

Investigating the Role of sustainable Youth Employment in Combating the Climate Crisis in Somalia

Samira Abdulkadir Adan¹, Juweria Mohamed Ibrahim², Liban Hassan Mohamed³, Najeb Adan Wehelie⁴



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Reviewer: Mohamed Okash is researcher, environmentalist, and ecosystem builder. Currently serving as the Director of the ICE Institute at SIMAD University, he is also a member of the Climate Expert Network of the Global Shapers Community and a Climate Reality Leader. Mr. Okash's research explores the intersection of climate adaptation, social innovation, and sustainable development.

Reviewer: Abdikafi Hassan is a researcher and academic. He serves as the Head of Research at the ICE Institute and as a lecturer at SIMAD University, where his research focuses on sustainability, economic growth, and climate change.

1. Executive Summary

This study examines the role of sustainable youth employment in addressing Somalia's climate crisis, focusing on the innovative contributions of young leaders in environmental conservation, renewable energy, and sustainable agriculture. Through interviews with youth entrepreneurs and activists, the research highlights their passion, resilience, and creativity in tackling environmental challenges. These initiatives not only mitigate climate impacts but also foster economic resilience and empower communities. However, barriers such as limited resources, inadequate policy support, and lack of community engagement hinder their full potential.

Key themes from the study include the importance of passion for environmental conservation, the role of innovation in developing sustainable solutions, the necessity of community involvement, and the critical need for government support. These insights form the basis of a proposed model to enhance youth-led environmental activities, emphasizing youth empowerment, innovation, community engagement, policy support, and awareness campaigns. The model provides a roadmap for creating an enabling environment where youth-led initiatives can thrive.

It offers actionable recommendations to strengthen these efforts, including establishing a policy framework for

youth engagement, increasing funding for innovation, and launching capacity-building programs. It also highlights the importance of financial support through diverse funding sources, microfinance options, and sustainability grants. Community awareness campaigns and educational programs are recommended to foster a culture of environmental responsibility and mobilize wider participation.

The narratives of young leaders featured in this study demonstrate the transformative potential of youth-led solutions in addressing Somalia's environmental challenges. Their stories underscore the power of passion, innovation, and collaboration in driving meaningful change. However, their success depends on the collective efforts of stakeholders, including the government, private sector, and international organizations, to provide the necessary support and resources.

This study underscores the urgent need to invest in Somalia's youth as key drivers of environmental sustainability and climate resilience. By empowering young people, fostering innovation, and building strong partnerships, Somalia can unlock the potential of its youth to lead the way toward a sustainable future. The lessons learned offer valuable insights for other regions facing similar challenges, demonstrating that youth-led solutions are essential for achieving global environmental sustainability.

2. Introduction

The global climate crisis is one of the most pressing challenges of our time, with far-reaching impacts on ecosystems, economies, and communities worldwide. Rising temperatures, extreme weather events, sea-level rise, and biodiversity loss are exacerbating vulnerabilities, particularly in developing nations. According to the Intergovernmental Panel on Climate Change (IPCC, 2021), these changes are disproportionately affecting regions with limited adaptive capacity, leading to food insecurity, displacement, and economic instability. The urgency to address these issues has never been greater, as the window to limit global warming to 1.5°C above pre-industrial levels is rapidly closing. This global crisis demands innovative, inclusive, and sustainable solutions that can mitigate its effects while fostering resilience and equitable development.

In response to this crisis, youth around the world are emerging as key drivers of climate action, leveraging their creativity, energy, and technological savvy to develop innovative solutions. Young people are at the forefront of movements that advocate for sustainable practices, renewable energy, and environmental conservation. Their initiatives range from grassroots community projects to global campaigns, demonstrating a commitment to combating climate change and promoting sustainable development. For instance, youth-led organizations are pioneering

renewable energy projects, promoting circular economies, and utilizing digital platforms to raise awareness and mobilize action (UNFCCC, 2022). This global youth movement underscores the potential of young people to transform challenges into opportunities, paving the way for a more sustainable future.

Somalia, one of the countries most vulnerable to climate change, is facing severe climatic challenges that threaten its ecosystems and communities. Frequent droughts, erratic rainfall, and extreme weather events have disrupted agricultural productivity, exacerbated food insecurity, and displaced thousands of people (Lwanga-Ntale & Owino, 2020). These conditions have placed immense pressure on Somalia's fragile economy and social structures. However, amidst these challenges, Somali youth are stepping up as agents of change, harnessing innovation and entrepreneurship to address climate-related issues. By engaging in sustainable practices and developing new business solutions, young Somalis are not only combating environmental degradation but also creating economic opportunities that enhance community resilience.

Youth-led innovations in Somalia are making significant contributions to environmental sustainability. For example, young entrepreneurs are developing solar-powered irrigation systems, which improve agricultural

productivity while conserving water resources. Others are pioneering waste management initiatives that convert plastic waste into reusable materials, reducing pollution and creating jobs (Ma, 2024). These innovative practices demonstrate how youth can foster sustainable development by aligning economic activities with environmental goals. Additionally, youth-led climate adaptation initiatives are gaining traction in key sectors such as agriculture, water management, and renewable energy. In agriculture, young innovators are introducing drought-resistant crops and sustainable farming techniques, while in water management, they are implementing rainwater harvesting systems to address water scarcity (Ubeid, 2023). These efforts highlight the critical role of youth in building climate resilience.

The effectiveness of youth-driven projects in mitigating climate change is evident in their ability to address local challenges while offering scalable solutions. For instance, community-based afforestation projects led by young Somalis are restoring degraded lands, sequestering carbon, and improving biodiversity (Khatiwada, 2022). These projects not only mitigate the adverse effects of climate change but also empower communities by providing livelihoods and enhancing ecosystem services. Furthermore, the socio-economic benefits of youth innovations are profound. By creating employment opportunities and fostering community resilience, these initiatives contribute to poverty reduction and social

cohesion. Green entrepreneurship, in particular, is emerging as a powerful tool for addressing environmental hazards while promoting economic growth. By transforming traditional business practices to reduce environmental impact, young entrepreneurs are aligning economic activities with sustainable development goals (Chandel, 2022).

To better understand the role of youth in addressing climate challenges, several key areas must be explored. First, the impact of youth innovations on environmental sustainability must be evaluated. This involves assessing how technologies and innovative practices developed by young people contribute to sustainable environmental efforts in Somalia. Second, it is important to identify key areas where youth-led climate adaptation initiatives are making significant contributions, such as agriculture, water management, and renewable energy. Third, the effectiveness of youth-driven projects in mitigating climate change should be analyzed, measuring their success and scalability in reducing the adverse effects of climate change. Fourth, the socio-economic benefits of youth innovations should be explored, investigating how these initiatives not only promote environmental sustainability but also enhance employment opportunities and community resilience. Fifth, documenting case studies of successful youth-led environmental initiatives can provide valuable insights and inspiration for future projects.

Finally, the role of technology and digital platforms in supporting and scaling youth-led sustainability efforts should be assessed, as these tools are

increasingly critical in driving innovation and collaboration (Khatiwada, 2022; Chandel, 2022).

3. Methodology

3.1 Introduction

The methodology of this study focuses on examining the role of sustainable youth employment in combating the climate crisis in Somalia, employing a qualitative research design to explore the perspectives and experiences of young individuals engaged in sustainability initiatives. The research aims to understand how youth employment in sectors such as renewable energy, sustainable agriculture, and environmental conservation contributes to climate resilience and environmental preservation. By targeting youth aged 18 to 35 who are actively involved in these critical areas, the study seeks to uncover the intricate relationship between youth empowerment and

environmental sustainability, highlighting how sustainable employment opportunities can serve as a strategic tool for mitigating the impacts of climate change in Somalia. This qualitative approach allows for an in-depth exploration of participants' viewpoints, providing rich and nuanced data aligned with the study's objectives. This methodology is particularly suited to capturing the complexities of youth-led initiatives and their socio-economic and environmental impacts, offering valuable insights into the potential of sustainable youth employment as a driver of climate action and community resilience in Somalia.

3.2 Models

The study employs a qualitative research design, utilizing semi-structured in-depth interviews as the primary data collection tool. These interviews are designed to gather detailed insights into participants' experiences and perspectives on the role of sustainable youth employment in addressing Somalia's climate crisis. The research population consists of youth aged 18 to 35 actively engaged in renewable energy, sustainable agriculture, and environmental

conservation initiatives. A sample size of 20 participants is selected, divided into four groups: climate-smart agriculture, clean energy, climate activism, and climate education and awareness. This sample size ensures a diverse representation of perspectives while remaining manageable for in-depth qualitative analysis. Convenience and purposive sampling techniques are used to select participants, ensuring accessibility and relevance to the study's objectives.

Data analysis is conducted using thematic analysis, which involves systematically identifying recurring themes and patterns within participants' responses. This approach allows for a comprehensive exploration of the research objectives, ensuring that the findings are contextually relevant and meaningful. To ensure reliability, consistency was maintained throughout the data collection and analysis phases, with all interviews conducted by a single researcher to minimize biases. Validity is upheld by cross-referencing findings with participant responses and validating the appropriateness of research tools and data. Ethical considerations are strictly observed, including obtaining informed consent, ensuring confidentiality, and safeguarding participants' anonymity.

The study acknowledges certain limitations, including the potential

difficulty in generalizing findings beyond the specific contexts of the interviewed participants. While qualitative methods provide rich insights, the findings may not fully represent the diversity of experiences across all regions and demographics in Somalia. Additionally, the qualitative nature of the research limits the ability to quantify the precise impact of youth employment on environmental outcomes or establish causal relationships. Challenges such as language barriers, limited access to remote areas, and varying participation levels may influence the breadth and depth of the data collected. Despite these limitations, the study aims to provide valuable insights into the role of sustainable youth employment in addressing Somalia's climate crisis, contributing to broader discussions on youth-led climate action and environmental sustainability.

4. Model Development

Based on the themes identified, a model for enhancing youth-led environmental activities in Somalia can be proposed. This model integrates passion, innovation, community engagement, resilience, and government support into a cohesive strategy:

- **Youth Empowerment:** Foster youth leadership through training, mentorship, and resource access. Empowering young people to take the

lead in environmental initiatives ensures that their passion and creativity are harnessed effectively.

- **Innovation and Technology:** Encourage the use of innovative solutions and technologies tailored to Somalia's environmental challenges. Initiatives like ECOSOM's natural charcoal production and Casuura's plastic transformation demonstrate the potential of innovation to drive sustainable change.

- **Community Involvement:**

Design programs that actively involve communities in environmental conservation efforts. Grassroots participation, as seen in Abdisitar's beach-cleaning campaign, ensures that initiatives are locally relevant and sustainable.

- **Government Policy Support:**

Advocate for policies that provide financial and institutional support to youth-led organizations. Government recognition and funding can significantly enhance the impact and scalability of these initiatives.

- **Awareness and Education:**

Promote environmental awareness

through education and advocacy campaigns. Initiatives like Casuura's awareness programs play a crucial role in changing attitudes and behaviors toward sustainability.

This model aims to create a synergistic framework that combines the strengths of youth-led initiatives with the resources and support needed to amplify their impact. By addressing the interconnected themes of passion, innovation, community engagement, resilience, and government support, this model provides a roadmap for fostering environmental sustainability in Somalia.

5. Results and Discussion

The findings from this study, derived from interviews with young leaders in Somalia, reveal several interrelated themes that capture their endeavors in environmental sustainability. These themes include a passion for the environment, resilience in overcoming obstacles, the centrality of innovation, the importance of community engagement, and the critical need for government support. Together, these themes provide insight into how youth-led initiatives contribute to environmental conservation and climate resilience in Somalia, while also highlighting the challenges and opportunities that lie ahead.

- **Passion for Environmental Conservation:**

A recurring theme among participants is their deep passion for environmental conservation, which serves as the

driving force behind their initiatives. Many of the young leaders expressed a strong personal connection to environmental issues, often rooted in their experiences growing up in a country severely impacted by climate change. For instance, Abdirahim Ali Yusuf, the head of ECOSOM, shared how his organization was founded in 2019 by a group of youth determined to combat climate change. He explained, "This company was established by a group of youths with the aim of making a change for climate change." ECOSOM's production of natural charcoal not only addresses environmental degradation but also creates employment opportunities, demonstrating how passion can translate into tangible benefits for both the environment and the community.

- **Resilience in Overcoming**

Challenges: The journey of these young leaders is marked by resilience in the face of numerous obstacles, including skepticism from elders and limited resources. Abdisitar Arabow Ibrahim, who leads a beach-cleaning campaign, recounted the difficulties he faced in raising awareness about plastic pollution. He stated, “We are raising awareness and taking action to clean the beach... our goal is for people to understand the need to stop throwing plastic.” His persistence in educating the community and mobilizing action reflects the determination of Somali youth to drive change, even in the face of adversity. This resilience is a testament to their commitment to environmental sustainability and their ability to inspire others to join their cause.

- **Innovation as a Key Driver of**

Success: Innovation emerged as a critical factor in the success of youth-led environmental initiatives. Many participants highlighted how creative solutions are essential for addressing complex environmental challenges. Abdulqadir Mohamed, the CEO and founder of Casuura, shared how his organization is transforming plastic waste into plant-based materials. He explained, “We want to transfer these plastics to plants.” This approach not only addresses plastic waste but also shows how young entrepreneurs leverage creativity to develop sustainable solutions. Such innovations are crucial for addressing Somalia’s environmental challenges and serve as a model for other regions facing similar issues.

- **Community Engagement as a**

Priority: Community engagement was consistently emphasized as a cornerstone of successful environmental initiatives. Many of the projects discussed in the interviews, such as Abdisitar’s beach-cleaning campaign and Casuura’s plastic transformation efforts, rely heavily on grassroots participation. Abdirahim Ali Yusuf noted that the impact of ECOSOM’s work extends beyond environmental conservation, fostering a sense of community ownership and collective responsibility. He observed, “The impact went beyond environmental conservation and included the broader community.” This emphasis on community involvement ensures that environmental initiatives are not only effective but also sustainable, as they are rooted in local participation and support.

- **Need for Government**

Support: While youth-led initiatives are making significant strides, participants unanimously highlighted the need for greater government support. Many interviewees expressed frustration over the lack of funding and policy backing for their efforts. Abdisitar, for example, mentioned that recognition from the Ministry of Environment could significantly enhance their work. He stated, “We receive a certificate of accreditation from the Ministry of Environment of Somalia,” underscoring the importance of formal acknowledgment and support from governmental institutions.

Strengthening partnerships between youth organizations and the government is essential for scaling up

these initiatives and ensuring their long-term sustainability.

6. Conclusions

The narratives of the young leaders interviewed in this study underscore the immense potential of youth-led initiatives in promoting environmental conservation in Somalia. Their passion, resilience, and innovative spirit highlight the critical role that young people can play in addressing the country's environmental challenges. However, their efforts are often hindered by limited resources, inadequate policy support, and a lack of community engagement. To fully harness the potential of youth-led environmental initiatives, a multi-faceted approach is required, involving collaboration between youth, communities, and government institutions.

The findings of this study emphasize the importance of creating an enabling environment for youth-led solutions to thrive. This includes developing policies that support youth engagement, providing financial resources to fund innovative projects, and fostering community participation in sustainability efforts. By investing in the next generation of environmental leaders, Somalia can build a more sustainable and resilient future.

The stories of these young leaders

serve as a powerful reminder of what can be achieved when passion meets opportunity. Their initiatives demonstrate that even in the face of significant challenges, young people can drive meaningful change and inspire others to join their cause. However, their success depends on support from broader societal structures. Stakeholders, including the government, private sector, and international organizations, must work together to create the conditions necessary for youth-led environmental initiatives to flourish.

In conclusion, the fight against environmental degradation and climate change in Somalia requires a collective effort. By empowering young people, fostering innovation, and building strong partnerships, Somalia can unlock the potential of its youth to lead the way toward a sustainable future. The lessons learned from this study can serve as a blueprint for other regions facing similar challenges, demonstrating that youth-led solutions are not only possible but essential for achieving environmental sustainability. The time to act is now, and the youth of Somalia are ready to lead the charge.

7. Recommendations

Based on the findings and discussions from the interviews, several recommendations can be made to enhance youth-led environmental initiatives in Somalia. These recommendations are structured around key areas of intervention, including policy support, community engagement, capacity building, financial support, and awareness campaigns.

- Policy Support: To create an enabling environment for youth-led environmental initiatives, the government should establish a comprehensive framework for youth engagement in environmental programs. This framework should formally recognize and endorse youth organizations, allowing them to participate actively in sustainability activities. Additionally, funding opportunities for innovation must be expanded, providing grants and financial support to young entrepreneurs working on environmental solutions. Such funding should support experimentation, learning, and improvement, as seen in other start-up sectors. Furthermore, incentives for sustainable practices should be introduced to encourage private sector participation in environmental initiatives. These incentives could include tax breaks, subsidies, or recognition programs for businesses that adopt sustainable practices, thereby fostering a culture of environmental responsibility.

- Community Engagement: Community involvement is critical to the success of youth-led environmental initiatives. Workshops and training sessions should be organized to educate community members about sustainability practices, such as urban gardening, recycling, and waste management. These sessions can empower individuals to take an active role in environmental conservation. Collaborative projects between youth organizations, community groups, and local authorities should also be encouraged to pool resources and expertise. Recognition programs that honor individuals and groups making significant contributions to environmental sustainability can further motivate community participation. By celebrating these efforts, more people can be inspired to join the movement toward a greener Somalia.

- Capacity Building: Building the capacity of young environmental leaders is essential for the success of their initiatives. Entrepreneurship training programs should be expanded to equip youth with skills in business development, marketing, and management. Partnerships with educational institutions can help design curricula that meet the specific needs of young innovators. Mentorship programs should also be established to connect young entrepreneurs with experienced professionals who can provide guidance and support. Additionally, resource centers should

be set up to offer information, tools, and networking opportunities for youth-led start-ups. These centers can serve as hubs for collaboration and innovation, helping young leaders overcome challenges and scale their initiatives.

- **Financial Support:** Access to financial resources is a major barrier for many youth-led environmental projects. To address this, diverse funding sources should be explored, including international grants, corporate sponsorships, and crowdfunding platforms. Microfinance options tailored to the needs of young entrepreneurs can also provide the necessary capital to launch and sustain green enterprises. Furthermore, sustainability grants should be established to support projects that demonstrate measurable environmental and community benefits. These grants can incentivize innovation and ensure that impactful initiatives receive the funding they

need to thrive.

- **Awareness Campaigns:** Raising awareness about environmental issues and the role of youth in addressing them is crucial for fostering a culture of sustainability. Media campaigns can be launched to highlight the importance of environmental conservation and showcase the success stories of youth-led initiatives. Social media platforms, in particular, can be leveraged to engage a wider audience and inspire action. Public events, such as tree-planting drives, clean-up campaigns, and art exhibitions focused on environmental themes, can also mobilize community participation. Schools should introduce educational programs on environmental responsibility and sustainable development. By integrating these topics into the curriculum, young minds can be nurtured to become future leaders in environmental conservation.

8. Limitations and Future Directions

While this study offers valuable insights into the contributions of youth-led initiatives to environmental sustainability in Somalia, several limitations must be acknowledged:

- **Limited Sample Size:** The study's findings are based on a relatively small number of interviews, which may limit the generalizability of the results. Future research could expand the sample size to include a broader range of participants, ensuring

a more comprehensive understanding of youth-led environmental efforts across Somalia.

- **Geographical Focus:** The study primarily focuses on initiatives in Mogadishu and surrounding areas, potentially overlooking the activities of youth in other regions of Somalia. Future research could explore youth-led initiatives across different regions to identify local variations and unique challenges.

- **Temporal Context:** The data reflects the current state of youth-led environmental initiatives but does not account for their long-term impact. As these initiatives evolve, future research could assess their sustainability and scalability over time.

Addressing these limitations in future

studies will provide a more nuanced understanding of the role of youth in combating the climate crisis in Somalia. Building on these findings, future efforts can further empower young people to lead the transition to a sustainable and resilient future.

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+252 618 866271
+252 185 8511



ice@simad.edu.so
ice.simad.edu.so



8th Floor, Town Campus,
SIMAD University, KM5,
Mogadishu, Somalia



Commentary 01