COMMUNICATION AND CLIMATE CHANGE: IMPACTS AND STRATEGIES FOR YOUTH ENGAGEMENT HOW CAN YOUTH LEAD THE FIGHT AGAINST CLIMATE CHANGE THROUGH INNOVATIVE COMMUNICATION?

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Article Info	ABSTRACT
	Climate change is a key issue affecting diverse communities globally, demanding coordinated efforts across governmental and non-governmental spheres and all other actors. This paper explores the role of youth, in driving climate action through innovative communication strategies. Focusing on Africa, the paper examines how targeted communication can empower youth to become active climate advocates. Highlighting examples and best practices, this paper examines the importance of youth engagement in sustainable climate action and provides insights into effective communication approaches that align with Africa's unique socio-cultural context The paper employed thematic analysis of relevant literature sourced from a wide range of databases to identify key trends and strategies. The findings presents the importance of context-specific approaches and presents the potential of youth-driven communication in advancing climate action. Suggestions for further research include exploring scalable models and the integration of digital tools to enhance youth engagement in climate action.

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1. INTRODUCTION

Climate change is one of the most urgent issues affecting various communities worldwide. Addressing climate change goes beyond governmental and intergovernmental aspects to all state and non-state actors. The international community has recognized the benefits of engaging all in this pressing matter, including youths who, according to the African Union, are people between the ages of 15-35. This group accounts for 1.2 billion people, equivalent to 16% of the world's population (Han & Ahn, 2020). Climate change represents one of the most pressing global challenges of the 21st century, with far-reaching impacts on both natural and human systems. In Sub-Saharan Africa (SSA), these impacts are increased by the region's vulnerability to extreme weather events, economic dependence on agriculture, and limited adaptive capacity (Nhemachena et al., 2020).

Africa bears the heaviest burden from climate change, with many countries losing over 2.5% of their Gross Domestic Product (GDP) annually due to its effects. According to the State of the Climate in Africa, if we don't act now, up to 118 million poor people in Africa could suffer from droughts, floods, and extreme heat by 2030 (Magesa et al., 2023).

As a result, engaging youth (the demographic most affected by climate change's long-term consequences) is critical to the success of climate adaptation and mitigation strategies. Studies show that besides the direct implications for these young people, anxiety and eco-anxiety are increasing due to the increasing awareness of current and futuristic threats associated with climate change. Therefore, climate change has physical impacts and mental health threats to this population (Hickman et al., 2021).

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Climate change is no longer a distant threat; it is a present crisis with life-and-death implications, particularly for vulnerable populations like the youth in Sub-Saharan Africa. The accelerating effects of climate change such as rising temperatures, erratic rainfall, prolonged droughts, and extreme weather events threaten food security, water availability, and human health. These impacts are most severe in regions with limited adaptive capacity, making Africa one of the hardest-hit continents. If immediate action is not taken, millions will face increased mortality from climate-induced disasters, malnutrition, and disease outbreaks linked to environmental degradation. Engaging youth through innovative communication is crucial because they will inherit the brunt of this crisis. Youth-led initiatives have the potential to catalyze behavioral and policy changes, ensuring that future generations are equipped to address climate challenges. Without effective communication strategies to mobilize youth, critical opportunities to mitigate climate risks and build resilience will be lost, resulting in further loss of life and enhanced inequality (Magesa et al., 2023). This paper is essential to develop actionable strategies to empower the demographic with the most to lose and the greatest capacity for change.

Effective communication is therefor key to strengthening awareness and driving action. This paper explores the connection between communication, climate change, and youth engagement, focusing on unique challenges and opportunities. Examining communication strategies, youth-driven initiatives, and the role of digital media offers insights into how effective communication can better involve youth in the fight against climate change

2. METHODS

This study employed a thematic analysis approach to systematically review and synthesize relevant literature from globally recognized databases. The research focuses on identifying and analyzing key themes related to communication strategies, climate change, and youth engagement, particularly in the African context. Literature was sourced from reputable platforms such as Scopus, Web of Science and Google Scholar, prioritizing peer-reviewed articles, books, and credible reports. To ensure relevance and contemporaneity, the selection criteria included works published within the last two decades, with an emphasis on empirical studies and theoretical frameworks addressing youth-led initiatives, climate action communication strategies, and regional impacts in Sub-Saharan Africa.

The study applied a structured process to extract and analyze data. Key information was gathered on the objectives, methodologies, and findings of selected sources, focusing on communication tools, barriers to youth engagement, and innovative strategies for mobilization. To ensure the credibility of findings, triangulation was employed by cross-referencing themes with case studies of youth-led initiatives, policy documents such as the National Climate Change Action Plan (NCCAP), and expert opinions from review articles. This methodology provided a comprehensive understanding of the role of communication in enhancing youth participation in climate action, offering insights into existing gaps and proposing actionable strategies to strengthen youth engagement within Africa's unique socio-economic and cultural contexts.

3. FINDING AND DISCUSSION
The Climate Change Context in Sub-Saharan Africa

Sub-Saharan Africa is disproportionately affected by climate change due to its economic reliance on climate-sensitive sectors such as agriculture, water resources, and energy. According to the Intergovernmental Panel on Climate Change (IPCC), the region has witnessed an increase in temperature and changes in rainfall patterns, contributing to droughts, floods, and food insecurity. In Kenya, over 75% of the population depends on rain-fed agriculture, making the country susceptible to climate variability. Furthermore, agriculture is the most significant contributor to gas emissions (GHG) and will be at 1.7 gigatonnes by 2050. Additionally, the GHG concentration has increased by over 40% since the preindustrial ties, and in sub-Saharan Africa, the effects are crucial and often associated with varying seasons, both dry and rainy (Ntinyari & Gweyi-Onyango, 2020).

Socioeconomic factors, such as poverty, inadequate infrastructure, and governance issues, further compound Kenya's climate-related challenges. For instance, the arid and semi-arid lands (ASALs) in northern Kenya, which cover about 89% of the country's land area, have been experiencing severe droughts. These droughts have led to conflicts over resources, displacement, and loss of livelihoods. These events highlight the urgency of addressing climate change and involving all societal sectors, especially the youth, who comprise Kenya's population (Shilling & Werland, 2023).

Importance of Youth Engagement in Climate Change Communication

Youth play an important role in climate change action due to their demographic strength, future vulnerability, and innovative potential. In Sub-Saharan Africa, over 60% of the population is under the age of 25. If empowered with the proper knowledge and tools, this young demographic is uniquely positioned to drive sustainable development (Lesthaege, 2023).

As climate change communication and related research continue to be necessary, involving all groups in communicating this phenomenon is becoming critical. One such important group is the youth, who will form the future

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leaders of society and to whom the ever-increasing negative impacts of this global crisis will hit the most (Ojala & Lakew, 2017). Thus, there continues to be a need to understand better this group, how to involve it in communication about climate change, and how to ensure they take part in active action.

With the increase in internet connectivity in various regions, adopted mainly by young people (from late childhood to young adulthood), the most prevalent question is how to leverage modern communication strategies, tools, and innovations to the advantage of climate change action. The traditional media remains one of the critical ways of communicating climate change issues. However, to include youth in these key conversations, there is an urgent need to establish mechanisms to exploit all available channels the youth use (Bayes et al., 2023).

The impact of effective communication in climate action

It is important to integrate effective communication into programming to engage different populations on climate change and its impact on various spheres of life, such as health and education. Therefore, communication strategies that will guide climate action and ensure people's well-being are needed (Ros et al., 2020). As climate change continues to cause devastating impacts on lives and livelihoods, there is a growing need for various stakeholder engagement strategies that will bring all actors on board for collective change. Hence, more than the traditional media and ways of relaying information will be required to engage all the concerned parties (Leon et al., 2023).

There is a need to develop and frame information about climate change to the public to ensure that people understand this phenomenon well and are equipped to contribute significantly to the action. Initially, this information was geared towards health, security, and economic development. However, critical content analysis reveals that besides media, there is a shift to using other channels like social media to ensure that awareness and education are created towards this (Badullovich, Grant, & Colvin, 2020).

According to Susanne (2009), since the steady rise of anthropogenic climate change in the late 1980s in the public, there has been a significant rise in the need to inform the public better. There was a primary focus on the scientific findings and reports. As time has passed, stakeholders have become increasingly concerned about the impacts of climate change and the role each has to play in averting the crisis. Further, to influence policy-to-action conversations, there have been heightened discourses on various media platforms, which have taken a step further from just informing the public about the mere presence of the scientific reports and analysis to questioning the legal and policy actions needed. Communicators are now reaching many more people than before through various forums, making the issue reach more people than ever in multiple countries (Badullovich, 2023).

The challenge of communicating climate change

Communicating climate change is more challenging than communicating other phenomena that existed previously, such as health, economic challenges, and politics. Causative agents of climate change, i.e. greenhouse gases, are invisible and do not have direct and immediate implications. Further, they do not have an immediate impact on the lives of people. For instance, the emission of gases does not automatically lead to a noticeable impact. Many of the changes require systemic monitoring over a long period (Guenther et al., 2024). Thus, there has been a tendency to downplay the implications of these causative elements and the general effect of climate change. Besides this, climate change concepts are very complex and have a lot of uncertainty. The uncertainty originates from inadequate data and an undeliberate breakdown of discoveries (Susanne, 2009). The communication regarding climate change with policymakers, communities, and other stakeholders is competing with current happenings that don't seem futuristic.

According to the Intergovernmental Panel for Climate Change (IPCC), one of communication's most significant challenges is the tendency to share misinformation on this phenomenon. Misleading information, once shared, leads to delays in action from all actors. Therefore, communication experts have to do extra fact-checking to ensure the information shared is accurate (Leon et al., 2023). Ensuring active youth engagement in climate change communication solves many problems and unlocks several opportunities for climate action. Youth engagement ensures an effective utilization of available communication innovations and opportunities for climate action.

Youth engagement is important for several reasons:

- **Future Stakeholders-** Young people will bear more of the effects of climate change in the coming future; thus, their participation in mitigation and adaptation strategies is essential. This will make them appreciate the efforts so far and contribute to immediate and future efforts.
- **Catalysts for Change-** Youth are often at the forefront of social movements and can influence public opinion and policy through advocacy.
- **Technological Savvy-** Youth are technologically empowered and can use their skills to amplify climate messages through social media and other technologies.
- **Innovation Potential-** Young people are highly innovative and as such, they can introduce new solutions to climate change. This can include early warning and action strategies, and general adaptation strategies.

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Barriers to Effective Youth Engagement in Africa

Despite the importance of youth engagement, several barriers hinder their full participation in climate action and communication in Africa. These include:

1. **Inadequate Access to Information-** Many young people in rural areas of Africa lack adequate access to reliable information on climate change. This is due to limited internet connectivity, poor educational infrastructure, and language barriers. As such, it has been tedious to involve them in meaningful discourses on climate change and ensure that they form part of the critical stakeholders in formulating strategies for climate response and action (Oranga et al., 2023).

2. **Economic Disempowerment-** With high levels of youth unemployment, many young people are preoccupied with immediate survival needs, leaving little room for environmental activism. In Kenya, the youth unemployment rate stands at over 40%, which limits their capacity to engage in climate-related initiatives (Oranga et al., 2023).

3. **Limited Policy Influence-** Although youth are increasingly involved in climate change discussions, there is still a lot to be achieved. Their voices are still marginalized in formal decision-making processes, as are those of older generations (Trott et al., 2024).

4. **Cultural Perceptions-** Most communities prioritize short-term economic survival over long-term environmental sustainability. Climate change is also considered a futuristic issue (Oranga et al., 2023).

Effective Climate Change Communication Strategies for Youth Engagement

Given the barriers we discussed above, it is important to develop effective communication strategies tailored to Africa's youth. These strategies should leverage youth's unique strengths while addressing the obstacles that limit their engagement.

1. Digital and Social Media Campaigns

The rise of digital technologies offers new avenues for climate change communication, particularly for young people. In Africa, mobile phone penetration is high, and the youth widely use social media platforms such as X (formerly Twitter), Facebook, and Instagram. For example, there is less data on smartphone and social media accessibility among Kenyan youth under 25 years, but the overall social media cases remain lower than the global health at 49% (Harono et al. 2022). Harnessing these platforms to disseminate climate information can significantly enhance youth engagement.

For example, the *#KenyaClimateAction* campaign on X mobilized thousands of young Kenyans to participate in climate protests and online discussions. Social media influencers and youth activists can be critical in creating viral campaigns that raise awareness, promote sustainable practices, and push for policy change. Moreover, digital campaigns can include infographics, videos, and podcasts in local languages, making climate communication more accessible to young people in rural areas (Leon et al., 2023).

The internet has transformed how young people are being mobilized for different causes (Campbell et al., 2023). As the internet penetration is increasing and young people are capitalizing on it, one of the ways that non-governmental organizations, governments, private sectors and other climate actors can influence change is through enhanced virtual spaces where young people can freely participate and give their opinions, observations, contributions and mobilize for action (Vromen, 2008).

2. Climate Education in Schools and Universities

People should also consider integrating climate change into the African education curriculum, which is another critical strategy for engaging youth (Baldwin et al., 2023). Formal education provides a structured environment where knowledge of climate science, sustainability, and environmental stewardship can be imparted. Initiatives such as the *Kenya School Climate Change Program* aim to educate students on the impacts of climate change and empower them to take action. Higher education institutions also have a role to play by offering courses and research opportunities in climate-related fields. For instance, universities can organize climate conferences and competitions to encourage students to develop innovative solutions to local climate challenges (Leon et al., 2023).

3. Community-Based Communication and Traditional Media

While digital communication is key, reaching youth in rural and marginalized communities through traditional media channels such as radio and community-based outreach programs is equally important. Radio remains a powerful communication tool in Kenya, especially in remote areas with limited internet access. That would be the perfect way to mobilize and call to action, letting the youth know that climate change issues are still among the most pressing global problems (Campbell et al., 2023).

Community-based communication involves working with local leaders, youth groups, and NGOs to spread climate messages tailored to specific local contexts. For example, programs like the *Green Belt Movement* engage youth in tree-planting and environmental conservation efforts at the grassroots level. Such initiatives provide hands-on opportunities for young people to understand and act on climate change in their communities (Baldwin et al., 2023).

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4. Empowering Youth-Led Climate Initiatives

Empowering youth to lead their climate initiatives is a powerful way to strengthen ownership and long-term engagement. Several youth-led organizations, such as *Kenya Youth Climate Network* and *Wangari Maathai Youth Hub,* have emerged as advocates for climate justice and sustainability. These groups organize campaigns, lobby for policy changes, and implement community projects focused on climate resilience (Campbell et al., 2023). Additionally, supporting such organizations through funding, mentorship, and partnerships with government and international agencies can amplify their impact. Youth-led initiatives should be recognized as legitimate stakeholders in climate policy-making processes, with mechanisms to ensure their voices are heard (Oranga et al., 2023).

The Role of Policy in Supporting Youth Engagement

While communication strategies are essential, they must be supported by an enabling policy environment (Trott et al., 2024). Governments have developed several climate-related policies, such as the *National Climate Change Action Plan (NCCAP)*, which outlines the country's adaptation and mitigation strategies. However, these policies often need more specific provisions for youth involvement, limiting their effectiveness in engaging the younger generation. To address this gap, African governments should consider the following policy recommendations:

1. **Mainstream youth engagement in national climate policies-** Climate policies should explicitly include mechanisms for youth participation, such as youth advisory boards and quotas for youth representation in climate decision-making bodies (Cambel et al., 2023).
2. **Provide funding and resources for youth-led climate initiatives-** Dedicated funding streams should be established to support youth organizations and initiatives focused on climate change adaptation and mitigation.
3. **Develop youth-specific climate action plans-** At the national and local levels, tailored action plans should be developed that address the needs, challenges, and opportunities for youth engagement.
4. **Enhance collaboration between government, NGOs, and the private sector-** multi-stakeholder partnerships should create synergies that enhance youth engagement in climate action. For example, the private sector can sponsor youth-led projects or provide internships for young people interested in green technologies and sustainability.

4. CONCLUSION

Communication is essential in the fight against climate change, and effectively engaging youth in this process is critical for sustainable development in Africa, particularly Sub-Saharan Africa. Therefore, by leveraging digital media, formal and informal education, and community-based initiatives, Africa can empower its youth to participate actively in climate action. However, policy frameworks must support communication strategies that recognize the critical role of youth and provide them with the resources and platforms they need to drive change. The future of climate resilience in Africa depends on mitigating and adapting to the immediate effects of climate change and cultivating a generation of informed, engaged, and empowered young people who can lead the way toward a more sustainable future.

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