960 and 2020 (Mo Ibrahim Foundation, 2022). This is in contrast with continents such as Asia, Europe and North America which have accounted for over eight times the carbon of Africa individually. Of all the world regions, Africa is the one most affected by droughts and the second most affected by floods (ibid). These climate change effects have become frequent relegating many people into extreme poverty.

One sector in Africa that is influenced and highly dependent on climate change is the water resource sector (Tadesse, 2010). Due to insufficient and unreliable rainfall, a number of African countries are experiencing water stress. As the population of Africa is expected to increase to approximately 1.5 billion by 2050 (ibid), the demand for water is also expected to increase significantly against a depressed supply constrained by climate change. Agriculture which is a source of livelihood for approximately three-quarters of people in Africa is rain fed. Protracted and severe droughts, floods and loss of arable land as a result of desertification and soil erosion will have devastating effects on the continent and its people.

Climate change is projected to relegate approximately 600 million people into malnutrition by 2080 (UNDP, 2008) and it is an open secret that the majority of them will be in Africa. The world has begun to experience skyrocketing food prices which are negatively affecting mainly the vulnerable and the poor and throwing many especially in Africa into severe hardship. The continent also faces the challenge of balancing access to energy and climate protection. The largest energy gap globally is

found in Africa. Over 600 million people in Africa still lack access to electricity (Mo Ibrahim Foundation, 2022).

There exists a connection between climate change and conflict (Tadesse, 2010). Climate change has been categorised as a threat impacting human security in a substantial way especially in the developing nations (Lyons Jr., Kulkarni & Dutil, 2021). As indispensable resources such as water and food continue to be threatened by climate change especially in fragile states, the majority of which are found in Africa, their scarcity can serve as an antecedent to conflict. There is also danger that terrorists may exploit the scarcity of these valuable resources and unleash terror on communities through physical destruction of water infrastructure, chemical contamination and cyber-attack.

It is not in dispute that Africa as a continent has been bearing the brunt of these consequences with many people suffering increased poverty, water scarcity and food insecurity. If urgent steps are not taken, the continent will continue to be severely affected, reversing some of the developmental gains that had been achieved and throwing many people into abject poverty and insecurity. The continent is in need of effective leadership across both sectors and governance levels (Torney, 2019). Moleka (2023) is of the view that transformative leadership is necessary to mitigate the causes of climate change and adapt to its consequences.

1.3   Leadership in Africa

The development of any society is dependent on the nature of its leadership (Solomon, Okolie, Nwamuo, Ifeanyi, Ogbonnaya, Anyanwu & Okezie, 2023). Good and effective leadership is a prerequisite for the progressive and common good of any society. This is succinctly captured by the popular saying that "the rise and fall of any society is largely dependent on leadership". Although Africa has been largely blessed with both human and natural resources in abundance, it has been for a long time plagued by a calamity of poor, selfish and ineffective leadership.

With over six decades since the first African nation gained political independence, effective leadership continues to be elusive with a few exceptions (Nemashakwe, 2021). Negative labels such as corruptocracies, chaosocracies and terrorocracies continue to be attached to the continent signaling failed leadership (Van Wyk, 2007). Leadership has been singled out as one of the greatest obstacles impeding

development and exacerbating poverty on the continent (Moghalu, 2017; Poncian & Mgaya, 2015; Ebegbulem, 2012). The continent wallows in poverty today because her leaders have made a terrible decision of choosing poverty over development (Mills, 2011).

Leadership involves directing and influencing people towards a desired path (Solomon et al., 2023). It encompasses persuading followers to set aside their selfish interests in support of the collective good (Hogan & Kaiser, 2005). However, this is problematic in Africa where the majority of the leaders are selfish and self-centered. Their attempts to convince others to set aside their selfish quests for the common good will only be met with contempt. The quagmire of ineffective leadership rampant on the continent should not be blamed solely on the leaders but followers should also shoulder part of the blame since they are indifferent when it comes to holding their leaders accountable (Poncian & Mgaya, 2015).

Tiamiyu & Salman (2021) argues that the majority of human beings are not visionary and are in the habit of making decisions based on present considerations without considering future circumstances. This is why they need leaders who should lead them to where they should be as opposed to where they want to be. Although humans on average are aware of the fact that their continued usage of fossil fuel energy make greenhouse gases to be trapped in the atmosphere with devastating climate change effects, they lack any appetite to change their lifestyle actions because of present gratification and economic reasons. This is the reason why visionary leadership is necessary to show the majority where they should be for the common good. Leaders should have the ability to coordinate followers effectively resulting in the realisation of the common good (Njoku, 2019).

The development of Africa has been persistently affected by poor leadership (Solomon et al., 2023). For a long time, the continent has gained fame as a poster child of underdevelopment, poverty, insecurity and crisis. Unlike other continents, Africa has dismally failed to lift herself and her citizens because of leadership deficiencies (Nemashakwe, 2021). Ravallion & Chen (2004) believe that sub-Saharan Africa is the only region that has become poorer in the last generation. Leaders continue to shy away from making tough and difficult decisions which benefit the continent

(Nemashakwe, 2021). This is despite the trumpeting of the 'African solutions to Africa's problems' mantra.

The majority of political leaders in Africa are involved one way or another in massive corruption and misappropriation of funds (Mbah, 2013). They are heavily caught up in the culture of plunder and power intoxication. The majority of men and women who have presided over the affairs of the continent since the dawn of independence more than six decades ago have plundered their motherland more than they have built it (ibid). Through endemic corruption, clientelism, power politics and patronage, African leaders have been on the forefront of destroying the continent, competing with one another to make Africa a dark continent. This has negatively affected the development of the continent and resultantly the mitigation of crises such as climate change and the Covid-19 pandemic.

Research has shown leadership as a significant component in the mitigation of and adaptation to climate change (Benulic, Kropf, Linner & Wibeck, 2021). In order to tackle climate change in Africa, there is need for comprehensive societal transformation aimed at making society different from what it is today (Linner & Wibeck, 2019). Research has also shown that achieving such transformation requires collaborations that have never been seen before between government, business, non-state actors and communities (Kuenkel, 2019).

Leaders are agents of change who are important for climate change mitigation and adaptation. Effective leaders prioritise long-term sustainability over short term benefits (Chanda & Chitondo, 2024). The fact that the world is bedevilled with numerous socio-economic challenges, the majority of which are a direct result of greed, Nicolaides & Duho (2019) are of the view that organisations and nations are in need of strong leaders who are ethical and great supporters of ethical conduct and practice. However, many African countries lack ethical and visionary leaders (Chanda & Chitondo, 2024). As such, this deficit in leadership in Africa is negatively affecting efforts to curtail climate change (Tiamiyu & Salman, 2021). The next section will situate leadership as a necessary tool for dealing with climate change.

1.4   Leadership as a necessary tool for dealing with climate change in Africa

Climate change is a collective action problem which calls for numerous actors to join forces to attain a common goal. Its complexity mostly pronounced in Africa calls for a

more fluid and dynamic leadership approach, combining different leader types and leadership models (Nhamo, 2009). The continent is in need of more transformational leaders in order to combat the scourge of climate change. These are leaders who have the capacity to bring about change (Auriacombe & Jarbandhan, 2015). These leaders are expected to advocate for substantial change in existing institutional and societal values in terms of ecologically sustainable practices. They will inspire others with a vision and promote innovation in environmentally friendly products and technology.

Transformational leaders should establish long-term sustainable environmental vision for their organisations and society. Portugal & Yukl cited in Egri and Herman (2000, p. 576) identified transformational leadership actions necessary for environmental leadership as "articulating an appealing vision with environmental actions, changing perceptions about environmental issues, and taking symbolic actions to demonstrate personal commitment to environmental issues".

Mitigating climate change in Africa requires courageous leaders who are able to make decisions that may be inconvenient in the short run (Benulic et al., 2021). Although the continent contributes the least to the causes of climate change, it is the most vulnerable. This requires leaders who are courageous and demand action not just rhetoric from industrialised nations and her leaders. They should also be able to prioritise and make sound decisions in instances where public support may be lacking.

There is need for leadership that not only understands but cherishes the value of collective action to achieve economic progress and societal well-being (Adams, Heijltjes, Jack, Marjoribanks & Powell, 2011). African leaders need to cooperate with multiple stakeholders inside and outside the continent in order to mitigate the deadly effects of climate change. The continent critically needs enablers who are able to bring diverse parties to the table and create the necessary conditions for interaction (Meijerink, Stiller, Carina, Keskitalo, Scholten, Smits & van Lamoen, 2014). These leaders should go beyond connecting people and ideas but recognising and exploiting opportunities to generate financial resources necessary for climate change adaptation.

The collaboration involving innovative leaders, academics, businesses and government entities in Masdar City, Abu Dhabi created an ecosystem of innovation which promoted sustainable practices and technologies (Lau, 2012). This resulted in innovative solutions such as the extensive use of solar energy, energy-efficient

buildings and all-inclusive waste management system being implemented resulting in a momentous reduction in greenhouse gas emissions (Manghnani & Bajaj, 2014). Climate change mitigation requires leaders who have the capacity and willingness to challenge traditional boundaries and foster new methods of cross organisational relationships and partnerships (Adams et al., 2011).

Time has come for innovative leaders to drive sustainable solutions and create a transformative impact on climate change (Moleka, 2023). Africa at the present moment requires visionary, creative and forward-thinking leaders with a deep comprehension of the interrelated nature of climate change and its implications in all the sectors. These individuals should rise above traditional models and go beyond conventional thinking to propose innovative ways of mitigating and adapting to climate change. They should inspire and empower followers and institutions to challenge traditional assumptions, think critically and adopt novel and sustainable practices (Fry & Egel, 2021).

Innovative leaders will recognise and vigorously promote a shift from fossil fuels to renewable energy sources (Moleka, 2023). The continent is in need of men and women who develop pathways for the acceptance of clean energy technologies and lead initiatives to increase the generation capacity of clean energy. It is the responsibility of leaders to champion policies that support renewable energy. Leaders in Costa Rica collaborated with private sector entities to transition the country's energy sector to renewable sources such as wind, solar and hydroelectric power. Araya (2016) reported that Costa Rica generates nearly 100 percent of its electricity from renewable sources mainly because of her visionary leadership.

In Africa, Morocco's visionary leadership spearheaded the country's transition from fossil fuels towards clean energy by investing massively in solar and wind power, resulting in renewable energy generation capacity being enhanced and greenhouse gas emissions being reduced (Ryser, 2019). This noble initiative did not only mitigate climate change but also availed opportunities for job creation and economic growth in the renewable energy sector. With visionary leadership the whole of Africa may gradually transition towards renewable energy sources. The continent possesses 30 percent of the global mineral reserves which will be critical to renewable and low carbon technologies (Mo Ibrahim Foundation, 2022). Morocco's successes in wind and solar energy may be replicated across the continent taking into consideration the

amount of sunlight that the continent receives as compared to other continents and the fact that Africa is only currently utilising 0.01 percent of its wind power potential (ibid). What is only needed is effective leadership backed by hardwork to make the dream a reality.

However, while achieving net-zero emissions is a noble global goal, the debate should not happen in isolation, but should balance net-zero emission with Africa's access to energy and energy security. Although Africa accounts for 17 percent of the world's population, on the other hand, it only accounts for 5.9 percent of the world's energy supply (Mo Ibrahim Foundation, 2022). Over 600 million people in Africa still lack access to electricity in Africa (ibid). People residing in Africa's rural areas do not even understand net-zero because they do not even have access to electricity. Those who lack electricity will continue to use sources they consider to be cheaper such as coal, the burning of wood and defecation of animals irrespective of their effect on the climate (Tiamiyu & Salman, 2021).

Climate change has demonstrated devastating effects on both people and the environment. As such, leaders should cultivate the values of universalism and benevolence (Auriacombe & Jarbandhan, 2015). Leaders who espouse the value of universalism show a high concern for the welfare of both people and the environment. Benevolent leaders deeply care for other people. With these values in mind, rather than using resources for selfish ends, African leaders across the board must channel resources in ways that motivate communities to take actions that mitigate climate change. The world is in great need of leaders who critically self-reflect and give voice to values thoughtful of societal needs. Leaders should be able to determine the connection between the decisions they make and the values they hold.

Adams et al. (2011) are of the view that the traditional command and control models of leadership have become obsolete. Top-down directing for a continent facing unprecedented challenge of climate change is ill-conceived. What has dominated leadership thinking since The Prince by Machiavelli in 1514 will not work for the 21st century and beyond. Modern society requires people who are innovative and who think critically.

It is the responsibility of leaders to embrace and encourage others to embrace the principles of the circular economy. This will result in resource use being maximised

through recycling, reusing and repurposing, and at the same time the minimisation of waste (Velenturf & Purnell, 2021). This calls for the development of circular business models together with providing incentives for industries to adopt sustainable practices.

The continent has to move away from the trade model of the past where raw commodities were exported. Contemporary wisdom demands the upgrading of the value chain by processing raw commodities locally (Mo Ibrahim Foundation, 2022). This will not only strengthen ownership but also control well the environmental impact of manufacturing and production chains. To achieve this, there is need for visionary leaders who are transparent and accountable especially in the process of resource extraction and trade. Transparence, accountability and good governance must be pre-requisites in order to avoid corruption, resource losses, ecological disasters, human rights violations and resource-driven conflicts – ills that are rampant in Africa.

In order to address climate change and make the earth a better habitation place for all mankind, Tiamiyu & Salman (2021) advocates for the education and persuasion of all leaders to become humane and relate with all human race as one. The leaders should be grounded in the philosophy of ubuntu (Nemashakwe, Zinyemba & Gumbe, 2023). They should allow people to freely express themselves without fearing negative retribution. When different opinions are expressed, African leaders should learn to embrace the divergent views that emerge. This is the only way for the continent to engender novel ideas that will assist in dealing with crises that bedevil the motherland.

Leadership is about influencing others towards the achievement of common goals. Effective leaders should influence people towards nature-based initiatives aimed at mitigating climate change (Moleka, 2023). These initiatives should include but not limited to afforestation, reforestation, restoration of wetlands, creation of urban green infrastructure and ecosystem restoration aimed at enhancing carbon sequestration, biodiversity conservation and climate resilience. Leaders should assume the responsibility of being environmental stewards (Chanda & Chitondo, 2024). They need to prioritise environmentally sustainable policies and practices which protect natural resources and address climate change.

In Africa where climate change will have long-term impacts such as changing rainfall patterns resulting in a negative effect on agriculture and food security, visionary leaders should identify and fund novel ways of increasing the availability and reliability

of water in agriculture in order to wean the continent from an overdependence on rain-fed agriculture. Tadesse (2010) talks of massive investments in irrigation to increase productivity and reduce poverty. Astute leaders should support the research and development of climate -smart technologies aimed at offering practical solutions for adaptation. These technologies include early warning systems for extreme weather events and precision agriculture techniques for optimising water use. This is welcome in a continent which faces the worst climate-related security risk, of which the majority are linked to water (Mo Ibrahim Foundation, 2022).

Innovative leadership from Ethiopia's Tigray Regional Government led to the implementation of the Tigray Community - Based Integrated Watershed Development Project (Reda & Gidey, 2021). This project involved strategies such as reforestation, building of small-scale water harvesting structures and water and soil conservation structures which resulted in the restoration of degraded lands, improved water availability and enhanced agricultural productivity. As a result of effective leadership, communities were made resilient to climate change impacts.

Rather than putting all their focus and energy on mitigation, African leaders should fight for climate change adaptation. Currently the global climate change agenda is tilted towards climate change mitigation with the goal of achieving carbon-neutral economies (Mo Ibrahim Foundation, 2022). However, with Africa accounting for 3.3 percent of global emissions, her priority should be adaptation which has not received the same focus and commitment globally. African leaders should push for global financing to be disbursed more to less developed countries for mitigation purposes as compared to the current scenario where the majority of the funds find their way to industrialised middle income countries. Key negotiating skills are needed for African leaders to persuade and convince their global counterparts especially those from the Global North and high carbon-emitting countries to accept the responsibility of compensating developing countries which have been adversely affected by climate change they did little to cause.

1.5   Concluding remarks

Gone are the days of thinking that climate change is a hoax as its reality has awaken all and sundry. The devastating effects are palpable for all to see and if the world continues to procrastinate and play cheap politics, the suffering will intensify with unimaginable consequences. Although Africa has accounted for only 3.3 percent of global emissions between 1960 and 2020, it is the continent that has been affected the most. As such, urgent steps need to be taken to achieve the twin goals of climate change adaptation and mitigation. For Africa, effective leadership is critical and will be the panacea for achieving the goals and protecting the continent from the deadly effects of climate change.

African leaders should have the foresight and creativity to recognize and implement effective strategies to adapt to a changing climate. Future leaders should be educated in the domain of environmental security. These leaders will have the capacity to rise to the challenge of climate change both in the near and mid-term. Curricula at both undergraduate and graduate levels should be tailor made to create an ecosystem of research and professional development necessary to capacitate professionals to deal with the challenges of climate change and environmental security in a sustainable way which will benefit both present and future generations.

The continent needs to accept the bitter truth that working as fragmented states is retrogressive. The dream of visionary leaders of the early 1960s led by Kwame Nkrumah of an integrated Africa should be realised urgently if the continent is going to be taken seriously by its global partners. How do we expect nations such as Seychelles, Cape Verde and Sao Tome and Principe, as small as they are, to be taken seriously by global giants such as United States of America, China and Europe when they negotiate in their individual capacities. There is need to come together as a continent and speak with one unified voice. This is where great leadership is needed because for a long time the dream of continental integration has suffered still birth because of the selfishness and self-centeredness of leaders. Leaders who protect their selfish interests at the expense of what is good for the entire continent.

With a corruption free leadership in Africa, continental ills such as illicit financial flows and misuse of public funds will be eliminated. The continent boasts of approximately 40 percent of the world's gold deposits, 90 percent of chromium and platinum and 65

percent of the world's arable land (Chanda & Chitondo, 2024). It also commands the largest reserves of diamonds. How can a continent with such wealth be regarded as poor? With a capable leadership that is not corrupt, all the wealth will be put to good use and be used for the development of the motherland. The continent is in great need of effective leaders who will not siphon money out of their countries because they want to stash it in a foreign land preparing for life after exiting power. Neither are we in need of leaders who are so corrupt that they will rather sell the continent's minerals for a pittance because their families are benefitting from such crooked deals with foreigners nor those who treat their countries' treasuries as their private purses that they use as and when they feel like without transparence and accountability. Without misuse of the continent's wealth, there will not be any need for our leaders to humiliate the continent always waving the begging bowl for money to mitigate and adapt to climate change effects. The time has come for Africa to arise and take its rightful place among the world's family on nations and the time is now. What is only needed is leadership. *Mayibuye iAfrica*.

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