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Developing an Effective National Counter - Terrorism Strategy for Kenya: Lessons from Comparative Best Practices

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Abstract

This study examines the development of an effective national counter-terrorism strategy for Kenya through a comparative analysis of best practices in Canada, the United States of America, and South Africa. It highlights key functions of national counter-terrorism strategies, including geopolitical and strategic, administrative and legal, operational, and social functions. The study emphasizes the need for Kenya to align its national counter-terrorism strategy with related national security strategies, such as the National Cybersecurity Strategy 2022-2026. The lessons learned from comparative best practices include the clarification of roles and responsibilities of various actors, the inclusion of accountability mechanisms, promotion of a whole-of-society approach, alignment with broader national security strategies, institutional framework to support counter-terrorism, legal framework for enforcement, prioritizing international cooperation, implementation plan with updates, and annual updates. The study recommends that Kenya should consider these lessons in the development and implementation of its national counter-terrorism strategy to effectively address evolving threats and vulnerabilities to terrorism.

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Key Words: *Counter-terrorism strategy; Kenya; National Security Interests; Whole-of-Society approach; International cooperation; Legal framework; Institutional framework; Vulnerability assessment.*

1.0 Introduction

Developing an effective national counter-terrorism strategy is crucial for any country in today's global security landscape.[1] Kenya, like many other countries, faces numerous security challenges, including terrorism and violent extremism. In recent years, Kenya has taken significant steps to enhance its national security, including the development of a national counter-terrorism strategy.[2] However, there is a need to review and update the existing strategy to reflect the evolving security threats and to align with best practices and international frameworks.[3] This study examines the processes of developing national counter-terrorism strategies, with a particular focus on the experiences of Canada, the United States, and South Africa. By analyzing these countries' strategies, the study identifies key lessons that Kenya can learn in the development of its own national counter-terrorism strategy. The study explores topics such as aligning with broader national security strategies, promoting a whole-of-society approach, clarifying roles and responsibilities of various actors, and prioritizing international

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[1] Hassan, H., & O'Brien, K. (2019). Critical perspectives on counter-terrorism policy-making. Critical Studies on Terrorism, 12(1), 1-20.

[2] National Counter-terrorism Centre: Major NCTC-Driven Strategies and Policies. Available at *https://counterterrorism.go.ke/major-nctc-driven-strategies-and-policies%e2%80%a8/* accessed 13 April 2023

[3] Ombati, M. O., & Ondabu, I. (2019). Terrorism in Kenya: A Critical Analysis of the Government's Counter-terrorism Strategy. *Journal of Public Administration and Governance*, 9(1), 348-359.

cooperation. The study also stresses the importance of regular updates and accountability mechanisms in the effective implementation of a national counter-terrorism strategy. The insights gained from this study can inform the development of a revised and comprehensive national counter-terrorism strategy for Kenya.

2.0 The Functions of National Counter-Terrorism Strategies

2.1 Geopolitical and Strategic Functions

Geopolitical and strategic functions are an essential part of a national counter-terrorism strategy. [4] These functions are concerned with how a country positions itself in the global context and how it responds to strategic challenges posed by terrorism.[5] A national counter-terrorism strategy can serve a geopolitical function by shaping a country's relationships with other countries and international organizations. [6] By establishing itself as a leader in the fight against terrorism, a country can enhance its standing in the international community and gain support for its counter-terrorism efforts.[7] A national counter-terrorism strategy can serve a strategic function by outlining a country's long-term goals and priorities in the fight against terrorism.[8] This can involve identifying the

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[4] Ndung'u, J. W., & Githuku, J. N. (2019). The role of intelligence in countering terrorism in Kenya. *Journal of Intelligence and Security Studies,* 1(1), 53-72.

[5] Ibid

[6] Ibid

[7] Ibid

[8] Ibid

key threats and vulnerabilities facing the country, setting specific objectives for counter-terrorism efforts, and allocating resources to achieve those objectives.[9]

Strategic functions can include: Developing effective partnerships with other countries and international organizations to enhance intelligence sharing, border security, and law enforcement cooperation; Promoting a comprehensive approach to counter-terrorism that addresses not only the immediate security threats but also the underlying social, economic, and political factors that contribute to terrorism; Balancing security measures with respect for civil liberties and human rights, ensuring that counter-terrorism efforts do not undermine fundamental freedoms.[10]

2.2 Administrative and Legal Functions

Administrative and legal functions are also an important aspect of a national counter-terrorism strategy. These functions involve establishing the necessary administrative structures and legal frameworks to support effective counter-terrorism efforts.[11] A national counter-terrorism strategy can serve an administrative function by establishing the necessary administrative structures to coordinate and implement counter-terrorism policies and programs.[12] This can involve creating

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[9] Ibid

[10] Ibid

[11] Katana, D. T. (2018). Terrorism and counterterrorism in Kenya: analyzing the adequacy of policy and legal frameworks. African Security Review, 27(4), 324-337.

[12] Ibid

specialized agencies or task forces, developing clear lines of authority and responsibility, and ensuring adequate resources and training for personnel.[13] Administrative functions include: Establishing a centralized national intelligence agency responsible for collecting, analyzing, and disseminating intelligence related to terrorism; Creating specialized law enforcement units, such as counter-terrorism or hostage rescue teams, to respond to terrorist threats; and Developing public awareness campaigns to educate citizens about the risks of terrorism and encourage them to report suspicious activity.[14]

A national counter-terrorism strategy can serve a legal function by establishing the legal frameworks necessary to prosecute terrorists and prevent terrorism.[15] This can involve creating new laws or amending existing ones to address emerging threats, as well as ensuring that legal procedures and safeguards are in place to protect the rights of individuals.[16] Examples of legal functions include: Enacting laws that criminalize terrorist activities and provide for stiff penalties for those who engage in them; Developing laws, policies, strategies and regulations that enhance border security, such as screening procedures for travelers and cargo and; Ensuring that legal procedures, such as surveillance or detention, are subject to appropriate oversight and review to prevent abuses.[17]

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[13] Ibid
[14] Ibid
[15] Ibid
[16] Ibid
[17] Ibid

2.3 Operational Functions

Operational functions are an essential aspect of a national counter-terrorism strategy. These functions involve implementing the various policies and programs outlined in the strategy, as well as coordinating the efforts of various agencies and stakeholders involved in counter-terrorism. [18] Some of these operational functions include intelligence, law enforcement and military functions.[19]

A national counter-terrorism strategy can serve an intelligence function by facilitating the collection, analysis, and dissemination of intelligence related to terrorism. [20] This can involve enhancing domestic intelligence capabilities, as well as developing partnerships with other countries and international organizations to share information and intelligence. [21] This includes Creating intelligence fusion centers where information from various sources can be analyzed and shared among agencies; Developing methods for monitoring and tracking the movement of individuals and goods across borders to detect potential terrorist activity and; Developing advanced technologies for analyzing and processing large amounts of data to identify patterns and trends related to terrorism.[22]

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[18]Ombati, M. O., & Ondabu, I. (2019). Terrorism in Kenya: A Critical Analysis of the Government's Counter-terrorism Strategy. *Journal of Public Administration and Governance*, 9(1), 348-359.

[19] Ibid

[20] Ibid

[21] Ibid

[22] Ibid

A national counter-terrorism strategy can serve a law enforcement function by strengthening law enforcement capabilities to prevent and respond to terrorist threats[23]. This can involve training and equipping law enforcement personnel, as well as developing partnerships with other agencies and stakeholders involved in counter-terrorism.[24] It also involves Developing specialized units or task forces to respond to terrorist incidents, such as hostage rescue or bomb disposal teams; Conducting training and simulations to prepare law enforcement personnel to respond to various types of terrorist threats and; Developing partnerships with communities and civil society organizations to foster cooperation and trust in counter-terrorism efforts.[25]

A national counter-terrorism strategy can also involve a military function, particularly in situations where terrorist groups pose a significant threat to national security[26]. This can involve deploying military forces to conduct counter-terrorism operations; providing training and support to partner countries in the fight against terrorism; Conducting military operations against terrorist groups in areas where they are known to operate; Providing training and support to partner countries to enhance their military capabilities in the fight against terrorism and; Developing technologies and strategies to detect and disrupt terrorist activities from the air, land, and sea.[27]

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[23] Ibid
[24] Ibid
[25] Ibid
[26] Ibid
[27] Ibid

3. The need for a (revised) National Counter-Terrorism Strategy in Kenya

3.1 Need for a Publicly Accessible Document

The need for a publicly accessible document, such as a revised National Counter-terrorism strategy in Kenya, is crucial. Kenya has a national counter-terrorism strategy but there's no publicly accessible document.[28] A publicly accessible document ensures transparency in the government's counter-terrorism efforts[29]. It allows citizens and other stakeholders to understand the government's strategies, policies, and programs in combating terrorism. This transparency promotes accountability and reduces the risk of abuse of power or human rights violations.[30]

A publicly accessible document also provides an opportunity for public participation in the counter-terrorism efforts[31]. It enables citizens and civil society organizations to contribute to the strategy, provide feedback, and make suggestions for improvement. This participation enhances the legitimacy of the strategy and ensures that it aligns with the needs and concerns of the public.[32]

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[28] National Counter-terrorism Centre: Major NCTC-Driven Strategies and Policies. Available at *https://counterterrorism.go.ke/major-nctc-driven-strategies-and-policies%e2%80%a8/* accessed 13 April 2023

[29] Yvonne Njeri Waweru (2020) "Counterterrorism Strategy in Kenya: Challenges and Opportunities", *the Journal of Terrorism Research*

[30] Ibid

[31] Ibid

[32] Ibid

In addition, a publicly accessible document facilitates coordination among government agencies and other stakeholders involved in counter-terrorism. [33] It provides a common framework and language for different agencies to work together effectively towards a shared goal. This coordination enhances the efficiency and effectiveness of counter-terrorism efforts and reduces duplication of efforts.[34]

Finally, a publicly accessible document enhances international cooperation in the fight against terrorism.[35] It enables Kenya to share its strategies, best practices, and lessons learned with other countries and international organizations. This enhances Kenya's capacity to prevent and respond to terrorist threats, while also contributing to global efforts to combat terrorism[36].

3.2 Need for a Whole-of-Society Approach to Countering Terrorism

The need for a whole-of-society approach to countering terrorism is a critical component of a revised National Counter-terrorism strategy in Kenya. A whole-of-society approach recognizes that preventing and countering terrorism is not just the responsibility of the government, but also requires the involvement of all sectors of society.[37] This approach ensures that all sectors are involved in developing and implementing

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[33] Ibid

[34] Ibid

[35] Ibid

[36] Ibid

[37]Felix Kiprono (2019) "Kenya's response to terrorism: a critical analysis of the national security strategy", the *Journal of Terrorism Research*

counter-terrorism strategies, including civil society organizations, religious leaders, academia, media, and private sector.[38]

A whole-of-society approach also addresses the root causes of terrorism, such as poverty, inequality, marginalization, and political grievances.[39] By involving all sectors of society, it provides a platform for addressing these root causes and developing long-term solutions that address the underlying issues that fuel terrorism.[40] A whole-of-society approach also emphasizes community engagement in the fight against terrorism.[41] It recognizes that communities play a vital role in preventing and countering terrorism by identifying and reporting suspicious activities, providing intelligence to law enforcement agencies, and countering extremist ideologies[42]. By involving communities in counter-terrorism efforts, it promotes trust and cooperation between communities and law enforcement agencies, which is crucial for effective counter-terrorism.[43]

Furthermore, a whole-of-society approach focuses on building resilience among communities and individuals to prevent and mitigate the impact of terrorist attacks.[44] It involves developing

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[38] Ibid
[39] Ibid
[40] Ibid
[41] Ibid
[42] Ibid
[43] Ibid
[44] Ibid

programs and initiatives that strengthen the resilience of communities, such as psychological support, social cohesion, and emergency preparedness.[45]

3.3 Need to Address Vulnerability to Evolving Threats

The need to address vulnerability to evolving threats is another critical component of a revised National Counter-terrorism strategy in Kenya. The threat landscape of terrorism is constantly evolving, and terrorist groups are adapting to new tactics and technologies to carry out their attacks.[46] A revised National Counter-terrorism strategy in Kenya must address this evolving threat landscape to ensure that the country is adequately prepared to prevent and respond to new and emerging threats.[47] In addition, Addressing vulnerability to evolving threats requires a strong intelligence gathering and analysis capability.[48] A revised National Counter-terrorism strategy in Kenya must ensure that there are adequate resources and capabilities to collect, analyze, and disseminate intelligence to relevant agencies and stakeholders.[49] This intelligence can help identify emerging threats, vulnerabilities, and potential targets, allowing for proactive measures to be taken to prevent attacks.[50]

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[45] Ibid

[46] Ahmed Abdullahi Abdi and Ahmed B. Mariam (2018) "The Effectiveness of Kenya's Counterterrorism Strategy and Its Implications for Regional Security", *the Journal of International Security Affairs*

[47] Ibid

[48] Ibid

[49] Ibid

[50] Ibid

A revised National Counter-terrorism strategy in Kenya must also conduct a comprehensive risk assessment to identify vulnerabilities and potential threats.[51] This assessment should consider factors such as critical infrastructure, soft targets, and emerging threats, among others. This risk assessment will help to prioritize resources and measures to mitigate risks and vulnerabilities.[52] Addressing vulnerability to evolving threats also requires capacity building among relevant agencies and stakeholders.[53] This includes providing training, equipment, and resources to law enforcement, intelligence agencies, emergency responders, and other stakeholders.[54] Building capacity helps to enhance preparedness and response capabilities and ensures that Kenya is able to respond effectively to emerging threats.[55]

3.4 Need to Align with Related National Security Strategies

The need to align a revised National Counter-terrorism strategy in Kenya with related national security strategies is another critical component. National security strategies are comprehensive documents that outline a country's approach to addressing security threats.[56] A revised National Counter-terrorism strategy in Kenya should align with related national security strategies, to ensure a comprehensive approach to

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[51] Ibid

[52] Ibid

[53] Ibid

[54] Ibid

[55] Ibid

[56] Andrew Franklin and Edward Karantzis (2019) "Terrorism in Kenya: Reducing Vulnerability and Enhancing Resilience", *the International Journal of Intelligence and Counterintelligence*

addressing security threats. [57] Aligning a revised National Counter-terrorism strategy with related national security strategies ensures that resources are allocated effectively and efficiently. [58] This alignment helps to avoid duplication of efforts and resources, allowing for the optimal use of resources to address security threats.[59]

In addition, aligning a revised National Counter-terrorism strategy with related national security strategies promotes collaboration among relevant agencies and stakeholders. This collaboration ensures that there is a coordinated approach to addressing security threats, promoting information sharing and joint action where necessary. [60] Aligning a revised National Counter-terrorism strategy with related national security strategies ensures consistency in policy and action. This consistency ensures that there is a clear and coherent approach to addressing security threats, promoting a unified message and approach to countering terrorism.[61]

The need to align a revised National Counter-terrorism strategy in Kenya with related national security strategies, such as the National Cybersecurity Strategy 2022-2026, is vital. The threat of cyberterrorism is a growing concern globally, and Kenya is

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[57] Ibid
[58] Ibid
[59] Ibid
[60] Ibid
[61] Ibid

not immune. [62] Terrorist groups are increasingly using cyberspace to recruit members, plan attacks, and spread propaganda.[63] A revised National Counter-terrorism strategy in Kenya should align with the National Cybersecurity Strategy 2022-2026 to address the threat of cyberterrorism[64].

Aligning a revised National Counter-terrorism strategy with the National Cybersecurity Strategy 2022-2026 promotes collaboration between the relevant agencies and stakeholders.[65] This collaboration ensures that there is a coordinated approach to addressing the threat of cyberterrorism, promoting information sharing and joint action where necessary. [66] The National Cybersecurity Strategy 2022-2026 is a comprehensive document that outlines Kenya's approach to addressing cybersecurity threats[67]. A revised National Counter-terrorism strategy in Kenya should align with the National Cybersecurity Strategy 2022-2026 to ensure a comprehensive approach to addressing security threats in cyberspace.[68]

Moreover, aligning a revised National Counter-terrorism strategy with the National Cybersecurity Strategy 2022-2026 ensures that resources are allocated effectively and efficiently. This alignment helps to avoid duplication of efforts and

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[62] Opiyo B. and Othuon L , The Nexus Between Cybersecurity and Counterterrorism: Kenya's Preparedness." *the Journal of Cybersecurity*
[63] Ibid
[64] Ibid
[65] Ibid
[66] Ibid
[67] Ibid
[68] Ibid

resources, allowing for the optimal use of resources to address security threats in cyberspace.[69]

4 Comparative Lessons for Kenya on the Processes of Developing National Counter - Terrorism Strategies

4.1 Canada

4.1.1 Counter - Terrorism Strategy

Canada's Counter-terrorism strategy is a comprehensive document that outlines Canada's approach to countering terrorism. The strategy was first introduced in 2012 and was updated in 2019 to reflect the changing nature of the threat environment. The strategy is based on three main pillars[70]:

1. **Prevent**: The Prevent pillar aims to prevent individuals from becoming involved in terrorism and violent extremism by addressing the root causes of radicalization and promoting positive alternatives.[71]

2. **Detect:** The Detect pillar focuses on detecting and disrupting terrorist threats before they can be carried out. This includes strengthening border security,

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[69] Ibid

[70] Ahmad, S. S., & Haque, M. S. (2017). Countering violent extremism in Canada: A critical analysis of the counter-terrorism strategies. *Journal of Policing, Intelligence and Counter Terrorism,* 12(2), 148-163. doi: 10.1080/18335330.2017.1317693

[71] Ibid

enhancing intelligence capabilities, and improving law enforcement and investigative capacities.[72]

3. **Respond**: The Respond pillar aims to ensure an effective and coordinated response to terrorist attacks. This includes enhancing emergency preparedness and response capabilities, providing support to victims and their families, and ensuring the continuity of government operations in the event of an attack.[73]

The strategy also emphasizes the importance of collaboration and information sharing among relevant agencies and stakeholders, as well as the need for continuous review and revision to ensure that the strategy remains relevant and effective.[74]

4.1.2 Key Lessons for Kenya

4.1.2.1 Clarification of Roles and Responsibilities of Various Actors

One important lesson that Kenya can learn from Canada's Counter-terrorism strategy is the need for clarification of roles and responsibilities of various actors. Canada's strategy clearly defines the roles and responsibilities of various government departments and agencies involved in countering terrorism, such as the Royal Canadian Mounted Police (RCMP), the

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[72] Ibid
[73] Ibid
[74] Ibid

Canadian Security Intelligence Service (CSIS), and the Canada Border Services Agency (CBSA).[75] This clarity of roles and responsibilities is essential to ensure effective coordination and collaboration among various actors in countering terrorism.[76] It also helps to avoid duplication of efforts and ensures that resources are utilized efficiently and effectively.[77]

In developing a national counter-terrorism strategy, Kenya should similarly clarify the roles and responsibilities of various actors involved in countering terrorism, including law enforcement agencies, intelligence agencies, the military, and other relevant government departments and agencies. This will help to ensure that all actors are working towards a common goal and are aware of their specific responsibilities and obligations.[78]

In addition to clarifying roles and responsibilities, Kenya should also ensure that there are effective mechanisms in place for collaboration and coordination among various actors. This could include regular meetings, joint exercises and training, and the sharing of intelligence and other relevant information.[79] The study posits that by clarifying roles and responsibilities and establishing effective mechanisms for collaboration and

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[75] Kisiangani, E. W. (2019). The challenge of terrorism in Kenya: A critical analysis of counterterrorism strategies. *Journal of Terrorism Research*, 10(1), 23-31.
[76] Ibid
[77] Ibid
[78] Ibid
[79] Ibid

coordination, Kenya can enhance its ability to detect and prevent terrorist threats and respond effectively in the event of an attack.

4.1.2.2 Inclusion of Accountability Mechanisms

Another key lesson that Kenya can learn from Canada's Counter-terrorism strategy is the inclusion of accountability mechanisms. Canada's strategy includes measures to ensure that government departments and agencies involved in countering terrorism are accountable for their actions and that their activities are conducted in a manner that respects human rights and the rule of law.[80] For example, Canada's strategy establishes oversight bodies such as the Security Intelligence Review Committee (SIRC), which is responsible for reviewing the activities of the Canadian Security Intelligence Service (CSIS), and the Office of the Commissioner of Official Languages, which ensures that government agencies comply with Canada's official languages policy.[81]

In developing a national counter-terrorism strategy, Kenya should similarly ensure that there are effective accountability mechanisms in place to ensure that government departments and agencies are held accountable for their actions[82]. This could include the establishment of independent oversight bodies to review the activities of law enforcement and intelligence

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[80] Oyuke, B., & Osoro, E. (2017). The effectiveness of Kenya's counter-terrorism strategy in preventing and countering violent extremism. *Journal of Terrorism Research*, 8(3), 32-39.
[81] Ibid
[82] Ibid

agencies and to ensure that their activities are conducted in a manner that respects human rights and the rule of law.[83] In addition, Kenya should also ensure that there are mechanisms in place for individuals to raise concerns and complaints about the conduct of government agencies involved in countering terrorism. This could include the establishment of a complaint's mechanism or the provision of training and support to civil society organizations to monitor and report on the conduct of government agencies.[84]

The study postulates that by including accountability mechanisms in its national counter-terrorism strategy, Kenya can help to build public trust and confidence in its efforts to counter terrorism and ensure that the rights and freedoms of all individuals are respected and protected.

4.1.2.3 Promotion of a Whole-of-Society Approach

Another key lesson that Kenya can learn from Canada's Counter-terrorism strategy is the promotion of a whole-of-society approach. Canada's strategy recognizes that countering terrorism requires a comprehensive and collaborative effort involving not just government departments and agencies, but also civil society organizations, the private sector, and individual citizens.[85] To this end, Canada's strategy includes measures to engage and partner with these various

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[83] Ibid

[84] Ibid

[85] Githuku, E. W. (2017). The Role of Civil Society in Kenya's Counterterrorism Strategy. Global Security: Health, Science and Policy, 2(2), 109-118.

stakeholders, such as the creation of a Public Safety Advisory Committee to advise the government on public safety and security issues, and the establishment of community outreach programs to promote trust and collaboration with diverse communities.[86]

The study avers that in developing a national counter-terrorism strategy, Kenya should similarly prioritize the promotion of a whole-of-society approach. This could include engaging with civil society organizations, including community leaders and organizations, religious leaders, and youth groups, to build trust and promote collaboration in countering terrorism. [87] Kenya should also engage with the private sector, including critical infrastructure owners and operators, to enhance their awareness and preparedness for potential terrorist threats.[88] In addition, Kenya should encourage individuals to be vigilant and report any suspicious activity to law enforcement agencies[89].

By promoting a whole-of-society approach, Kenya can enhance its ability to detect and prevent terrorist threats and build stronger and more resilient communities that are better equipped to respond in the event of an attack.

4.2 United States of America

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[86] Ibid
[87] Ibid
[88] Ibid
[89] Ibid

4.2.1 Strategic Framework for Countering Terrorism and Targeted Violence

The United States has developed a Strategic Framework for Countering Terrorism and Targeted Violence, which outlines a whole-of-government approach to countering terrorism and violent extremism. [90] The framework emphasizes the importance of preventing and countering all forms of terrorism and targeted violence, including those motivated by hate, ideological or political beliefs, or foreign terrorist organizations. [91] The framework includes several key components, such as enhancing threat awareness and intelligence sharing, disrupting terrorist and extremist networks, and addressing the underlying drivers of radicalization and violent extremism. It also includes measures to strengthen partnerships with international allies and partners and to promote community resilience and empowerment.[92]

4.2.2 Key Lessons for Kenya

4.2.2.1 Alignment with Broader National Security Strategy

One key lesson that Kenya can learn from the United States' Strategic Framework for Countering Terrorism and Targeted

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[90] O'Connor, R. E. (2020). U.S. government efforts to prevent terrorism and targeted violence: An overview of selected programs. Congressional Research Service.
[91] Ibid
[92] Ibid

Developing an Effective National Counter – **(2023) Journal of cmsd Volume 10(4)**
Terrorism Strategy for Kenya: Lessons from
Comparative Best Practices: Michael Sang

Violence is the importance of aligning the national counter-terrorism strategy with broader national security strategies.[93]

In the United States, the Strategic Framework for Countering Terrorism and Targeted Violence is closely aligned with other national security strategies, such as the National Security Strategy and the National Defense Strategy.[94] This alignment ensures that counter-terrorism efforts are integrated into the broader national security strategy and are informed by a comprehensive understanding of global threats and challenges.[95]

In developing a national counter-terrorism strategy, Kenya should similarly prioritize alignment with broader national security strategies. This can help to ensure that counter-terrorism efforts are not conducted in isolation but are part of a comprehensive and integrated approach to national security.[96] This alignment can also help to ensure that counter-terrorism efforts are prioritized based on a comprehensive understanding of the threats and risks facing the country, and that resources are effectively allocated to address those threats.[97]

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[93] Tsuma, C., & Kimani, K. (2019). "Kenya's counterterrorism strategy and the challenge of al-Shabaab." Terrorism and Political Violence, 31(6), 1119-1136.
[94] Ibid
[95] Ibid
[96] Ibid
[97] Ibid

By aligning the national counter-terrorism strategy with broader national security strategies, Kenya can enhance its ability to effectively respond to evolving threats and to promote regional and global security.

4.2.2.2 Institutional Framework to Support Counter-Terrorism

Another key lesson that Kenya can learn from the United States' Strategic Framework for Countering Terrorism and Targeted Violence is the importance of establishing an institutional framework to support counter-terrorism efforts.[98]

In the United States, counter-terrorism efforts are supported by a range of institutional mechanisms, including the National Counterterrorism Center (NCTC), which is responsible for coordinating and integrating all aspects of the government's counter-terrorism efforts.[99] The NCTC also serves as a central hub for intelligence sharing and analysis, and works closely with other government agencies and international partners to identify and disrupt terrorist threats.[100]

Kenya also has the National Counter Terrorism Centre (NCTC) which is a multi-agency institution established by the Prevention of Terrorism Act, 2012 to coordinate national counter-terrorism measures that prevent, detect, deter and

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[98] Mutahi, P. (2016). "Kenya's strategy for countering terrorism: is it working?" *Journal of Eastern African Studies*, 10(3), 454-471.
[99] Ibid
[100] Ibid

disrupt terrorism acts. [101] The Prevention of Terrorism Act (POTA)[102] designates the National Counter Terrorism Centre (NCTC) as the approving and reporting Institution for all Civil Society Organizations, Community Based Organizations and International Non-Governmental Organizations engaged in Preventing and Countering Violent Extremism (PCVE) and de-radicalization programs; and therefore, obligates all entities engaged in PCVE and De-radicalization efforts accordingly.[103]

This institutional framework helps to facilitate greater collaboration and information sharing among different actors involved in counter-terrorism efforts, including law enforcement agencies, intelligence services, and civil society organizations. By establishing a centralized institutional framework to support counter-terrorism efforts, Kenya has the opportunity to enhance its ability to effectively respond to threats and to coordinate its efforts with those of its international partners.

4.2.2.3 Legal Framework for Enforcement

Another important lesson that Kenya can learn from the United States' Strategic Framework for Countering Terrorism and Targeted Violence is the importance of having a strong legal framework for the enforcement of counter-terrorism measures.

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[101]National Counterterrorism Centre official site available at *https://counterterrorism.go.ke/* accessed 13 April 2023
[102] Section 40C of the Prevention of Terrorism Act (POTA) 2012
[103] Ibid

The United States has a comprehensive legal framework for counter-terrorism that includes a range of laws and regulations governing different aspects of counter-terrorism efforts[104]. This includes laws related to intelligence gathering, law enforcement activities, border security, and financial regulation, among others.[105]

Having a strong legal framework for counter-terrorism is important because it provides a clear basis for action and helps to ensure that counter-terrorism measures are conducted in accordance with the rule of law. It also helps to ensure that these measures are subject to appropriate oversight and accountability mechanisms.[106]

Kenya could benefit from strengthening its legal framework for counter-terrorism enforcement by developing clear and comprehensive laws and regulations that provide a sound basis for action. This could include laws related to intelligence gathering, surveillance activities, border security, and financial regulation, among others.[107] In addition to developing a strong legal framework, Kenya should also ensure that its counter-terrorism measures are subject to appropriate oversight and accountability mechanisms.[108] This could include establishing

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[104] Tsuma, C., & Kimani, K. (2019). "Kenya's counterterrorism strategy and the challenge of al-Shabaab." Terrorism and Political Violence, 31(6), 1119-1136.
[105] Ibid
[106] Ibid
[107] Ibid
[108] Ibid

independent bodies to oversee and review counter-terrorism activities, as well as ensuring that there are adequate mechanisms in place for individuals to seek redress in cases of abuse or misconduct by law enforcement agencies.[109]

4.2.2.4 Prioritizing International Cooperation

The final lesson that Kenya can learn from the United States' Strategic Framework for Countering Terrorism and Targeted Violence is the importance of prioritizing international cooperation in countering terrorism.

Terrorism is a global threat that requires a coordinated international response[110]. The United States has recognized this fact and has worked to build strong partnerships with other countries and international organizations to combat terrorism. This includes sharing intelligence, providing training and technical assistance, and cooperating on law enforcement and military operations.[111]

Kenya, like many other countries, faces the threat of terrorism from both domestic and international sources.[112] In order to effectively counter this threat, it is important for Kenya to prioritize international cooperation and collaboration. This could include working with other countries and regional

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[109] Ibid
[110] Ministry of Interior and Coordination of National Government (2018). National Policy on Prevention and Countering Violent Extremism. Nairobi, Kenya.
[111] Ibid
[112] Ibid

organizations to share intelligence, coordinate law enforcement efforts, and develop joint strategies for countering terrorism.[113] In addition, Kenya should also work to strengthen its partnerships with international organizations such as the United Nations and the African Union, which can provide valuable resources and support for counter-terrorism efforts. [114] By prioritizing international cooperation, Kenya can enhance its capacity to effectively counter the threat of terrorism and ensure the safety and security of its citizens.

1.1 South Africa

4.3.1 National Counter - Terrorism Strategy 2013

South Africa's National Counter-Terrorism Strategy 2013 is a comprehensive framework that outlines the country's approach to countering terrorism. The strategy is based on a whole-of-government and whole-of-society approach that seeks to address the root causes of terrorism, build community resilience, and enhance law enforcement and intelligence capabilities. [115] The key objectives of the strategy include preventing and countering terrorism and violent extremism, protecting critical infrastructure, enhancing intelligence capabilities, strengthening border control, building community resilience, and promoting international cooperation.[116]

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[113] Ibid

[114] Ibid

[115] Welsh, J. M., & Sharpe, B. (2015). Terrorism in South Africa: evaluating the effectiveness of the National Counter-Terrorism Strategy. *Journal of Contemporary African Studies*, 33(4), 483-501.

[116] Ibid

The strategy recognizes the importance of addressing the underlying conditions that give rise to terrorism, such as poverty, social exclusion, and political grievances. It also emphasizes the importance of building strong partnerships with communities, civil society organizations, and other stakeholders to prevent radicalization and promote social cohesion.[117] In addition, the strategy focuses on enhancing the capacity of law enforcement and intelligence agencies to detect and disrupt terrorist activities, while also ensuring that these efforts are conducted in accordance with human rights principles and the rule of law.[118]

4.3.2 Key Lessons for Kenya

4.3.2.1 Alignment with UN Global Counter - Terrorism Strategy

One key lesson that Kenya can learn from South Africa's National Counter-Terrorism Strategy 2013 is the importance of aligning with the United Nations Global Counter-Terrorism Strategy. This strategy provides a comprehensive framework for preventing and countering terrorism at the global level, and emphasizes the importance of addressing the root causes of terrorism, building partnerships and promoting international cooperation.[119] By aligning with the UN Global Counter-Terrorism Strategy, Kenya can ensure that its own national counter-terrorism strategy is consistent with international best

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[117] Ibid

[118] Ibid

[119] Lesedi Molopyane (2020). A Comparative Analysis of South Africa and Kenya's Counter-Terrorism Strategies". Institute for Security Studies

practices, and is coordinated with efforts by other countries and international organizations.[120] This can help to strengthen the effectiveness of Kenya's counter-terrorism efforts and enhance its ability to prevent and respond to terrorist threats.[121]

In addition, aligning with the UN Global Counter-Terrorism Strategy can help Kenya to access resources and expertise from international partners, and to promote the exchange of best practices and lessons learned with other countries facing similar challenges.[122]

4.3.2.2 Implementation Plan with Updates
An implementation plan with updates is a crucial component of any national counter-terrorism strategy, and this is a key lesson that Kenya can learn from South Africa's National Counter-Terrorism Strategy 2013.[123] An implementation plan is a detailed roadmap for putting the strategy into action, and should include specific objectives, timelines, resource requirements, and performance indicators.[124] The plan should also outline the roles and responsibilities of various stakeholders involved in implementing the strategy, and should identify potential risks and mitigation measures.[125]

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[120] Ibid

[121] Ibid

[122] Ibid

[123] Sammy Gakero Githuku and Eunice Muthengi (2017) "Countering terrorism in Kenya and South Africa: A comparative analysis of the national counter-terrorism strategies". *Journal of Terrorism Research*

[124] Ibid

[125] Ibid

Furthermore, it is important for the implementation plan to be regularly updated to reflect changes in the security environment, emerging threats, and lessons learned from previous implementation efforts. This ensures that the strategy remains relevant and effective over time, and that resources are allocated appropriately to address new and evolving threats.[126]

In the case of South Africa's National Counter-Terrorism Strategy 2013, the implementation plan included a detailed list of actions to be taken by various stakeholders, as well as timelines and performance indicators for measuring progress. Regular updates were also provided to ensure that the plan remained relevant and effective. [127] By developing an implementation plan with updates, the study posits that Kenya can ensure that its national counter-terrorism strategy is effectively implemented and adapted over time to address new and emerging threats. This can help to enhance the effectiveness of Kenya's counter-terrorism efforts, and to ensure that resources are allocated in a manner that maximizes impact and reduces risk.[128]

4.3.2.3 Annual Updates

The inclusion of annual updates in South Africa's National Counter-terrorism Strategy 2013 provides a key lesson for Kenya in the development of its own national counter-terrorism strategy. By conducting annual updates, South Africa is able to

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[126] Ibid

[127] Ibid

[128] Ibid

regularly review and revise its strategy in response to emerging threats and changing circumstances. This allows the country to ensure that its counter-terrorism measures are always relevant and effective.[129]

For Kenya, including annual updates in its national counter-terrorism strategy can help to ensure that the strategy remains relevant and effective over time.[130] This can also help to build trust and confidence among stakeholders, including relevant government agencies, civil society organizations, and the private sector. Annual updates can also serve as an opportunity to engage with these stakeholders and ensure a whole-of-society approach to countering terrorism.[131]

5.0 Conclusion

Developing an effective national counter-terrorism strategy is critical for any country facing the threat of terrorism. By examining the strategies of various countries, such as Canada, the United States of America, and South Africa, Kenya can learn valuable lessons in developing and revising its own strategy. These lessons include the need for a publicly accessible document, a whole-of-society approach, vulnerability assessments, alignment with related national security strategies, clarification of roles and responsibilities, accountability mechanisms, institutional frameworks, legal

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[129]Moses O. Adagala and Richard A. Matthew (2018) "Comparative analysis of South Africa's National Counter-Terrorism Strategy and other global counter-terrorism strategies" *Journal of Terrorism Research*
[130] Ibid
[131] Ibid

frameworks for enforcement, prioritizing international cooperation, and regular updates. By incorporating these key elements, Kenya can enhance its ability to prevent, detect, and respond to acts of terrorism and protect its citizens and national security interests. It is therefore crucial for the Kenyan government to prioritize the development and implementation of a (revised) national counter-terrorism strategy that reflects these lessons and aligns with best practices from around the world.

References

Ahmad, S. S., & Haque, M. S. (2017). Countering violent extremism in Canada: A critical analysis of the counter-terrorism strategies.

Journal of Policing, Intelligence and Counter Terrorism, 12(2), 148-163. Doi: 10.1080/18335330.2017.1317693

Ahmed Abdullahi Abdi and Ahmed B. Mariam (2018) "The Effectiveness of Kenya's Counterterrorism Strategy and Its Implications for Regional Security", *the Journal of International Security Affairs*

Andrew Franklin and Edward Karantzis (2019) "Terrorism in Kenya: Reducing Vulnerability and Enhancing Resilience", *the International Journal of Intelligence and Counterintelligence*

Felix Kiprono (2019) "Kenya's response to terrorism: a critical analysis of the national security strategy", *the Journal of Terrorism Research*

Githuku, E. W. (2017). The Role of Civil Society in Kenya's Counterterrorism Strategy. Global Security: Health, Science and Policy, 2(2), 109-118.

Hassan, H., & O'Brien, K. (2019). Critical perspectives on counter-terrorism policy-making. Critical Studies on Terrorism, 12(1), 1-20.

Katana, D. T. (2018). Terrorism and counterterrorism in Kenya: analyzing the adequacy of policy and legal frameworks. African Security Review, 27(4), 324-337.

Kisiangani, E. W. (2019). The challenge of terrorism in Kenya: A critical analysis of counterterrorism strategies. *Journal of Terrorism Research*, 10(1), 23-31.

Lesedi Molopyane (2020). A Comparative Analysis of South Africa and Kenya's Counter-Terrorism Strategies". Institute for Security Studies

Ministry of Interior and Coordination of National Government (2018). National Policy on Prevention and Countering Violent Extremism. Nairobi, Kenya.

Moses O. Adagala and Richard A. Matthew (2018) "Comparative analysis of South Africa's National Counter-Terrorism Strategy and other global counter-terrorism strategies" *Journal of Terrorism Research*

Mutahi, P. (2016). "Kenya's strategy for countering terrorism: is it working?" *Journal of Eastern African Studies,* 10(3), 454-471.

National Counterterrorism Centre official site available at *https://counterterrorism.go.ke/*

National Counter-terrorism Centre: Major NCTC-Driven Strategies and Policies. Available at

https://counterterrorism.go.ke/major-nctc-driven-strategies-and-policies%e2%80%a8/

Ndung'u, J. W., & Githuku, J. N. (2019). The role of intelligence in countering terrorism in Kenya. *Journal of Intelligence and Security Studies,* 1(1), 53-72.

O'Connor, R. E. (2020). U.S. government efforts to prevent terrorism and targeted violence: An overview of selected programs. Congressional Research Service.

Ombati, M. O., & Ondabu, I. (2019). Terrorism in Kenya: A Critical Analysis of the Government's Counter-terrorism Strategy. *Journal of Public Administration and Governance*, 9(1), 348-359.

Opiyo B. and Othuon L, The Nexus Between Cybersecurity and Counterterrorism: Kenya's Preparedness." *the Journal of Cybersecurity*

Oyuke, B., & Osoro, E. (2017). The effectiveness of Kenya's counter-terrorism strategy in preventing and countering violent extremism. *Journal of Terrorism Research*, 8(3), 32-39.

Prevention of Terrorism Act (POTA) 2012

Sammy Gakero Githuku and Eunice Muthengi (2017) "Countering terrorism in Kenya and South Africa: A

Developing an Effective National Counter – **(2023) Journal of cmsd Volume 10(4)**
Terrorism Strategy for Kenya: Lessons from
Comparative Best Practices: Michael Sang

comparative analysis of the national counter-terrorism strategies". *Journal of Terrorism Research*.

Tsuma, C., & Kimani, K. (2019). "Kenya's counterterrorism strategy and the challenge of al-Shabaab." Terrorism and Political Violence, 31(6), 1119-1136.

Welsh, J. M., & Sharpe, B. (2015). Terrorism in South Africa: evaluating the effectiveness of the National Counter-Terrorism Strategy. *Journal of Contemporary African Studies*, 33(4), 483-501. Yvonne Njeri Waweru (2020) "Counterterrorism Strategy in Kenya: Challenges and Opportunities", *the Journal of Terrorism Research*

Incorporating Environmental, Social and Governance in an Organisation

*By: Linda Namiinda**

Abstract

This paper discusses how to successfully introduce Environmental, Social and Governance (ESG) into organizations. The paper defines ESG and its applicability in Kenya. It then proceeds to look at the importance of incorporating ESG into an organization. It also suggests how to equip the Board and the Corporate Secretaries so that they can be ESG leads in organizations since ESG is quickly metamorphosizing into a must have in all organizations intending to remain a going concern in Kenya.

1. Introduction

We may recall sometime in early 2022 when Kentucky Fried Chicken (KFC)[1] announced that they could no longer sell potato chips in Kenya as they had run out of potatoes.[2] In a tweet on their official

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[1] KFC is a United States of America based fast food restaurant which has franchises in most major towns and cities in Kenya and globally. They are popular for their air fried potato chips and crispy coated chicken,

[2] Waihiga Mwaura 'How KFC in Kenya got fried over its chip shortage' BBC News 8th January, 2022 <*https://www.bbc.com/news/world-africa-59898362*> accessed 11th June, 2023; See also Brin Oruta 'Kenyans furious as KFC runs out of imported potatoes for chips' *The Star* Nairobi 4th January, 2022 <*https://www.the-star.co.ke/news/2022-01-04-kenyans-furious-as-kfc-runs-out-of-imported-potatoes-for-chips/;*> accessed 11th June, 2023. and Duncan Omondi

page, they blamed it on Kenyans who loved their chips a "***little too
much***" during the festive season and they had run out of potatoes
which had to be imported.[3] They claimed that the delays had been
caused by the COVID pandemic and other factors.[4] This inevitably
led to an uproar on social media threatening to boycott the enterprise
claiming they ought to import their customers as well. [5] Other
members of the public were disappointed that after ten years of
selling potato chips in Kenya, the enterprise did not find the potatoes
grown in Kenya "good enough" for their potato chips. [6] Other
Companies such as Chicken Inn and Burger King who are also known
for selling potato chips and other fast foods took the golden
opportunity to advertise their foods on social media which they said
are locally produced in an attempt to outsmart and/or outshine KFC.[7]
As with most social media news, this too faded away without causing

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'KFC runs out of potatoes as farmers struggle with oversupply' *The Standard*,
Nairobi, 4th January, 2022
<*https://www.standardmedia.co.ke/business/news/article/2001433386/kfc-runs-
out-of-potatoes-as-farmers-struggle-with-oversupply*> accessed 11th June, 2023.
[3] See <*https://twitter.com/KFCinKenya/status/1477930454036594769*> accessed
16th June, 2023.
[4] Bonface Otieno 'KFC runs out of imported potatoes for chips, snubs local
farmers' *Business Daily* Nairobi 4th January, 2022
<*https://www.businessdailyafrica.com/bd/corporate/companies/kfc-runs-out-of-
potatoes-for-chips-3671470*> accessed 16th June, 2023.
[5] Njoroge Josephine 'Import customers as well, Kenyans retort after KFC
announces potato shortage' *Nation*, Nairobi 4th January, 2023 at
<*https://nation.africa/kenya/business/import-customers-as-well-kenyans-retort-
after-kfc-announces-potato-shortage-3671730*> accessed 16th June, 2023.
[6] Marita Bosco 'KFC reveals why they cannot buy Kenyan potatoes' *The Star*
Nairobi available at *https://www.the-star.co.ke/news/2022-01-04-kfc-reveals-
why-they-cannot-buy-kenyan-potatoes/* accessed 16th June, 2023.
[7] See Waihiga Mwaura n2

too much harm on the KFC enterprise.[8] However, this was a classic example of a Company failing to appreciate the locals particularly suppliers in the community in which it operates which is important for ESG compliance. The Potato scenario was lacking in the S section of ESG as we will understand shortly as we problematize, conceptualize and contextualize ESG in this paper.

2. Defining ESG;

But what exactly are these Environment, Social and Governance issues abbreviated as ESG? We will break it down into three parts and explain each part as follows.

The **E** in ESG stands for the Environment, that is Environmental aspects which include measures taken to reduce climate risks and emission of greenhouse gases, proper waste management, sustainable water use and management, protection of biodiversity and ecosystems and any other steps taken for the protection of the environment.[9]

The **S** in ESG stands for the social aspect including Social Welfare and other issues including avoidance of child labour and slavery, fair labour practices including fair pay and reasonable working hours, safe working environment and concern for the local community[10]

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[8] The *#boycottKFC* hashtag was only trending on twitter during the month of January but other, more pressing issues overtook it shortly thereafter. A topic is trending when several people are tweeting about it.

[9] Who Cares Wins; Connecting Financial Markets to a Changing World see *<https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf>* accessed 14th June, 2023.

[10] Presentation made to Corporate Secretaries on 10th February, 2023 under the ESG series at the Sarova Stanley Hotel Nairobi dubbed *ESG Course part 1.*

and racial equity.[11] It recognizes that *people* matter, including the organization's customers, suppliers and communities. [12] It also incorporates Corporate Social Responsibility (CSR) which is basically how the organization participates in improving the life of the Community within which it operates.[13]

In the KFC scenario discussed above, the enterprise was lacking in the S sector of ESG as they completely ignored and/or belittled local potato farmers as potential suppliers for the ten or so years that they had been trading in Kenya.[14] This came to light when there were delays in the importation of potatoes and the local farmers were not very amused by this.[15] The Kenyan customers threatened to desist from making purchases from the said restaurant if the local potato farmers were not supported.[16]

The **G** stands for Governance, particularly, good corporate governance practices including shareholder rights and executive compensation. Governance could also broadly include innovation

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[11] Alicia E. Plerhoples, 'ESG & Anti-Black Racism' (2022) 24 U Pa J Bus L 909
[12] Debra Brown and Brown, David '*ESG Matters*'. 1st edn. Governance Solutions Inc (2021) available at *https://www.perlego.com/book/2939870/esg-matters-how-to-save-the-planet-empower-people-and-outperform-the-competition-pdf* accessed 13th June, 2023.
[13]   Bradley, B. *ESG Investing For Dummies* 1st edn. Wiley (2021) available at: <*https://www.perlego.com/book/2237439/esg-investing-for-dummies-pdf*> accessed 16th June, 2023.
[14] KFC was launched in Kenya on 12th August, 2011 at the Junction Mall, Ngong Road, Nairobi, see *https://newint.org/immersive/2021/06/08/when-kfc-came-kenya-fjf#:~:text=On%20the%20afternoon%20of%2012,in%20Nairobi%2C%20the%20 0Kenyan%20capital.* accessed 6th June, 2023.
[15] See Njoroge Josephine, n5.
[16] See Njoroge Josephine, n5.

and infrastructure adopted by organizations as well as partnerships including mergers and acquisitions entered into by organizations.[17] Incorporating ESG into financial reports means that the organizations are required to report on the steps they are taking to ensure the three categories are complied with.[18].

3. The Genesis of ESG

So where did ESG come from?

Environmental, Social and Governance as a term was coined in 2005 in the "Who Cares Wins" initiative.[19] The initiative had its genesis when the former United Nations invited top investors for a joint initiative to find ways to incorporate Environmental and Social Governance Issues into financial analysis of organizations.[20] The initiative produced a report coined "***Who Cares Wins***" which report attempts to assist investors, and financial analysts to deal with problems arising from ESG including its definition and

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[17] Kariuki Muigua, '*Embracing Environmental, Social and Governance (ESG) Principles for Sustainable Development in Kenya*' (2022) Volume 9(2) Journal of Conflict Management and Sustainable Development, *<https://journalofcmsd.net/wp-content/uploads/2022/10/Embracing-Environmental-Social-and-Governance-ESG-Principles-for-Sustainable-Development-in-Kenya.pdf* > accessed 15th June, 2023.

[18] See generally 'ESG and Sustainability reporting guidelines for Mongolian Companies' Chapter three: How to Report, at page 26-27 available at *https://www.undp.org/sites/g/files/zskgke326/files/2022-08/ESG%20reporting%20ENG.pdf* accessed 16th June, 2023.

[19] Georg Kell, The Remarkable Rise of ESG *Forbes* 11th July, 2018 *<https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/?sh=75ba82661695>* accessed 13th June, 2023.

[20] Secretary-General Launches 'Principles for Responsible Investment' Backed by World's Largest Investors, *United Nations Meetings Coverage and Press Releases* 27th April, 2006 *<https://press.un.org/en/2006/sg2111.doc.htm>* accessed 16th June, 2023.

applicability. [21] Around the same time, the United Nations Environmental Program Finance Initiative also produced the famous "Freshfield Report" which is basically a "legal framework for the integration of Environmental, Social and Governance issues into organizational investment"[22]

4. ESG applicability and enforceability in Kenya

Although Environmental and Social Governance has been in existence for a while although not properly so called, it has become quite prevalent in the past two or so years in Kenya.[23] It is argued that organizations that adopt ESG have a higher probability for success, or rather, pose a much less risk for investors.[24] In the past, we have had environmental regulations and provisions on sustainable development guiding companies including the Sustainable Development Goals. [25] We have also had Corporate Social Responsibility (CSR) activities where companies voluntarily

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[21] Financial Sector Initiative, Who Cares Wins: Connecting Financial Markets to a Changing World
<*https://d306pr3pise04h.cloudfront.net/docs/issues_doc%2FFinancial_markets%2Fwho_cares_who_wins.pdf*> accessed 13th June, 2023
[22] See
<*https://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf* > accessed 13th June, 2023
[23] The Nairobi Securities Exchange ESG Disclosures Guidance Manual was launched in Kenya in 2021, barely two years ago which was a huge step in the ESG conversation in Kenya.
[24] Beth Haddock, Tucker Pribor and Kate Starr, 'Why Corporate Attorneys and other Gatekeepers should consider ESG and Sustainability Principles' (2018), Vol. 30, No. 1, Fordham Environmental Law Review <*https://www.jstor.org/stable/10.2307/26775220* > accessed 16th June, 2023
[25] The SDGs in Action, UNDP <*https://www.undp.org/sustainable-development-goals?gclid=CjwKCAjwyqWkBhBMEiwAp2yUFquAIEKqT2mqwI-9DjsIMWxZ9-Mn5xRsyo9VtvCoF73T8K76RIiAihoC5KYQAvD_BwE*> accessed 14th June, 2023

participate in assisting the less privileged in the community.[26] The CSR activities have previously been used as a marketing strategy rather than actual care and concern for the community since the organizations are aware that CSR, if well utilized, would contribute to competitiveness and profit-maximization.[27] Social Responsibility of organizations, which can be summarized as 'the unwritten contract between an organization and the community in which it operates'.[28] Social Responsibility can be deduced from Article 66 of the Constitution of Kenya.[29] Other examples of social responsibility under the Kenyan law include the provisions of the Petroleum Act which encourages developing and procuring of a locally available workforce.[30] The Companies Act also requires Directors to have regard to the impact of their activities on the community.[31]

Finally, we have had corporate governance guidelines governing companies on governance issues including the Mwongozo Code of Governance [32] which governs public companies, the Code of Corporate Governance Practices for Issuers of Securities To The Public, 2015 which are Regulations under the Capital Markets Act Cap 485A governing listed/quoted companies and general

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[26] Muthuri Judy N. and Gilbert Victoria 'An Organizational Analysis of Corporate Social Responsibility in Kenya' 2011, Vol. 98, No. 3 pp.467-483, Journal of Business Ethics < *https://www.jstor.org/stable/41476144* > accessed 16th June, 2023.

[27] Ibid

[28] Debra Brown and Brown, David n12.

[29] The Article provides that local communities and their economies should benefit from investment in property.

[30] Petroleum Act Number 2 of 2019, S2 and Part VI of the Act.

[31] See S143 (1)(d) of the Companies Act, Number 17 of 2015

[32] < *https://www.scac.go.ke/index.php/2015-02-16-09-56-36/2015-10-22-05-29-57?download=14:overview-of-mwongozo* > accessed 15th June, 2023.

guidelines in the Companies Act and Regulations. [33] ESG is a conglomeration of all these subsectors as it includes environmental and social impact and governance structures that enhance stakeholder wellbeing.[34]

Other than the above steps which have been taken to introduce ESG whether wholly or partially into Kenyan organizations, the Institute of Certified Secretaries (ICS), Kenya has also launched ESG courses[35] aimed to train Corporate Secretaries on ESG to enable them lead in ESG issues in their respective organizations. [36] Further, the annual conference organized by ICS this year will be ESG themed[37] just to sensitize members of the Institute and other attendees on matters ESG. Additionally, Kenyan companies such as Bamburi Cement

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[33] Sections relating to the Directors and the Company Secretary under the Companies Act, Number 17 of 2015.

[34] Kyle Peterdy, ESG (Environmental, Social & Governance) A management and analysis framework to understand and measure how sustainably an organization is operating 30th June, 2022 see *<https://corporatefinanceinstitute.com/resources/esg/esg-environmental-social-governance/>* accessed 16th June, 2023

[35] See the relevant brochures for the ESG courses here *<https://ics.ke/downloads-center-2?task=download.send&id=208&catid=3&m=0> and here*
<https://ics.ke/downloads-center-2?task=download.send&id=209&catid=3&m=0>

[36] Institute of Certified Secretaries Calendar of events, 2023 *<https://ics.ke/downloads-center-2?task=download.send&id=205&catid=3&m=0>* accessed 16th June, 2023.

[37] See
<https://www.facebook.com/photo/?fbid=585109470474814&set=gm.1993269354 341770> accessed 16th June, 2023.

PLC[38], Safaricom PLC[39] and KCB[40] and a few others have already published their maiden sustainability reports as required by the ESG guidelines in Kenya.[41]

a. ESG Regulation in Kenya

Despite all the above steps and guidelines on matters ESG, organizations would only see the need to adhere to the principles set out under ESG were there are actual enforceable rules and regulations regarding the same.[42] Unfortunately, there are no clear regulations on ESG as a concept in Kenya to date. All that is there is an ESG Disclosure Manual developed by the Nairobi Securities Exchange. The Manual is to guide listed/quoted companies on the material issues that they must disclose in adhering to ESG Guidelines.[43]

5. Why should organizations care about ESG? After all, they are just unenforceable guidelines!

ESG Investing[44] has grown exponentially over the past one decade.[45] Lead investors, after years of investing in companies and only

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[38] See <*https://www.lafarge.co.ke/sites/kenya/files/2022-11/bamburi-cement-sustainability-report-2021.pdf*> accessed 14th June, 2023.

[39] See <*https://www.safaricom.co.ke/images/Downloads/2022-Safaricom-Sustainability-Report.pdf*> accessed 14th June, 2023.

[40] See <*https://kcbgroup.com/wp-content/uploads/2022/08/KCB-Sustainability-Report-2021.pdf*> accessed 14th June, 2023.

[41] Otiato Guguyu, Only 10pc of listed firms comply with ESG norms, *Business Daily*, Nairobi 28th July, 2022

<*https://www.businessdailyafrica.com/bd/data-hub/only-10pc-of-listed-firms-comply-with-esg-norms-3894194*> accessed 16th June, 2023.

[42] Ibid

[43] Kariuki Muigua, n17.

[44] Responsible investing where the investor is conscious of the role the investment will make on the environment and society at large. See Beth Haddock, Tucker Pribor and Kate Starr, at n24

[45] Dana Brakman Reiser & Anne Tucker, 'Buyer Beware: Variation and Opacity in ESG and ESG Index Funds' (2020) 41 Cardozo L Rev 1921.

considering financial risks realized that a company may have very good accounting books projecting profits but still end up in great losses due to non-financial losses. [46] The impact of ESG on the financial performance of a company could no longer be downplayed.[47] The investors therefore decided that they were safer if the companies gave full disclosure of other factors particularly environmental, social and governance factors which may have an impact in the future of the company. [48] But rather than the risk aversion that investors were concerned with, they were also genuinely concerned about the environment, the society and good governance in the Companies they were associated with.[49]

From the above, the Board ought to be concerned with ESG for two reasons. First is the full disclosure required for purposes of securing financial and other assistance from investors.[50] Since investors are now considering ESG investing where they only invest in companies that are ESG compliant, an organization which wants to maximize its property by looking towards investors investing in their company must consider implementing ESG requirements.

The second is that the board of directors of companies and organizations generally, regardless of the size has a duty to ensure the success of the organization which success may be achieved through non-financial activities such as ensuring the needs of the employees are well taken care of, foster the company's business

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[46] Financial Sector Initiative, Who Cares Wins n21
[47] Roopali Garg & Gurjant Singh Cheema, 'The Role of International Arbitration in the Rise of ESG Disputes' (2023) 32 Supremo Amicus [255]. Introduction.
[48] Financial Sector Initiative, Who Cares Wins n21
[49] Ibid
[50] Ibid

relationships with suppliers, customers and others, protection of the environment by taking onto consideration the impact of the organization's activities on the environment and the community at large and good governance practices among other activities.[51]

Finally, other jurisdictions that are way ahead of Kenya in terms of ESG compliance have considered prosecuting Directors for failing to adhere to ESG guidelines and thereby causing companies untold losses.[52] The Directors could be sued by the minority under derivative action for failing to abide by their fiduciary duty of ensuring the success of the company. [53] Considering our company laws are borrowed from other jurisdictions,[54] very soon, our Directors may be liable for failing to comply with ESG despite ESG itself being unenforceable in Kenya.[55]

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[51] Section 17 of the Companies Act Kenya Number 17 of 2015

[52] Dewi Tamara & Feronia Budiman, 'New Index ESG Leaders & Investment Decisions in
Indonesia Relating to ESG Principles' (2022) 12 J Mgmt & Sustainability 64 available   at
<*https://vpn.uonbi.ac.ke/proxy/1507e9ab/https/heinonline.org/HOL/PrintRequest?public=true&handle=hein.journals/colb2022&div=17&start_page=732&collection=usjournals&set_as_cursor=19&men_tab=srchresults&print=section&format=PDFsearchable&submit=Print%2FDownload*> accessed 18th June, 2023.

[53] Ibid.

[54] Such as the attempts made in Delaware although they have not been successful yet due to the pre-requisites of filing derivative claims. See more on Roy Shapira, 'Mission Critical ESG and the Scope of Director Oversight Duties' (2022), 2022 Colum Bus L Rev 732

[55] Dewi Tamara & Feronia Budiman, n52

6. Who should enforce ESG? The Board, the Company Secretary or the Legal Department?

ESG as defined above is very wide. [56] If it were to be properly implemented, it would require an environmental specialist or conservationist, a labour rights activist, a community development enthusiast, a corporate governance expert and an actuarial scientist[57] to predict and assess the risks involved. [58] This would be a very expensive affair for any organization.

In the recent past, titles like the *ESG lead* have emerged where different professionals with different career backgrounds but with a passion in ESG have come out to lead organizations in the pursuit of ESG Compliance.[59] This is because of the wide nature of ESG which has in some instances forced Directors to hire experts from outside the organization who are conversant with the divergent ESG components.[60]

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[56] Ibid.

[57] See Sean O'Neill 'What kind of jobs can you get with a qualification in ESG?' 2022 Corporate Governance Institute *<https://www.thecorporategovernanceinstitute.com/insights/guides/what-kind-of-jobs-can-you-get-with-a-qualification-in-esg/>* accessed 18th June, 2023.

[58] ESG reporting involves a material analysis which involves identifying the areas and/or topics that would make an impact on the company's performance. The material topics are diverse and could include human rights, bribery and corruption, occupation, health and safety, carbon emissions, waste management, data privacy and compliance among others. See Nairobi Securities Exchange ESG Disclosures Guidance Manual. These areas are quite diverse and each would require a certain level of expertise to sufficiently report on their effect on the organization's overall performance. See also Virginia Harper Ho, 'Modernizing ESG Disclosure' (2022) U Ill L Rev 277.

[59] An ESG lead could be an actuary, an accountant, a portfolio manager, a financial adviser, Sean O'Neill n 57

[60] Roy Shapira, n54

The Institute of Certified Secretaries which is also known as the "Governance Profession" and which institute is mandated to train Corporate Secretaries, has taken it upon itself to train Secretaries on ESG matters through several short courses. [61] The annual 3- day international conference is themed "ESG for a Sustainable Future: Aligning People, Profit and Planet" which will be held in August 2023.[62] Any Certified Secretary intending to remain in good standing with the institute is required to obtain at least 20 Continuous Development Points (CPDs) in a year or an aggregate of 60 CPD Points earned in the immediate past three years. Only members in good standing are entitled to practice as corporate secretaries and participate in the activities of the Institute. The CPD points are acquired through attending the trainings held by the Institute.[63] The trainings are therefore somewhat compulsory although a participant has the liberty to choose the topic for the training they wish to attend. A certified Secretary desirous of advancing the ESG conversation in their organization would therefore prefer ESG themed trainings and conferences.

Since ESG would need participation from most if not all departments of the organization, and since the Board has a duty to ensure the success of the organization by giving it general direction,[64] and the

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[61]*<https://www.ics.ke/downloads-center-2?task=download.send&id=208&catid=3&m=0>* accessed 17th June, 2023
[62]https://events.ics.ke/events/ODE=and
<https://www.facebook.com/photo/?fbid=585109470474814&set=gm.1993269354341770> accessed 16th June, 2023
[63] The Institute of Certified Secretaries current CPD Policy may be accessed on*<https://ics.ke/downloads-center-2?task=download.send&id=85&catid=3&m=0>* accessed 17th June, 2023.
[64] Section 143 of the Companies Act, Number 17 of 2015, Laws of Kenya.

Corporate Secretary is Compliance lead in the organization,[65] the Board with the help of the Corporate Secretary must take the lead in introducing ESG to the organization. As much as the role of the Corporate Secretary has evolved from being a mere minute taker[66] to being recognized as an officer of the Company[67] who would therefore be liable in the event of corporate criminal culpability, it is well settled that it is the Board that gives the general direction of the Company including the introduction of new concepts such as ESG. However, the Corporate Secretary, being the general adviser of the Company in matters governance must take the initiative to guide the Board on the entire process. The Board's Role would be to facilitate the process while the Corporate Secretary would be in charge of ensuring enforcement.[68]

In most organizations, the Corporate Secretary has a legal background as is therefore both the organizations Corporate Secretary and head of legal affairs as evidenced by recent job adverts in Kenya for renowned companies such as Development Bank of

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[65] Kariuki Muigua, The Company Secretary as a Compliance Leader – Maintenance of Global Standards, <*http://kmco.co.ke/wp-content/uploads/2018/08/076_CS_Compliance_Leader.pdf*> accessed 17th June, 2023.

[66] See the case of ***Barnett, Hoares & Co v South London Tramways Co*** (1887) 18 QBD 815, where Lord Esher MR described the secretary as "a mere servant" who must "do what they are told.

[67] In a later case of ***Panorama Developments (Guildford) Ltd v Fidelis Furnishing Fabrics Ltd*** [1971] 2 QB 711, the Court reversed the decision in Barnett, Hoares & Co and held that the Company secretary is an officer of the Company with extensive duties and responsibilities.

[68] See generally the role of the Corporate Secretary as discussed by William B. Browder in 'The Corporate Law Department and the Corporate Secretary Function' 1979 Vol. 34, The Business Lawyer, Proceedings of "Corporate Law Department Forum, March 8 and 9, 1978" (February 1979), pp. 875-880, American Bar Association see *https://www.jstor.org/stable/40685958* accessed 18th June, 2023.

Kenya, [69] National Oil Corporation, Kenya, [70] National Hospital Insurance Fund (NHIF),[71] Kenya Airports Authority (KAA),[72] and Kenya National Commission for UNESCO (KNATCOM). [73] According to some, the ideal situation is to have the Corporate Secretary and the General Counsel as one and the same person.[74] This combination of qualifications comes with its set of advantages since the legal affairs department would be at a better place to confirm that all the laws and guidelines related To ESG are complied with. As explained earlier, ESG has a very wide coverage and therefore, a professional with an Environmental, Employment and Governance background would have a lot of value addition to a company seeking to comply with ESG Guidelines.

7. Is the Corporate Secretary sufficiently equipped to handle ESG issues?

Considering how wide ESG is, it would be virtually impossible for a single person to be an expert in the entire ESG concept. However, an organization should have a leader in all major departments. In my

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[69]See *https://www.myjobmag.co.ke/job/company-secretary-and-head-of-legal-development-bank-of-kenya* accessed 18th June, 2023.

[70] See *https://nationaloil.co.ke/wp-content/uploads/2020/07/Job-Advert-Company-Secretary-Manager-Legal-Services.pdf* accessed 18th June, 2023.

[71] See *https://www.nhif.or.ke/wp-content/uploads/2023/04/CORPORATION-SECRETARY-AND-DIRECTOR-LEGAL-SERVICES*.pdf accessed 18th June, 2023.

[72] See *https://www.kaa.go.ke/jobs/corporation-secretarychief-legal-officer-ref-legalcssept-2021/#:~:text=The%20Corporation%20Secretary%2FChief%20Legal,litigation%20function%20of%20the%20Authority*. Accessed 18th June, 2023.

[73] See *https://jobs.digger.co.ke/39539/corporation-secretary-and-director-legal-services* accessed 18th June, 2023.

[74] William B. Browder n68

view, it is advisable for the Corporate Secretary to take the lead in matters ESG.[75] I will explain why.

The Corporate Secretary already distinguished themselves as the Governance specialist in organizations.[76] The statutory mandate of the Institute of Certified Secretaries includes promoting good governance.[77] In fact, the Certified Governance Secretaries Bill 2023 is proposing to change the name of the Certified Secretary to a Certified Governance Secretary at Section 2.[78] The corporate secretaries have a role to ensure that the Organization, whether public or private is adhering to governance best practices.[79] The Corporate Secretary already has the G covered and only needs to expand their territory to the E and S of ESG.

Having already covered the G aspect, the Corporate Secretary would have an easier task enforcing the E and S as compared to other professionals. I strongly opine that the Corporate Secretary should therefore lead the ESG discussions, of course with the support of the board and other relevant departments. Being a compliance expert, the Company Secretary would find it easy to ensure compliance with ESG guidelines. Furthermore, the Institute of Certified Secretaries

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[75] Some have argued that accountants are best equipped to take the lead in ESG matters due to their analytical skills and expertise in reporting, see Sean O'Neill, n57.

[76] Kariuki Muigua, The Company Secretary as a Compliance Leader n65

[77] See *https://www.ics.ke/about-us* accessed 17th June, 2023.

[78] <*https://mcusercontent.com/95d0a0e7ae38d71e257b38a32/files/d616814f-d9e4-a753-4ab9-a23a2fdce8f8/Draft_Certified_Governance_Secretaries_Bill_2023.pdf*> accessed 17th June, 2023.

[79] Kariuki Muigua, The Company Secretary as a Compliance Leader n65

continues to trains Secretaries on this emerging issue to ensure the corporate secretaries guide the corporations appropriately.[80]

8. Conclusion

As much as ESG only seems like an advisable step that organizations should take, it is worth noting that ESG is a wave which will cover every organization eventually. The earlier organizations start planning for it, the safer they will be when it becomes compulsory for all organizations to adopt it. It does not matter whether an organization is self -sufficient such that it does not require investors who will insist on ESG compliance. ESG is important for an organization that wishes to remain competitive, improve its rand and enjoy other reputational benefits.[81] Our planet is one and it must be utilized sustainably for our benefit and the benefit of future generations.[82] Every single person in Kenya has a responsibility to care for the environment and it matters not that an organization is too small to make an impact.[83] It would therefore be wise for small enterprises (as well as big ones),to invest in sustainability.[84] Every

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[80] The Institute of Certified Secretaries Calendar of events, 2023 <*https://ics.ke/downloads-center-2?task=download.send&id=205&catid=3&m=0*> accessed 16th June, 2023.

[81] Sanders, N. and Wood, J. *Foundations of Sustainable Business* 2nd edn. Wiley. (2019) <*https://www.perlego.com/book/2328887/foundations-of-sustainable-business-theory-function-and-strategy-pdf*> accessed 17th June 2023

[82]<*https://www.undp.org/cambodia/news/only-one-earth-living-sustainably-harmony-nature*> accessed 18th June, 2023.

[83] Article 69 (2) of the Constitution of Kenya provides that "*Every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.*"

[84] Joey Hodges the Role Small Businesses Can Play in Building A Sustainable Future *Forbes* 9th June, 2021

<*https://www.forbes.com/sites/forbesagencycouncil/2021/06/09/the-role-small-businesses-can-play-in-building-a-sustainable-future/?sh=1023fec72da5*> accessed 18th June, 2023.

organization, even a sole proprietorship produces waste and uses energy.[85] Separation of waste and using energy saving bulbs and clean energy would be contributions to the ESG mantra by the sole proprietor.[86]

9. Recommendations

First, more steps need to be taken to sensitize both the Board and the Corporate Secretaries on Matters ESG. Other medium sized and small enterprises including sole proprietorships which have no board should also be sensitized from the onset as it is these companies which sometimes grow into big companies complete with boards.

The Institute of Certified Secretaries may consider ESG Certification Courses as well as incorporating ESG as a concept in the professional papers required for qualification as a Certified Secretary. They could also include an award for ESG leads in the Champion for Governance Awards which is held annually and which event commends corporate secretaries who have done well in their respective organizations.[87]

Other Courses such as Company Law or the Law of Business Associations taught in Law Schools[88] and Commercial Transactions taught at the Kenya School of Law[89] and any other courses on the Environment and corporates and other organizations could also consider incorporating ESG as an examinable topic in their curricula.

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[85] Ibid.

[86] Ibid.

[87] *<https://www.ics.ke/cog-award>* accessed 17th June, 2023.

[88] See Part II, Number 9 of the Second Schedule to the Legal Education Act Kenya, Number 27 of 2012.

[89] See The Kenya School of Law (Training Programmes) Regulations, Regulation 10(i) under the Kenya School of Law Act Number 26 of 2012.

Bibliography

Articles

Brakman Dana Reiser & Tucker Anne, 'Buyer Beware: Variation and Opacity in ESG and ESG Index Funds' (2020) 41 Cardozo L Rev 1921.

Browder William B. in 'The Corporate Law Department and the Corporate Secretary Function' 1979 Vol. 34, The Business Lawyer, Proceedings of "Corporate Law Department Forum, March 8 and 9, 1978" (February 1979), pp. 875-880, American Bar Association

Garg Roopali & Cheema Gurjant Singh, 'The Role of International Arbitration in the Rise of ESG Disputes' (2023) 32 Supremo Amicus [255].

Guguyu Otiato, only 10pc of listed firms comply with ESG norms, *Business Daily*,

Haddock Beth, Pribor Tucker and Starr Kate, 'Why Corporate Attorneys and other Gatekeepers should consider ESG and Sustainability Principles' (2018), Vol. 30, No. 1, Fordham Environmental Law Review

Harper Virginia Ho, 'Modernizing ESG Disclosure' (2022) U Ill L Rev 277.

Hodges Joey the Role Small Businesses Can Play in Building a Sustainable Future *Forbes* 9th June, 2021

Kell Georg, The Remarkable Rise of ESG *Forbes*

Marita Bosco 'KFC reveals why they cannot buy Kenyan potatoes' *The Star* Nairobi

Muigua Kariuki, '*Embracing Environmental, Social and Governance (ESG) Principles for Sustainable Development in Kenya*' (2022) Volume 9(2) Journal of Conflict Management and Sustainable Development Muigua Kariuki, The Company Secretary as a Compliance Leader – Maintenance of Global Standards

Muthuri Judy N. and Gilbert Victoria 'An Organizational Analysis of Corporate Social Responsibility in Kenya' 2011, Vol. 98, No. 3 pp.467-483, Journal of Business Ethics

Mwaura Waihiga 'How KFC in Kenya got fried over its chip shortage' BBC News

Njoroge Josephine 'Import customers as well, Kenyans retort after KFC announces potato shortage' *Nation*, Nairobi 4th January, 2023

Omondi Duncan 'KFC runs out of potatoes as farmers struggle with oversupply' The Standard, Nairobi, 4th January, 2022

O'Neill Sean 'What kind of jobs can you get with a qualification in ESG?' 2022 Corporate Governance Institute

Oruta Brin 'Kenyans furious as KFC runs out of imported potatoes for chips' The Star Nairobi 4th January, 2022

Otieno Bonface 'KFC runs out of imported potatoes for chips, snubs local farmers' *Business Daily* Nairobi 4th January, 2022

Plerhoples Alicia E., 'ESG & Anti-Black Racism' (2022) 24 U Pa J Bus L 909

Secretary-General Launches 'Principles for Responsible Investment' Backed by World's Largest Investors, *United Nations Meetings Coverage and Press Releases* 27th April, 2006

Shapira Roy, 'Mission Critical ESG and the Scope of Director Oversight Duties' (2022), 2022 Colum Bus L Rev 732

Tamara Dewi & Budiman Feronia, 'New Index ESG Leaders & Investment Decisions in Indonesia Relating to ESG Principles' (2022) 12 J Mgmt & Sustainability 64

Books

B. Bradley, ESG Investing for Dummies 1st edn. Wiley (2021)

Brown Debra and Brown, David 'ESG Matters'. 1st edn. Governance Solutions Inc (2021)

N Sanders. and J. Wood, *Foundations of Sustainable Business* 2nd edn. Wiley. (2019)

Cases

Barnett, Hoares & Co v South London Tramways Co (1887) 18 QBD 815,

Panorama Developments (Guildford) Ltd v Fidelis Furnishing Fabrics Ltd [1971] 2 QB 711,

Constitutions, Statutes and Regulations

Companies Act, Number 17 of 2015

Constitution of Kenya, 2010

Kenya School of Law (Training Programmes) Regulations

Kenya School of Law Act Number 26 of 2012.

Legal Education Act Kenya, Number 27 of 2012.

Petroleum Act Number 2 of 2019

Reports, Manuals, Guidelines and Frameworks

ESG and Sustainability reporting guidelines for Mongolian Companies' Chapter three: How to Report

Financial Sector Initiative, Who Cares Wins: Connecting Financial Markets to a Changing World

Nairobi Securities Exchange ESG Disclosures Guidance Manual
Peterdy Kyle, ESG (Environmental, Social & Governance) A management and analysis framework to understand and measure how sustainably an organization is operating, 30th June, 2022

Who Cares Wins; Connecting Financial Markets to a Changing World

Websites

http://kmco.co.ke/wp-content/uploads/2018/08/076_CS_Compliance_Leader.pdf

https://corporatefinanceinstitute.com/resources/esg/esg-environmental-social-governance/

https://d306pr3pise04h.cloudfront.net/docs/issues_doc%2FFinancial_markets%2Fwho_cares_who_wins.pdf>

https://press.un.org/en/2006/sg2111.doc.htm

https://events.ics.ke/events/ODE=

https://ics.ke/downloads-center-2?task=download.send&id=205&catid=3&m=0

https://ics.ke/downloads-center-2?task=download.send&id=208&catid=3&m=0

https://ics.ke/downloads-center-2?task=download.send&id=209&catid=3&m=0

https://ics.ke/downloads-center-2?task=download.send&id=85&catid=3&m=0

https://jobs.digger.co.ke/39539/corporation-secretary-and-director-legal-services

https://journalofcmsd.net/wp-content/uploads/2022/10/Embracing-Environmental-Social-and-Governance-ESG-Principles-for-Sustainable-Development-in-Kenya.pdf

https://kcbgroup.com/wp-content/uploads/2022/08/KCB-Sustainability-Report-2021.pdf

https://mcusercontent.com/95d0a0e7ae38d71e257b38a32/files/d616814f-d9e4-a753-4ab9-a23a2fdce8f8/Draft_Certified_Governance_Secretaries_Bill_2023.pdf

https://nation.africa/kenya/business/import-customers-as-well-kenyans-retort-after-kfc-announces-potato-shortage-3671730

https://nationaloil.co.ke/wp-content/uploads/2020/07/Job-Advert-Company-Secretary-Manager-Legal-Services.pdf

https://twitter.com/KFCinKenya/status/1477930454036594769

https://vpn.uonbi.ac.ke/proxy/1507e9ab/https/heinonline.org/HOL/PrintRequest?public=true&handle=hein.journals/colb2022&div=17&start_page=732&collection=usjournals&set_as_cursor=19&men_tab=srchresults&print=section&format=PDFsearchable&submit=Print%2FDownload

https://www.bbc.com/news/world-africa-59898362
https://www.businessdailyafrica.com/bd/corporate/companies/kfc-runs-out-of-potatoes-for-chips-3671470

https://www.businessdailyafrica.com/bd/data-hub/only-10pc-of-listed-firms-comply-with-esg-norms-3894194

https://www.facebook.com/photo/?fbid=585109470474814&set=gm.1993269354341770

https://www.forbes.com/sites/forbesagencycouncil/2021/06/09/the-role-small-businesses-can-play-in-building-a-sustainable-future/?sh=1023fec72da5

https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/?sh=75ba82661695>
https://www.ics.ke/about-us

https://www.ics.ke/cog-award

https://www.ics.ke/downloads-center-2?task=download.send&id=208&catid=3&m=0

https://www.jstor.org/stable/10.2307/26775220

https://www.jstor.org/stable/40685958

https://www.jstor.org/stable/41476144

https://www.kaa.go.ke/jobs/corporation-secretarychief-legal-officer-ref-legalcssept2021/#:~:text=The%20Corporation%20Secretary%2FChief%2 0Legal,litigation%20function%20of%20the%20Authority

https://www.lafarge.co.ke/sites/kenya/files/2022-11/bamburi-cement-sustainability-report-2021.pdf

https://www.myjobmag.co.ke/job/company-secretary-and-head-of-legal-development-bank-of-kenya

https://www.nhif.or.ke/wp-content/uploads/2023/04/CORPORATION-SECRETARY-AND-DIRECTOR-LEGAL-SERVICES.pdf

https://www.perlego.com/book/2237439/esg-investing-for-dummies-pdf>

https://newint.org/immersive/2021/06/08/when-kfc-came-kenyafjf#:~:text=On%20the%20afternoon%20of%2012,in%20Nairobi%2 C%20the%20Kenyan%20capital.

https://www.perlego.com/book/2328887/foundations-of-sustainable-business-theory-function-and-strategy-pdf

https://www.perlego.com/book/2939870/esg-matters-how-to-save-the-planet-empower-people-and-outperform-the-competition-pdf

https://www.safaricom.co.ke/images/Downloads/2022-Safaricom-Sustainability-Report.pdf

https://www.scac.go.ke/index.php/2015-02-16-09-56-36/2015-10-22-05-29-57?download=14:overview-of-mwongozo

https://www.standardmedia.co.ke/business/news/article/2001433386/kfc-runs-out-of-potatoes-as-farmers-struggle-with-oversupply

https://www.thecorporategovernanceinstitute.com/insights/guides/what-kind-of-jobs-can-you-get-with-a-qualification-in-esg/

https://www.the-star.co.ke/news/2022-01-04-kenyans-furious-as-kfc-runs-out-of-imported-potatoes-for-chips/

https://www.undp.org/cambodia/news/only-one-earth-living-sustainably-harmony-nature

https://www.undp.org/sites/g/files/zskgke326/files/2022-08/ESG%20reporting%20ENG.pdf

https://www.undp.org/sustainable-development-goals?gclid=CjwKCAjwyqWkBhBMEiwAp2yUFquAIEKqT2mqwI-9DjsIMWxZ9-Mn5xRsyo9VtvCoF73T8K76RIiAihoC5KYQAvD_BwE

https://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf

https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_glo
bal_compact_2004.pdf

Entrenching a Human Rights Based Approach to Sustainable Development

By: **Kariuki Muigua***

Abstract

This paper discusses a Human Rights Based Approach(HRBA) to sustainability as envisaged under the Sustainable Development agenda, and the related topics. The right to development, human rights, and sound governance are all parts of sustainable development, sometimes referred to as sustainable human development. To achieve sustainable human development, emphasis is put on both material and intangible components of development, such as participation and rights.

people who are oppressed and living in multifaceted poverty who are most marginalised and discriminated against are those that development cooperation is most focused on helping. The plan identifies the persons and institutions in responsibility of protecting, supporting, and enforcing those human rights with the intention of enabling those who are oppressed and living in poverty to take action to change their situation.

This is due to the fact that a Human Rights-Based Approach always includes the following provisions: empowerment of women, men, girls, boys, and non-binary people living in poverty and oppression − the rights holders − with, for example, optimism, self-confidence, expertise, abilities, resources, networks, communication channels, and access to justice to enable them to assert their rights both individually and collectively; and capacity development of those with obligations to respect, protect, and uphold the rights of others.

The author advocates for entrenchment of the Human Rights Based Approach in all efforts geared towards achieving sustainable development.

1. Introduction

Article 25 (1) of the *Universal Declaration on Human Rights*[1] states that 'everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control'.

Principle 1 of the *1992 Rio Declaration on the Environment and Development*[2] states that "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature".

When referred to as sustainable human development, Sustainable Development is also associated with the right to development, human rights, and good governance. Focus is placed on both tangible and immaterial aspects of human development, such as participation and rights, in order to achieve sustainable human development. Moreover, it aspires to a variety of objectives, including the eradication of poverty, the advancement of human rights, the

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[1] UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III).
[2] UN General Assembly, *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992. Volume 1, Resolutions adopted by the Conference: corrigendum*, A/CONF.151/26/Rev.1(Vol.I)/Corr.1.

promotion of equal opportunities, the preservation of the environment, and the evaluation of the effects of development efforts.[3] Kenya's Vision 2030 adopts sustainable human development as it seeks to address the economic, social and political pillars. It thus fosters both material factors and non-material factors.[4] Sustainable human development is, therefore, inextricably linked to people's livelihoods, and is thus requisite in moving towards environmental justice.

This paper discusses the place of a Human Rights Based Approach to sustainability as envisaged under the Sustainable Development agenda, and the related topics.

2. Human Rights Based Approach to Sustainable Development

Since 1945, when the United Nations Charter was adopted, human rights have been a keystone of the organization's activities.[5] The Universal Declaration of Human Rights, issued by the UN General Assembly in 1948, states that the equal and inalienable rights of every human being serve as the cornerstone for freedom, justice, and peace in the world.[6]

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[3] See generally Amartya S., *Development as Freedom* (Anchor Books, New York, 1999), pp.35-53; See also UNDP, Human Development Report 2011, *The Real Wealth of Nations: Pathways to Human Development*, (Palgrave Macmillan Houndmills, Basingtoke, Hampshire, 2011), p. (i)-12. This report defines sustainable human development as the expansion of the substantive freedoms of people today while making reasonable efforts to avoid seriously compromising those of future generations.

[4] Kenya Vision 2030, Government of Kenya, 2007.

[5] 'UNSDG | Human Rights-Based Approach' <*https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach,   https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach*> accessed 19 April 2023.

[6] 'The Human Rights-Based Approach' (*United Nations Population Fund*) <*https://www.unfpa.org/human-rights-based-approach*> accessed 19 April 2023.

Since the United Nations Environmental Agency suggested a new rights-based agenda for sustainable development in the report "Transforming Our World: The 2030 Agenda for Sustainable Development," (UN, 2015), a rights-based approach to environmental concerns has gained support.[7]

A conceptual framework for the process of human development, the Human Rights-Based Approach (HRBA) is operationally focused on advancing and defending human rights while normatively basing itself on international human rights norms. It aims to address unfair power dynamics and discriminatory behaviours that inhibit development and frequently leave some groups of people behind. These issues are at the core of development issues, and it strives to analyse and address them.[8] The human rights-based strategy puts the spotlight on those who are the most disadvantaged, excluded, or subjected to discrimination. In order to make sure that interventions reach the most vulnerable sections of the community, it is frequently necessary to analyse gender norms, various types of discrimination, and power disparities.[9]

According to the HRBA, all civil, cultural, economic, political, and social rights as well as the right to development are based in a system of rights and associated duties created by international law. The HRBA mandates that the United Nations development cooperation

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[7] Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education 17.

[8] 'UNSDG | Human Rights-Based Approach' <*https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach, https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach*> accessed 19 April 2023.

[9] 'The Human Rights-Based Approach' (*United Nations Population Fund*) <*https://www.unfpa.org/human-rights-based-approach*> accessed 19 April 2023.

adhere to the human rights principles of universality, indivisibility, equality, and non-discrimination, participation, and accountability, and place special emphasis on building the capacities of both "duty-bearers" to fulfil their duties and "rights-holders" to assert their rights.[10] A rights-based strategy helps duty-bearers become more capable of carrying out their responsibilities and motivates right holders to exercise their rights. Governments are required to respect, safeguard, and uphold all rights on three different levels. Respecting a right entails not interfering with how that right is used. To defend a right is to stop other parties from obstructing it from being exercised. In order to ensure that individuals may exercise their rights, laws, regulations, institutions, and procedures must be put in place. This includes allocating resources.[11]

The Human Rights system and the SDGs complement each other in that the former ensures the binding stamp and, most importantly, monitoring and accountability mechanisms, while the latter also integrates "people, planet, prosperity, peace, and partnership" for the achievement of sustainable development.[12] Several of the SDGs' aims are changed from a goal or aspiration into immediate rights when examined through the prisms of current human rights legislation. In this regard, the implementation of the SDGs can be much more successful if it is influenced by a human rights-approach and takes into account the findings and suggestions of international and

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[10] 'UNSDG | Human Rights-Based Approach'
<https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach,   https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach> accessed 19 April 2023.
[11] 'The Human Rights-Based Approach' (*United Nations Population Fund*) *<https://www.unfpa.org/human-rights-based-approach>* accessed 19 April 2023.
[12] 'Intersessional Meeting on Human Rights and the 2030 Agenda (16 January 2019)' (*OHCHR*) < *https://www.ohchr.org/en/hr-bodies/hrc/intersessional-meeting2030-agenda* > accessed 19 April 2023.

regional treaty-based bodies as well as National Human Rights Institutions (NHRIs).[13]

In fact, local, regional, and international human rights organisations can be used to ensure that national policies and programmes for the implementation, monitoring, and reporting of the SDGs are based on a human rights-based approach. The various human rights mechanisms can provide useful and occasionally disaggregated data to feed decision-making and reporting processes, and the institutions overseeing human rights processes can be a useful bridge between governments and various vulnerable groups.[14]

HRBA in development seeks to achieve outcomes that are relevant to human rights standards, such as the right to adequate housing, through the adoption of procedures that uphold the human rights principles of equality and non-discrimination, inclusion and participation, accountability, and the rule of law.[15] Indigenous peoples and local communities' ways of life and territorial boundaries are important components of the solution to our global crises, and they must be recognised and supported throughout the framework, including through the recognition of rights over lands, territories, and resources, in area-based policies, in customary sustainable use, in traditional knowledge, and in fully and effectively participating in decision-making processes.[16]

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[13] Ibid.

[14] Ibid.

[15] 'A Rights-Based Approach to Urban Development - Urban Jonsson, the Owls | UN-Habitat' <*https://unhabitat.org/a-rights-based-approach-to-urban-development-urban-jonsson-the-owls*> accessed 19 April 2023.

[16] 'Implementing a Human Rights-Based Approach to Biodiversity Conservation - Paper 3 | FPP'
<*https://www.forestpeoples.org/en/report/2022/implementing-human-rights-BA*> accessed 19 April 2023.

In the *Case Concerning the Gabcikovo-Nagymoros Project,*[17] ICJ Judge Warramantry rightly opined that Sustainable Development reaffirms the need for both development and environmental protection, and that neither can be neglected at the expense of the other. He considered sustainable development to be a '*principle with normative value*' demanding a balance between development and environmental protection, and as a principle of reconciliation in the context of conflicting human rights, that is the *human right to development* and the *human right to protection of the environment*. Sustainable Development reconciles these rights by ensuring that the right to development tolerates the '*reasonable demands of environmental protection.*'[18]

3. Place of Law in Achieving Human Rights and Sustainability

The relationship between law and governance has been conceptualised by certain scholars in broad terms. Law and governance have been successfully connected, according to some, as hereunder: listed below:[19]

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[17] The Gabčíkovo–Nagymaros Project relates to a large damming project on the Danube River. This river is classified as an international waterway as it passes through or touches the borders of ten European countries before emptying into the Black Sea. The Project was specific to the part of the river passing through Hungary and Slovakia. It was initiated by the Budapest Treaty of 1977 between Slovakia and Hungary and aimed at preventing floods, improving river navigability and producing clean electricity for the two countries. Only a part of the project was completed in Slovakia, under the name Gabčíkovo Dam. Hungary suspended the Project in its territory and then later tried to terminate it citing environmental and economic concerns. Slovakia then proceeded with an alternative solution, called "Variant C", which involved diverting the river. These developments caused an international dispute between the two countries and they turned to the International Court of Justice for redress.

[18] Hungary v Slovakia, 1997 WL 1168556 (I.C.J-1997).

[19] Bell, C., "Governance and Law: The Distinctive Context of Transitions from Conflict and its Consequences for Development Interventions,"

Constitutions provide the framework for the legal and political institutions through which government takes place. They provide- legal 'power-maps' for how power will be held and exercised; a legal framework for accountability, often enforceable by apex courts; a legalized text which embodies the underlying political settlement or elite-level pact from which any political community flows; rights and safeguards for individuals from abuses of power by political actors and institutions; Public institutions of governance are themselves also creatures of law, operating according to law and sometimes even having secondary law-making functions; Good governance depends on a legal platform of both criminal law and civil law, to create the environment – here law's key role is to provide background norms that enable horizontal interactions; International law increasingly impacts on, and increasingly even regulates governance at the state level. This regulation is diverse and multifarious, including- International legal regulation of political change processes (including peace settlements, coup d'état, or other forms of regime change), which attempts to ensure only 'democratic' regime change; International legal requirements for human rights to be protected at the domestic level; Human rights directly impact on the internal governance arrangements of states; International legal requirements for 'inclusion' both in change processes and in the terms of the new political settlement itself; A range of diverse international bodies shape domestic governance in what have been termed

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Briefing Paper 4, (The Political Settlements Programme Consortium, 2015), pp.1-2. Available at
http://www.politicalsettlements.org/wp-content/uploads/2017/09/2015_BP_4_Bell_Governance-and-Law.pdf [Accessed on 6/1/2023].

'transnational global administrative spaces' which impact on domestic governance.

Article 10 of the Constitution of Kenya outlines the national values and principles of governance that inform application or interpretation of the Constitution, enacting, application or interpretation of any legislation, or making or execution of public policy.[20] The law thus has a significant impact on governance issues since it not only establishes the necessary governance structures but also specifies how they should operate.

The nexus between sustainable development and the right to clean and healthy environment, as well as the place of the polluter pays principle in enhancing this connection, was captured in the case of *John Muthui & 19 others v County Government of Kitui & 7 others [2020] eKLR[21]* in the following excerpt:

> 83. Indeed, Section 18 of the Environment and Land Court Act and Section 3(5) of the Environmental Management and Co-ordination Act provides that this court should be guided by the principle of *intergenerational* equity while resolving environmental disputes. Section 2 of the Environmental Management and Co-ordination Act defines *intergenerational* equity as follows:
>
> > *"**intergenerational equity**" means that the present generation should ensure that in exercising its rights to beneficial use of the environment the health, diversity and*

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[20] Art. 10(1), Constitution of Kenya 2010.
[21] *John Muthui & 19 others v County Government of Kitui & 7 others [2020] eKLR*, ELC. Petition No. E06 of 2020.

> *productivity of the environment is maintained or enhanced for the benefit of future generations."*

84. The quality of life for the future generation depends on our decisions today. The need for change in human development for them to lead happy lives has been debated for decades. The sustainability discourse started in the 1970s, and the 1992 UN Conference on the Environment and Development recognized intergenerational equity as central for policymaking that safeguards the future - this principle is now found in the constitutions of many countries, including Kenya.

85. Indeed, the World Commission on Environment and Development noted as follows: *"We borrow environmental capital from future generations with no intention or prospect of repaying…. We act as we do because we can get away with it: future generations do not vote; they have no political or financial power; they cannot challenge our decisions."*

86. Some countries, most notably Israel and Hungary, have created their own guardian or commissioner for future generations, independent voices for the long term that act as temporal checks and balances. Based on the human right to a healthy environment *(Hungary)* and on a basic law concerning sustainable development *(Israel),* the Commissioners in each country have unrestrained access to the information behind policymaking; respond to citizens' concerns; and publicly expose the long-term implications of current decisions.

105. The right to a clean and healthy environment is bestowed on every person, and has been considered by the courts and eminent authors to be essential for the existence of mankind. In

Adrian Kamotho Njenga vs. Council of Governors & 3 others [2020] eKLR, it was held that:

> "18. *Article 42 of the Constitution guarantees every person the right to a clean and healthy environment and to have the environment protected for the benefit of present and future generations through the measures prescribed by Article 69. The right extends to having the obligations relating to the environment under Article 70 fulfilled.*
>
> *19. Unlike the other rights in the bill of rights which are guaranteed for enjoyment by individuals during their lifetime, the right to a clean and healthy environment is an entitlement of present and future generations and is to be enjoyed by every person with the obligation to conserve and protect the environment. The right has three components; the right itself, the right to have unrestricted access to the courts to seek redress where a person alleges the right to a clean and healthy environment has been infringed or is threatened; and <u>the right to have the court make any order or give any directions it considers appropriate to either prevent or discontinue the act harmful to the environment, or compel any public officer to take measures to prevent or discontinue the act that is harmful to the environment or award compensation to any victim of a violation of the right to a clean and healthy environment.</u>"*

107. This position was elaborately considered in the case of *Martin Osano Rabera & Another vs. Municipal Council of Nakuru & 2 others [2018] eKLR* where the court adopted the decision in *Communication No.155/96: The Social and Economic Rights Action Centre and the Centre for Economic and Social Rights vs. Nigeria* where the African Commission on Human and People's Rights stated as follows:

"These rights recognize the importance of a clean and safe environment that is closely linked to economic and social rights in so far as the environment affects the quality of life and safety of the individual. As has been rightly observed by Alexander Kiss, "an environment degraded by pollution and defaced by the destruction of all beauty and variety is as contrary to satisfactory living conditions and the development as the breakdown of the fundamental ecologic equilibria is harmful to physical and moral health."

The right to general satisfactory environment, as guaranteed under article 24 of the Africa Charter or the right to healthy environment, as it is widely known therefore imposes clear obligations upon a government. It requires the State to take reasonable measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources."

123. *Sustainable Development* is one of the national values and principles of governance in the Constitution that bind all State organs, State officers, public officers and all persons. In its report, *Our Common Future,* the *Brundtland Commission* defined Sustainable as *development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.*

124. Under Section 2 of the Environmental and Management Co-ordination Act, sustainable development is defined as follows:

> *"sustainable development" means development that meets the needs of the present generation without compromising the ability of future generations to meet their needs by maintaining the carrying capacity of the supporting ecosystems."*

125. In the *Case Concerning the Gabcikovo-Nagymaros Project, (Hungary v Slovakia), 1997 WL 1168556 (ICJ),* it was held as follows:

> *"Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind - for present and future generations - of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed [and] set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities, but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development. For the purposes of the present case, this means that the Parties together should look afresh at the effects on the environment of the operation of the Gabcikovo power plant. In particular, they must find a satisfactory solution for the volume of water to be released into the old bed of the Danube and into the side-arms on both sides of the river."*

126. Essentially, sustainable development seeks to address *intra-generational equity*, that is equity among the present

generation and *inter-generation equity*, that is equity between generations. As opined in *Gabcikovo* case (*supra*), sustainable development reaffirms the need for both development and environmental protection, and neither can be neglected at the expense of the other.

127. The four (4) recurring elements that comprise the concept of *'sustainable development'* is the need to preserve natural resources for the benefit of future generations *(the principle of intergenerational equity)*; exploiting natural resources in a manner which is *'sustainable'*, *'prudent'*, *'rational'*, *'wise'* or *'appropriate' (the principle of sustainable use);* the *'equitable'* use of natural resources, and the need to ensure that environmental considerations are integrated into economic and other development plans, programmes and projects, *(the principle of integration).*

128. The principle of sustainable development seeks to limit environmental damage arising from anthropogenic activities and lessen the depletion of natural resources and pollution of the environment *(See Cullet P., Differential Treatment in International Environmental Law and its Contribution to the Evolution of International Law (Aldershot: Ashgate, 2003) pp 8-9).*

129. Sustainable development is a principle with a normative value, demanding a balance between development and environmental protection, and as a principle of reconciliation in the context of conflicting human rights, that is the right to development and the right to protecting the environment.

In the case of *Martin Osano Rabera & another v Municipal Council of Nakuru & 2 others [2018] eKLR*[22], the Court stated as follows:

> 48. I have considered the petition, the evidence both in support and opposition to it and the submissions. That a clean and healthy environment is a fundamental prerequisite for life is not a matter that needs belabouring. It is for this reason that the drafters of the Constitution of Kenya, 2010 saw it fit to provide for the right to a clean and healthy environment at **Article 42** within the Bill of Rights. Needless to state, Kenyans voted overwhelmingly in favour of the draft, thus giving their seal of approval to its provisions. **Article 42** states as follows:
>
>> *Every person has the right to a clean and healthy environment, which includes the right –*
>>
>> *(a) to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and*
>>
>> *(b) to have obligations relating to the environment fulfilled under Article 70.*
>
> 49. A duty to have the environment protected for the benefit of present and future generations is imposed on both the State and every person under **Article 69** which among others requires the state to ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits; to establish systems of environmental impact

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[22] *Martin Osano Rabera & another v Municipal Council of Nakuru & 2 others [2018] eKLR, Petition No. 53 of 2012.*

assessment, environmental audit and monitoring of the environment and to eliminate processes and activities that are likely to endanger the environment. Under the same article, every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. In short, the obligation to ensure a clean and healthy environment imposed on everybody – from the state to all persons be they natural, juridical, association or other group of persons whether incorporated or not.

50. So as to further safeguard environmental rights and to facilitate access to court for purposes of enforcing the right secured by Article 42, **Article 70** of the constitution provides that if a person alleges that a right to a clean and healthy environment recognised and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to court for redress in addition to any other legal remedies that are available in respect to the same matter and that he does not have to demonstrate that any person has incurred loss or suffered injury.

51. Provisions similar to those at **Article 42** are found at **Section 3** of the **Environmental Management and Co-ordination Act, 1999** (EMCA). Under **Section 3 (3)** of EMCA, if a person alleges that the right to a clean and healthy environment has been, is being or is likely to be denied, violated, infringed or threatened, in relation to him, then without prejudice to any other action with respect to the same matter which is lawfully available, that person may on his behalf or on behalf of a group or class of persons, members of an association or in the public interest

may apply to this court and this court may make such orders, among others, to prevent, stop or discontinue any act or omission deleterious to the environment; to compel the persons responsible for the environmental degradation to restore the degraded environment as far as practicable to its immediate condition prior to the damage; <u>and to provide compensation for any victim of pollution and the cost of beneficial uses lost as a result of an act of pollution and other connected losses</u>.

52. I have outlined all these provisions to underscore the importance placed by the constitution and statue law on protection of the right to a clean and healthy environment and conservation of the environment generally.

4. Conclusion

Although the concepts of a rights-based approach to development are consistent with the 2030 Agenda in some areas, more work has to be done in the implementation, monitoring, and assessment of the SDGs to guarantee that the full range of benefits offered by a rights-based approach may be realized.[23]

According to the Swedish International Development Cooperation Agency, the following are key questions to ask when applying the HRBA: Participation: Do all relevant stakeholders engage actively, in a way which allows rights holders to contribute meaningfully and influence outcomes? Link to human rights obligations: How are relevant human rights standards and recommendations from international and regional human rights mechanisms identified and used in formulating objectives and to advance processes and

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[23] de Man A, 'The Sustainable Development Goals and the Rights-Based Approach to Development: Compatible or Missing the Point?' (2019) 19 African Human Rights Law Journal 445.

outcomes? Accountability: Who are the duty bearers at different levels, and do they have sufficient capacity and interest to be accountable to rights holders? Are there mechanisms for participation and complaints in place for rights holders, civil society and other stakeholders to hold the duty bearers to account? Non-discrimination and equality: Are rights holders and the root causes of the non-realisation of their human rights identified and taken into account, particularly those most subject to discrimination and marginalisation? Empowerment and capacity development: How does the intervention contribute to the empowerment of rights holders to claim their rights, as well as capacity development of duty bearers to uphold their responsibilities, and of other relevant stakeholders to contribute to positive outcomes? And finally, transparency: What measures are put in place to ensure that all stakeholders are able to access relevant information and knowledge regarding the intervention?

Respecting human rights and providing equal opportunity for everyone in society is a key component of sustainability. With an emphasis on reducing poverty, it necessitates an equal distribution of resources. There is a focus on local communities, including preserving and enhancing their life support systems, acknowledging and respecting other cultures, and averting all forms of exploitation. Hence, social outcomes comprise social capital, trust, increased equity, and raised living standards.[24]

The human rights approach is at the core of the 2030 Agenda for Sustainable Development. In order for the world to continue to serve the requirements of the present and future generations, everyone has

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[24] Ibid, p. 3; Banik D, 'Legal Empowerment as a Conceptual and Operational Tool in Poverty Eradication' (2009) 1 Hague Journal on the Rule of Law 117.

a responsibility to prevent it from degrading, especially via sustainable production and consumption, the management of its natural resources, and urgent action on climate change. Sustainable development must take into account the relationship between human rights and environmental protection. Sustainable development is contingent upon upholding peoples' rights to a secure environment where they can thrive.[25]

The HRBA places the most marginalised and discriminated among those who are living in multidimensional poverty and oppression at the centre of development cooperation. The strategy identifies the individuals and institutions in charge of upholding, defending, and enforcing those human rights with the goal of empowering people who are oppressed and living in poverty to take action to escape their circumstances. [26] This is because the HRBA always includes the following provisions: empowerment of women, men, girls, boys, and non-binary people living in poverty and oppression — the rights holders — with, for instance, hope, assertiveness, knowledge, skills, tools, networks, communication channels, and access to justice to enable them to assert their rights both individually and collectively; and capacity development of those with obligations to respect, protect, promote, and fulfil human rights — the duty bearers — through, among other things, education.[27]

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[25] Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education.

[26] Cybercom, 'Human Rights Based Approach' (*Sida*) <*https://www.sida.se/en/for-partners/methods-materials/human-rights-based-approach*> accessed 19 April 2023.

[27] Ibid.

Entrenching a Human Rights Approach to Sustainable Development is the way to go so as to secure human rights and environmental protection.

References

UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III).

UN General Assembly, *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992. Volume 1, Resolutions adopted by the Conference: corrigendum*, A/CONF.151/26/Rev.1(Vol.I)/Corr.1.

Amartya S., *Development as Freedom* (Anchor Books, New York, 1999).

UNDP, Human Development Report 2011, *The Real Wealth of Nations: Pathways to Human Development*, (Palgrave Macmillan Houndmills, Basingtoke, Hampshire, 2011).

Kenya Vision 2030, Government of Kenya, 2007.

'UNSDG | Human Rights-Based Approach' *<https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach, https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach>* accessed 19 April 2023.

'The Human Rights-Based Approach' (*United Nations Population Fund*) *<https://www.unfpa.org/human-rights-based-approach>* accessed 19 April 2023.

Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education 17.

'UNSDG | Human Rights-Based Approach'

*<https://unsdg.un.org/2030-*agenda/universal-values/human-rights-based-approach,*https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach>* accessed 19 April 2023.

'The Human Rights-Based Approach' (*United Nations Population Fund*) *<https://www.unfpa.org/human-rights-based-approach>* accessed 19 April 2023.

'UNSDG | Human Rights-Based Approach' *<https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach, https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach>* accessed 19 April 2023.

'The Human Rights-Based Approach' (*United Nations Population Fund*) *<https://www.unfpa.org/human-rights-based-approach>* accessed 19 April 2023.

'Intersessional Meeting on Human Rights and the 2030 Agenda (16 January 2019)' (*OHCHR*) < *https://www.ohchr.org/en/hr-bodies/hrc/intersessional-meeting2030-agenda* > accessed 19 April 2023.

'A Rights-Based Approach to Urban Development - Urban Jonsson, the Owls | UN-Habitat' *<https://unhabitat.org/a-rights-based-approach-to-urban-development-urban-jonsson-the-owls>* accessed 19 April 2023.

'Implementing a Human Rights-Based Approach to Biodiversity Conservation - Paper 3 | FPP' *<https://www.forestpeoples.org/en/report/2022/implementing-human-rights-BA>* accessed 19 April 2023.

Hungary v Slovakia, 1997 WL 1168556 (I.C.J-1997).

Bell, C., "Governance and Law: The Distinctive Context of Transitions from Conflict and its Consequences for Development Interventions," *Briefing Paper 4*, (The Political Settlements Programme Consortium, 2015). Available at *http://www.politicalsettlements.org/wp-content/uploads/2017/09/2015_BP_4_Bell_Governance-and-Law.pdf* [Accessed on 6/1/2023].

John Muthui & 19 others v County Government of Kitui & 7 others [2020] eKLR, ELC. Petition No. E06 of 2020.

Martin Osano Rabera & another v Municipal Council of Nakuru & 2 others [2018] eKLR, Petition No. 53 of 2012.

de Man A, 'The Sustainable Development Goals and the Rights-Based Approach to Development: Compatible or Missing the Point?' (2019) 19 African Human Rights Law Journal 445.

Banik D, 'Legal Empowerment as a Conceptual and Operational Tool in Poverty Eradication' (2009) 1 Hague Journal on the Rule of Law 117.

Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education.

Cybercom, 'Human Rights Based Approach' (*Sida*) <*https://www.sida.se/en/for-partners/methods-materials/human-rights-based-approach*> accessed 19 April 2023.

Embracing Climate Technologies in Climate Change Mitigation and Adaptation for Sustainable Development

By: Anne Wairimu Kiramba[*]

Abstract

Embracing technology is significant in curbing climate change, both in mitigation and adaptation efforts. Digital Technology helps to be more prepared for the effects of climate change. Advanced weather forecasting systems, for instance, offers early warning of extreme weather occurrences. Traditional approaches towards climate change mitigation and adaptation such as the enactment of laws and policies have not been effective. This has resulted in the continued threat of climate change that hinders attainment of Sustainable Development.

The paper postulates that there is need to embrace climate technologies for climate change mitigation and adaptation in order to foster Sustainable Development. The adverse effects of climate change are being felt across the globe and adaptation to these effects is significant as the minimizing of the emissions of greenhouses gases. This paper makes a case for the challenges and opportunities for climate technologies in climate change mitigation and adaptation towards Sustainable Development. It provides actionable insights that address climate change issues.

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Embracing Climate Technologies in Climate (2023) Journal of cmsd Volume 10(4)
Change Mitigation and Adaptation for
Sustainable Development:
Anne Wairimu Kiramba

1.0 Introduction

Climate change is the most pressing global concern of the 21st Century. Climate change has been defined as the change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods[1]. Climate change has been associated with effects such drought, crop failure resulting in food insecurity, water scarcity, rising sea levels, displacement of people, health hazard and unemployment[2]. Climate change hinders the attainment of Sustainable Development[3].

In addition, most part of the world encounter disproportionately severe consequences from climate change, the most hit are tourism, health and agriculture and overall livelihood is put into a halt. Effects of climate slows sustainable development as the effects supplements and complements each other advancing their effects.

Sustainable Development has been defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs[4]. The concept of Sustainable Development has been adopted as the global blueprint for development as envisaged by the United Nations Agenda for

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[1] United Nations Framework Convention on Climate Change (United Nations, 1992), Article 1 (2)., Available at
https://unfccc.int/resource/docs/convkp/conveng.pdf (Accessed on 15/06/2023)

[2] Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

[3] Ibid

[4] *Our Common Future*, Report of the World Commission on Environment and Development, 1987 (Brundtland Report)

Embracing Climate Technologies in Climate   **(2023) Journalofcmsd Volume 10(4)**
Change Mitigation and Adaptation for
Sustainable Development:
Anne Wairimu Kiramba

Sustainable Development[5]. The Sustainable Development Goals are universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity[6]. However, attainment of the Sustainable Development agenda is faced by several challenges key among them being the threat of climate change[7]. Consequently, one of the priority concerns under the Sustainable Development agenda is combating climate change[8].

Various techniques and approaches have been adopted towards climate change mitigation and adaptation in the quest towards Sustainable Development. Such measures include the enactment of laws and policies on climate change at the global and national levels[9]. However, despite these measures, the threat of climate change still persists. Thus, to promote Sustainable Development, it is important that climate change be embraced, which impedes climate change mitigation and adaptation.

The paper aims to shed light on the explicit needs and issues for climate technologies in mitigation and adaptation to climate change for Sustainable Development. It further posits that technological

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[5] United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Available at
https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf (Accessed on 15/06/2023)

[6] Ibid

[7] Ibid

[8] Sustainable Development Goal 13., 'Available at
https://www.undp.org/sustainable-development-goals/climate-action?gclid=Cj0KCQjw7aqkBhDPARIsAKGa0oJBBwTdYd3P8F1StpqlCbJdXLuiKKDP6CeT6vrkjvGQ9QF5ktjg9WwaAgPuEALw_wcB (Accessed on 15/06/2023)

[9] See for example the Paris Agreement and the Climate Change Act of Kenya

innovation is crucial for an effective and efficient long term global response to climate change and enhancing Sustainable Development[10]. The agenda of this paper is to contribute to ways of achieving climate resilience which promote the readiness and capacity to respond to the adverse effects of climate change through digital technologies.

2.0 The Role of Climate Technologies in Climate Change Mitigation and Adaptation: Opportunities and Challenges

Climate technologies refer to technology approaches adopted to combat climate change by mitigating global greenhouse gas emissions[11].These are technologies used to address the global threat of climate change [12]. Climate technologies aim to combat climate change by removing greenhouse gases in the atmosphere and reducing future emissions[13]. Climate technologies are able to achieve environmentally and socially sound, cost effective and efficient approaches towards climate change mitigation and adaptation[14].

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[10] Lee. W. J & Mwebaza. R., 'The Role of the Climate Technology Centre and Network as a Climate Technology and Innovation Matchmaker for Developing Countries.' Available at *https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/sustainability-12-07956.pdf* (Accessed on 15/06/2023)

[11] Hetler. A., 'Climate tech vs clean tech: What's the difference.' Available at *https://www.techtarget.com/whatis/feature/Climate-tech-vs-clean-tech-Whats-the-difference* (Accessed on 15/06/2023)

[12] United Nations Climate Change., 'What is Technology Development and Transfer.' Available at *https://unfccc.int/topics/what-is-technology-development-and-transfer* (Accessed on 15/06/2023)

[13] Ibid

[14] Lee. W. J & Mwebaza. R., 'The Role of the Climate Technology Centre and Network as a Climate Technology and Innovation Matchmaker for Developing Countries.' Op Cit

Embracing Climate Technologies in Climate <mark>**(2023) Journal of cmsd Volume 10(4)**</mark>
Change Mitigation and Adaptation for
Sustainable Development:
Anne Wairimu Kiramba

The *United Nations Framework Convention on Climate Change* [15] recognizes the role of technology in climate change mitigation and adaptation. It calls upon member states to control greenhouse gas emissions through the use of appropriate technologies[16]. It further advocates for the transfer of suitable technologies to developing countries to aid in their efforts towards climate change mitigation and adaptation[17]. The *Paris Agreement* also recognizes the importance of technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions[18]. It calls for the adoption of technology in order to implement the mitigation and adaptation strategies set out under the Agreement [19] . The *Sustainable Development Goals* also envisage the role of technology in limiting global greenhouse gas emissions and rise in temperatures[20]. The United Nations further asserts that technology is integral in the climate change agenda and argues a case for transfer of technologies to developing countries in order to promote meaningful adaptation and mitigation actions towards attaining the sustainable development goals and objectives[21]. In Kenya, the *Climate Change Act* enshrines the importance of technology and technological innovations relevant to climate change in formulating the National Climate Change Action Plan[22].

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[15] United Nations Framework Convention on Climate Change., Op Cit

[16] Ibid

[17] Ibid, Article 4 (1) (c)

[18] Paris Agreement., 'United Nations, 2015.' Article 10., Available at *https://unfccc.int/sites/default/files/english_paris_agreement.pdf* (Accessed on 15/06/2023)

[19] Ibid

[20] Sustainable Development Goal 13., Op Cit

[21] United Nations., 'Acting on Climate Change: The UN Delivering as One.' (United Nations, New York, November 2008), p 32

[22] Climate Change Act, No. 11 of 2016, S 13 (5) (b)

Climate technologies therefore have an important role to play in climate change mitigation towards Sustainable Development. Climate technologies include Agri-tech initiatives such as the use of drought-resistant crops, using less pesticides, use of manure and improving crop growing processes; afforestation to aid in carbon capture; use of carbon capture technologies and use of geoengineering to alter the climate system in order to reduce the effects of climate change[23]. These technologies also include renewable energy sources such as solar energy, wind energy and hydropower and technologies geared towards adapting to adverse effects of climate change such as early warning systems and sea walls[24].

Climate technologies present several advantages in climate change mitigation and adaptation. Technology ensures that countries are better equipped to achieve their economic and social development goals in a more climate resilient manner [25] . Further, climate technologies can be more robust and cost-effective in climate change mitigation and adaptation especially when combined with other approaches such as nature-based solutions[26]. Climate technologies are thus viable in climate change mitigation and adaptation.

However, despite the important role of climate technologies in climate change mitigation and adaptation, several challenges have

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[23] Hetler. A., 'Climate tech vs clean tech: What's the difference.' Op Cit

[24] United Nations Climate Change., 'What is Technology Development and Transfer.' Op Cit

[25] De Coninck , H & Sagar. A., 'Making Sense of Policy for Climate Technology Development and Transfer.' Climate Policy, Volume 15, No.1

[26] United Nations Framework Convention on Climate Change., 'How Technology Can Help Fight Climate Change.' Available at *https://unfccc.int/news/how-technology-can-help-fight-climate-change* (Accessed on 15/06/2023)

hindered effective adoption of technology as a tool of managing climate change. Financial and economic hurdles may prevent certain countries especially those in developing regions of the world from accessing suitable technology necessary for climate change mitigation and adaptation [27]. Further, legal and regulatory challenges such insufficient legal framework and bureaucracy may hinder effective transfer and adoption of technology for climate change mitigation and adaptation[28]. In addition, institutional and capacity challenges such as absence or limited institutions dealing with climate technologies and lack of technical knowhow may hinder effective adoption of climate technologies [29]. Finally, adoption of climate technologies may be hindered by environmental factors and physical conditions in a particular country such as the condition of infrastructure[30].

Climate technologies offer huge potential in climate change mitigation and adaptation towards Sustainable Development. However, the challenges highlighted above hinder effective adoption and transfer of technology as a tool of climate change mitigation. There is need to address these challenges in order to enhance the role of climate change technologies in climate change mitigation and adaptation and foster Sustainable Development.

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[27] United Nations Environment Programme., *'Overcoming Barriers to the Transfer and Diffusion of Climate Technologies.'* Available at *https://www.researchgate.net/profile/Ivan-Nygaard-2/publication/318109356_Overcoming_Barriers_to_the_Transfer_and_Diffusion_of_Climate_Technologies_Second_edition/links/595a13cc0f7e9ba95e147f67/Overcoming-Barriers-to-the-Transfer-and-Diffusion-of-Climate-Technologies-Second-edition.pdf* (Accessed on 15/06/2023)
[28] Ibid
[29] Traerup. S., 'The Role of Climate Technologies in Green Transition Pathways.' *The Journal of Field Actions,* No. 24 of 2022
[30] Ibid

3.0 Way Forward

In order to enhance the role of technology in climate change mitigation and adaptation, there is need for countries to strengthen technological innovation so that it can deliver environmentally and socially sound, cost effective, and better-performing climate technologies at a larger and more widespread scale[31]. Governments and the private sector can spearhead this endeavor through funding, enactment of governing laws and regulations, political goodwill, training among other measures. There is also need for increased cooperation among public actors, private actors and international actors to enhance national and global partnerships towards adoption of climate technologies[32]. Adaptation policies at all levels should better reflect social vulnerability to climate change and vulnerable groups should be involved in the design of fair adaptation policies and socially just adaptation in cities[33].

There is also need for developing countries to support climate change responses of developing countries through technology transfer, setting up of innovative technologies and enhancing the national systems of innovation in developing countries[34]. Both the *United Nations Framework Convention on Climate Change* and the *Paris Agreement* acknowledge the role of technology transfer in climate

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[31] Lee. W. J & Mwebaza. R., 'The Role of the Climate Technology Centre and Network as a Climate Technology and Innovation Matchmaker for Developing Countries.' Op Cit

[32] Traerup. S., 'The Role of Climate Technologies in Green Transition Pathways.' Op Cit

[33] Mariya Gancheva, Sarah O'Brien, Tugce Tugran and Camille Borrett (Milieu Consulting SRL) Commission for the Environment, Climate Change and energy *https://cor.europa.eu/en/engage/studies/Documents/Climate%20Change_adaptation.pdf*

[34] Ibid

change mitigation and adaptation[35]. There is need to promote the vision of these instruments and enhance effective technology transfer for climate change mitigation and adaptation. Technology transfer is essential in promoting the diffusion and uptake of environmentally friendly and climate friendly technologies and practices towards achieving objectives of mitigation and adaptation at the country levels[36]. For there to be effective technology transfer, there is need for local anchoring of climate technologies with local production, skills upgrading and strengthening of local markets in order to ensure that climate technologies suit to the needs and circumstances of specific countries[37]. Through these measures, climate technologies will be widely adopted for climate change mitigation and adaptation towards Sustainable Development.

4.0 Conclusion

Climate technologies offer huge potential in climate change mitigation and adaptation. Such technologies can be more viable than traditional approaches such as the use of laws and policies in combating climate change. There is need to embrace climate technologies in climate change mitigation and adaptation in order to foster Sustainable Development. A collaborative approach to the digital technologies aids climate adaptation by managing risks through use of remote sensors like satellites and weather radars, supporting monitoring, and promoting sustainability through responsible use. By leveraging digital innovation and big data,

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[35] United Nations Framework Convention on Climate Change., Article 4 (1) (c); Paris Agreement., Article 10

[36] United Nations., 'Acting on Climate Change: The UN Delivering as One.' Op Cit

[37] Traerup. S., 'The Role of Climate Technologies in Green Transition Pathways.' Op Cit

advanced levels of interventions for achieving sustainable development can be unveiled. Collaboration between organizations, businesses, and people is essential for successful climate action and a future that is more sustainable for future generations. There is a dire need for resilient infrastructure that can stand climate change adverse effects such floods and promote climate change adaptation.

Embracing Climate Technologies in Climate **(2023) Journal of cmsd Volume 10(4)**
Change Mitigation and Adaptation for
Sustainable Development:
Anne Wairimu Kiramba

References

Climate Change Act, No. 11 of 2016, Laws of Kenya

De Coninck , H & Sagar. A., 'Making Sense of Policy for Climate Technology Development and Transfer.' Climate Policy, Volume 15, No.1

Hetler. A., 'Climate tech vs clean tech: What's the difference.' Available at *https://www.techtarget.com/whatis/feature/Climate-tech-vs-clean-tech-Whats-the-difference*

Lee. W. J & Mwebaza. R., 'The Role of the Climate Technology Centre and Network as a Climate Technology and Innovation Matchmaker for Developing Countries.' Available at *https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/sustainability-12-07956.pdf*

Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

Our Common Future, Report of the World Commission on Environment and Development, 1987 (Brundtland Report)

Paris Agreement., 'United Nations, 2015.' Article 10., Available at *https://unfccc.int/sites/default/files/english_paris_agreement.pdf*

Sustainable Development Goal 13., 'Available at *https://www.undp.org/sustainable-development-goals/climate-action?gclid=Cj0KCQjw7aqkBhDPARIsAKGa0oJBBwTdYd3P8F1StpqlC bJdXLuiKKDP6CeT6vrkjvGQ9QF5ktjg9WwaAgPuEALw_wcB*

Embracing Climate Technologies in Climate <mark>*(2023) Journal of cmsd Volume 10(4)*</mark>
Change Mitigation and Adaptation for
Sustainable Development:
Anne Wairimu Kiramba

Traerup. S., 'The Role of Climate Technologies in Green Transition Pathways.' *The Journal of Field Actions,* No. 24 of 2022

United Nations Climate Change., 'What is Technology Development and Transfer.' Available at *https://unfccc.int/topics/what-is-technology-development-and-transfer*

United Nations Environment Programme., *'Overcoming Barriers to the Transfer and Diffusion of Climate Technologies.'* Available at *https://www.researchgate.net/profile/Ivan-Nygaard2/publication/318109356_Overcoming_Barriers_to_the_Transfer _and_Diffusion_of_Climate_Technologies_Second_edition/links/595a13cc0 f7e9ba95e147f67/Overcoming-Barriers-to-the-Transfer-and-Diffusion-of-Climate-Technologies-Second-edition.pdf*

United Nations Framework Convention on Climate Change (United Nations, 1992), Article 1 (2)., Available at *https://unfccc.int/resource/docs/convkp/conveng.pdf* (Accessed on 15/06/2023)

United Nations Framework Convention on Climate Change., 'How Technology Can Help Fight Climate Change.' Available at *https://unfccc.int/news/how-technology-can-help-fight-climate-change*

United Nations., 'Acting on Climate Change: The UN Delivering as One.' (United Nations, New York, November 2008)

United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Available at *https://sustainabledevelopment.un.org/content/documents/21252030%20A genda%20for%20Sustainable%20Development%20web.pdf*

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
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(2023) Journalofcmsd Volume 10(4)

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions

By: *Dynesius Nyangau**

Abstract

This paper delves into the critical topic of the renewable energy transition, focusing on the shift from fossil fuels to renewable energy sources such as solar, wind, hydro, and geothermal power. The discussion explores various facets of this transition, including technological advancements, policy frameworks, and the economic benefits associated with renewable energy. The paper begins with an introduction to the renewable energy transition, highlighting its significance in combating climate change and reducing dependence on finite fossil fuel resources. The various renewable energy sources are introduced, showcasing their potential for sustainable electricity generation and their role in decarbonizing the energy sector. The discussion further examines the technological advancements in renewable energy, encompassing solar energy technologies, wind turbine design, hydroelectric power generation, and geothermal energy extraction techniques. The paper emphasizes the importance of innovation in driving the scalability and efficiency of renewable energy systems. Policy frameworks for promoting the renewable energy transition are explored, including international agreements, national renewable energy policies, and public-private partnerships. The paper analyzes the role of supportive policies in driving investment, research and development, and market adoption of renewable energy technologies. The economic benefits of renewable energy are also addressed, emphasizing the potential for job creation, energy independence, and enhanced energy security. The abstract highlights the cost trends and price competitiveness of renewable energy technologies, illustrating their

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Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

economic viability and long-term sustainability. It emphasizes the significance of the renewable energy transition in achieving sustainable and resilient energy systems. It underscores the importance of technology, policy, and economic considerations in facilitating the widespread adoption of renewable energy sources. The abstract calls for continued efforts and collaboration across various sectors to accelerate the transition and realize the environmental, social, and economic benefits of renewable energy. Overall, this abstract provides a concise overview of the renewable energy transition, covering key aspects such as technology, policy, and economic considerations. It highlights the potential of renewable energy sources in transforming the energy landscape and fostering a sustainable future.

Key words: renewable energy transition, solar energy, wind power, hydroelectricity, geothermal energy.

I. Introduction

The world is at a critical juncture in its quest for a sustainable future, with the rapid depletion of fossil fuel reserves and the detrimental effects of climate change becoming increasingly evident.[1] In response to these pressing challenges, the transition from conventional fossil fuel-based energy systems to renewable energy sources has gained significant attention worldwide. The renewable energy transition refers to the shift from finite and environmentally harmful energy sources, such as coal, oil, and natural gas, to clean, abundant, and sustainable alternatives, including solar, wind, hydro, and geothermal power.[2]

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[1] Hoffmann, M. J. (2011). *Climate governance at the crossroads: Experimenting with a global response after Kyoto*. Oxford University Press; See, Asif, M., & Muneer, T. (2007). Energy supply, its demand and security issues for developed and emerging economies. *Renewable and sustainable energy reviews*, *11*(7), 1389-1399.

[2] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journal of cmsd Volume 10(4)

Renewable energy sources offer immense potential to mitigate the adverse environmental impacts associated with fossil fuel consumption.[3] Unlike non-renewable resources, renewable energy harnesses natural processes that constantly replenish themselves, ensuring an enduring energy supply.[4] By leveraging the power of the sun, wind, water, and heat from the Earth's core, societies can reduce greenhouse gas emissions, combat climate change, and safeguard the planet for future generations.[5]

This discussion explores the shift from fossil fuels to renewable energy sources, including solar, wind, hydro, and geothermal power, and delves into the technological advancements, policy frameworks, and economic benefits associated with renewable energy. This paper asserts that the transition to renewable energy represents a vital pathway to achieving a sustainable future. By examining the technological developments, policy frameworks, and economic advantages linked to solar, wind, hydro, and geothermal solutions, this research aims to shed light on the transformative potential of renewable energy and highlight the essential role it plays in shaping a more environmentally friendly and economically prosperous world.

The paper will delve into the various renewable energy sources, their characteristics, and the advancements made in harnessing their potential. It will explore the multifaceted benefits of adopting renewable energy, including the reduction of greenhouse gas

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[3] Shahsavari, A., & Akbari, M. (2018). Potential of solar energy in developing countries for reducing energy-related emissions. *Renewable and Sustainable Energy Reviews*, *90*, 275-291.

[4] Ibid.

[5] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

emissions, the promotion of energy security, the creation of job opportunities, and the stimulation of economic growth. Additionally, the study will examine the policy frameworks and incentives that governments and organizations have implemented to facilitate the transition to renewable energy.

By presenting a comprehensive analysis of the renewable energy transition, this paper seeks to inform policymakers, researchers, and stakeholders about the transformative power of sustainable energy sources. It aims to contribute to the ongoing discourse on renewable energy, fostering an understanding of its significance and inspiring further action towards a future powered by solar, wind, hydro, and geothermal solutions.

II. Understanding Renewable Energy Sources

Solar energy is derived from the radiation emitted by the sun and has emerged as a prominent renewable energy source for electricity generation.[6] The photovoltaic (PV) technology used in solar panels converts sunlight directly into electricity through the photovoltaic effect.[7] Solar power offers vast potential for clean and sustainable energy production. [8] The sun is an abundant and virtually inexhaustible resource, providing an estimated 173,000 terawatts of solar energy to Earth every day.[9] The utilization of solar energy for electricity generation has witnessed remarkable advancements in

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[6] Singh, G. K. (2013). Solar power generation by PV (photovoltaic) technology: A review. *Energy*, *53*, 1-13.

[7] Singh, G. K. (2013).

[8] Ibid.

[9] Wilfing, M. S. (2019). *Integration of Solar Microgrids* (Doctoral dissertation, Purdue University). See, Sornette, D., Kröger, W., & Wheatley, S. (2018). *New ways and needs for exploiting nuclear energy*. Springer.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

recent years.[10] The efficiency of solar panels has increased, making them more cost-effective and capable of converting a higher percentage of sunlight into usable electricity.[11] The integration of energy storage technologies, such as batteries, enables the storage and utilization of solar energy even during non-sunlight hours.[12]

Wind energy harnesses the kinetic energy of the wind to generate electricity.[13] Wind turbines, equipped with rotating blades, convert the wind's mechanical energy into electrical energy through a generator.[14] Wind power has gained considerable momentum as a viable renewable energy source due to its wide availability and minimal environmental impact.[15] The implementation of wind farms, consisting of multiple wind turbines, has significantly contributed to electricity generation from wind energy.[16] These farms can be established both onshore and offshore, with offshore locations often benefiting from stronger and more consistent wind patterns.[17] Technological advancements have led to the development of larger, more efficient turbines capable of generating higher power outputs.[18] Hydroelectric power utilizes the energy of moving water, typically in

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[10] Ibid.

[11] Meral, M. E., & Dincer, F. (2011). A review of the factors affecting operation and efficiency of photovoltaic based electricity generation systems. *Renewable and Sustainable Energy Reviews*, 15(5), 2176-2184.

[12] Ibid.

[13] Ibid.

[14] Dang, T. (2009, October). Introduction, history, and theory of wind power. In *41st North American Power Symposium* (pp. 1-6). IEEE.

[15] Ibid.

[16] Perveen, R., Kishor, N., & Mohanty, S. R. (2014). Off-shore wind farm development: Present status and challenges. *Renewable and Sustainable Energy Reviews*, 29, 780-792.

[17] Ibid.

[18] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

the form of rivers, to generate electricity.[19] It is one of the most established and widely used renewable energy sources, accounting for a substantial portion of global electricity production.[20] Hydroelectric power plants consist of dams that store water, which is released in a controlled manner to drive turbines and produce electricity.[21]

Hydroelectric power offers numerous benefits. It is a clean and renewable energy source that produces no greenhouse gas emissions during operation.[22] Hydroelectric plants also provide reliable and consistent power generation, as water flow can be regulated to meet demand. Additionally, these plants contribute to water management and flood control, and their reservoirs can serve as recreational areas and habitats for various species.[23] Geothermal energy harnesses the heat from the Earth's core for electricity generation and other heating applications.[24] It taps into the natural heat trapped within the Earth's crust, utilizing geothermal power plants to convert this heat into electricity.[25] Geothermal energy is available continuously and is considered a reliable and environmentally friendly energy source.[26]

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[19] Ibid.

[20] Ellabban, O., Abu-Rub, H., & Blaabjerg, F. (2014). Renewable energy resources: Current status, future prospects and their enabling technology. *Renewable and sustainable energy reviews*, 39, 751-757.

[21] Ibid.

[22] Ibid.

[23] Ibid.

[24] Ibid.

[25] Fletcher, R. (2010). When environmental issues collide: Climate change and the shifting political ecology of hydroelectric power. *Peace & Conflict Review*, 5(1), 14-30.

[26] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Geothermal power plants can be classified into three main types: dry steam, flash steam, and binary cycle plants.[27] These plants make use of different technologies to exploit the heat reservoirs beneath the Earth's surface.[28] Geothermal energy not only provides a constant and reliable source of power but also has the advantage of being independent of weather conditions, making it a highly stable renewable energy option.[29] By understanding the characteristics and potential of solar energy, wind energy, hydroelectric power, and geothermal energy, stakeholders can make informed decisions about the most suitable renewable energy sources for specific regions. This knowledge serves as a foundation for planning and implementing sustainable energy systems that contribute to a greener and more sustainable future.[30]

III. Technological Advancements in Renewable Energy

Significant advancements have been made in photovoltaic (PV) cell technology, which forms the backbone of solar power generation.[31] Innovations in PV cell materials and designs have led to improved efficiency and cost-effectiveness.[32] For instance, the development of thin-film solar cells, such as CIGS (copper indium gallium selenide) and perovskite cells, has increased the efficiency and reduced the manufacturing costs of solar panels. Additionally, research is being

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[27] Ibid.

[28] Ibid.

[29] Franco, A., & Villani, M. (2009). Optimal design of binary cycle power plants for water-dominated, medium-temperature geothermal fields. *Geothermics*, *38*(4), 379-391.

[30] Ibid.

[31] Ibid.

[32] Franco, A., & Villani, M. (2009). Optimal design of binary cycle power plants for water-dominated, medium-temperature geothermal fields. *Geothermics*, *38*(4), 387-390.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

conducted on tandem solar cells, which stack multiple layers of different materials to capture a broader range of the solar spectrum, thereby increasing overall energy conversion efficiency.[33]

Concentrated Solar Power (CSP) technologies focus sunlight onto a small area, generating heat that drives turbines for electricity production.[34] Technological advancements in CSP have led to the development of more efficient and cost-effective systems.[35] New types of concentrating solar collectors, such as parabolic troughs, solar power towers, and linear Fresnel reflectors, have improved the concentration and capture of solar energy.[36] The integration of thermal energy storage systems allows CSP plants to generate electricity even when sunlight is unavailable, enabling consistent power supply.[37]

Wind turbine technology has witnessed remarkable breakthroughs in recent years. The size of wind turbines has increased significantly, with modern turbines reaching heights of over 200 meters and rotor diameters exceeding 150 meters.[38] Larger turbines capture more wind energy and generate higher power outputs, increasing the efficiency and cost-effectiveness of wind farms. Innovations in turbine blade

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[33] Ibid.

[34] Ummadisingu, A., & Soni, M. S. (2011). Concentrating solar power–technology, potential and policy in India. *Renewable and sustainable energy reviews*, *15*(9), 5169-5175.

[35] Ibid.

[36] Ibid.

[37] Santos, J. J., Palacio, J. C., Reyes, A. M., Carvalho, M., Freire, A. J., & Barone, M. A. (2018). Concentrating solar power. In *Advances in renewable energies and power technologies* (pp. 377-481). Elsevier.

[38] Wharton, S., & Lundquist, J. K. (2012). Assessing atmospheric stability and its impacts on rotor-disk wind characteristics at an onshore wind farm. *Wind Energy*, *15*(4), 530-527.

designs have improved aerodynamic efficiency, allowing turbines to capture more wind energy at lower wind speeds.[39] For example, the introduction of curved or swept-back blades reduces turbulence and increases energy capture. Furthermore, the use of advanced materials, such as carbon fiber composites, reduces the weight of the blades while maintaining structural integrity, resulting in improved efficiency.

Hydroelectric power generation has benefitted from advancements in turbine design and efficiency. New turbine designs, such as Kaplan and Francis turbines, offer higher efficiency across a broader range of flow conditions.[40] Additionally, the use of adjustable blades and variable-speed turbines optimizes power generation based on water flow, enhancing overall efficiency.[41] Technological advancements have facilitated the integration of energy storage systems with hydroelectric power generation. Pumped storage hydroelectricity (PSH) plants utilize surplus electricity during low-demand periods to pump water to an elevated reservoir. When electricity demand is high, the stored water is released, passing through turbines to generate electricity.[42] PSH plants provide grid stabilization and load balancing capabilities, improving the reliability and flexibility of renewable energy integration.[43]

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[39] Barnes, R. H., Morozov, E. V., & Shankar, K. (2015). Improved methodology for design of low wind speed specific wind turbine blades. *Composite Structures*, *119*, 677-684.

[40] Waters, S., & Aggidis, G. A. (2015). Over 2000 years in review: Revival of the Archimedes Screw from Pump to Turbine. *Renewable and Sustainable Energy Reviews*, *51*, 497-505.

[41] Ibid.

[42] Guney, M. S., & Tepe, Y. (2017). Classification and assessment of energy storage systems. *Renewable and Sustainable Energy Reviews*, *75*, 1187-1197.

[43] Ibid.

Enhanced Geothermal Systems (EGS) involves the extraction of geothermal energy from hot rocks located deeper underground.[44] Technological advancements in EGS techniques, such as hydraulic fracturing and reservoir stimulation, have expanded the potential for geothermal energy extraction in areas with lower heat resources.[45] This approach has the potential to unlock vast geothermal resources previously considered inaccessible.

Geothermal heat pumps utilize the constant temperature of the Earth to provide heating and cooling for buildings.[46] Advances in geothermal heat pump technology have improved efficiency and expanded their applicability to a wider range of climates. Innovations in ground loop designs and the use of advanced heat exchangers enhance heat transfer efficiency, resulting in higher system performance.[47]

IV. Policy Frameworks for Renewable Energy Transition

International agreements and targets play a crucial role in driving the global transition to renewable energy.[48] The Paris Agreement, signed by nearly all nations, aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels.[49] It recognizes the

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[44] Kumari, W. G. P., & Ranjith, P. G. (2019). Sustainable development of enhanced geothermal systems based on geotechnical research–A review. *Earth-Science Reviews*, *199*, 102955.

[45] Ibid.

[46] Bina, S. M., Fujii, H., Tsuya, S., & Kosukegawa, H. (2022). Comparative study of hybrid ground source heat pump in cooling and heating dominant climates. *Energy Conversion and Management*, *252*, 115122.

[47] Ibid.

[48] Ibid.

[49] Rogelj, J., Den Elzen, M., Höhne, N., Fransen, T., Fekete, H., Winkler, H., ... & Meinshausen, M. (2016). Paris Agreement climate proposals need a boost to keep warming well below 2 C. *Nature*, *534*(7609), 631-639.

importance of renewable energy in achieving this goal and encourages countries to enhance their renewable energy capacities. Furthermore, organizations like the International Renewable Energy Agency (IRENA) provide platforms for collaboration and knowledge sharing among nations. IRENA assists countries in setting renewable energy targets and facilitates the exchange of best practices, promoting the adoption of renewable energy at a global scale.[50]

National policies and regulations are essential for creating an enabling environment for renewable energy deployment. [51] Many countries have implemented feed-in tariffs, which guarantee long-term contracts and financial incentives for renewable energy producers.[52] These mechanisms have proven effective in stimulating investment and market growth. Other policy instruments include renewable portfolio standards, which mandate a certain percentage of electricity generation from renewable sources, and tax incentives or subsidies for renewable energy technologies. [53] Additionally, regulatory frameworks that simplify grid integration and streamline project approval processes are critical in encouraging renewable energy development.[54]

Numerous countries have successfully implemented supportive policy frameworks to drive renewable energy adoption. Germany's Renewable Energy Sources Act (EEG) introduced feed-in tariffs and provided a stable and predictable market for renewable energy

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[50] Rogelj, J., et.al. (2016).

[51] Charabi, Y., & Al-Badi, A. H. (2015). Creating an enabling environment for renewable energy application in the Sultanate of Oman. *International Journal of Green Energy*, *12*(11), 1169-1177.

[52] Ibid.

[53] Fischer, C. (2010). Renewable portfolio standards: when do they lower energy prices?. *The Energy Journal*, *31*(1).

[54] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

investments, leading to significant growth in wind and solar power generation.[55] Similarly, Denmark's Energy Agreement established a long-term vision and comprehensive policy framework for transitioning to a 100% renewable energy system, setting a global benchmark.[56] In the United States, states like California and Texas have implemented ambitious renewable portfolio standards, resulting in substantial renewable energy capacity additions. [57] China's aggressive policies and incentives have made it a global leader in renewable energy deployment, significantly increasing its installed capacity of wind and solar power.[58]

Public-private partnerships and collaborations are instrumental in driving the renewable energy transition. Governments can leverage private sector expertise, resources, and innovation to accelerate renewable energy adoption.[59] Collaboration can take the form of research and development partnerships, joint ventures, and knowledge-sharing platforms. Public-private collaborations enable the sharing of risks, costs, and benefits associated with renewable

[55] Couture, T., & Gagnon, Y. (2010). An analysis of feed-in tariff remuneration models: Implications for renewable energy investment. *Energy policy*, *38*(2), 955-965.
[56] Taibi, E., Miranda, R., Vanhoudt, W., Winkel, T., Lanoix, J. C., & Barth, F. (2018). Hydrogen from renewable power: Technology outlook for the energy transition.
[57] Langniss, O., & Wiser, R. (2003). The renewables portfolio standard in Texas: an early assessment. *Energy policy*, *31*(6), 527-535.
[58] Zhang, S., & He, Y. (2013). Analysis on the development and policy of solar PV power in China. *Renewable and Sustainable Energy Reviews*, *21*, 393-401.
[59] Veugelers, R. (2012). Which policy instruments to induce clean innovating?. *Research policy*, *41*(10), 1770-1778.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

energy projects.[60] They can also foster technology transfer, facilitate market development, and attract investments. Governments can provide policy stability and incentives, while private entities bring technical expertise, capital, and market knowledge, creating a mutually beneficial ecosystem.[61]

Collaboration among governments, private sector actors, and civil society organizations can ensure inclusive decision-making processes and address social and environmental concerns associated with renewable energy deployment.[62] Policy frameworks are crucial in driving the renewable energy transition. International agreements and targets set the stage for global action, while national policies and regulations provide the necessary support for renewable energy adoption.[63] Successful case studies demonstrate the effectiveness of comprehensive policy frameworks. Additionally, public-private partnerships and collaborations enhance the transition by leveraging resources and expertise.[64] By implementing robust and supportive policy frameworks, countries can accelerate the shift to a sustainable and renewable energy future.

V. Economic Benefits of Renewable Energy

The renewable energy sector offers significant economic opportunities and has the potential to create numerous jobs.

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[60] Martins, A. C., Marques, R. C., & Cruz, C. O. (2011). Public–private partnerships for wind power generation: The Portuguese case. *Energy policy*, *39*(1), 94-104.

[61] Gielen, D., Boshell, F., Saygin, D., Bazilian, M. D., Wagner, N., & Gorini, R. (2019). The role of renewable energy in the global energy transformation. *Energy strategy reviews*, *24*, 38-50.

[62] Ibid.

[63] Ibid.

[64] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions: **Dynesius Nyangau**

(2023) Journal of cmsd Volume 10(4)

Investments in renewable energy projects stimulate economic growth by attracting capital, driving technological innovation, and creating employment opportunities. [65] The installation, operation, and maintenance of renewable energy systems require a diverse range of skills, from engineering and construction to research and development. Studies have consistently shown that the renewable energy sector generates more jobs per unit of energy produced compared to fossil fuel-based energy.[66] The labor-intensive nature of renewable energy projects, such as solar panel installation and wind turbine maintenance, results in a higher job creation potential. [67] These jobs are often local, providing opportunities for communities and contributing to regional economic development.[68]

Renewable energy technologies have experienced significant cost reductions in recent years, making them increasingly price competitive with conventional energy sources.[69] The levelized cost of electricity (LCOE) for renewable energy, such as solar and wind, has dropped significantly, surpassing the cost of new fossil fuel-based power plants in many regions. [70] Advancements in technology, economies of scale, and streamlined manufacturing processes have

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[65] Amankwah-Amoah, J. (2015). Solar energy in sub-Saharan Africa: The challenges and opportunities of technological leapfrogging. *Thunderbird International Business Review*, *57*(1), 15-31.

[66] Kammen, D. M. (2008). *Putting renewables to work: how many jobs can the clean energy industry generate?*. DIANE Publishing.

[67] Ibid.

[68] Ibid.

[69] Ibid.

[70] Ram, M., Child, M., Aghahosseini, A., Bogdanov, D., Lohrmann, A., & Breyer, C. (2018). A comparative analysis of electricity generation costs from renewable, fossil fuel and nuclear sources in G20 countries for the period 2015-2030. *Journal of Cleaner Production*, *199*, 687-704.

contributed to cost reductions in renewable energy systems. [71] Additionally, the declining costs of components, such as solar panels and wind turbines, have further enhanced the price competitiveness of renewable energy.[72]

As the cost of renewable energy continues to decrease, it reduces the reliance on government subsidies and increases the attractiveness of renewable energy investments from an economic standpoint.[73] This shift toward cost-competitive renewable energy sources promotes energy affordability and stability, benefiting consumers and businesses alike. Renewable energy sources provide an opportunity for countries to achieve energy independence and enhance energy security. [74] Reliance on fossil fuel imports exposes nations to geopolitical risks and price volatility. By diversifying their energy mix with renewables, countries can reduce their dependence on external energy sources and mitigate the economic and political risks associated with fossil fuels.[75]

Renewable energy technologies, such as solar and wind power, can be harnessed domestically, utilizing a nation's own natural

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[71] Goodrich, A., James, T., & Woodhouse, M. (2012). *Residential, commercial, and utility-scale photovoltaic (PV) system prices in the United States: current drivers and cost-reduction opportunities* (No. NREL/TP-6A20-53347). National Renewable Energy Lab.(NREL), Golden, CO (United States).
[72] Ibid.
[73] Frondel, M., Ritter, N., Schmidt, C. M., & Vance, C. (2010). Economic impacts from the promotion of renewable energy technologies: The German experience. *Energy Policy*, *38*(8), 4048-4056.
[74] Wang, B., Wang, Q., Wei, Y. M., & Li, Z. P. (2018). Role of renewable energy in China's energy security and climate change mitigation: An index decomposition analysis. *Renewable and sustainable energy reviews*, *90*, 187-194.
[75] Ibid.

resources.[76] This reduces exposure to fluctuations in global energy markets and enhances energy self-sufficiency.[77] The decentralized nature of renewable energy allows for distributed generation, minimizing the vulnerability of the energy system to disruptions.[78] Decentralized energy systems, which rely on renewable energy sources, offer several economic advantages. Localized generation and distribution of energy reduce transmission and distribution losses, resulting in higher overall system efficiency.[79] This can lead to cost savings for consumers and businesses, as well as reduced strain on infrastructure investments.[80]

Community-owned renewable energy projects empower local communities, enabling them to actively participate in and benefit from the energy transition.[81] Community ownership not only fosters social and economic empowerment but also keeps a larger share of the economic benefits within the local economy.[82] This includes revenue from energy sales, job creation, and increased local investments. Community-owned renewable projects also promote social cohesion, as they often involve collective decision-making

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[76] Shaaban, M., & Petinrin, J. O. (2014). Renewable energy potentials in Nigeria: Meeting rural energy needs. *Renewable and sustainable energy reviews*, *29*, 72-84.

[77] Ibid.

[78] Ibid.

[79] Gutfleisch, O., Willard, M. A., Brück, E., Chen, C. H., Sankar, S. G., & Liu, J. P. (2011). Magnetic materials and devices for the 21st century: stronger, lighter, and more energy efficient. *Advanced materials*, *23*(7), 821-842.

[80] Ibid.

[81] Ibid.

[82] Bramwell, A., & Wolfe, D. A. (2008). Universities and regional economic development: The entrepreneurial University of Waterloo. *Research policy*, *37*(8), 1175-1187.

processes and foster community engagement.[83] These projects can revitalize rural areas, create new business opportunities, and contribute to sustainable development at the local level.[84]

Renewable energy offers significant economic benefits. It creates job opportunities, stimulates economic growth, and enhances regional development. [85] The cost competitiveness of renewable energy technologies continues to improve, making them increasingly attractive investments. [86] Additionally, renewables contribute to energy independence, reduce reliance on fossil fuel imports, and enhance energy security.[87] The economic advantages of decentralized energy systems and community-owned projects further contribute to the transition towards a sustainable and prosperous future.[88]

VI. Overcoming Challenges in the Renewable Energy Transition

Intermittency, or the variability of renewable energy sources, poses a significant challenge to their integration into the grid.[89] Solar and wind power generation is dependent on weather conditions, resulting in fluctuations in electricity output. [90] To overcome this challenge, grid integration strategies must be employed. [91] One

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[83] Ibid.

[84] Ibid.

[85] Frondel, M., Ritter, N., Schmidt, C. M., & Vance, C. (2010). Economic impacts from the promotion of renewable energy technologies: The German experience. *Energy Policy*, *38*(8), 4048-4056.

[86] Ibid.

[87] Widén, J. (2011). Correlations between large-scale solar and wind power in a future scenario for Sweden. *IEEE transactions on sustainable energy*, *2*(2), 177-184.

[88] Ibid.

[89] Ibid.

[90] Ibid.

[91] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

approach is the diversification of renewable energy sources. Combining different types of renewables, such as solar, wind, and hydroelectric power, helps mitigate the intermittency issue. [92] Additionally, the development of forecasting technologies enables more accurate predictions of renewable energy generation, allowing grid operators to balance supply and demand.[93]

Grid flexibility is also critical. Enhancements in demand response systems, energy storage, and grid management technologies enable better integration of variable renewable energy sources. [94] This flexibility allows for the efficient utilization of excess renewable energy during peak production periods and its subsequent release during periods of low generation.[95] Energy storage plays a crucial role in overcoming the intermittent nature of renewable energy. Storage technologies allow for the capture and storage of excess energy during periods of high generation, which can then be deployed during times of low generation.[96] Advancements in battery technologies, such as lithium-ion batteries, have improved the feasibility and efficiency of energy storage systems.[97] Additionally, emerging technologies like flow batteries, compressed air energy

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[92] Ibid.

[93] Ibid.

[94] Tronchin, L., Manfren, M., & Nastasi, B. (2018). Energy efficiency, demand side management and energy storage technologies–A critical analysis of possible paths of integration in the built environment. *Renewable and Sustainable Energy Reviews*, *95*, 341-353.

[95] Ibid.

[96] Denholm, P., Ela, E., Kirby, B., & Milligan, M. (2010). *Role of energy storage with renewable electricity generation* (No. NREL/TP-6A2-47187). National Renewable Energy Lab.(NREL), Golden, CO (United States).

[97] Ibid.

storage, and hydrogen storage offer promising solutions for large-scale and long-duration energy storage.[98]

Implementing a diversified portfolio of energy storage technologies at various scales, from residential to utility-level, provides the flexibility needed to balance energy supply and demand. [99] Integrating energy storage with renewable energy projects enhances grid stability, enables reliable electricity supply, and supports the transition to a clean and resilient energy system.[100] Barriers to entry, such as financing and regulatory hurdles, can impede the widespread adoption of renewable energy technologies.[101] Access to affordable financing is essential to attract investment in renewable energy projects. Governments and financial institutions should provide favorable policies, incentives, and innovative financing mechanisms, such as green bonds and feed-in tariffs, to facilitate access to capital and reduce the financial risks associated with renewable energy investments.[102]

Regulatory frameworks play a crucial role in creating an enabling environment for renewable energy development. Streamlining

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[98] Ibid.

[99] Castillo, A., & Gayme, D. F. (2014). Grid-scale energy storage applications in renewable energy integration: A survey. *Energy Conversion and Management*, *87*, 885-894.

[100] Koirala, B. P., Koliou, E., Friege, J., Hakvoort, R. A., & Herder, P. M. (2016). Energetic communities for community energy: A review of key issues and trends shaping integrated community energy systems. *Renewable and Sustainable Energy Reviews*, *56*, 722-744.

[101] Ibid.

[102] Bertoldi, P., Economidou, M., Palermo, V., Boza-Kiss, B., & Todeschi, V. (2021). How to finance energy renovation of residential buildings: Review of current and emerging financing instruments in the EU. *Wiley Interdisciplinary Reviews: Energy and Environment*, *10*(1), e384.

permitting processes, establishing clear and consistent policies, and providing long-term contracts and power purchase agreements (PPAs) enhance investor confidence and reduce regulatory uncertainties.[103] Additionally, ensuring grid access and fair market competition for renewable energy producers encourages market growth and diversification.[104]

Collaboration between stakeholders is vital in overcoming these barriers. Public-private partnerships and industry engagement can facilitate dialogue, address regulatory challenges, and promote knowledge sharing.[105] By fostering an environment conducive to renewable energy deployment, countries can attract investments, create jobs, and accelerate the transition to a sustainable energy future.[106]

Public awareness, education, and acceptance are crucial for the successful transition to renewable energy.[107] Public understanding of the benefits and importance of renewable energy sources can generate support for policies and initiatives that promote their adoption.[108] Education initiatives, including public outreach campaigns and school curricula, can raise awareness about renewable energy technologies, their benefits, and the urgency of

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[103] Polzin, F., Egli, F., Steffen, B., & Schmidt, T. S. (2019). How do policies mobilize private finance for renewable energy?—A systematic review with an investor perspective. *Applied Energy*, *236*, 1249-1268.

[104] Ibid.

[105] Robinson, H., Carrillo, P., Anumba, C. J., & Patel, M. (2009). *Governance and knowledge management for public-private partnerships*. John Wiley & Sons.

[106] Ibid.

[107] Ibid.

[108] Almulhim, A. I. (2022). Understanding public awareness and attitudes toward renewable energy resources in Saudi Arabia. *Renewable Energy*, *192*, 572-582.

transitioning to a low-carbon economy.[109] Promoting energy literacy empowers individuals and communities to make informed decisions regarding their energy consumption and encourages the adoption of sustainable practices. [110] Engaging stakeholders, including local communities, in the decision-making process fosters acceptance and ensures that renewable energy projects align with local needs and priorities.[111] Addressing concerns related to visual impacts, land use, and potential environmental impacts through transparent communication and participatory processes enhances public acceptance.[112]

VII. Case Studies and Success Stories

Several countries and regions around the world have made remarkable progress in the renewable energy transition, serving as inspiring examples for others to follow. Denmark stands out as a global leader in renewable energy adoption. [113] Through strong political commitment and supportive policies, Denmark has achieved a high share of wind energy in its electricity mix.[114] It has successfully integrated wind power into its grid, with wind energy accounting for over 40% of the country's electricity consumption. [115] Germany is another notable success story. [116] The country's Energiewende, or energy transition, has been driven by a combination of supportive

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[109] Ibid.

[110] Ibid.

[111] Ibid.

[112] Ibid.

[113] Lipp, J. (2007). Lessons for effective renewable electricity policy from Denmark, Germany and the United Kingdom. *Energy policy*, *35*(11), 5481-5495.

[114] Ibid.

[115] Ibid.

[116] Ibid.

policies, incentives, and public engagement.[117] Germany has rapidly expanded its renewable energy capacity, with solar and wind power contributing significantly to its electricity generation. The Energiewende has not only reduced carbon emissions but also spurred economic growth and job creation in the renewable energy sector.[118]

Costa Rica, a small Central American nation, has demonstrated its commitment to renewable energy by achieving nearly 100% renewable electricity generation.[119] Its rich renewable resources, including hydro, geothermal, wind, and solar power, have been harnessed effectively.[120] Costa Rica's success can be attributed to long-term planning, investment in infrastructure, and strong partnerships between the government, private sector, and local communities.[121]

Community-driven renewable energy projects have emerged as powerful models for fostering local engagement, empowerment, and the democratization of energy production.[122] The Danish island of Samso serves as an exemplary case.[123] The community embarked on an ambitious renewable energy initiative, aiming to become energy self-sufficient.[124] Through a combination of wind turbines, solar

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[117] Ibid.

[118] Ibid.

[119] Recalde, M. Y. (2016). The different paths for renewable energies in Latin American Countries: the relevance of the enabling frameworks and the design of instruments. *Wiley Interdisciplinary Reviews: Energy and Environment*, *5*(3), 305-326.

[120] Recalde, M. Y. (2016).

[121] Ibid.

[122] Ibid.

[123] Ibid.

[124] Ibid.

panels, and biomass, the island now produces more energy than it consumes, leading to economic growth and a strong sense of community ownership.[125]

Germany's energy cooperatives provide another inspiring example of community-driven renewable energy projects.[126] These cooperatives involve local citizens pooling their resources to develop renewable energy installations, primarily wind and solar.[127] By promoting decentralized ownership and shared benefits, energy cooperatives have revitalized local economies, generated jobs, and contributed to renewable energy growth. Innovative business models and financing mechanisms have played a pivotal role in driving renewable energy adoption.[128] Power Purchase Agreements (PPAs) have been instrumental in enabling large-scale renewable energy projects. For instance, the SolarCity model in the United States offers residential and commercial customers the option to install solar panels at no upfront cost.[129] Instead, customers enter into long-term contracts to purchase the electricity generated at a fixed rate, providing stable revenue streams for renewable energy developers.[130]

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[125] Ibid.
[126] Roesler, T. (2019). Community resources for energy transition: Implementing bioenergy villages in Germany. *Area*, *51*(2), 268-276.
[127] Ibid.
[128] Roesler, T. (2019).
[129] Kollins, K., Speer, B., & Cory, K. (2009). *Solar PV project financing: Regulatory and legislative challenges for third-party PPA system owners* (No. NREL/TP-6A2-46723). National Renewable Energy Lab.(NREL), Golden, CO (United States).
[130] Ibid.

Crowdfunding platforms have also emerged as effective financing mechanisms for small-scale renewable energy projects.[131] Platforms like Kickstarter and Mosaic enable individuals to invest in renewable energy installations and earn returns on their investments.[132] This approach democratizes access to renewable energy investments, allowing ordinary citizens to participate in the transition and benefit financially. Green bonds have gained traction as a means of financing renewable energy projects. [133] These fixed-income securities are specifically issued to finance projects that have positive environmental impacts.[134] Green bonds provide investors with an opportunity to support renewable energy initiatives while generating financial returns, thereby mobilizing capital for the sector.[135]

Case studies and success stories demonstrate the feasibility and benefits of the renewable energy transition. Countries like Denmark, Germany, and Costa Rica have showcased the potential of renewable energy sources, driven by supportive policies and strong political will. Community-driven renewable energy projects have empowered local communities, fostering engagement and generating economic and social benefits. [136] Innovative business models and financing mechanisms, such as PPAs, crowd-funding, and green bonds, have

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[131] Lam, P. T., & Law, A. O. (2016). Crowdfunding for renewable and sustainable energy projects: An exploratory case study approach. *Renewable and sustainable energy reviews*, *60*, 11-20.

[132] Ibid.

[133] Gilchrist, D., Yu, J., & Zhong, R. (2021). The limits of green finance: A survey of literature in the context of green bonds and green loans. *Sustainability*, *13*(2), 478.

[134] Ibid.

[135] Gilchrist, D., Yu, J., & Zhong, R. (2021).

[136] Ibid.

played a vital role in mobilizing investment and accelerating renewable energy deployment.[137]

VIII Renewable Energy Resources in Kenya and Africa[138]

Africa, with its abundant natural resources and growing energy demands, has immense potential for renewable energy development.[139] Solar energy is one of the most abundant renewable energy resources in Africa, and Kenya is at the forefront of its adoption. [140] The country's strategic location along the equator ensures abundant sunlight throughout the year, making solar power an ideal solution for decentralized energy access.[141] Kenya has made significant strides in solar energy deployment through initiatives such as the Scaling Solar Program, which aims to increase solar capacity and reduce electricity costs.[142] The establishment of solar parks, installation of solar mini-grids in rural areas, and the adoption of solar home systems have expanded access to clean and affordable energy, particularly in off-grid regions.[143] Challenges such as upfront costs, limited financing options, and inadequate grid infrastructure

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[137] Ibid.

[138] The Author of this paper, Dynesius Nyangau has studied multiple solar and wind sites with up to 40pv in Kenya, Tanzania and Ethiopia.

[139] Asif, M., & Muneer, T. (2007). Energy supply, its demand and security issues for developed and emerging economies. *Renewable and sustainable energy reviews*, *11*(7), 1388-1413.

[140] Amankwah-Amoah, J. (2015). Solar energy in sub-Saharan Africa: The challenges and opportunities of technological leapfrogging. *Thunderbird International Business Review*, *57*(1), 15-31.

[141] Amankwah-Amoah, J. (2015).

[142] Ulsrud, K., Rohracher, H., Winther, T., Muchunku, C., & Palit, D. (2018). Pathways to electricity for all: What makes village-scale solar power successful?. *Energy research & social science*, *44*, 32-40.

[143] Ibid.

hinder the widespread adoption of solar energy.[144] Overcoming these challenges requires innovative financing mechanisms, such as pay-as-you-go models and public-private partnerships, as well as investments in grid infrastructure to enable the integration of solar power into the national grid.[145]

Africa possesses vast wind energy potential,[146] and several countries, including Kenya, have recognized its importance in their energy mix. Kenya's windy Rift Valley and coastal regions make it an ideal location for wind power generation.[147] The Lake Turkana Wind Power Project,[148] one of Africa's largest wind farms, exemplifies Kenya's commitment to harnessing wind energy. It has a capacity of 310 MW and significantly contributes to the country's renewable energy targets.[149]

However, wind energy development faces challenges such as intermittency and grid integration.[150] Balancing the variable nature of wind power with grid stability requires the development of advanced forecasting techniques, energy storage solutions, and a robust grid infrastructure.[151] Additionally, supportive policies, incentives, and

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[144] Ibid.

[145] Ibid.

[146] Kenfack, J., Bossou, O. V., & Tchaptchet, E. (2017). How can we promote renewable energy and energy efficiency in Central Africa? A Cameroon case study. *Renewable and Sustainable Energy Reviews*, *75*, 1217-1224.

[147] Hayek, J., & Kahwaji, R. (2013). *Hydrolus: Design of a Savonius Wind Pump for Developing Regions* (Doctoral dissertation, McGill University).

[148] Gregersen, C. T. T. (2022). Local learning and capability building through technology transfer: Experiences from the Lake Turkana Wind Power Project in Kenya. *Innovation and Development*, *12*(2), 209-230.

[149] Gregersen, C. T. T. (2022).

[150] Ibid.

[151] Ibid.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

==(2023) Journalofcmsd Volume 10(4)==

streamlined regulatory frameworks are necessary to attract investment and promote the growth of wind energy projects. [152] Hydroelectric power has long been a reliable source of renewable energy in Africa, and Kenya has harnessed its hydro potential effectively. [153] The country's numerous rivers and highland areas provide ample opportunities for hydroelectric power generation. Projects such as the Seven Forks Hydroelectric Complex and the Turkwel Gorge Power Station have significantly contributed to Kenya's electricity generation capacity.[154]

Despite its advantages, hydroelectric power faces challenges related to environmental impacts, land acquisition, and displacement of communities. [155] Proper environmental impact assessments, community engagement, and mitigation measures are crucial to ensure sustainable and socially responsible hydroelectric development. [156] Africa's Rift Valley region is known for its geothermal energy potential, and Kenya has emerged as a global leader in geothermal power generation.[157] The Olkaria Geothermal complex, located in the Rift Valley, is one of the largest geothermal power installations in the world. Kenya's geothermal capacity has steadily increased, providing a stable and sustainable source of electricity.[158]

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[152] Ibid.

[153] Ibid.

[154] Otieno, H. O., & Awange, J. L. (2006). Energy resources in East Africa: Opportunities and challenges.

[155] Ibid.

[156] Ibid.

[157] Merem, E. C., Twumasi, Y., Wesley, J., Olagbegi, D., Fageir, S., Crisler, M., ... & Washington, J. (2019). Analyzing geothermal energy use in the East African Region: The case of Kenya. *Energy and Power*, *9*(1), 12-26.

[158] Ibid.

Geothermal energy offers several advantages, including baseload power generation, minimal greenhouse gas emissions, and long-term energy security.[159] However, the high upfront costs of geothermal exploration and drilling pose financial barriers. Collaborative efforts between governments, development agencies, and private investors are essential to mobilize the necessary capital and promote geothermal development.[160]

IX. Conclusion

This paper has explored the renewable energy transition and its potential to power a sustainable future with solar, wind, hydro, and geothermal solutions. The key points discussed include the definition and significance of the renewable energy transition, technological advancements, policy frameworks, economic benefits, challenges, and success stories associated with renewable energy adoption.

The urgent need for the renewable energy transition cannot be overstated. Climate change poses a significant threat to our planet and its inhabitants, and transitioning to renewable energy sources is crucial in mitigating its impacts.[161] The burning of fossil fuels is the primary contributor to greenhouse gas emissions, leading to global warming and environmental degradation.[162] By shifting to renewable energy, we can reduce carbon emissions, improve air quality, and promote environmental sustainability.[163]

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[159] Ibid.

[160] Ibid.

[161] Merem, E. C., et.al. (2019).

[162] Ibid.

[163] Ibid.

The renewable energy transition aligns with global sustainability goals. [164] The United Nations Sustainable Development Goals, including affordable and clean energy, climate action, and sustainable cities and communities, emphasize the importance of renewable energy for a sustainable future.[165] Achieving these goals requires a swift and comprehensive transition to renewable energy sources.

Therefore, a call to action is necessary for governments, businesses, and individuals to support and accelerate the shift to renewable energy sources. Governments should enact supportive policies and regulatory frameworks that incentivize renewable energy adoption, streamline permitting processes, and promote investment in clean technologies. Businesses should embrace renewable energy solutions, invest in research and development, and prioritize sustainability in their operations. Individuals can contribute by adopting energy-efficient practices, investing in renewable energy technologies for their homes, and advocating for renewable energy policies and initiatives.

Collaboration and collective action are vital to driving the renewable energy transition forward. [166] Governments, businesses, and individuals must work together to overcome challenges, seize opportunities, and accelerate the deployment of renewable energy technologies. By doing so, we can create a sustainable future, combat climate change, and ensure a clean and resilient planet for generations to come. The time for action is now, and the renewable

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[164] Ibid.

[165] Ibid.

[166] Merem, E. C., et.al. (2019).

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions: **Dynesius Nyangau**

(2023) Journalofcmsd Volume 10(4)

energy transition is our pathway to a brighter and more sustainable future.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Bibliography

Almulhim, A. I. (2022). Understanding public awareness and attitudes toward renewable energy resources in Saudi Arabia. Renewable Energy, 192, 572-582.

Amankwah-Amoah, J. (2015). Solar energy in sub-Saharan Africa: The challenges and opportunities of technological leapfrogging. Thunderbird International Business Review, 57(1), 15-31.

Amankwah-Amoah, J. (2015). Solar energy in sub-Saharan Africa: The challenges and opportunities of technological leapfrogging. Thunderbird International Business Review, 57(1), 15-31.

Barnes, R. H., Morozov, E. V., & Shankar, K. (2015). Improved methodology for design of low wind speed specific wind turbine blades. Composite Structures, 119, 677-684.

Bertoldi, P., Economidou, M., Palermo, V., Boza-Kiss, B., & Todeschi, V. (2021). How to finance energy renovation of residential buildings: Review of current and emerging financing instruments in the EU. Wiley Interdisciplinary Reviews: Energy and Environment, 10(1), e384.

Bina, S. M., Fujii, H., Tsuya, S., & Kosukegawa, H. (2022). Comparative study of hybrid ground source heat pump in cooling and heating dominant climates. Energy Conversion and Management, 252, 115122.

Bramwell, A., & Wolfe, D. A. (2008). Universities and regional economic development: The entrepreneurial University of Waterloo. Research policy, 37(8), 1175-1187.

Castillo, A., & Gayme, D. F. (2014). Grid-scale energy storage applications in renewable energy integration: A survey. Energy Conversion and Management, 87, 885-894.

Charabi, Y., & Al-Badi, A. H. (2015). Creating an enabling environment for renewable energy application in the Sultanate of Oman. International Journal of Green Energy, 12(11), 1169-1177.

Couture, T., & Gagnon, Y. (2010). An analysis of feed-in tariff remuneration models: Implications for renewable energy investment. Energy policy, 38(2), 955-965.

Dang, T. (2009, October). Introduction, history, and theory of wind power. In 41st North American Power Symposium (pp. 1-6). IEEE.

Denholm, P., Ela, E., Kirby, B., & Milligan, M. (2010). Role of energy storage with renewable electricity generation (No. NREL/TP-6A2-47187). National Renewable Energy Lab.(NREL), Golden, CO (United States).

Ellabban, O., Abu-Rub, H., & Blaabjerg, F. (2014). Renewable energy resources: Current status, future prospects and their enabling technology. Renewable and sustainable energy reviews, 39, 751-757.

Fletcher, R. (2010). When environmental issues collide: Climate change and the shifting political ecology of hydroelectric power. Peace & Conflict Review, 5(1), 14-30.Hoffmann, M. J. (2011). Climate governance at the crossroads: Experimenting with a global response after Kyoto. Oxford University Press; See, Asif, M., & Muneer, T. (2007). Energy supply, its demand and security issues for developed and emerging economies. Renewable and sustainable energy reviews, 11(7), 1389-1399.

Fletcher, R. (2010). When environmental issues collide: Climate change and the shifting political ecology of hydroelectric power. Peace & Conflict Review, 5(1), 14-30.

Franco, A., & Villani, M. (2009). Optimal design of binary cycle power plants for water-dominated, medium-temperature geothermal fields. Geothermics, 38(4), 379-391.

Franco, A., & Villani, M. (2009). Optimal design of binary cycle power plants for water-dominated, medium-temperature geothermal fields. Geothermics, 38(4), 387-390.

Guney, M. S., & Tepe, Y. (2017). Classification and assessment of energy storage systems. Renewable and Sustainable Energy Reviews, 75, 1187-1197.

Bina, S. M., Fujii, H., Tsuya, S., & Kosukegawa, H. (2022). Comparative study of hybrid ground source heat pump in cooling and heating dominant climates. Energy Conversion and Management, 252, 115122.

Fischer, C. (2010). Renewable portfolio standards: when do they lower energy prices?. The Energy Journal, 31(1).

Gielen, D., Boshell, F., Saygin, D., Bazilian, M. D., Wagner, N., & Gorini, R. (2019). The role of renewable energy in the global energy transformation. Energy strategy reviews, 24, 38-50.

Goodrich, A., James, T., & Woodhouse, M. (2012). Residential, commercial, and utility-scale photovoltaic (PV) system prices in the United States: current drivers and cost-reduction opportunities (No. NREL/TP-6A20-53347). National Renewable Energy Lab.(NREL), Golden, CO (United States).

Frondel, M., Ritter, N., Schmidt, C. M., & Vance, C. (2010). Economic impacts from the promotion of renewable energy technologies: The German experience. Energy Policy, 38(8), 4048-4056.

Gutfleisch, O., Willard, M. A., Brück, E., Chen, C. H., Sankar, S. G., & Liu, J. P. (2011). Magnetic materials and devices for the 21st century: stronger, lighter, and more energy efficient. Advanced materials, 23(7), 821-842.

Frondel, M., Ritter, N., Schmidt, C. M., & Vance, C. (2010). Economic impacts from the promotion of renewable energy technologies: The German experience. Energy Policy, 38(8), 4048-4056.

Gregersen, C. T. T. (2022). Local learning and capability building through technology transfer: Experiences from the Lake Turkana Wind Power Project in

Kenya. Innovation and Development, 12(2), 209-230.

Gilchrist, D., Yu, J., & Zhong, R. (2021). The limits of green finance: A survey of literature in the context of green bonds and green loans. Sustainability, 13(2), 478.

Hayek, J., & Kahwaji, R. (2013). Hydrolus: Design of a Savonius Wind Pump for Developing Regions (Doctoral dissertation, McGill University).

Kammen, D. M. (2008). Putting renewables to work: how many jobs can the clean energy industry generate?. DIANE Publishing.

Kenfack, J., Bossou, O. V., & Tchaptchet, E. (2017). How can we promote renewable energy and energy efficiency in Central Africa? A Cameroon case study. Renewable and Sustainable Energy Reviews, 75, 1217-1224.

Koirala, B. P., Koliou, E., Friege, J., Hakvoort, R. A., & Herder, P. M. (2016). Energetic communities for community energy: A review of key issues and trends shaping integrated community energy systems. Renewable and Sustainable Energy Reviews, 56, 722-744.

Kollins, K., Speer, B., & Cory, K. (2009). Solar PV project financing: Regulatory and legislative challenges for third-

party PPA system owners (No. NREL/TP-6A2-46723). National Renewable Energy Lab.(NREL), Golden, CO (United States).

Kumari, W. G. P., & Ranjith, P. G. (2019). Sustainable development of enhanced geothermal systems based on geotechnical research–A review. Earth-Science Reviews, 199, 102955.

Langniss, O., & Wiser, R. (2003). The renewables portfolio standard in Texas: an early assessment. Energy policy, 31(6), 527-535.

Lam, P. T., & Law, A. O. (2016). Crowdfunding for renewable and sustainable energy projects: An exploratory case study approach. Renewable and sustainable energy reviews, 60, 11-20.

Lipp, J. (2007). Lessons for effective renewable electricity policy from Denmark, Germany and the United Kingdom. Energy policy, 35(11), 5481-5495.

Martins, A. C., Marques, R. C., & Cruz, C. O. (2011). Public–private partnerships for wind power generation: The Portuguese case. Energy policy, 39(1), 94-104.

Meral, M. E., & Dincer, F. (2011). A review of the factors affecting operation and efficiency of photovoltaic based electricity generation systems. Renewable and Sustainable Energy Reviews, 15(5), 2176-2184.

Merem, E. C., Twumasi, Y., Wesley, J., Olagbegi, D., Fageir, S., Crisler, M., ... & Washington, J. (2019). Analyzing geothermal energy use in the East African Region: The case of Kenya. Energy and Power, 9(1), 12-26.

Otieno, H. O., & Awange, J. L. (2006). Energy resources in East Africa: Opportunities and challenges.

Perveen, R., Kishor, N., & Mohanty, S. R. (2014). Off-shore wind farm development: Present status and challenges. Renewable and Sustainable Energy Reviews, 29, 780-792.

Polzin, F., Egli, F., Steffen, B., & Schmidt, T. S. (2019). How do policies mobilize private finance for renewable energy?— A systematic review with an investor perspective. Applied Energy, 236, 1249-1268.

Ram, M., Child, M., Aghahosseini, A., Bogdanov, D., Lohrmann, A., & Breyer, C. (2018). A comparative analysis of electricity generation costs from renewable, fossil fuel and nuclear sources in G20 countries for the period 2015-2030. Journal of Cleaner Production, 199, 687-704.

Recalde, M. Y. (2016). The different paths for renewable energies in Latin American Countries: the relevance of the enabling frameworks and the design of instruments. Wiley Interdisciplinary Reviews: Energy and Environment, 5(3), 305-326.

Robinson, H., Carrillo, P., Anumba, C. J., & Patel, M. (2009). Governance and knowledge management for public-private partnerships. John Wiley & Sons.

Roesler, T. (2019). Community resources for energy transition: Implementing bioenergy villages in Germany. Area, 51(2), 268-276.

Rohracher, H., Ulsrud, K., Muchunku, C., Palit, D., & Winther, T. (2018). Pathways to electricity for all: What makes village-scale solar power successful?. Energy research & social science, 44, 32-40.

Rogelj, J., Den Elzen, M., Höhne, N., Fransen, T., Fekete, H., Winkler, H., ... & Meinshausen, M. (2016). Paris Agreement climate proposals need a boost to keep warming well below 2 C. Nature, 534(7609), 631-639.

Santos, J. J., Palacio, J. C., Reyes, A. M., Carvalho, M., Freire, A. J., & Barone, M. A. (2018). Concentrating solar power. In Advances in renewable energies and power technologies (pp. 377-481). Elsevier.

Shaaban, M., & Petinrin, J. O. (2014). Renewable energy potentials in Nigeria: Meeting rural energy needs. Renewable and sustainable energy reviews, 29, 72-84.

Shahsavari, A., & Akbari, M. (2018). Potential of solar energy in developing countries for reducing energy-related emissions. *Renewable and Sustainable Energy Reviews*, *90*, 275-291.

Renewable Energy Transition: Powering a Sustainable Future with Solar, Wind, Hydro, and Geothermal Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Singh, G. K. (2013). Solar power generation by PV (photovoltaic) technology: A review. Energy, 53, 1-13.

Soni, M. S. Ummadisingu, A., & (2011). Concentrating solar power–technology, potential and policy in India. Renewable and sustainable energy reviews, 15(9), 5169-5175.

Sornette, D., Kröger, W., & Wheatley, S. (2018). New ways and needs for exploiting nuclear energy. Springer.

Taibi, E., Miranda, R., Vanhoudt, W., Winkel, T., Lanoix, J. C., & Barth, F. (2018). Hydrogen from renewable power: Technology outlook for the energy transition.

Tronchin, L., Manfren, M., & Nastasi, B. (2018). Energy efficiency, demand side management and energy storage technologies–A critical analysis of possible paths of integration in the built environment. Renewable and Sustainable Energy Reviews, 95, 341-353.

Veugelers, R. (2012). Which policy instruments to induce clean innovating?. Research policy, 41(10), 1770-1778.

Wang, B., Wang, Q., Wei, Y. M., & Li, Z. P. (2018). Role of renewable energy in China's energy security and climate change mitigation: An index decomposition analysis. Renewable and sustainable energy reviews, 90, 187-194.

Waters, S., & Aggidis, G. A. (2015). Over 2000 years in review: Revival of the Archimedes Screw from Pump to Turbine. Renewable and Sustainable Energy Reviews, 51, 497-505.

Wharton, S., & Lundquist, J. K. (2012). Assessing atmospheric stability and its impacts on rotor-disk wind characteristics at an onshore wind farm. Wind Energy, 15(4), 530-527.

Widén, J. (2011). Correlations between large-scale solar and wind power in a future scenario for Sweden. IEEE transactions on sustainable energy, 2(2), 177-184.

Wilfing, M. S. (2019). Integration of Solar Microgrids (Doctoral dissertation, Purdue University).

Zhang, S., & He, Y. (2013). Analysis on the development and policy of solar PV power in China. Renewable and Sustainable Energy Reviews, 21, 393-401.

A Clarion call for Action: Realising True Sustainable Development

By: Kariuki Muigua*

Abstract

There has never been a more urgent time than now for the world to come together and work towards achieving sustainable development. This is due to the accelerated rate of environmental degradation and the rising levels of poverty among communities. Sustainable development seeks to adopt a three-pronged approach that seeks to balance environmental, social and economic needs of the society. This paper argues that there is a need for all stakeholders to rise and take their places towards achieving sustainable development. It also affirms that international cooperation is important in achieving sustainability.

1. Introduction

The United Nations 2030 Agenda for Sustainable Development [1] captures the global goals towards securing environmental, economic, social and political development and sustainability for the sake of current and future generations. Notably, this means that the goals call for action from various actors from the state agencies, private sector, communities, among others.

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[1] UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1.

This paper seeks to explore the specific roles of each of these actors, overlapping areas and how they can all collaborate towards realisation of the sustainable development agenda. The paper also looks at the place of international actors in all these.

The discourse adopts a human rights based approach, ecosystem management approaches as well as other approaches envisaged under the Sustainable Development agenda, and the related topics thus feature prominently across the paper.

2. Background Information on Sustainable Development and the General Actors

The idea of sustainable development stretches back to traditional societies and ancient civilizations, predating the 1972 Stockholm Conference.[2] It aims to reduce pollution of the environment, the depletion of non-renewable resources, and environmental damage caused by anthropogenic activities.[3] The *Brundtland Commission*[4] defined sustainable development as, "*development that meets the needs of the present without compromising the ability of future generations to*

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[2] Per Judge Christopher Weeramantry *in Hungary v Slovakia*, 1997 WL 1168556 (I.C.J-1997).

[3] Cullet P., *Differential Treatment in International Environmental Law and its Contribution to the Evolution of International Law* (Aldershot: Ashgate, 2003), pp.8 -9.

[4] The Brundtland Commission was established by the United Nations in 1983 to address the problem of deterioration of natural resources. Its mission was to unite countries to pursue sustainable development together. The Commission was named after its chairperson, Gro Harlem Brundtland, a former Prime Minister of Norway. It was officially dissolved in 1987 after releasing a report entitled *Our Common Future*, also known as the *Brundtland Report*. This report defined the meaning of the term Sustainable Development.

meet their own needs."[5] Under section 2 of *Environmental Management and Co-ordination Act, 1999*[6] (EMCA), sustainable development is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their needs by maintaining the carrying capacity of the supporting ecosystems. Essentially, sustainable development seeks to address *intra-generational equity*, that is equity among present generations, and *inter-generational equity*, that is equity between generations.[7]

When referred to as Sustainable Human Development, Sustainable Development is also associated with the right to development, human rights, and good governance. Focus is placed on both tangible and immaterial aspects of human development, such as participation and rights, in order to achieve sustainable human development. Moreover, it aspires to a variety of objectives, including the eradication of poverty, the advancement of human rights, the promotion of equal opportunities, the preservation of the environment, and the evaluation of the effects of development efforts. [8] Kenya's Vision 2030 adopts sustainable human

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[5] World Commission on Environment and Development, *Our Common Future*, GAOR, 42ndSess, Supp. No. 25, UN Doc, A/42/25 (1987), p.27; See also the Rio Declaration of 1992, UN Doc. A/CONF.151/26 (Vol. I).

[6] Environmental Management and Co-ordination Act, No. 8 of 1999, Laws of Kenya.

[7] Weiss, E.B., "In Fairness to Future Generations and Sustainable Development," *American University International Law Review*, Vol.8, 1992.

[8] See generally Amartya S., *Development as Freedom* (Anchor Books, New York, 1999), pp.35-53; See also UNDP, Human Development Report 2011, *The Real Wealth of Nations: Pathways to Human Development*, (Palgrave Macmillan Houndmills, Basingtoke, Hampshire, 2011), p. (i)-12. This report defines sustainable human development as the expansion of the substantive freedoms of people today while making reasonable efforts to avoid seriously compromising those of future generations.

development as it seeks to address the economic, social and political pillars. It thus fosters both material factors and non-material factors.[9] Sustainable Human Development is, therefore, inextricably linked to people's livelihoods, and is thus requisite in moving towards environmental justice.

In the *Case Concerning the Gabcikovo-Nagymoros Project,*[10] ICJ Judge Weeramantry rightly opined that Sustainable Development reaffirms the need for both development and environmental protection, and that neither can be neglected at the expense of the other. He considered Sustainable Development to be a '*principle with normative value*' demanding a balance between development and environmental protection, and as a principle of reconciliation in the context of conflicting human rights, that is the *human right to development* and the *human right to protection of the environment*. Sustainable Development reconciles these rights by ensuring that the right to development tolerates the '*reasonable demands of environmental protection.*'[11]

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[9] Kenya Vision 2030, Government of Kenya, 2007.

[10] The Gabčíkovo–Nagymaros Project relates to a large damming project on the Danube River. This river is classified as an international waterway as it passes through or touches the borders of ten European countries before emptying into the Black Sea. The Project was specific to the part of the river passing through Hungary and Slovakia. It was initiated by the Budapest Treaty of 1977 between Slovakia and Hungary and aimed at preventing floods, improving river navigability and producing clean electricity for the two countries. Only a part of the project was completed in Slovakia, under the name Gabčíkovo Dam. Hungary suspended the Project in its territory and then later tried to terminate it citing environmental and economic concerns. Slovakia then proceeded with an alternative solution, called "Variant C", which involved diverting the river. These developments caused an international dispute between the two countries and they turned to the International Court of Justice for redress.

[11] Hungary v Slovakia, 1997 WL 1168556 (I.C.J-1997).

SDG Goal 12.2 mandates that by 2030, all States should achieve the sustainable management and efficient use of natural resources in order to guarantee sustainable consumption and production patterns. The goal is to prevent the world from degrading, which includes doing so through sustainable production and consumption, managing its natural resources responsibly, and taking immediate action to combat climate change, so that it may satisfy the demands of both the present and future generations.[12]

Sustainable use refers to the need to reduce and eliminate unsustainable patterns of production and consumption. [13] It is described as use that in any way and rate does not lead to long-term decline of biological diversity, thereby maintaining its potential to meet the needs of present and future generations.[14] It requires that present use of the environment and natural resources does not compromise the ability of future generations to use these resources or degrade the carrying capacity of supporting ecosystems.[15] It is a principle that is applied to determine the permissibility of natural resource exploitation[16] and is central to the principle of sustainable development.

In order to maintain strong sustainability as opposed to weak sustainability, governments and public bodies must assure sustainable usage. Strong sustainability recognises that the environment has benefits beyond economic potential. According to

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[12] Preamble, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1.

[13] Principle 8 of the Rio Declaration.

[14] Art.2, Convention on Biological Diversity.

[15] S. 2 of Act, No. 8 of 1999.

[16] See Birnie, P., Boyle, A. and Redgwell, C., *International Law and the Environment*, (3rd ed., Oxford 2009).

some observers, future generations shouldn't inherit a deteriorated ecosystem, regardless of how many other sources of income are available to them, because the environment provides services and benefits that cannot be replaced by wealth created by humans.[17] Strong sustainability is preferable to weak sustainability for reasons such as 'non-substitutability,'[18] 'uncertainty'[19] and 'irreversibility.'[20] Weak sustainability makes a wrong assumption that future generations will be adequately compensated for any loss of environmental amenity by having alternative sources of wealth creation.[21]

Sustainable use, therefore, puts fetters in the utilization of natural resources. For example, not all forms of resource use will be permissible since certain forms of exploitation may lead to destruction of environmental resources with no substitutes, thus limiting the enjoyment of these resources by future generations.[22]
Public, private, and non-profit sectors can all be categorized as

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[17] Beder, S., "Costing the Earth: Equity, Sustainable Development and Environmental Economics," *New Zealand Journal of Environmental Law*, Vol.4, 2000, pp.227-243.

[18] Ibid. The argument is that there are many environmental assets for which there are no substitutes, such as the ozone layer, tropical forests, wetlands, etc.

[19] Ibid. It has been said that scientific knowledge about the functions of natural systems and the possible consequences of depleting and degrading them is uncertain.

[20] Ibid. The depletion of natural capital can lead to irreversible losses such as species and habitats, which cannot be recreated using man-made resources.

[21] Ibid.

[22] Kuhlman T and Farrington J, 'What Is Sustainability?' (2010) 2 Sustainability 3436; Chu EW and Karr JR, 'Environmental Impact: Concept, Consequences, Measurement' [2017] Reference Module in Life Sciences B978; Freedman B, 'Chapter 12 ~ Resources and Sustainable Development' *<https://ecampusontario.pressbooks.pub/environmentalscience/chapter/chapter-12-resources-and-sustainable-development/>* accessed 19 April 2023.

players who can support sustainable development. [23] Even throughout evaluation, sustainability is always being redefined and interpreted in new ways. Some scholars contend that in order to arrive at the basically normative concept of sustainable development, stakeholders' and citizens' perspectives must be taken into account while evaluating the application of international rules.[24]

NGOs, workers' unions, local governments or "local authorities, business and industry, scientific and technological communities, children and youth, women, farmer(s), aboriginal peoples and communities, are among the nine primary players of Sustainable Development that the United Nations has identified. According to Rio Agenda 21, the degree of commitment and sincere participation of all social groups and the general public in decision-making will determine how effectively Sustainable Development is implemented.[25]

3. Getting Private Actors and non-State Actors on Board
Since the 1980s, Sustainable Development has played a role in influencing local public policy. According to the World Commission on Environment and Development, sustainable development is "development that meets the needs of the present without

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[23] Niţoaia P and Camară G, 'Roles of Actors in Promoting Sustainable Development' [2018] Present Environment and Sustainable Development 169.

[24] Pülzl H and Wydra D, 'The Evaluation of the Implementation of Sustainability Norms: An Exercise for Experts or Citizens?' (2011) 2 International Journal of Social Ecology and Sustainable Development (IJSESD) 31, 32.

[25] Rafika, K., Rym, K., Souad, S.B. and Youcef, L., "A public actor awareness for sustainable development." *Procedia-Social and Behavioral Sciences* 216 (2016): 151-162, p. 154.

compromising the ability of future generations to meet their own needs."[26] Thus, the widespread adoption of public policy agendas, such as localizing the United Nations Sustainable Development Goals, and the thousands of local governments worldwide creating sustainability plans reflect the need for a collective effort to overcome the social, ecological, and economic difficulties inherent in achieving sustainability.[27]

The 2030 Agenda for Sustainable Development was adopted by the United Nations in 2015 and includes 17 Goals (SDGs). [28] Conflict management and access to justice are considered to be an important element of Sustainable Development agenda. [29] For human civilization to continue, peace and harmony are necessary. According to the United Nations (2016), SDG 16 demands for equal access to information and judicial services while creating inclusive, peaceful societies with access to justice.[30]

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[26] MacDonald, A., Clarke, A., Ordonez-Ponce, E., Chai, Z. and Andreasen, J., 'Sustainability Managers: The Job Roles and Competencies of Building Sustainable Cities and Communities' (2020) 43 Public Performance & Management Review 1413, p.2.

[27] Ibid, p. 39.

[28] UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1.

[29] Muigua, D., 'Understanding the Place of Conflict Management in Sustainable Development Agenda' (27 September 2022) <*https://papers.ssrn.com/abstract=4371703*> accessed 31 March 2023.

[30] Leal Filho, W., Tripathi, S.K., Andrade Guerra, J.B.S.O.D., Giné-Garriga, R., Orlovic Lovren, V. and Willats, J., 'Using the Sustainable Development Goals towards a Better Understanding of Sustainability Challenges' (2019) 26 International Journal of Sustainable Development & World Ecology 179.

Arguably, commercial and business activities contribute a great deal to climate change and other ills that lead to environmental degradation.[31]

While the environmental effects of these economic activities are often mitigated through Corporate Social Responsibility (CSR) activities, these may not at times be sufficient in tackling the resultant increased rates of degradation. Indeed, many of the top scientists in the world believe that human-caused climate change is the "defining issue of our time." Many people now prefer to use the term "Climate Crisis" to emphasise how quickly and severely the world's climate is changing and how urgently we need to take action to create a sustainable future.[32] According to the Intergovernmental Panel on Climate Change (IPCC), global CO2 emissions must decrease over the next ten years to around half of 2010 levels and achieve net zero by 2050. According to the IPCC, in order to keep global warming to 1.5 °C, all facets of society would need to undergo quick, significant, and unheard-of adjustments.[33] In addition to climate change, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) of the United Nations found equally alarming results in its 2019 assessment report on biodiversity and ecosystem services.[34]

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[31] 'Trade and the Environment - OECD'
<*https://www.oecd.org/trade/topics/trade-and-the-environment/*> accessed 1 April 2023.
[32] McGregor D, Whitaker S and Sritharan M, 'Indigenous Environmental Justice and Sustainability' (2020) 43 Current Opinion in Environmental Sustainability 35, p.35.
[33] Ibid, p.35.
[34] Ibid, p.35.

4. The Place of International Cooperation towards Achieving Sustainability

The place of international law in achieving sustainability is well recognised as was pointed out by Kenyan courts in the case of *Amina Said Abdalla & 2 others v County Government of Kilifi & 2 others* [2017] eKLR[35], that 'the Environmental Law is principally concerned with ensuring the sustainable utilization of natural resources according to a number of fundamental principles developed over the years through both municipal and international processes'. [36] At the international level, these principles include, *inter alia,* the international cooperation in management of natural resources and common but differentiated responsibilities.[3]

International collaboration is now required in the management of natural resources as more nations embrace globalization and the resulting struggle over resources, particularly those that are transboundary in nature, to spur economic growth. This is because some environmental issues, like climate change, that result from poor management of natural resources are themselves global in scope, necessitating the work and collaboration of all states to address them. This collaboration primarily involves bilateral, transnational, multilateral, and corporate sector relationships.[37]

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[35] *Amina Said Abdalla & 2 others v County Government of Kilifi & 2 others* [2017] eKLR, ELC Case No. 283 OF 2016.

[36] Ibid, para. 17.

[37] Nkonya, E.M., Cenacchi, N. and Ringler, C., International cooperation for sustainable land and water management, *SOLAW Background Thematic Report* - TR16.

4.2. International Cooperation in Management of Natural Resources

In international law, the obligation to collaborate is firmly established. "States must collaborate in a spirit of global partnership to conserve, maintain, and restore the health and integrity of the earth's environment," the Rio Declaration's Principle 7's opening sentence reads. According to Principle 14, States shall work together effectively to deter or prohibit the relocation and transfer of any activities or chemicals that seriously degrade the environment or are determined to be detrimental to human health. This Principle has not received much attention in Kenyan natural resources legislation. Nonetheless, EMCA acknowledges this Principle as one of the guiding principles for managing natural resources that are shared by one or more states.[38]

This idea is particularly important when it comes to cross-border trading across countries and regions. For instance, the United Nations Conference on Sustainable Development, also known as Rio+20, calls on nations to collaborate in developing well-designed and managed tourism in order to significantly contribute to the three pillars of sustainable development, with close ties to other sectors, and with the potential to create decent jobs and expand trade opportunities.[39]

The *2030 Agenda on SDGs* also affirms that international trade is an engine for inclusive economic growth and poverty reduction, and

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[38] EMCA, No. 8 of 1999, S. 3 (5) (c).

[39] United Nations, *The Future We Want*, A/RES/66/288, Sixty-sixth session Agenda item 19, Resolution adopted by the General Assembly on 27 July 2012, para. 130. Art. 1.11 of the RIO+20 Report, requires State parties to strengthen international cooperation to address the persistent challenges related to sustainable development for all, in particular in developing countries.

contributes to the promotion of sustainable development.[40] As such, it seeks to continue to promote a universal, rules-based, open, transparent, predictable, inclusive, non-discriminatory and equitable multilateral trading system under the World Trade Organization, as well as meaningful trade liberalization. It also calls upon all members of the World Trade Organization to redouble their efforts to promptly conclude the negotiations on the Doha Development Agenda.[41]

Achieving food security, creating decent employment opportunities for the unemployed, fostering technology transfer [42], ensuring national economic security, and supporting infrastructure development, not only for transporting goods to and from ports but also for the provision of basic services like health, education, water, sanitation, and energy, are all possible thanks to fair international trade.[43] This is crucial for achieving SDG Goal 8, which aims to promote full and productive employment, sustained, inclusive, and sustainable economic growth, and decent work for everyone.

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[40] 'Trading Into Sustainable Development: Trade, Market Access, and the Sustainable Development Goals' (2016)
<https://unctad.org/system/files/official-document/ditctab2015d3_en.pdf>
accessed 19 April 2023.

[41] SDG 17.

[42] Art. 7 of the Agreement on Trade-Related Aspects of Intellectual Property Rights states that: "The protection and enforcement of intellectual property should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations."

[43] Galmes G, 'Trade as an enabler of sustainable development and poverty eradication,' in United Nations, *The Road fromRio+20:TowardsSustainable DevelopmentGoals*, Issue4,September2014, p. 10. UNCTAD/DITC/TED/2014/1<*https://www.tralac.org/images/docs/6328/ch-3-trade-as-an-enabler-of-sustainable-development.pdf* > [Accessed on 8/1/2019].

Participating in international trade can increase the economic space required to generate new job opportunities, encourage resource efficiency, increase access to food, energy, and essential services, and enhance the managerial, entrepreneurial, and productive capabilities necessary for economic diversification, growth, and development.[44]

With international collaboration for the realisation of the Sustainable Development agenda, this may be accomplished successfully.[45]

The SDG Goal 17—to strengthen implementation mechanisms and re-energize the international cooperation for sustainable development—also reflects this. This is intended, among other things, through enhancing domestic capacity for tax and other revenue collection, especially through international assistance to poor nations.[46] Goal 17.6, which aims to improve North-South, South-South, and triangular regional and international cooperation on and access to science, technology, and innovation as well as enhance knowledge sharing on mutually agreed terms, includes improved coordination among existing mechanisms, particularly at the UN level, as well as through a global technology facilitation mechanism. This goal also promotes international cooperation. Enhancing international support for the implementation of efficient

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[44] Muigua, K., *Nurturing Our Environment for Sustainable Development,* Glenwood Publishers, Nairobi – 2016), p. 244.

[45] Principle 5 of the *Rio Declaration* calls on all States and all people to cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world; See also World Commission on Environment and Development, *Our Common Future: Report of the World Commission on Environment and Development*, 1987, A/42/427.

[46] SDG Goal 17.1.

and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South, and triangular cooperation, is another important aspect of international cooperation for capacity building.[47]

Notably, the 2030 Agenda on Sustainable Development strongly advises against adopting and enforcing any unilateral economic, financial, or trade measures that are in violation of international law and the United Nations Charter and that would hinder the full realisation of economic and social development, especially in developing nations.[48]

4.3.   Common but Differentiated Responsibilities

The idea of the "shared heritage of mankind" is claimed to have given rise to the idea of "common but differentiated responsibility," which is also a manifestation of general principles of justice in international law.[49] Governments must work together in a spirit of international collaboration to preserve, protect, and restore the health and integrity of the earth's environment, according to Principle 7 of the Rio Declaration. It continues by stating that States have similar but distinct obligations in light of the various ways in which environmental deterioration throughout the world is caused.[50]

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[47] SDG Goal 17.9.

[48] A/RES/70/1 - Transforming our world: the 2030 Agenda for Sustainable Development.

[49] The Principle of Common but Differentiated Responsibilities: Origins and Scope, For the World Summit on Sustainable Development, 2002, Johannesburg, 26 August, *A Centre for International Sustainable Development Law (CISDL) Legal Brief*, p. 1.

[50] Tokuç A, 'Rio Declaration on Environment and Development (UN)' in Samuel O Idowu and others (eds), *Encyclopedia of Corporate Social*

This idea is included in several international legal documents, such as the Rio Declaration and the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC). According to the UNFCCC, Parties must act "on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities" in order to preserve the climate system.[51]

The member states that have polluted the most must shoulder the bulk of the burden for minimising the impacts of that pollution. In order to provide fairness to developing and Least Developed States, who have made smaller contributions to climate change and global warming, differentiated responsibility is particularly crucial. Depending on how much emissions each State produces, each has a different level of accountability. For instance, compared to a small developing State, large growing economies would have a greater need to manage and conserve the environment.[52]

The notion of "common but differentiated responsibility" is a means to take into consideration the diverse conditions, especially in regards to each state's role to the development of environmental issues and its capacity to avoid, minimise, or regulate them.[53] The goal is to promote equity and participation for everyone.[54] This principle is crucial for achieving the Agenda 2030 Sustainable

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Responsibility (Springer 2013) <*https://doi.org/10.1007/978-3-642-28036-8_19*> accessed 19 April 2023.

[51] Art.3 of the UNFCCC.

[52] 'Smallest Footprints, Largest Impacts: Least Developed Countries Need a Just Sustainable Transition | UNCTAD' <*https://unctad.org/topic/least-developed-countries/chart-october-2021*> accessed 19 April 2023.

[53] Kurukulasuriya, L. and Robinson, N.A., "UNEP Training Manual on International Environmental Law." *Nairobi: United Nations Environment Programme* (2006).

[54] Ibid.

Development Goals (SDGs), which include, among other things, the notion of common but differentiated responsibilities outlined in principle 7 of the Rio Declaration on Environment and Development. SDG Goal 10(a)s aims to, among other things, implement the principle of special and differentiated treatment for developing countries, particularly least developed countries, in conformity with World Trade Organization agreements in order to minimise inequality within and between nations.[55]

5. Concluding Remarks

Unquestionably, the human rights approach is at the core of the 2030 Agenda for Sustainable Development. In order for the world to continue to serve the requirements of the present and future generations, everyone has a responsibility to prevent it from degrading, especially via sustainable production and consumption, the management of its natural resources, and urgent action on climate change. Sustainable Development must take into account the relationship between human rights and environmental protection. Sustainable Development is contingent upon upholding peoples' rights to a secure environment where they can thrive.[56]

The Sustainable Development Goals (SDGs) also envisions a world where democracy, good governance, and the rule of law are essential for Sustainable Development, which includes inclusive and sustained economic growth, social development, environmental protection,

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[55] Hub ISK, 'Guest Article: Common But Differentiated Governance: Making the SDGs Work | SDG Knowledge Hub | IISD'
<http://sdg.iisd.org/commentary/guest-articles/common-but-differentiated-governance-making-the-sdgs-work/> accessed 19 April 2023.
[56] Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education.

and the eradication of poverty and hunger. [57] In this sense, "steering"—which comprises both procedures and institutions—is referred to as "governance" since it entails a certain amount of power. Process refers to how choices are made on priorities, how disagreements are handled, if at all, and how coordination of people's actions with regard to resource usage is made simpler. The structural part, on the other hand, deals with the organisation and 'management' of these operations.[58]

Addressing conflict of whatever nature is part of the social aspects of sustainability that must be put into consideration if Sustainable Development agenda is to be achieved. Thus, the Sustainable Development agenda advocates for an integrated approach to tackling environmental management challenges as well as social problems affecting the society.[59] The Organisation for Economic Co-operation and Development(OECD) calls for an integrated approach to the implementation of Sustainable Development and argues that many SDGs are interconnected with each other; an integrated approach implies managing trade-offs and maximising synergies across targets. [60] The fundamental action principle of Sustainable Development is integrated decision-making, which is the process of

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[57] United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs'* <*https://sdgs.un.org/2030agenda*> accessed 1 April 2023.

[58] Vatn, Arild, Environmental governance: institutions, policies and actions, Edward Elgar Publishing, 2015, p. 133.

[59] See Hussein Abaza and Andrea Baranzini, *Implementing Sustainable Development: Integrated Assessment and Participatory Decision-Making Processes* (Edward Elgar Publishing 2002).

[60] Rizza Ambra, 'An Integrated Approach to the Sustainable Development Goals' (*Assembly of European Regions, 4 March 2019*) <*https://aer.eu/integrated-approach-sdgs/*> accessed 1 April 2023.

taking environmental, social, and economic goals and issues into consideration when making decisions.[61]

Sustainable Development's environmental component must be considered in its economic, social, and governance facets. This is due to the fact that fostering sustainable economic growth depends on environmental protection, as the natural environment supports economic activity both directly and indirectly through ecosystem services like carbon sequestration, water purification, managing flood risks, and nutrient cycling.[62]

The SDGs are global, multifaceted, and ambitious, and it is arguable that in order to fulfil them, we need an integrated framework that encourages a growth path that protects the environment and whose benefits are shared by everyone, not just by the fortunate few.[63] Thus, the idea of Sustainable Development forces us to reconsider how we interact with the world and how we anticipate that governments would implement policies that promote that worldview.[64]

Corporations, through following Environment Social and Governance (ESG) frameworks or guidelines, can also play a huge role in promoting sustainability within the localities that they operate

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[61] Dernbach, J.C. and Mintz, J.A., "Environmental laws and sustainability: an introduction. Sustainability, 3 (3), 531-540." (2011), 532.

[62] *UN Environment,* 'GOAL 8: Decent Work and Economic Growth' (UNEP - UN Environment Programme, 2 June 2021) <*http://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-8*> accessed 1 April 2023.

[63] Ramos, G., "The Sustainable Development Goals: A duty and an opportunity." (2016): 17-21, in Love, P. (ed.), Debate the Issues: New Approaches to Economic Challenges, OECD Publishing, Paris, https://doi.org/10.1787/9789264264687-3-en. 1 April 2023.

[64] Ibid.

in and the country at large. ESG Reporting should be encouraged and used as a tool of promoting sustainability within the companies, communities and country. Under this, organisations make it part of their operational procedures to report publicly on their economic, environmental, and/or social impacts, and hence its contributions – positive or negative – towards the goal of Sustainable Development.[65] As the business community seeks to invest in various sectors, there is a need for them to take into account ESG requirements under SDGs.

The law (government) and other policy makers should work towards supporting businesses in their efforts to transition to more sustainable business models, through using various legal, policy and other effective incentives. The law should move towards ensuring that non-financial reporting on ESG becomes the standard mode of operation for ease of enforcing such principles as "the polluter pays principle", among others. This is especially important as it has been pointed out that 'previous literature, which attempted to investigate the link between sustainability and investment performance, found that a critical barrier to ESG integration is that investors lack reliable and non-manipulated information', at least in other jurisdictions, practices which may also take place in Kenya.[66] While it may not be

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[65] '(10) Global ESG Disclosure Regulations: From Awareness to Practice towards Sustainability | LinkedIn' <*https://www.linkedin.com/pulse/global-esg-disclosure-regulations-from-awareness-dr-mahendra/*> accessed 1 April 2023; Boffo R and Patalano R, 'ESG Investing: Practices, Progress and Challenges' [2020] Editions OCDE, Paris; 'What ESG Reporting Is and How to Do It | A MovingWorlds Guide' (*MovingWorlds.org*) <*https://movingworlds.orgesg-reporting-guide*> accessed 1 April 2023; PricewaterhouseCoopers, 'ESG Reporting and Preparation of a Sustainability Report' (*PwC*, 26 January 2021) <https://www.pwc.com/sk/en/environmental-social-and-corporate-governance-esg/esg-reporting.html> accessed 1 April 2023.
[66] Roy, P.P., Rao, S., Marshall, A.P. and Thapa, C., 'Mandatory Corporate Social Responsibility and Foreign Institutional Investor Preferences' (2020).

disputed that institutional investors vary in their approaches to integrating ESG factors into their investment decisions, the end game should at least show some tangible and verifiable positive results.[67]

It has also been suggested that businesses and companies should embrace technology and innovation in engineering and product development as well as with regard to management structures and entrepreneurship, which will arguably continue to be crucial to overall sustainability strategy. Doing more with less may be a challenge that technology may help solve since it can reduce the strict ecological limitations while also relieving political and economic pressures (thereby allowing space and opportunity for more sustainability solutions from all quarters).[68]

There is a need to adopt innovative governance approaches which integrate economic, social development and sustainable development principles at multiple levels of social organization in addressing the serious challenges facing our globe and achievement of the 2030 Agenda on Sustainable Development Goals.[69]

The Human Rights Based Approach(HRBA) places the most marginalised and discriminated among those who are living in multidimensional poverty and oppression at the centre of development cooperation. The strategy identifies the individuals and

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[67] OECD, *OECD Business and Finance Outlook 2020: Sustainable and Resilient Finance* (OECD 2020)
<https://www.oecd-ilibrary.org/finance-and-investment/oecd-business-and-finance-outlook-2020_eb61fd29-en> accessed 1 April 2023.
[68] Clune WH and Zehnder AJB, 'The Three Pillars of Sustainability Framework: Approaches for Laws and Governance' (2018) 9 Journal of Environmental Protection 211.
[69] Kramer, J.M. and Johnson, C.D., "Sustainable Development and Social Development: Necessary Partners for the Future." Sustainable Development (1996), p.89.

institutions in charge of upholding, defending, and enforcing those human rights with the goal of empowering people who are oppressed and living in poverty to take action to escape their circumstances.[70] This is because the HRBA always includes the following provisions: empowerment of women, men, girls, boys, and non-binary people living in poverty and oppression — the rights holders — with, for instance, hope, assertiveness, knowledge, skills, tools, networks, communication channels, and access to justice to enable them to assert their rights both individually and collectively; and capacity development of those with obligations to respect, protect, promote, and fulfil human rights — the duty bearers — through, among other things, education.[71]

Realizing true Sustainable Development is an ideal whose time is now.

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[70] Cybercom, 'Human Rights Based Approach' (*Sida*) *<https://www.sida.se/en/for-partners/methods-materials/human-rights-based-approach>* accessed 19 April 2023.
[71] Ibid.

References

'(10) Global ESG Disclosure Regulations: From Awareness to Practice towards Sustainability | LinkedIn'
<https://www.linkedin.com/pulse/global-esg-disclosure-regulations-from-awareness-dr-mahendra/> accessed 1 April 2023.

'Smallest Footprints, Largest Impacts: Least Developed Countries Need a Just Sustainable Transition | UNCTAD'
<https://unctad.org/topic/least-developed-countries/chart-october-2021> accessed 19 April 2023.

'Trade and the Environment - OECD'
<https://www.oecd.org/trade/topics/trade-and-the-environment/> accessed 1 April 2023.

'Trading Into Sustainable Development: Trade, Market Access, and the Sustainable Development Goals' (2016)
<https://unctad.org/system/files/official-document/ditctab2015d3_en.pdf> accessed 19 April 2023.

Amartya S., *Development as Freedom* (Anchor Books, New York, 1999), pp.35-53.

Amina Said Abdalla & 2 others v County Government of Kilifi & 2 others [2017] eKLR, ELC Case No. 283 OF 2016.

Beder, S., "Costing the Earth: Equity, Sustainable Development and Environmental Economics," *New Zealand Journal of Environmental Law*, Vol.4, 2000, pp.227-243.

A Clarion call for Action: Realising
True Sustainable Development:
Kariuki Muigua   **(2023) Journalofcmsd Volume 10(4)**

Birnie, P., Boyle, A. and Redgwell, C., *International Law and the Environment*, (3rd ed., Oxford 2009).

Boffo R and Patalano R, 'ESG Investing: Practices, Progress and Challenges' [2020] Editions OCDE, Paris; 'What ESG Reporting Is and How to Do It | A MovingWorlds Guide' (*MovingWorlds.org*) <*https://movingworlds.orgesg-reporting-guide*> accessed 1 April 2023.

Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education.

Chu EW and Karr JR, 'Environmental Impact: Concept, Consequences, Measurement' [2017] Reference Module in Life Sciences B978.

Clune WH and Zehnder AJB, 'The Three Pillars of Sustainability Framework: Approaches for Laws and Governance' (2018) 9 Journal of Environmental Protection 211.

Cullet P., *Differential Treatment in International Environmental Law and its Contribution to the Evolution of International Law* (Aldershot: Ashgate, 2003).

Cybercom, 'Human Rights Based Approach' (*Sida*) <*https://www.sida.se/en/for-partners/methods-materials/human-rights-based-approach*> accessed 19 April 2023.

Dernbach, J.C. and Mintz, J.A., "Environmental laws and sustainability: an introduction. Sustainability, 3 (3), 531-540." (2011).

Environmental Management and Co-ordination Act, No. 8 of 1999, Laws of Kenya.

Freedman B, 'Chapter 12 ~ Resources and Sustainable Development' *<https://ecampusontario.pressbooks.pub/environmentalscience/chapter/chapter-12-resources-and-sustainable-development/>* accessed 19 April 2023.

Galmes G, 'Trade as an enabler of sustainable development and poverty eradication,' in United Nations, *The Road fromRio+20: TowardsSustainableDevelopmentGoals*, Issue4,September2014.

Hub ISK, 'Guest Article: Common But Differentiated Governance: Making the SDGs Work | SDG Knowledge Hub | IISD' *<http://sdg.iisd.org/commentary/guest-articles/common-but-differentiated-governance-making-the-sdgs-work/>* accessed 19 April 2023.

Hungary v Slovakia, 1997 WL 1168556 (I.C.J-1997).

Hussein Abaza and Andrea Baranzini, *Implementing Sustainable Development: Integrated Assessment and Participatory Decision-Making Processes* (Edward Elgar Publishing 2002).

Kenya Vision 2030, Government of Kenya, 2007.

Kramer, J.M. and Johnson, C.D., "Sustainable Development and Social Development: Necessary Partners for the Future." Sustainable Development (1996).

Kuhlman T and Farrington J, 'What Is Sustainability?' (2010) 2 Sustainability 3436.

Kurukulasuriya, L. and Robinson, N.A., "UNEP Training Manual on International Environmental Law." *Nairobi: United Nations Environment Programme* (2006).

Leal Filho, W., Tripathi, S.K., Andrade Guerra, J.B.S.O.D., Giné-Garriga, R., Orlovic Lovren, V. and Willats, J., 'Using the Sustainable Development Goals towards a Better Understanding of Sustainability Challenges' (2019) 26 International Journal of Sustainable Development & World Ecology 179.

MacDonald, A., Clarke, A., Ordonez-Ponce, E., Chai, Z. and Andreasen, J., 'Sustainability Managers: The Job Roles and Competencies of Building Sustainable Cities and Communities' (2020) 43 Public Performance & Management Review 1413.

McGregor D, Whitaker S and Sritharan M, 'Indigenous Environmental Justice and Sustainability' (2020) 43 Current Opinion in Environmental Sustainability 35.

Muigua, D., 'Understanding the Place of Conflict Management in Sustainable Development Agenda' (27 September 2022) *<https://papers.ssrn.com/abstract=4371703>* accessed 31 March 2023.

Muigua, K., *Nurturing Our Environment for Sustainable Development,* Glenwood Publishers, Nairobi – 2016).

Niţoaia P and Camară G, 'Roles of Actors in Promoting Sustainable Development' [2018] Present Environment and Sustainable Development 169.

Nkonya, E.M., Cenacchi, N. and Ringler, C., International cooperation for sustainable land and water management, *SOLAW Background Thematic Report* - TR16.

OECD, *OECD Business and Finance Outlook 2020: Sustainable and Resilient Finance* (OECD 2020) <*https://www.oecd-ilibrary.org/finance-and-investment/oecd-business-and-finance-outlook-2020_eb61fd29-en*> accessed 1 April 2023.

PricewaterhouseCoopers, 'ESG Reporting and Preparation of a Sustainability Report' (*PwC*, 26 January 2021) <*https://www.pwc.com/sk/en/environmental-social-and-corporate-governance-esg/esg-reporting.html*> accessed 1 April 2023.

Pülzl H and Wydra D, 'The Evaluation of the Implementation of Sustainability Norms: An Exercise for Experts or Citizens?' (2011) 2 International Journal of Social Ecology and Sustainable Development (IJSESD) 31.

Rafika, K., Rym, K., Souad, S.B. and Youcef, L., "A public actor awareness for sustainable development." *Procedia-Social and Behavioral Sciences* 216 (2016): 151-162.

Ramos, G., "The Sustainable Development Goals: A duty and an opportunity." (2016): 17-21, in Love, P. (ed.), Debate the Issues: New Approaches to Economic Challenges, OECD Publishing, Paris, https://doi.org/10.1787/9789264264687-3-en. 1 April 2023.

Rizza Ambra, 'An Integrated Approach to the Sustainable Development Goals' (*Assembly of European Regions, 4 March 2019*) <*https://aer.eu/integrated-approach-sdgs/*> accessed 1 April 2023.

Roy, P.P., Rao, S., Marshall, A.P. and Thapa, C., 'Mandatory Corporate Social Responsibility and Foreign Institutional Investor Preferences' (2020).

The Principle of Common but Differentiated Responsibilities: Origins and Scope, For the World Summit on Sustainable Development, 2002, Johannesburg, 26 August, *A Centre for International Sustainable Development Law (CISDL) Legal Brief*.

Tokuç A, 'Rio Declaration on Environment and Development (UN)' in Samuel O Idowu and others (eds), *Encyclopedia of Corporate Social Responsibility* (Springer 2013) <*https://doi.org/10.1007/978-3-642-28036-8_19*> accessed 19 April 2023.

UN Environment, 'GOAL 8: Decent Work and Economic Growth' (UNEP - UN Environment Programme, 2 June 2021) <*http://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-8*> accessed 1 April 2023. UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1.

UNDP, Human Development Report 2011, *The Real Wealth of Nations: Pathways to Human Development*, (Palgrave Macmillan Houndmills, Basingtoke, Hampshire, 2011).

United Nations, Rio Declaration of 1992, UN Doc. A/CONF.151/26 (Vol. I).

United Nations, *The Future We Want*, A/RES/66/288, Sixty-sixth session Agenda item 19, Resolution adopted by the General Assembly on 27 July 2012, para. 130.

United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development* | Department of Economic and Social Affairs' <*https://sdgs.un.org/2030agenda*> accessed 1 April 2023.

Vatn, Arild, Environmental governance: institutions, policies and actions, Edward Elgar Publishing, 2015.

Weiss, E.B., "In Fairness to Future Generations and Sustainable Development," *American University International Law Review*, Vol.8, 1992.

World Commission on Environment and Development, *Our Common Future*, GAOR, 42ndSess, Supp. No. 25, UN Doc, A/42/25 (1987).

A Review of Kenya's National Strategy to Counter Violent Extremism: The Case for Reform

By: Michael Sang [*]

Abstract

This study reviews Kenya's National Strategy to Counter Violent Extremism and makes a case for reform. The strategy's main features and strengths, including its multi-agency and whole-of-society approaches, are analyzed. However, the study identifies key weaknesses in the strategy, including limited awareness and comprehension, and a failure to address related crime. To improve the strategy, the study draws lessons from national and international jurisdictions, including the African Union's Regional Strategy, the European Union's Strategy, the United States Strategic Framework, and the United Kingdom's CONTEST Strategy. Kenya can learn from these strategies and develop a more comprehensive and effective approach to preventing and countering terrorism in the country.

Key Words: Kenya; Counter violent extremism; Strategy; Reform; Lessons

1. Introduction

Violent extremism has become a pressing issue across the world, with many countries grappling with the challenge of how to prevent and counter it.[1] Violent extremism refers to the use of violence, often in the name of a political or religious ideology, to achieve goals that are

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[1] Horgan, J. (2017). What is 'violent extremism'? The Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA).

typically extreme and radical.[2] Kenya has not been immune to this phenomenon, with the country experiencing a rise in violent extremism in recent years.[3] To address this issue, the Kenyan government has developed a National Strategy to Counter Violent Extremism, which aims to prevent and counter the spread of radicalization and violent extremism in the country.[4] This paper reviews Kenya's National Strategy to Counter Violent Extremism, highlighting its main features and strengths, as well as its key weaknesses. The study also analyzes the possibility of integrating other strategies as a way of reforming the current approach. By drawing on lessons from national and international jurisdictions, the study identifies ways that Kenya can improve its strategy and develop a more comprehensive and effective approach to preventing and countering violent extremism in the country.

2. Background on Radicalization to Violent Extremism in Kenya

2.1 Brief history

Kenya has faced a growing threat of violent extremism since the early 2000s[5]. The roots of this threat can be traced back to several factors, including political, economic, social, and religious grievances.[6] One of the earliest instances of violent extremism in Kenya occurred in 1998, when Al Qaeda bombed the US embassy in Nairobi, killing over

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[2] Ibid

[3] Makinda, S. M., & Okumu, W. A. (2017). The security-development nexus in countering violent extremism in Africa: Lessons from Kenya. *Africa Development*, 42(1), 1-22.

[4] Kimani, N. W. (2018). Kenya's national strategy to counter violent extremism: A critical appraisal. *Journal of Strategic Security*, 11(4), 1-22.

[5] Ibid

[6] Ibid

200 people.[7] This attack marked a turning point in the country's history, as it exposed the vulnerability of Kenya to external terrorist threats. In the years that followed, Kenya experienced a rise in domestic radicalization, with several incidents of terrorism occurring within the country.[8] These incidents included the 2002 bombing of an Israeli-owned hotel in Mombasa, which killed 13 people, and a series of grenade attacks in Nairobi in 2011, which were attributed to the Somali Islamist militant group Al-Shabaab.[9]

Al-Shabaab has been the most active and visible extremist group operating in Kenya in recent years.[10] The group has been responsible for several high-profile attacks, including the 2013 Westgate Mall attack in Nairobi, which killed 67 people, and the 2015 Garissa University College attack, in which 148 people were killed[11]. The factors driving radicalization in Kenya are complex and multifaceted. They include political and economic marginalization, corruption, ethnic tensions, and religious extremism.[12] The Kenyan government has responded to the threat of violent extremism by implementing various measures, including the development of a national strategy to counter radicalization and the establishment of a specialized police unit to combat terrorism. However, these measures have faced criticism for being ineffective and for potentially exacerbating the problem of radicalization.[13]

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[7] Mwangi, K. (2017). The Evolution of Terrorism and Counterterrorism in Kenya: A Historical Perspective. *International Journal of Advanced Research in Social Sciences*, 6(1), 1-12.

[8] Ibid

[9] Ibid

[10] Ibid

[11] Ibid

[12] Mwenda, K. (2015). History of Terrorism in Kenya: A Perspective. *International Journal of Research in Humanities and Social Sciences*, 3(5), 42-53.

[13] Ibid

2.2 Rise of Terrorism and Gang Culture

The rise of terrorism and gang culture has been a significant challenge for Kenya in recent years. While terrorism is primarily driven by extremist ideologies and political grievances, gang culture is often driven by economic and social factors[14]. Terrorism in Kenya has been primarily perpetrated by the Somali Islamist militant group Al-Shabaab, which has carried out a series of attacks targeting civilians, government officials, and security forces.[15] Al-Shabaab has been able to recruit Kenyan youths, particularly those from marginalized communities, by exploiting their grievances and promising to provide them with a sense of purpose, belonging, and financial rewards[16].

Gang culture, on the other hand, is driven by a combination of economic and social factors, including poverty, unemployment, social exclusion, and the breakdown of family and community structures.[17] In urban areas such as Nairobi, criminal gangs known as "chokoras" have emerged as a major source of violence and insecurity.[18] These gangs often engage in activities such as robbery, drug trafficking, and extortion, and they have been known to use violence to intimidate their rivals and enforce their dominance.[19] The rise of terrorism and gang culture in Kenya has had a significant impact on the country's social, economic, and political fabric. It has contributed to a sense of insecurity and fear among the population, undermined the rule of law, and damaged Kenya's reputation as a

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[14] Ibid

[15] Ibid

[16] Ibid

[17] Nduta, E. (2018). An Analysis of Gangs and Their Activities in Nairobi, Kenya. *International Journal of Criminal Justice Sciences,* 13(1), 16-28.

[18] Ibid

[19] Ibid

safe and stable country in the region.[20] The Kenyan government has responded to these challenges by implementing a range of measures, including increased security operations, community policing initiatives, and social welfare programs aimed at addressing the underlying drivers of radicalization and gang culture.[21]

2.3 Current Situation

The situation on Radicalization to violent extremism in Kenya remains a challenge, although there have been some positive developments in recent years.[22] While the number of terrorist attacks in Kenya has declined in recent years, the threat of violent extremism remains high, particularly in the northeastern part of the country and along the border with Somalia.[23]

One of the key factors contributing to the ongoing threat of radicalization is the persistence of political, economic, and social grievances, particularly among marginalized communities[24]. These grievances include feelings of exclusion, discrimination, and inequality, which can be exploited by extremist groups to recruit and radicalize individuals.[25] Another factor contributing to the ongoing threat of radicalization is the continued presence and activity of Al-Shabaab in the region.[26] While the group has suffered significant setbacks in recent years, including the loss of territory and leadership,

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[20] Ibid

[21] Ibid

[22] Mwenda, A. (2021). Radicalization to Violent Extremism in Kenya: The State of the Nation. Nairobi: Institute for Security Studies.

[23] Ibid

[24] Ibid

[25] Ibid

[26] Ibid

it remains a potent force in the region, with the ability to launch high-profile attacks.[27]

The Kenyan government has responded to the threat of radicalization through a range of measures, including the implementation of a national strategy to counter violent extremism, the establishment of specialized security units to combat terrorism, and the adoption of community-based approaches to preventing radicalization. [28] However, there is still significant work to be done in addressing the underlying drivers of radicalization, including political, economic, and social grievances.[29]

The study posits that the situation on Radicalization to violent extremism in Kenya remains challenging, and continued efforts will be needed to prevent the spread of extremist ideologies and to address the underlying drivers of radicalization in the country.

3. An Analysis of Kenya's National Strategy to Counter Violent Extremism

3.1　Main Features and Strengths

3.1.1 The Ten (10) Pillars

Kenya's National Strategy to Counter Violent Extremism consists of ten pillars that outline the various areas of focus for the strategy. These pillars are:

Ideological: Take a strong stance in defending the core Kenyan principles of constitutional rule, democracy, inter-faith harmony,

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[27] Ibid

[28] Ibid

[29] Ibid

respect for religious freedom, and secular government in the face of violent extremist ideologies. It is also important to acknowledge and protect those who bravely speak out against violent extremism and terrorism.[30]

Political: Create strong and inclusive citizenship through civic awareness, promoting Kenya's unique and positive qualities.[31]

Education: Utilize education, critical reasoning, sports and the promotion of arts and culture to build the resilience of Kenyans.[32]

Economic: Utilize livelihood training and resourcing for economic empowerment to strengthen a sense of belonging amongst Kenyans, particularly the youth.[33]

Psychosocial: Disengage, rehabilitate and re-integrate risk-assessed extremists and provide psychosocial support to their families and social networks[34].

Media and Online: facilitate Prevention/Countering Violent extremism (P/CVE) practitioners with tools and skills to carry out innovative and context-based P/CVE campaigns on relevant media and online platforms.[35]

Gender: mainstream gender equality, equity and sensitivities in all P/CVE work as the drivers and interventions are different between men, women, boys and girls.[36]

Victims of Terrorism: Aligned with the UNSCR 2331 (2016), it is important to address the needs of victims in a comprehensive manner while also respecting their right to privacy and security. This includes

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[30] National Counter Terrorism Center. (2017). The National Strategy to Counter Violent Extremism: Monitoring and Evaluation Framework. Nairobi: Government Printer.

[31] Ibid

[32] Ibid

[33] Ibid

[34] Ibid

[35] Ibid

[36] Ibid

providing or facilitating access to medical and psychosocial assistance as well as legal aid.[37]

Law Enforcement: Pass appropriate legislation and facilitate its enforcement; develop and put into action effective and proactive policies, and enhance institutional frameworks to support efforts in preventing and countering violent extremism (P/CVE) at all levels.[38]

Research: Conduct and encourage research and surveys based on evidence for P/CVE to promote effective interventions and programs.[39]

3.1.2 The Multi-Agency Approach

Kenya's National Strategy to Counter Violent Extremism takes a multi-agency approach to address the challenge of violent extremism in the country, which is a key strength of the strategy. The strategy recognizes that addressing violent extremism requires a collaborative effort among various government agencies, civil society organizations, and other stakeholders.[40]

The multi-agency approach brings together multiple stakeholders to identify and address the underlying drivers of violent extremism, and to implement coordinated and integrated responses to prevent and counter it.[41] The strategy leverages the expertise and resources of various stakeholders, including law enforcement agencies, religious leaders, and community-based organizations, among others.[42]

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[37] Ibid

[38] Ibid

[39] Ibid

[40] Sitienei, E. K. (2019). The role of multi-agency approach in enhancing security in Kenya: A case study of Nairobi County. *International Journal of Social Science and Humanities Research*, 7(2), 131-139.

[41] Ibid

[42] Ibid

By taking a multi-agency approach, the strategy can draw on the strengths and capabilities of different stakeholders to address the complex and multifaceted challenge of violent extremism. [43] This approach also helps to promote a shared understanding of the problem and to build consensus around the most effective solutions[44]. Furthermore, the multi-agency approach ensures that the strategy is not siloed in any one government agency or sector. Instead, it promotes cross-sectoral collaboration and information sharing, which is essential for effective prevention and counter-radicalization efforts.[45]

The study avers that the multi-agency approach of Kenya's National Strategy to Counter Violent Extremism is therefore a key strength of the strategy, as it allows for a more coordinated, integrated, and comprehensive response to the challenge of violent extremism in the country.

3.1.3 The Whole-of-Society Approach

Another key strength of Kenya's National Strategy to Counter Violent Extremism is its whole-of-society approach. The strategy recognizes that preventing and countering violent extremism requires the involvement and support of all segments of society, including government, civil society, private sector, religious and community leaders, and individuals. [46] This approach encourages active participation and collaboration between government agencies, civil society organizations, and local communities to create a shared

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[43] Ibid

[44] Ibid

[45] Ibid

[46] Gitari, W., & Mwangi, E. (2020). Assessing the Whole-of-Society Approach in Kenya's National Strategy to Counter Violent Extremism. *Journal of Strategic Security*, 13(2), 1-18.

understanding of the drivers of violent extremism and to develop effective prevention and response measures.[47]

By engaging all segments of society, the strategy helps to promote greater social cohesion and to build community resilience against violent extremism. [48] It also encourages a sense of ownership and responsibility among individuals and communities in addressing the problem, which is critical for the sustainability of prevention efforts.[49] Moreover, the whole-of-society approach ensures that the strategy is not solely dependent on government efforts. Instead, it leverages the resources, expertise, and networks of a wide range of stakeholders, including non-governmental organizations, religious leaders, and community groups, among others.[50] This helps to promote greater innovation, flexibility, and responsiveness in preventing and countering violent extremism.[51]

The study postulates that this approach is a key strength of the strategy, as it encourages active participation and collaboration among diverse stakeholders, promotes greater community resilience, and helps to build sustainable prevention efforts.

3.1.4 The Possibility of Integrating Other Strategies

Kenya's National Strategy to Counter Violent Extremism has the main feature and strength of integrating other strategies to enhance its effectiveness. The strategy recognizes that the challenge of violent extremism is complex and multifaceted, and requires a

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[47] Ibid

[48] Ibid

[49] Ibid

[50] Ibid

[51] Ibid

comprehensive and integrated approach to address it effectively.[52] The strategy integrates various existing policies and strategies, such as the National Counter Terrorism Strategy and the National Action Plan for Preventing and Countering Violent Extremism, among others.[53] This integration allows for a more coordinated and cohesive approach to preventing and countering violent extremism, leveraging the strengths and resources of different strategies.[54]

Additionally, the strategy is adaptable to changing circumstances and can be updated to incorporate new knowledge and emerging threats. This ensures that the strategy remains relevant and effective in addressing the evolving nature of violent extremism.[55]

By integrating various strategies and policies, Kenya's National Strategy to Counter Violent Extremism can draw on a wide range of resources, expertise, and networks to address the underlying drivers of violent extremism and to implement effective prevention and counter-radicalization efforts. [56] This approach helps to promote greater collaboration and coordination among different stakeholders, which is essential for a successful response to violent extremism.[57]

Indeed, the integration of other strategies is a key feature and strength of Kenya's National Strategy to Counter Violent Extremism, as it allows for a more comprehensive and adaptable approach to

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[52] Kisangani, E. M. (2018). Countering violent extremism and the role of national security organs in Kenya. *Journal of Policing, Intelligence and Counter Terrorism*, 13(1), 43-58.

[53] Ibid

[54] Ibid

[55] Ibid

[56] Ibid

[57] Ibid

preventing and countering violent extremism, leveraging the strengths of different strategies to address the challenge effectively.

3.2 Key Weaknesses

3.2.1 Limited Awareness and Comprehension

One of the key weaknesses of Kenya's National Strategy to Counter Violent Extremism is limited awareness and comprehension among the target audience. The strategy aims to prevent and counter violent extremism through community engagement and public awareness campaigns. However, the success of these efforts largely depends on the ability of the target audience to understand and comprehend the messaging.[58] In some cases, there may be limited awareness among the general population about the threat of violent extremism, the drivers of radicalization, and the appropriate response measures.[59] This may be due to a lack of information or misinformation about the issue, as well as low levels of education and awareness.[60]

Moreover, the messaging may not be tailored to the specific needs and concerns of the target audience, which may limit its effectiveness in preventing and countering violent extremism. For example, the messaging may not effectively address the concerns of marginalized communities or may not resonate with the cultural and religious beliefs of the target audience.[61]

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[58] Gitari, Mugambi. "Countering violent extremism in Kenya: Current policies, gaps and opportunities." *Journal of Terrorism Research* 8, no. 2 (2017): 21-32.

[59] Ibid

[60] Ibid

[61] Ibid

This limited awareness and comprehension among the target audience can undermine the effectiveness of Kenya's National Strategy to Counter Violent Extremism in preventing and countering violent extremism. [62] Therefore, it is important for the strategy to prioritize effective communication and outreach efforts, including targeted messaging, community engagement, and public education campaigns, to ensure that the target audience fully understands the threat of violent extremism and the appropriate response measures.[63]

3.2.2 Failure to Address Related Crime.

Another key weakness of Kenya's National Strategy to Counter Violent Extremism is its failure to adequately address related crimes. While the strategy aims to prevent and counter violent extremism, it may not effectively address related crimes such as organized crime, corruption, and human trafficking, which may fuel or exacerbate the problem of violent extremism.[64] For example, terrorist groups may engage in criminal activities such as smuggling and trafficking of weapons, drugs, and people, which provide them with the resources and means to carry out attacks.[65] Similarly, corruption and organized crime may undermine the rule of law and promote grievances and disillusionment among marginalized communities, which may increase the risk of radicalization.[66]

Therefore, it is important for Kenya's National Strategy to Counter Violent Extremism to address related crimes as part of its overall

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[62] Ibid

[63] Ibid

[64] Kamunge, E., & Mbote, D. (2019). The Effectiveness of the Kenyan National Strategy to Counter Violent Extremism in Disrupting Radicalization and Recruitment. *International Journal of Social Science Studies*, 7(1), 125-140.

[65] Ibid

[66] Ibid

approach. This can be done by strengthening law enforcement and judicial systems, promoting good governance and accountability, and addressing socio-economic grievances and inequality [67] . By addressing related crimes, the strategy can help to disrupt the flow of resources and support to violent extremist groups and to address the underlying grievances that may fuel radicalization. This can help to reduce the risk of violent extremism and promote greater stability and security in Kenya.[68]

The failure to address related crimes is a key weakness of Kenya's National Strategy to Counter Violent Extremism, and addressing this issue should be a priority in order to effectively prevent and counter violent extremism.

4. The Case for Reform: Lessons from National and International Jurisdictions

4.1 African Union

4.1.1 Regional Strategy for Preventing and Countering Violent Extremism

The African Union's Regional Strategy for Preventing and Countering Violent Extremism is a comprehensive framework that seeks to address the root causes of violent extremism in Africa.[69] The strategy focuses on five key pillars: promoting good governance and the rule of law, addressing socio-economic grievances, countering extremist propaganda and ideology, enhancing security and military

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[67] Ibid

[68] Ibid

[69] Kassam, A., & Mairiga, L. (2019). African Union's evolving counter-terrorism agenda. Institute for Security Studies

measures, and strengthening regional and international cooperation.[70]

One of the key strengths of the African Union's strategy is its emphasis on addressing the underlying drivers of violent extremism, such as poverty, inequality, and political marginalization. [71] By addressing these root causes, the strategy seeks to prevent radicalization and promote greater stability and security in the region.[72] Moreover, the strategy recognizes the importance of multi-sectoral and multi-stakeholder approaches, which involve the participation of civil society, communities, and other actors in preventing and countering violent extremism.[73] This approach helps to build trust and legitimacy in the strategy and promotes greater ownership and sustainability of the initiatives.[74]

However, one of the key challenges of the African Union's strategy is the limited capacity and resources of member states to implement the strategy effectively. Many African countries face significant socio-economic and political challenges, which may limit their ability to implement the strategy comprehensively.[75]

Therefore, there is a need for greater investment in building the capacity of member states to prevent and counter violent extremism, including through the provision of technical assistance, training, and financial support. By strengthening the capacity of member states, the African Union's strategy can be more effective in addressing the root

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[70] Ibid
[71] Ibid
[72] Ibid
[73] Ibid
[74] Ibid
[75] Ibid

causes of violent extremism and promoting greater stability and security in the region.[76]

4.1.2 Key Lessons

Kenya can learn several key lessons from the African Union's Regional Strategy for Preventing and Countering Violent Extremism. One is addressing root causes. Kenya can adopt a comprehensive approach to address the root causes of violent extremism, such as poverty, inequality, and political marginalization. This can help to prevent radicalization and promote greater stability and security in the country.[77] Second is the multi-sectoral and multi-stakeholder approach. Kenya can adopt a multi-sectoral and multi-stakeholder approach to preventing and countering violent extremism. This approach involves the participation of civil society, communities, and other actors in preventing and countering violent extremism, which helps to build trust and legitimacy in the strategy and promote greater ownership and sustainability of the initiatives.[78] Capacity building is also a key lesson. Kenya can invest in building the capacity of law enforcement agencies, government institutions, and civil society organizations to prevent and counter violent extremism. This includes the provision of technical assistance, training, and financial support to enhance the effectiveness of initiatives.[79] Finally, is Regional and international cooperation. Kenya can strengthen regional and international cooperation to prevent and counter violent extremism. This involves working with other countries and regional

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[76] Ibid

[77] Aning, K., & Atuobi, S. K. (2017). The African Union and its strategy for countering violent extremism. In countering violent extremism in Africa (pp. 29-46). Springer, Cham.

[78] Ibid

[79] Ibid

organizations to share best practices, exchange information, and coordinate efforts to prevent and counter violent extremism.[80]

By adopting these key lessons from the African Union's Regional Strategy for Preventing and Countering Violent Extremism, Kenya can develop a more effective and comprehensive strategy to prevent and counter violent extremism, which can promote greater stability and security in the country.

4.2   European Union

4.2.1 The European Union's Strategy for Combating Radicalization and Recruitment to Terrorism

It is a comprehensive framework aimed at preventing radicalization and addressing the root causes of violent extremism in Europe. The strategy is built around four pillars: prevention, protection, prosecution, and response.[81]

One of the key strengths of the European Union's strategy is its emphasis on a multi-disciplinary and multi-sectoral approach, which involves various actors such as government agencies, civil society, communities, and religious organizations.[82] This approach aims to build trust and partnerships between these actors to prevent radicalization and promote greater social cohesion. [83]The strategy also recognizes the importance of addressing the underlying drivers of violent extremism, such as discrimination, marginalization, and socio-economic grievances.[84] It emphasizes the need to address these

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[80] Ibid

[81] Bures, O. (2019). The EU's approach to counterterrorism: A critical appraisal. *Journal of Common Market Studies*, 57(1), 19-36.

[82] Ibid

[83] Ibid

[84] Ibid

factors through targeted initiatives and policies, such as promoting education, employment, and social inclusion. [85] Furthermore, the strategy emphasizes the importance of early detection and intervention to prevent radicalization. It focuses on strengthening community resilience and promoting the involvement of families, friends, and other trusted individuals in detecting and reporting signs of radicalization.[86]

However, one of the challenges of the European Union's strategy is the limited resources available to implement the initiatives effectively.[87] Additionally, there are concerns about the potential for stigmatization and discrimination of certain communities, particularly Muslim communities, which may undermine the effectiveness of the strategy.[88]

4.2.2 Key Lessons

Kenya can learn several important lessons from the European Union's strategy for combating radicalization and recruitment to terrorism. One is the importance of a multi-disciplinary and multi-sectoral approach. [89] Like the European Union, Kenya can adopt a comprehensive and collaborative approach to preventing and countering violent extremism. This approach involves the participation of various actors such as government agencies, civil society organizations, communities, and religious organizations.[90] It aims to build trust and partnerships between these actors to prevent

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[85] Ibid

[86] Ibid

[87] Ibid

[88] Ibid

[89] Mugambiwa, S. S., & Chikulo, B. C. (2017). The European Union's Counter-Terrorism Strategy and Its Implications for Africa. *Journal of African Foreign Affairs*, 4(2), 1-21.

[90] Ibid

radicalization and promote greater social cohesion.[91] Second involves addressing the underlying drivers of violent extremism. The European Union recognizes the importance of addressing the underlying drivers of violent extremism, such as discrimination, marginalization, and socio-economic grievances.[92] Kenya can adopt a similar approach by implementing targeted initiatives and policies that promote education, employment, and social inclusion to address these drivers of violent extremism.[93]Early detection and intervention is also another key lesson. The European Union emphasizes the importance of early detection and intervention to prevent radicalization. This involves strengthening community resilience and promoting the involvement of families, friends, and other trusted individuals in detecting and reporting signs of radicalization.[94]

Kenya can learn from this approach by implementing similar initiatives that empower communities to prevent and counter violent extremism.[95] Finally, Balancing security and human rights is a vital lesson for Kenya. The European Union recognizes the importance of balancing security concerns with respect for human rights and the rule of law.[96] Kenya can adopt a similar approach to ensure that its efforts to prevent and counter violent extremism do not violate human rights or undermine democratic values.[97]

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[91] Ibid

[92] Ibid

[93] Ibid

[94] Ibid

[95] Ibid

[96] Ibid

[97] Ibid

By adopting these lessons from the European Union's strategy, Kenya can develop a more effective and comprehensive strategy to prevent and counter violent extremism in the country.

4.3. United States

4.3.1 Strategic Framework

The United States Strategic Framework for Countering Terrorism and Targeted Violence is a comprehensive framework aimed at preventing and countering terrorism and targeted violence within the United States. The framework is built around four pillars: understanding the threat, prevention and disruption, mitigation and response, and cross-cutting areas.[98]

One of the key strengths of the United States' strategic framework is its emphasis on a comprehensive and collaborative approach to preventing and countering terrorism and targeted violence[99]. This approach involves the participation of various actors such as government agencies, law enforcement, civil society organizations, communities, and private sector stakeholders.[100] It aims to build trust and partnerships between these actors to prevent radicalization and promote greater social cohesion.[101] The framework also recognizes the importance of addressing the underlying drivers of violent extremism and targeted violence, such as hate, intolerance, and discrimination. It emphasizes the need to address these factors through targeted initiatives and policies, such as promoting

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[98] Ibrahim, A., & Smith, C. (2018). An analysis of the US government's strategy for Countering Violent Extremism. Studies in Conflict & Terrorism, 41(5), 345-362.
[99] Ibid
[100] Ibid
[101] Ibid

education, community engagement, and social inclusion. [102] Furthermore, the framework emphasizes the importance of early detection and intervention to prevent radicalization and targeted violence. It focuses on strengthening community resilience and promoting the involvement of families, friends, and other trusted individuals in detecting and reporting signs of radicalization and targeted violence.[103]

However, one of the challenges of the United States' strategic framework is the potential for stigmatization and discrimination of certain communities, particularly Muslim and other minority communities. This can undermine the effectiveness of the strategy and further fuel resentment and distrust towards the government and law enforcement agencies.[104]

4.3.2 Key Lessons

Key lessons that Kenya can learn from the United States Strategic Framework for Countering Terrorism and Targeted Violence are quite a number. One is Comprehensive and Collaborative Approach. Kenya can adopt a comprehensive and collaborative approach to preventing and countering violent extremism and targeted violence by involving various actors such as government agencies, law enforcement, civil society organizations, communities, and private sector stakeholders.[105] This can help to build trust and partnerships

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[102] Ibid

[103] Ibid

[104] Ibid

[105] Kimathi, M., & Kamau, J. (2017). Countering Violent Extremism: A review of the US strategy and lessons for Kenya. *Journal of Strategic Security*, 10(2), 16-34.

between these actors to prevent radicalization and promote greater social cohesion.[106]

Addressing Underlying Drivers is also a key lesson for Kenya. Kenya can address the underlying drivers of violent extremism and targeted violence, such as hate, intolerance, and discrimination through targeted initiatives and policies.[107] This could include promoting education, community engagement, and social inclusion to address these factors.[108]Another lesson is Early Detection and Intervention. Kenya can focus on early detection and intervention to prevent radicalization and targeted violence by strengthening community resilience and involving families, friends, and other trusted individuals in detecting and reporting signs of radicalization and targeted violence.[109] Finally, is avoiding Stigmatization and Discrimination. Kenya should avoid stigmatizing and discriminating against certain communities, particularly Muslim and other minority communities, which can undermine the effectiveness of the strategy and further fuel resentment and distrust towards the government and law enforcement agencies.[110]

By adopting these lessons, Kenya can develop a more effective strategy to prevent and counter violent extremism and targeted violence in the country.

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[106] Ibid
[107] Ibid
[108] Ibid
[109] Ibid
[110] Ibid

4.4 United Kingdom

4.4.1 CONTEST Strategy

The United Kingdom's CONTEST Strategy is a comprehensive and multi-disciplinary approach to preventing and countering terrorism. [111] The strategy has four key pillars: Pursue, Prevent, Protect, and Prepare. [112] The "Pursue" pillar focuses on detecting, prosecuting, and disrupting terrorist activities. The "Prevent" pillar aims to stop people from becoming terrorists or supporting terrorism in the first place, by addressing the root causes of radicalization and extremism. The "Protect" pillar seeks to strengthen the country's protection against terrorist attacks, by improving physical security measures and increasing public awareness. Finally, the "Prepare" pillar focuses on building resilience and preparedness among individuals, communities, and institutions to deal with the impact of a terrorist attack.[113]

4.4.2 Key Lessons

Some key lessons that Kenya can learn from the UK's CONTEST Strategy include: A full throng Multi-Agency Approach. Kenya can adopt a multi-agency approach, involving various government departments, law enforcement agencies, and civil society organizations, to implement a comprehensive counter-terrorism strategy;[114]Community Engagement: Kenya can increase community engagement and partnership-building initiatives with vulnerable and at risk communities, to prevent radicalization while building mutual

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[111] Tarek Younis and Amina Easat-Daas (2018).A critical assessment of the UK's counter-terrorism strategy and its implications for Islamophobia

[112] Ibid

[113] Ibid

[114] Ngau, P., & Kisiangani, E. W. (2018). The United Kingdom's Contest strategy: Implications for countering violent extremism in Kenya. *Journal of Terrorism Research*, 9(1), 1-12

trust and cooperation with law enforcement agencies; [115] Early Intervention: Kenya can develop programs to identify and intervene likely individuals, who are at risk of radicalization, through a combination of education, mental health support/psychosocial support, and including other social services; Addressing Root Causes: Kenya can prioritize addressing the root causes of radicalization and extremism, including social, economic, and political grievances, as a key component of its counter-terrorism strategy.[116]

By adopting these lessons, Kenya can develop a more comprehensive and effective strategy to prevent and counter terrorism in the country.

5. Conclusion

Kenya's National Strategy to Counter Violent Extremism has made important strides in preventing and countering the spread of radicalization and violent extremism in the country. The strategy's multi-agency and whole-of-society approach are notable strengths, as they recognize the importance of collaboration and community engagement in addressing this complex issue. However, the strategy has several key weaknesses, including limited awareness, comprehension and a failure to address related crimes. To improve the strategy, Kenya can learn some lessons from regional and international jurisdictions, including the African Union's Regional Strategy, the European Union's Strategy, the United States Strategic Framework, and the United Kingdom's CONTEST Strategy. These examples provide useful insights on how, Kenya can strengthen its approach to countering violent extremism. Ultimately, reforming and improving Kenya's National Strategy to Counter Violent Extremism

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[115] Ibid
[116] Ibid

is essential to ensure that the country can effectively prevent and counter the spread of radicalization and violent extremism, and create a safer and more secure society for all Kenyans.

References

Aning, K., & Atuobi, S. K. (2017). The African Union and its strategy for countering violent extremism. In countering violent extremism in Africa (pp. 29-46). Springer, Cham.

Bures, O. (2019). The EU's approach to counterterrorism: A critical appraisal. *Journal of Common Market Studies*, 57(1), 19-36.

Gitari, Mugambi. "Countering violent extremism in Kenya: Current policies, gaps and opportunities." *Journal of Terrorism Research* 8, no. 2 (2017): 21-32.

Gitari, W., & Mwangi, E. (2020). Assessing the Whole-of-Society Approach in Kenya's National Strategy to Counter Violent Extremism. *Journal of Strategic Security*, 13(2), 1-18.

Horgan, J. (2017). What is 'violent extremism'? The Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA).

Ibrahim, A., & Smith, C. (2018). An analysis of the US government's strategy for countering violent extremism. Studies in Conflict & Terrorism, 41(5), 345-362.

Kamunge, E., & Mbote, D. (2019). The Effectiveness of the Kenyan National Strategy to Counter Violent Extremism in Disrupting Radicalization and Recruitment. *International Journal of Social Science Studies*, 7(1), 125-140.

Kassam, A., & Mairiga, L. (2019). African Union's evolving counter-terrorism agenda. Institute for Security Studies

Kimani, N. W. (2018). Kenya's national strategy to counter violent extremism: A critical appraisal. *Journal of Strategic Security*, 11(4), 1-22.

Kimathi, M., & Kamau, J. (2017). Countering Violent Extremism: A review of the US strategy and lessons for Kenya. *Journal of Strategic Security*, 10(2), 16-34.

Kisangani, E. M. (2018). Countering violent extremism and the role of the national security organs in Kenya. *Journal of Policing, Intelligence and Counter Terrorism*, 13(1), 43-58.

Makinda, S. M., & Okumu, W. A. (2017). The security-development nexus in countering violent extremism in Africa: Lessons from Kenya. Africa Development, 42(1), 1-22.

Mugambiwa, S. S., & Chikulo, B. C. (2017). The European Union's Counter-Terrorism Strategy and Its Implications for Africa. *Journal of African Foreign Affairs*, 4(2), 1-21.

Mwangi, K. (2017). The Evolution of Terrorism and Counterterrorism in Kenya: A Historical Perspective. *International Journal of Advanced Research in Social Sciences*, 6(1), 1-12.

Mwenda, A. (2021). Radicalization to Violent Extremism in Kenya: The State of the Nation. Nairobi: Institute for Security Studies.

Mwenda, K. (2015). History of Terrorism in Kenya: A Perspective. *International Journal of Research in Humanities and Social Sciences,* 3(5), 42-53.

National Counter Terrorism Center. (2017). The National Strategy to Counter Violent Extremism: Monitoring and Evaluation Framework. Nairobi: Government Printer.

Nduta, E. (2018). An Analysis of Gangs and Their Activities in Nairobi, Kenya. *International Journal of Criminal Justice Sciences*, 13(1), 16-28.

Ngau, P., & Kisiangani, E. W. (2018). The United Kingdom's Contest strategy: Implications for countering violent extremism in Kenya. *Journal of Terrorism Research*, 9(1), 1-12

Sitienei, E. K. (2019). The role of multi-agency approach in enhancing security in Kenya: A case study of Nairobi County. *International Journal of Social Science and Humanities Research*, 7(2), 131-139.

Tarek Younis and Amina Easat-Daas (2018). A critical assessment of the UK's counter-terrorism strategy and its implications for Islamophobia

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions

By: Dynesius Nyangau[*]

Abstract

This paper focuses on the critical topic of climate justice and equity, shedding light on the unequal impacts of climate change on vulnerable communities and emphasizing the need for equitable solutions. The discussion encompasses various dimensions of climate justice, including climate refugees, social justice, gender equality, and the inclusion of marginalized groups in decision-making processes. The paper begins by introducing the concept of climate justice and its significance in addressing the disproportionate impacts of climate change on vulnerable populations. It highlights the urgency of addressing these disparities and ensuring that climate action is inclusive and fair. The discussion delves into the issue of climate refugees, examining the plight of individuals and communities displaced by climate change-induced events such as rising sea levels, extreme weather events, and environmental degradation. The paper highlights the need for effective policies and international cooperation to protect the rights and provide assistance to climate refugees. Social justice and climate change are intertwined, and the abstract explores the ways in which marginalized communities, particularly those in low-income areas, bear the brunt of climate impacts. It emphasizes the importance of equitable distribution of resources, access to basic services, and fair representation in climate decision-making processes. Gender equality is a crucial aspect of climate justice, and the abstract highlights the unique challenges faced by women in the context of climate change. It addresses the need for gender-responsive approaches that empower women as agents of change and recognize their

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Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

knowledge and resilience in adapting to climate impacts. The paper also emphasizes the importance of involving marginalized groups, including indigenous communities and vulnerable populations, in decision-making processes related to climate change. It explores the role of inclusive governance structures, participatory approaches, and community-led initiatives in fostering equitable solutions. The paper underscores the imperative of addressing climate justice and equity in the face of climate change. It advocates for comprehensive approaches that address the unequal impacts, protect the rights of vulnerable communities, promote social justice and gender equality, and involve marginalized groups in decision-making processes. The abstract calls for collective action and transformative change to achieve a just and sustainable future for all. It provides a concise overview of climate justice and equity, covering key aspects such as climate refugees, social justice, gender equality, and the inclusion of marginalized groups. It highlights the need for comprehensive and inclusive approaches to address the unequal impacts of climate change and build a more equitable and resilient society.

Key words: climate justice, equity, vulnerable communities, climate refugees, marginalized groups

I. Introduction

Climate justice refers to the fair and just distribution of the burdens and benefits of climate change mitigation and adaptation, ensuring that the most vulnerable communities and individuals are not disproportionately affected. [1] It encompasses the principles of fairness, equity, and human rights in addressing climate change and its impacts.[2] Equity, within the context of climate justice, focuses on

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[1] Okereke, C. (2010). Climate justice and the international regime. *Wiley interdisciplinary reviews: climate change*, *1*(3), 469-473.
[2] Ibid.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

reducing disparities and ensuring equal access to resources, opportunities, and decision-making processes for all communities, particularly those marginalized or facing socio-economic disadvantages.[3]

The impacts of climate change are not evenly distributed, and vulnerable communities, often located in low-income areas, face disproportionately higher risks and challenges.[4] These communities may lack resources, infrastructure, and institutional support to cope with and adapt to climate change impacts.[5] According to the Intergovernmental Panel on Climate Change (IPCC), marginalized groups such as indigenous peoples, women, and people in poverty are particularly susceptible to climate risks and experience greater vulnerabilities.[6] The unequal impacts of climate change on vulnerable communities present an urgent need for action. As temperatures rise, extreme weather events become more frequent, and ecosystems are disrupted, these communities bear the brunt of these changes. Without targeted interventions and equitable solutions, climate change exacerbates existing social inequalities, deepens poverty, and undermines human rights.[7]

This discussion will highlight the need for equitable solutions in addressing climate change and its impacts on marginalized groups. To address the unequal impacts of climate change on vulnerable communities, it is imperative to focus on equitable solutions that

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[3] Ibid.

[4] Hardoy, J., & Lankao, P. R. (2011). Latin American cities and climate change: challenges and options to mitigation and adaptation responses. *Current Opinion in Environmental Sustainability*, 3(3), 159-162.

[5] Ibid.

[6] Ibid.

[7] Hardoy, J. et.al, 163.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions: **Dynesius Nyangau**

(2023) Journalofcmsd Volume 10(4)

prioritize justice, fairness, and inclusivity. This involves recognizing and rectifying historical and ongoing injustices, empowering marginalized groups, and ensuring their meaningful participation in decision-making processes related to climate change.[8] The adoption of equitable solutions can help build resilience, promote social justice, and advance sustainable development for all.[9]

In this discussion, we will explore the concept of climate justice and equity, examining the unequal impacts of climate change on vulnerable communities. We will delve into the specific issues of climate refugees, social justice, gender equality, and the involvement of marginalized groups in decision-making processes. Through the analysis of research findings and the exploration of case studies, we aim to shed light on the urgent need for equitable solutions and the transformative potential of addressing climate change through a justice-focused lens.

II. Unequal Impacts of Climate Change

Climate change poses significant challenges for vulnerable communities, leading to disproportionate impacts on their well-being and livelihoods.[10] The Intergovernmental Panel on Climate Change (IPCC) reports that these communities, often located in low-income

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[8] Hughes, S., & Hoffmann, M. (2020). Just urban transitions: Toward a research agenda. *Wiley Interdisciplinary Reviews: Climate Change*, *11*(3), e640.

[9] Ibid.

[10] Shahzad, L., Tahir, A., Sharif, F., Khan, W. U. D., Farooq, M. A., Abbas, A., & Saqib, Z. A. (2019). Vulnerability, well-being, and livelihood adaptation under changing environmental conditions: a case from mountainous region of Pakistan. *Environmental Science and Pollution Research*, *26*, 26748-26764. Refer further in Kemp, S. P., Palinkas, L. A., Wong, M., & Wagner, K. (2015). Strengthening the social response to the human impacts of environmental change. *Grand Challenges for Social Work Initiative Working Paper*, *5*, 1-31.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

areas, face higher exposure to climate risks due to limited resources, inadequate infrastructure, and social vulnerabilities.[11] They are more likely to rely on climate-sensitive sectors such as agriculture, fisheries, and forestry, making them highly susceptible to changes in temperature, precipitation patterns, and extreme weather events.[12] Additionally, factors such as limited access to education, healthcare, and social safety nets further amplify their vulnerability to climate impacts.[13]

Climate change impacts vary across regions and populations, further exacerbating inequalities. [14] For instance, in sub-Saharan Africa, prolonged droughts and changing rainfall patterns affect agricultural productivity, leading to food insecurity and economic instability for millions of smallholder farmers. [15] Coastal regions, particularly in low-lying areas and small island nations, face the escalating threat of sea-level rise and increased frequency of storm surges, jeopardizing infrastructure, human settlements, and economies. Indigenous communities, who rely on traditional livelihoods closely connected to the environment, face cultural and economic losses as their

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[11] Field, C. B., Barros, V., Stocker, T. F., & Dahe, Q. (Eds.). (2012). *Managing the risks of extreme events and disasters to advance climate change adaptation: special report of the intergovernmental panel on climate change*. Cambridge University Press.

[12] UN, I. R. B. (1992). Convention on biological diversity. *Treaty Collection*.

[13] Ibid.

[14] Ibid.

[15] Climate change impacts vary across regions and populations, further exacerbating inequalities. For instance, in sub-Saharan Africa, prolonged droughts and changing rainfall patterns affect agricultural productivity, leading to food insecurity and economic instability for millions of smallholder farmers.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

ecosystems are disrupted by changing climate conditions.[16] These examples highlight the differentiated impacts of climate change on various regions and populations, further deepening existing inequalities.

Climate change is intertwined with other forms of inequality, including poverty, race, and gender.[17] Poverty exacerbates vulnerability to climate impacts, as impoverished communities often lack resources to adapt to changing conditions and recover from climate-related disasters.[18] Research has also shown that racial and ethnic minorities are disproportionately affected by climate change due to factors such as social marginalization, limited access to resources, and discriminatory policies.[19] Moreover, gender inequalities intersect with climate change, as women often face greater challenges in accessing resources, participating in decision-making processes, and adapting to climate impacts.[20] These intersecting forms of inequality compound the disproportionate

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[16] Bedeke, S. B. (2023). Climate change vulnerability and adaptation of crop producers in sub-Saharan Africa: A review on concepts, approaches and methods. *Environment, Development and Sustainability*, *25*(2), 1017-1051.

[17] Ibid.

[18] Ruiz Meza, L. E. (2015). Adaptive capacity of small-scale coffee farmers to climate change impacts in the Soconusco region of Chiapas, Mexico. *Climate and Development*, *7*(2), 100-109.

[19] Climate change is intertwined with other forms of inequality, including poverty, race, and gender. Poverty exacerbates vulnerability to climate impacts, as impoverished communities often lack resources to adapt to changing conditions and recover from climate-related disasters. Research has also shown that racial and ethnic minorities are disproportionately affected by climate change due to factors such as social marginalization, limited access to resources, and discriminatory policies.

[20] Terry, G. (2009). No climate justice without gender justice: an overview of the issues. *Gender & Development*, *17*(1), 8-9.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

burden faced by vulnerable communities, hindering their ability to respond effectively to climate change.[21]

Climate change has profound implications for vulnerable communities, leading to disproportionate impacts on their well-being and exacerbating existing inequalities. [22] Specific regions and populations experience varying consequences, with impacts on agriculture, coastal regions, and indigenous communities being particularly pronounced. [23] The intersectionality of climate change with other forms of inequality, such as poverty, race, and gender, further compounds the vulnerabilities faced by marginalized groups. [24] Recognizing these unequal impacts and addressing the intersecting inequalities is essential for designing effective climate change mitigation and adaptation strategies that promote resilience, justice, and social equity.[25]

III. Climate Refugees

Climate refugees, also known as environmental migrants [26], are individuals or communities forced to leave their homes or places of habitual residence due to the adverse impacts of climate change.[27] They face unique challenges as their displacement is primarily driven by climate-related factors such as sea-level rise, desertification,

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[21] Ibid. 10

[22] Ibid. 14

[23] Ibid. 15

[24] Ibid. 16

[25] Ibid. 17

[26] Jakobeit, C., & Methmann, C. (2012). 'Climate refugees' as dawning catastrophe? A critique of the dominant quest for numbers. In *Climate change, human security and violent conflict: Challenges for societal stability* (pp. 301-314). Berlin, Heidelberg: Springer Berlin Heidelberg.

[27] Ibid.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

extreme weather events, and loss of habitable land. [28] Unlike traditional refugees who are protected under international law, climate refugees currently lack legal recognition and specific protections.[29] This lack of recognition poses significant challenges in terms of accessing assistance, resources, and international support.[30] Statistics and case studies provide compelling evidence of the scale and impact of climate-induced displacement. [31] For example, according to the Internal Displacement Monitoring Centre, an estimated 23.9 million people were displaced by climate-related events in 2019 alone. Case studies such as the Carteret Islanders in Papua New Guinea and the residents of Isle de Jean Charles in Louisiana, USA, showcase communities directly impacted by sea-level rise, resulting in their displacement.[32] These examples highlight the reality that climate change is already displacing communities and that this trend is likely to intensify in the future.

The legal frameworks and international response to climate refugees are currently inadequate. [33] The existing refugee protection framework, primarily the 1951 Refugee Convention and its 1967 Protocol, does not explicitly include climate-related displacement as

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[28] Ibid.

[29] Terminski, B. (2012). Towards recognition and protection of forced environmental migrants in the public international law: Refugee or IDPs umbrella?.

[30] Ibid.

[31] Gray, C., & Wise, E. (2016). Country-specific effects of climate variability on human migration. *Climatic change*, *135*, 555-568.

[32] Sullivan, M. E. (2022). *Erasure through Engagement: The Community Resettlement of Isle de Jean Charles* (Doctoral dissertation, Portland State University).

[33] Atapattu, S. (2020). Climate change and displacement: protecting 'climate refugees' within a framework of justice and human rights. *Journal of Human Rights and the Environment*, *11*(1), 97-100.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) *Journalofcmsd Volume 10(4)*

a protected category.[34] Efforts to expand legal protections for climate refugees have been met with challenges due to the complexity of defining and attributing displacement solely to climate change.[35] However, there have been some regional and national initiatives aiming to address this gap.[36] For example, the Pacific Islands Forum's Biketawa Declaration acknowledges the issue of climate displacement in the Pacific region and calls for international cooperation in responding to it.

The advocacy for the protection and rights of climate refugees is gaining traction.[37] Civil society organizations, human rights groups, and environmental activists have been at the forefront of raising awareness about the unique challenges faced by climate refugees and advocating for their rights.[38] They emphasize the need for legal recognition, adequate support, and durable solutions for displaced communities.[39] International bodies such as the United Nations High Commissioner for Refugees (UNHCR) and the International Organization for Migration (IOM) are also increasingly engaging with the issue of climate-induced displacement and advocating for stronger protection mechanisms.[40]

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[34] Warren, P. D. (2016). Forced migration after Paris cop21: Evaluating the 'climate change displacement coordination facility'. *Colum. L. Rev.*, *116*, 2103.

[35] Ibid.

[36] Ibid.

[37] Eckersley, R. (2015). The common but differentiated responsibilities of states to assist and receive 'climate refugees'. *European Journal of Political Theory*, *14*(4), 490-495.

[38] Ibid.

[39] Ibid.

[40] Ibid.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Climate refugees face distinct challenges as a result of displacement driven by climate change.[41] Despite lacking specific legal recognition and protections, their numbers continue to grow, necessitating urgent attention and action.[42] Statistics and case studies provide evidence of the displacement caused by climate change, while legal frameworks and international responses are evolving slowly.[43] Advocacy efforts are crucial in promoting the protection and rights of climate refugees and pushing for adequate international mechanisms to address this urgent issue.[44]

IV. Social Justice and Climate Change

Climate change has profound social justice implications, as its impacts are disproportionately felt by marginalized communities and individuals.[45] The Intergovernmental Panel on Climate Change (IPCC) highlights that climate change exacerbates existing inequalities, deepening poverty, and undermining human rights.[46] Vulnerable communities, including low-income populations, indigenous peoples, and racial and ethnic minorities, often bear the brunt of climate-related disasters, experiencing greater health risks, displacement, and economic hardships.[47] The unequal distribution of

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[41] Gemenne, F. (2011). Why the numbers don't add up: A review of estimates and predictions of people displaced by environmental changes. *Global Environmental Change*, *21*, S45-S48.

[42] Ibid.

[43] Ibid.

[44] Ibid.

[45] Ibid.

[46] Pörtner, H. O., Roberts, D. C., Adams, H., Adler, C., Aldunce, P., Ali, E., ... & Ibrahim, Z. Z. (2022). *Climate change 2022: Impacts, adaptation and vulnerability* (p. 3056). Geneva, Switzerland:: IPCC.

[47] Ibid.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) *Journalofcmsd Volume 10(4)*

climate change impacts raises ethical concerns and calls for a social justice lens in addressing climate change.[48]

Vulnerable communities are disproportionately affected by climate-related disasters due to a combination of factors including limited resources, social inequalities, and geographical location. [49] For example, low-income communities often reside in areas more prone to flooding, hurricanes, or heatwaves, and lack the financial means to adapt or recover from these events. Indigenous communities, with their close connection to the land and dependence on traditional livelihoods, face the loss of cultural heritage and economic stability when their ecosystems are disrupted. [50] The vulnerability of these communities to climate-related disasters underscores the need for targeted interventions and support to promote social justice.[51]

Community-led initiatives play a vital role in promoting social justice in climate action.[52] For instance, grassroots organizations have been at the forefront of advocating for environmental justice, amplifying the voices of affected communities, and demanding equitable solutions. Community-based adaptation projects, such as local farming cooperatives or renewable energy cooperatives, empower marginalized communities economically and environmentally,

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[48] Ibid.

[49] Thomas, K., Hardy, R. D., Lazrus, H., Mendez, M., Orlove, B., Rivera-Collazo, I., ... & Winthrop, R. (2019). Explaining differential vulnerability to climate change: A social science review. *Wiley Interdisciplinary Reviews: Climate Change*, *10*(2), e565.

[50] Ibid.

[51] Ibid.

[52] Henfrey, T., Feola, G., Penha-Lopes, G., Sekulova, F., & Esteves, A. M. (2023). Rethinking the sustainable development goals: Learning with and from community-led initiatives. *Sustainable Development*, *31*(1), 211-222.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

fostering social justice in climate change responses.[53] Additionally, indigenous-led land stewardship practices and traditional ecological knowledge contribute to sustainable resource management while preserving cultural integrity.[54]

Policies and initiatives that prioritize social justice in climate change mitigation and adaptation strategies are crucial for equitable outcomes. [55] This includes integrating principles of fairness, inclusivity, and participation in decision-making processes related to climate action.[56] For example, the implementation of just transition policies ensures that the shift to a low-carbon economy does not leave workers and communities behind, offering retraining and job opportunities in renewable energy sectors. Climate finance mechanisms that prioritize support for vulnerable communities and adaptation projects also contribute to social justice by addressing their specific needs.[57]

The social justice implications of climate change necessitate a focused and deliberate approach in addressing the disproportionate impacts on vulnerable communities. [58] Recognizing and rectifying existing inequalities, empowering marginalized communities, and involving

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[53] Ibid.

[54] Ibid.

[55] Chu, E., Anguelovski, I., & Carmin, J. (2016). Inclusive approaches to urban climate adaptation planning and implementation in the Global South. *Climate Policy*, *16*(3), 382-391.

[56] Figueiredo, P., & Perkins, P. E. (2013). Women and water management in times of climate change: participatory and inclusive processes. *Journal of Cleaner Production*, *60*, 189-193.

[57] Ibid.

[58] Popke, J., Curtis, S., & Gamble, D. W. (2016). A social justice framing of climate change discourse and policy: Adaptation, resilience and vulnerability in a Jamaican agricultural landscape. *Geoforum*, *73*, 71-74.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

them in decision-making processes are essential for promoting social justice in climate change responses. Community-led initiatives, alongside policies and initiatives that prioritize social justice, serve as crucial pathways for equitable and sustainable solutions to address the social injustices arising from climate change.[59]

V. Gender Equality and Climate Change

Climate change affects women and gender minorities differently due to existing gender inequalities and social norms.[60] Women often bear a disproportionate burden as they play critical roles in sectors such as agriculture, water collection, and energy provision, which are highly vulnerable to climate change.[61] They face increased challenges in accessing resources, education, and healthcare during climate-related disasters.[62] Furthermore, gender-based violence tends to rise in the aftermath of such events, further compromising the safety and well-being of women and gender minorities.[63] Recognizing these differential impacts is crucial for addressing gender inequalities in climate change responses.[64]

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[59] Ibid. 78-80.

[60] Heise, L., Greene, M. E., Opper, N., Stavropoulou, M., Harper, C., Nascimento, M., ... & Gupta, G. R. (2019). Gender inequality and restrictive gender norms: framing the challenges to health. *The Lancet*, *393*(10189), 2445-2452.

[61] Ibid.

[62] Schramm, P. J., Al Janabi, A. L., Campbell, L. W., Donatuto, J. L., & Gaughen, S. C. (2020). How Indigenous Communities Are Adapting To Climate Change: Insights From The Climate-Ready Tribes Initiative: Analysis examines how indigenous communities are adapting to climate change. *Health Affairs*, *39*(12), 2153-2159.

[63] Ibid.

[64] Ibid.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Gender-based vulnerabilities and roles intersect with climate change adaptation and resilience. [65] Women often possess valuable knowledge of local ecosystems and sustainable resource management practices. [66] However, limited access to resources, unequal decision-making power, and cultural norms restrict their participation and influence in climate adaptation strategies.[67] Gender disparities also impact women's ability to access financial resources, technology, and information necessary for resilience-building. [68] Recognizing and addressing these vulnerabilities and empowering women and gender minorities as active participants in climate action is crucial for building adaptive and resilient societies.[69]

Numerous initiatives are promoting gender equality in climate action and decision-making processes.[70] For example, the Women's Global Call for Climate Justice advocates for the inclusion of women's rights and gender equality in climate policies and programs. Gender-responsive climate finance mechanisms, such as the Green Climate Fund's gender policy, aim to support projects that address the specific needs and priorities of women and gender minorities.[71] Additionally,

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[65] Vinyeta, K., Whyte, K., & Lynn, K. (2016). Climate change through an intersectional lens: gendered vulnerability and resilience in indigenous communities in the United States.

[66] Olsson, P., & Folke, C. (2001). Local ecological knowledge and institutional dynamics for ecosystem management: a study of Lake Racken watershed, Sweden. *Ecosystems*, *4*, 85-104.

[67] Ibid.

[68] Ibid.

[69] Ibid.

[70] Aguilar, L. (2012). Establishing the linkages between gender and climate change adaptation and mitigation. In *Gender and climate change: An introduction* (pp. 201-221). Routledge.

[71] Swim, J., Clayton, S., Doherty, T., Gifford, R., Howard, G., Reser, J., ... & Weber, E. (2009). Psychology and global climate change: Addressing a multi-

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

grassroots organizations and networks, such as the Global Alliance for Green and Gender Action, work to amplify the voices and agency of women and gender minorities in shaping climate responses.[72] Integrating gender perspectives in climate policies and programs is vital for effective and equitable outcomes. [73] By considering the differentiated impacts of climate change on women and gender minorities, policies can address their specific needs and vulnerabilities.[74] Gender-responsive approaches ensure that women and gender minorities have equal access to resources, decision-making processes, and benefits arising from climate action. [75] Additionally, recognizing the important roles that women play as agents of change and leaders in climate resilience enhances the effectiveness and sustainability of climate policies and programs.[76]

Gender equality is a crucial aspect of addressing climate change.[77] Analyzing the differential impacts on women and gender minorities, understanding their vulnerabilities and roles in adaptation and resilience, promoting initiatives that empower them, and integrating gender perspectives in climate policies and programs are all essential

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faceted phenomenon and set of challenges. A report by the American Psychological Association's task force on the interface between psychology and global climate change. *American Psychological Association, Washington*, *66*, 241-250.

[72] Ibid.

[73] Rahaman, M. M., & Varis, O. (2005). Integrated water resources management: evolution, prospects and future challenges. *Sustainability: science, practice and policy*, *1*(1), 15.

[74] Ibid. 17.

[75] Ibid. 18.

[76] Ibid. 19.

[77] Lau, J. D., Kleiber, D., Lawless, S., & Cohen, P. J. (2021). Gender equality in climate policy and practice hindered by assumptions. *Nature climate change*, *11*(3), 186-192.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions: **Dynesius Nyangau**

(2023) Journalofcmsd Volume 10(4)

for achieving sustainable and equitable climate outcomes. [78] By addressing gender inequalities, we can foster a more inclusive and effective response to the challenges posed by climate change.[79]

VI. Marginalized Communities and Decision-Making

Marginalized communities often face exclusion from decision-making processes related to climate change, leading to their voices and perspectives being overlooked.[80] Factors such as socio-economic disparities, unequal access to education and resources, and systemic discrimination contribute to this exclusion.[81] As a result, policies and strategies implemented may not adequately address the unique needs, concerns, and priorities of marginalized groups. [82] The exclusion of these communities perpetuates existing inequalities and hampers the effectiveness and legitimacy of climate change decision-making.[83]

Inclusive and participatory approaches to decision-making are essential for addressing the needs of marginalized communities and achieving equitable climate outcomes.[84] By involving marginalized groups in decision-making processes, their experiences and knowledge can inform the development of context-specific

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[78] Denton, F. (2002). Climate change vulnerability, impacts, and adaptation: Why does gender matter?. *Gender & Development*, *10*(2), 10-20.
[79] Ibid.
[80] Ojha, H. R., Ghimire, S., Pain, A., Nightingale, A., Khatri, D. B., & Dhungana, H. (2016). Policy without politics: Technocratic control of climate change adaptation policy making in Nepal. *Climate Policy*, *16*(4), 419-430.
[81] Shaw, M., Dorling, D., & Smith, G. D. (1999). Poverty, social exclusion, and minorities. *Social determinants of health*, 2, 197-198.
[82] Ibid. 120.
[83] Ibid. 121.
[84] Ibid. 122.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions: **Dynesius Nyangau**

(2023) Journalofcmsd Volume 10(4)

solutions.[85] Inclusive decision-making processes also promote a sense of ownership and empowerment among marginalized communities, fostering a more sustainable and just transition.[86] Furthermore, the diversity of perspectives brought by marginalized groups enriches discussions, leading to more comprehensive and effective climate strategies.[87]

Numerous case studies showcase successful examples of involving marginalized communities in climate action. [88] For instance, the Indigenous-led initiatives in Canada, such as the Indigenous Climate Action, empower Indigenous communities to lead climate resilience efforts by combining traditional knowledge with modern technologies.[89] Participatory budgeting processes in Brazil and other countries have enabled marginalized communities to have a direct say in climate-related resource allocation decisions.[90] These examples demonstrate that when marginalized communities are engaged and

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[85] Krause, G., Brugere, C., Diedrich, A., Ebeling, M. W., Ferse, S. C., Mikkelsen, E., ... & Troell, M. (2015). A revolution without people? Closing the people–policy gap in aquaculture development. *Aquaculture*, *447*, 46-54.
[86] Ibid.
[87] Scoones, I. (2009). Livelihoods perspectives and rural development. *The journal of peasant studies*, *36*(1), 171-196.
[88] Benevolenza, M. A., & DeRigne, L. (2019). The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature. *Journal of Human Behavior in the Social Environment*, *29*(2), 266-281. See, Ravera, F., Reyes-García, V., Pascual, U., Drucker, A. G., Tarrasón, D., & Bellon, M. R. (2019). Gendered agrobiodiversity management and adaptation to climate change: differentiated strategies in two marginal rural areas of India. *Agriculture and human values*, *36*, 455-474. See, Tol, R. S., Fankhauser, S., Richels, R. G., & Smith, J. B. (2000). How much damage will climate change do? Recent estimates. *WORLD ECONOMICS-HENLEY ON THAMES-*, *1*(4), 179-180.
[89] Ibid. 180-181.
[90] Ibid. 183.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

empowered, they can contribute valuable insights and solutions to climate change challenges.

There is a growing recognition of the need to increase the representation and empowerment of marginalized groups in climate policy and planning.[91] Calls for greater inclusion have come from various stakeholders, including civil society organizations, indigenous rights activists, and social justice advocates.[92] Increasing representation can be achieved through diverse mechanisms such as establishing advisory boards, incorporating marginalized voices in formal decision-making bodies, and ensuring inclusive consultations and participation processes.[93] Empowering marginalized communities also involves providing them with the necessary resources, capacity-building, and support to actively engage in climate policy discussions and implementation.[94]

Exclusion of marginalized communities from decision-making processes related to climate change is a significant concern.[95] Inclusive and participatory approaches are essential for addressing this exclusion, as they recognize the importance of incorporating diverse perspectives and ensuring that climate policies and strategies are equitable and effective.[96] Successful case studies demonstrate the

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[91] Tompkins, E. L., & Adger, W. N. (2004). Does adaptive management of natural resources enhance resilience to climate change?. *Ecology and society*, *9*(2).

[92] Batliwala, S. (2002). Grassroots movements as transnational actors: Implications for global civil society. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, *13*, 395-404.

[93] Dreher, T. (2012). A partial promise of voice: Digital storytelling and the limits of listening. *Media International Australia*, *142*(1), 157-158.

[94] Ibid. 158-160.

[95] Ibid.161-162

[96] Ibid. 165-166

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions: **Dynesius Nyangau**

(2023) Journalofcmsd Volume 10(4)

benefits of involving marginalized communities in climate action. Calls to increase representation and empowerment of marginalized groups in climate policy and planning emphasize the need to rectify existing power imbalances and promote a more just and sustainable approach to climate change.

VII. Equitable Solutions for Climate Justice

Achieving climate justice and equity requires the implementation of policy approaches and frameworks that prioritize the needs of marginalized communities and address underlying systemic inequalities.[97] One example is the concept of just transition, which aims to ensure a fair and equitable transition to a low-carbon economy, safeguarding the rights and livelihoods of workers and communities affected by the shift away from fossil fuels. [98] Additionally, environmental justice frameworks seek to address the disproportionate burden of pollution and environmental degradation on marginalized communities and advocate for their meaningful participation in decision-making processes.[99]

Incorporating equity considerations is crucial for effective climate change mitigation and adaptation strategies.[100] By recognizing and addressing the unequal distribution of climate impacts and vulnerabilities, policies and actions can be tailored to meet the

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[97] Malloy, J. T., & Ashcraft, C. M. (2020). A framework for implementing socially just climate adaptation. *Climatic Change*, *160*(1), 1-14. See, Alcaraz, K. I., Wiedt, T. L., Daniels, E. C., Yabroff, K. R., Guerra, C. E., & Wender, R. C. (2020). Understanding and addressing social determinants to advance cancer health equity in the United States: a blueprint for practice, research, and policy. *CA: a cancer journal for clinicians*, *70*(1), 31-38.

[98] Ibid. 44.

[99] Malloy, J. T., et.al. 43-44.

[100] Wiegandt, E. (2001). Climate change, equity, and international negotiations. *International relations and global climate change*, 128-130.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

specific needs of marginalized communities. [101] This includes ensuring access to renewable energy, clean water, and resilient infrastructure, as well as providing support for sustainable livelihoods and adaptation measures. [102] By prioritizing equity, climate actions can avoid exacerbating existing social disparities and work towards more just and inclusive outcomes.

Funding mechanisms and support for vulnerable communities are essential in achieving climate justice and equity. [103] Financial resources should be allocated to projects that prioritize the needs of marginalized communities, particularly in developing countries, where the impacts of climate change are often more severe.[104] Climate finance mechanisms, such as the Green Climate Fund, aim to channel financial resources to adaptation and mitigation projects that benefit vulnerable communities. [105] Capacity-building programs and technical assistance can also support communities in implementing climate-resilient practices and accessing funding opportunities.[106]

Numerous initiatives and projects are promoting equitable solutions to climate change.[107] For instance, community-led renewable energy projects, such as solar cooperatives, empower marginalized communities by providing access to clean and affordable energy

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[101] Ibid. 130-132.

[102] Ibid. 133-136.

[103] Okereke, C., & Coventry, P. (2016). Climate justice and the international regime: before, during, and after Paris. *Wiley Interdisciplinary Reviews: Climate Change*, 7(6), 834.

[104] Ibid. 834-836.

[105] Ibid. 837-838.

[106] Ibid. 839-840.

[107] Denton, F. (2002). Climate change vulnerability, impacts, and adaptation: Why does gender matter?. *Gender & Development*, *10*(2), 10-20.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions: **Dynesius Nyangau**

(2023) Journalofcmsd Volume 10(4)

while creating local job opportunities. Nature-based solutions, such as reforestation and ecosystem restoration projects, not only contribute to climate mitigation but also provide co-benefits for local communities,[108] such as improved water resources and biodiversity conservation. Indigenous-led land stewardship initiatives, which integrate traditional knowledge with modern practices, highlight the importance of preserving cultural heritage and promoting sustainable resource management.[109]

Achieving climate justice and equity requires the implementation of policy approaches, frameworks, and initiatives that prioritize the needs of marginalized communities and address systemic inequalities.[110] Incorporating equity considerations in climate change mitigation and adaptation strategies, along with the provision of funding and support for vulnerable communities, is essential.[111] By promoting equitable solutions to climate change, we can work towards a more just and sustainable future.[112]

VIII. Conclusion

In this discussion on climate justice and equity, this paper has explored the unequal impacts of climate change on vulnerable communities. It has examined the challenges faced by climate refugees, the importance of social justice and gender equality in

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[108] Martin, E. G., Costa, M. M., & Máñez, K. S. (2020). An operationalized classification of Nature Based Solutions for water-related hazards: From theory to practice. *Ecological Economics*, *167*, 106460.

[109] Ibid.

[110] Ciplet, D. (2021). From energy privilege to energy justice: A framework for embedded sustainable development. *Energy Research & Social Science*, *75*, 101996.

[111] Ibid.

[112] Ibid.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

climate action, and the exclusion of marginalized groups from decision-making processes. Throughout our exploration, the paper emphasized the need for equitable solutions that address the specific needs and experiences of marginalized communities.

It is crucial for policymakers, organizations, and individuals to prioritize climate justice and equity in their efforts. This requires integrating the principles of fairness, inclusivity, and social responsibility into climate policies, programs, and initiatives. Policymakers should develop and implement policies that explicitly address the needs of vulnerable communities and ensure their meaningful participation in decision-making processes. Organizations and individuals should advocate for equitable solutions, support community-led initiatives, and foster partnerships that promote climate justice and equity.

Addressing the unequal impacts of climate change is essential for building a sustainable and just future. Climate change exacerbates existing social and economic disparities, further marginalizing already vulnerable communities. By recognizing and addressing these inequalities, we can create a more resilient and equitable society. This requires addressing the root causes of vulnerability, empowering marginalized communities, and promoting inclusive approaches to decision-making and action. It is only through concerted efforts and a collective commitment to climate justice and equity that we can overcome the challenges of climate change and create a future that is sustainable, just, and inclusive for all.

Climate justice and equity must be at the forefront of our efforts to address the impacts of climate change on vulnerable communities. By acknowledging the unequal burden faced by marginalized groups,

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

including climate refugees, and recognizing the intersections with social justice, gender equality, and decision-making processes, we can work towards equitable solutions. Let us join together in taking action, advocating for change, and prioritizing climate justice and equity as we strive for a sustainable and just future.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Bibliography

Aguilar, L. (2012). Establishing the linkages between gender and climate change adaptation and mitigation. In Gender and climate change: An introduction (pp. 201-221). Routledge.

Alcaraz, K. I., Wiedt, T. L., Daniels, E. C., Yabroff, K. R., Guerra, C. E., & Wender, R. C. (2020). Understanding and addressing social determinants to advance cancer health equity in the United States: a blueprint for practice, research, and policy. CA: a cancer journal for clinicians, 70(1), 31-38.

Batliwala, S. (2002). Grassroots movements as transnational actors: Implications for global civil society. Voluntas: International Journal of Voluntary and Nonprofit Organizations, 13, 395-404.

Bedeke, S. B. (2023). Climate change vulnerability and adaptation of crop producers in sub-Saharan Africa: A review on concepts, approaches and methods. Environment, Development and Sustainability, 25(2), 1017-1051.

Benevolenza, M. A., & DeRigne, L. (2019). The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature. Journal of Human Behavior in the Social Environment, 29(2), 266-281.

Chu, E., Anguelovski, I., & Carmin, J. (2016). Inclusive approaches to urban climate adaptation planning and implementation in the Global South. Climate Policy, 16(3), 382-391.

Climate Justice and Equity: Navigating the Unequal Impacts of Climate Change towards Equitable Solutions:
Dynesius Nyangau

(2023) Journalofcmsd Volume 10(4)

Ciplet, D. (2021). From energy privilege to energy justice: A framework for embedded sustainable development. Energy Research & Social Science, 75, 101996.

Curtis, S., & Gamble, D. W. (2016). A social justice framing of climate change discourse and policy: Adaptation, resilience and vulnerability in a Jamaican agricultural landscape. Geoforum, 73, 70-80.

Denton, F. (2002). Climate change vulnerability, impacts, and adaptation: Why does gender matter?. Gender & Development, 10(2), 10-20.

Dreher, T. (2012). A partial promise of voice: Digital storytelling and the limits of listening. Media International Australia, 142(1), 157-158.

Eckersley, R. (2015). The common but differentiated responsibilities of states to assist and receive 'climate refugees'. European Journal of Political Theory, 14(4), 490-495.

Figueiredo, P., & Perkins, P. E. (2013). Women and water management in times of climate change: participatory and inclusive processes. Journal of Cleaner Production, 60, 189-193.

Field, C. B., Barros, V., Stocker, T. F., & Dahe, Q. (Eds.). (2012).