



Combating Climate Change for Sustainability

Kariuki Muigua

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Dedication

Dedicated to the idea
that combating Climate
Change
For sustainability
is possible

That it is indeed our duty
To take care of
Our environment
Today, tomorrow
and for posterity.

That taking urgent action
To deal with
Climate Change
Is the way to go

And that
Enhancing Low Carbon
Development
for sustainability
Is the path we must take

Dedicated to the ideal
Of strengthening
Environmental Rule of Law
for sustainability

And that there must be
Inclusive participation
In Environmental
Social and Governance
Accountability mechanisms
For Climate -Resilient
Responses

Dedicated to the idea
that
we must pursue
Sustainable Development
Development that is all inclusive
And leaves no one
behind

Dedicated to the thought
that we must actualise
Gender equity
and equality
for Environmental
Sustainability

That we must foster
Climate Justice
Embrace Science
and Technology
and innovation
for Sustainable Development

Dedicated
To Our collective dream
of a green
Tomorrow
A bright tomorrow

Dedicated to the idea
that
Entrenching a Human Rights
Based approach
To Sustainable Development
Is a noble ideal

This work is in honour of,
those who work hard

To ensure
the right to a clean
and Healthy
environment
is realized by all
And to those who believe
that attaining
Environmental Justice
is
possible.

This book is dedicated
to those
who seek peace
And to those who
devote their time
to conflict management
And the achievement of
Climate Justice

Knowing that
Securing our Destiny
is in our hands.

This book is in honour
of those who stand up
for what is right
To those who have
the courage
To explore new ideas
And to those
who dare
Tell their own story.

Together
Let us walk
In the direction

of our dreams
of sustainability
prosperity
And a green, bright
tomorrow.

Acknowledgements

I heard the birds singing at dawn. I looked out, saw the beauty of this morning. The mountain stood in the distance. Majestic. I felt the presence of God. And I said a prayer. Thank you God for bringing me this far. And for sustaining me. I am your miracle. Use me to glorify you, and to inspire others.

I am grateful to those who make it possible for me to write. To those who encourage me and keep me going in rainy and sunny days. You are amazing.

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I appreciate my friends who fuel the thought that life is worth living. And that it is possible to achieve all our dreams.

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I am grateful to my publishers, who ensure that the book is published in time and is of high quality.

Finally, I extend my deepest appreciation to my family. They remind me that after all the storms we have weathered, we shall in the end overcome; That we should never stop dreaming; That God is in control; And that we are here for a purpose.

Blessings to you all.

Author's Note

The book entails a collection of papers on Combating Climate Change for Sustainability. Some of the papers have been published in peer-reviewed Journals and book chapters.

Climate change has been described as the most defining challenge of our time. It is the main global challenge that is affecting both developed and developing countries in their efforts towards the realization of the Sustainable Development agenda.

The impacts of Climate Change have been felt across many dimensions of society, including the environment, economy, politics, and even society's social fabric. Climate change has become a worldwide concern throughout time as a result of the harm it does to the environment and human lives.

Climate change is an undesirable phenomenon that affects realization of the Sustainable Development agenda across the world by affecting the sustainability of the planet's ecosystems, the stability of the global economy and the future of humankind.¹ The consequences of climate change such as intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are being witnessed across the world.²

This book is informed by the need to combat climate change for sustainability. The book offers a sound discussion on the main causes and manifestations of climate change. It also discusses the main institutions and approaches designed for combating climate change for sustainability.

¹ Climate Change., 'Meaning, Definition, Causes, Examples and Consequences.' Available at <https://youmatter.world/en/definition/climate-change-meaning-definition-causes-and-consequences/>

(Accessed on 06/10/2023)

² United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 06/10/2023)

The book not only adds to the already existing debates in this area but also offers solutions for combating climate change for sustainability. The discussion also explores the global and regional approaches to combating climate change for sustainability.

The author hopes that academics, students, researchers and decision-makers, among others, will find the book a useful addition to their collection of literature on climate change.

Combating Climate Change for Sustainability is an ideal whose time is now.

Kariuki Muigua

Nairobi Kenya,

October 2023.

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List of Abbreviations

ACHPR	African Charter on Humans and People’s Rights
ADR	Alternative Dispute Resolution
AfCFTA	African Continental Free Trade Area
CBD	Convention on Biological Diversity.
CBDR	Common But Differentiated Responsibilities
CO2	Carbon Dioxide
COP	Conference of the Parties
COVID-19	Corona Virus pandemic
CSR	Corporate Social Responsibility
EIA	Environmental Impact Assessment
ELC	Environment and Land Court
EMCA	Environmental Management and Coordination Act
ESG	Environmental, Social, and Corporate Governance
GHG	Green House Gases.
GDP	Gross Domestic Product
ICCPR	International Covenant on Civil and Political Rights,
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change

IUCN	International Union for Conservation of Nature
NACOSTI	National Commission for Science, Technology and Innovation
NAPs	National Adaptation Plans
NCCRS	National Climate Change Response Strategy
NACOSTI	National Commission for Science, Technology and Innovation
NbS	Nature-based Solutions
NDC	Nationally Determined Contribution.
NEMA	National Environment Management Authority
NET	National Environment Tribunal
NGOs	Non-Governmental Organisations
OECD	Organization for Economic Co-operation and Development
REDD	Reducing Emissions from Deforestation and Forest Degradation
SDGs	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SCIEWS	Strengthening Climate Information and Early Warning Systems
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme.
UNFCCC	UN Framework Convention on Climate Change
UNGA	United Nations General Assembly

UNGC UN Global Compact

WMO World Meteorological Organization

Combating Climate Change in Kenya for Sustainable Development

Abstract

Climate change is considered one of the major global challenges that countries have to contend with in their efforts towards achievement of the sustainable development agenda. Climate change affects not only national and global economy but also has a direct effect on the livelihoods of communities. It is for this reason that there have been global calls on governments and all other stakeholders to put in place climate change mitigation measures and ensure that their economies become resilient. Indeed, climate change is one of the main environmental goals under the United Nation's 2030 Agenda for Sustainable Development Goals as captured under Sustainable Development Goal 13 meant to help countries achieve resilience and build adaptive capacity. However, due to their development activities and approaches, both developed and developing countries have not managed to curb climate change. It is also acknowledged that due to their differing economies and unique challenges, developing countries have far much been affected by climate change compared to the developed countries. Kenya is no exception especially considering that its economy is considered to be agricultural based and much of its rural population is still highly dependent on agriculture and environment to meet their livelihood needs. This has resulted in environmental degradation due to pollution and indiscriminate use of available environmental and natural resources. This paper adds to the existing literature in this area on how the country can successfully combat climate change in its bid to achieve sustainable development. The major argument is that for the country to combat climate change, there is a need for an integrated approach that meaningfully involves all the stakeholders. The Government alone cannot possibly achieve this task. Climate change mitigation is an important step towards achieving sustainability in the country, without which the realisation of both the country's Vision 2030 and the United Nation's 2030 Agenda for Sustainable Development will remain a mirage.

1. Introduction

Climate change remains one of the main global challenges that has affected both developed and developing countries in their efforts towards achievement of the sustainable development agenda although it is arguable that the developing countries have been affected in greater ways.¹ This is because,

¹ 'Unprecedented Impacts of Climate Change Disproportionately Burdening Developing Countries, Delegate Stresses, as Second Committee Concludes General Debate | Meetings Coverage and Press Releases'

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since the environment remains the main source of raw materials for national development and a source of livelihoods for many communities especially those living within the rural settings, and climate change affects the ability of the environment to supply these needs, climate change has a direct effect on the livelihoods of communities as well as countries' ability to achieve growth and development. The year 2020 indeed proved how harsh climate change can be and Corona Virus pandemic (COVID-19) did not make things any better. It has been observed that from wildfires in California and locust attacks in Ethiopia and Kenya to job losses caused by pandemic lockdowns across the world, climate change and COVID-19 disrupted food production and tipped millions more people into hunger in 2020.² In addition, Oxfam has estimated that more than 50 million people in East and Central Africa require emergency food aid – and those numbers are set to rise as the region braces for a harsh drought linked to the La Nina climate pattern, as well as more locust swarms.³ Indeed, commentators have expressed their fears that the situation could worsen from the current year 2021 as both the coronavirus crisis and wild weather exacerbate fragile conditions linked to conflicts and poverty in many parts of the globe, with the head of the U.N. World Food Program (WFP) warning that “even before COVID-19 hit, 135 million people were marching towards the brink of starvation; this could double to 270 million within a few short months”.⁴

Climate change thus remains a challenge to many because, as the United Nations Environment Programme observes, climate change is increasing the frequency and intensity of extreme weather events such as heat waves, droughts, floods and tropical cyclones, aggravating water management

<<https://www.un.org/press/en/2019/gaef3516.doc.htm>> accessed 23 January 2021; 'Untitled' <<https://unfccc.int/news/impacts-of-climate-change-on-sustainable-development-goals-highlighted-at-high-level-political-forum>> accessed 23 January 2021.

² 'COVID-19 Caused Food Insecurity to Soar, But Climate Change Will Be Much Worse – Homeland Security Today' <<https://www.hstoday.us/subject-matter-areas/emergency-preparedness/covid-19-caused-food-insecurity-to-soar-but-climate-change-will-be-much-worse/>> accessed 17 January 2021.

³ Ibid.

⁴ Ibid; 'WFP Chief Warns of Hunger Pandemic as COVID-19 Spreads (Statement to UN Security Council) | World Food Programme' <<https://www.wfp.org/news/wfp-chief-warns-hunger-pandemic-covid-19-spreads-statement-un-security-council>> accessed 17 January 2021.

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problems, reducing agricultural production and food security, increasing health risks, damaging critical infrastructure and interrupting the provision of basic services such water and sanitation, education, energy and transport.⁵

It is for this reason that there have been global calls on governments and all other stakeholders to put in place climate change mitigation measures and ensure that their economies become resilient. Climate change is one of the main environmental goals under the United Nation's *2030 Agenda for Sustainable Development Goals*⁶ (SDGs) as captured under Sustainable Development Goal 13 meant to help countries achieve resilience and build adaptive capacity. SDG Goal 13 calls on countries to take urgent action to combat climate change and its impacts.⁷ SDG Goal 13 targets require countries to: strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;⁸ integrate climate change measures into national policies, strategies and planning;⁹ improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;¹⁰ Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible;¹¹ and promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities¹².

⁵ Environment UN, 'GOAL 13: Climate Action' (UNEP - UN Environment Programme, 2 October 2017) <<http://www.unenvironment.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-13>> accessed 17 January 2021.

⁶ UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1.

⁷ Sustainable Development Goal 13.

⁸ Target 13.1, SDG Goal 13.

⁹ Target 13.2, SDG Goal 13.

¹⁰ Target 13.3, SDG Goal 13.

¹¹ Target 13.a, SDG Goal 13.

¹² Target 13.b, SDG Goal 13.

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Notably, the 2030 Agenda acknowledges that the United Nations Framework Convention on Climate Change is the primary international intergovernmental forum for negotiating the global response to climate change.¹³

The above goals and targets are commendable and are meant to help countries come up with climate change mitigation and adaptation mechanisms to combat the challenge of climate change. However, due to their development activities and approaches, both developed and developing countries have not managed to combat climate change. Indeed, it has been observed that despite the growing amount of climate change concern, mitigation efforts, legislation, and international agreements that have reduced emissions in some places, the continued economic growth of the less developed world has increased global greenhouse gases emission, with the time between 2000 and 2010 experiencing the largest increases since 1970.¹⁴ According to scientific reports, the Earth's mean surface temperature in 2020 was 1.25°C above the global average between 1850 and 1900, largely attributable to greenhouse gases from human activities.¹⁵ It has also been reported that human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C and global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.¹⁶

It must also be acknowledged that due to their differing economies and unique challenges, developing countries have far much been affected by climate

¹³ See DGS Goal 13 (asterisk).

¹⁴ '15.5: Anthropogenic Causes of Climate Change' (*Geosciences LibreTexts*, 4 November 2019)

[https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_\(Johnson_Affolter_Inkenbrandt_and_Mosher\)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change](https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_(Johnson_Affolter_Inkenbrandt_and_Mosher)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change) accessed 17 January 2021.

¹⁵ Wilby R, 'Climate Change: What Would 4°C of Global Warming Feel Like?' (*The Conversation*) <http://theconversation.com/climate-change-what-would-4-c-of-global-warming-feel-like-152625> accessed 17 January 2021.

¹⁶ 'Summary for Policymakers – Global Warming of 1.5 °C' <https://www.ipcc.ch/sr15/chapter/spm/> accessed 17 January 2021.

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change compared to the developed countries.¹⁷ Kenya is no exception especially considering that its economy is considered to be agricultural based and much of its rural population is still highly dependent on agriculture and environment to meet their livelihood needs.¹⁸ This has resulted in environmental degradation due to pollution and indiscriminate use of available environmental and natural resources.¹⁹ This paper adds to the existing literature in this area on how the country can successfully combat climate change in its bid to achieve sustainable development. It is imperative that countries combat climate change urgently considering that it is estimated that without action, by 2050, 68% of humanity may live in urban areas and populations in the tropics will be most exposed to extreme humid heat.²⁰ The World has been struggling with COVID-19 pandemic since March 2020 and the negative effect on economies and livelihoods has been enormous. Despite this, some commentators have argued that climate change could be more devastating than Covid-19.²¹

¹⁷ 'Unprecedented Impacts of Climate Change Disproportionately Burdening Developing Countries, Delegate Stresses, as Second Committee Concludes General Debate | Meetings Coverage and Press Releases' <<https://www.un.org/press/en/2019/gaef3516.doc.htm>> accessed 23 January 2021.

¹⁸ Alila, Patrick O., and Rosemary Atieno. "Agricultural policy in Kenya: Issues and processes." *Nairobi: Institute of Development Studies* (2006); Faling, Marijn. "Framing agriculture and climate in Kenyan policies: A longitudinal perspective." *Environmental Science & Policy* 106 (2020): 228-239; Faling, Marijn, and Robbert Biesbroek. "Cross-boundary policy entrepreneurship for climate-smart agriculture in Kenya." *Policy Sciences* 52, no. 4 (2019): 525-547; Haradhan Kumar Mohajan, 'Food and Nutrition Scenario of Kenya' (2014) 2 *American Journal of Food and Nutrition* 28.

¹⁹ Abioye O Fayiga, Mabel O Ipinmoroti and Tait Chirenje, 'Environmental Pollution in Africa' (2018) 20 *Environment, Development and Sustainability* 41.; '(PDF) Environmental Degradation: Causes, Impacts and Mitigation' (*ResearchGate*) <https://www.researchgate.net/publication/279201881_Environmental_Degradation_Causes_Impacts_and_Mitigation> accessed 23 January 2021.

²⁰ Wilby R, 'Climate Change: What Would 4°C of Global Warming Feel Like?' (*The Conversation*) <<http://theconversation.com/climate-change-what-would-4-c-of-global-warming-feel-like-152625>> accessed 17 January 2021.

²¹ Clifford C, 'Bill Gates: Climate Change Could Be More Devastating than Covid-19 Pandemic—This Is What the US Must Do to Prepare' (*CNBC*, 8 January 2021) <<https://www.cnn.com/2021/01/08/bill-gates-climate-change-could-be-worse-than-covid-19.html>> accessed 17 January 2021.

2. Climate Change: Definition and Causes

Climate is defined as the temperature and precipitation patterns and range of variability averaged over the long-term for a particular region.²² On the other hand, climate change has been defined as ‘a long-term shift in the average weather conditions of a region, such as its typical temperature, rainfall, and windiness’.²³ The *United Nations Framework Convention on Climate Change*²⁴(UNFCCC) defines "climate change" to mean a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.²⁵

It has been pointed out that while prehistoric changes in climate have been very slow since climate changes typically occur slowly over many millions of years, the climate changes observed today are rapid and largely human-caused.²⁶

According to the available scientific data, anthropogenic climate change, or, human-caused climate change is believed to be causing rapid changes to the climate, which will cause severe environmental damage.²⁷ This is mainly attributed to anthropogenic greenhouse gases emissions, mostly carbon dioxide (CO₂), from fossil fuel combustion and industrial processes and the following economic sectors: electricity and heat production; agriculture,

²² ‘15.1: Global Climate Change’ (*Geosciences LibreTexts*, 26 December 2019) <[https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_\(Johnson_Affolter_Inkenbrandt_and_Mosher\)/15%3A_Global_Climate_Change/15.01%3A_Global_Climate_Change](https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_(Johnson_Affolter_Inkenbrandt_and_Mosher)/15%3A_Global_Climate_Change/15.01%3A_Global_Climate_Change)> accessed 17 January 2021.

²³ Canada E and CC, ‘Climate Change Concepts’ (*aem*, 26 September 2018) <<https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/concepts.html>> accessed 17 January 2021.

²⁴ UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly*, 20 January 1994, A/RES/48/189.

²⁵ *Ibid*, Article 1(2).

²⁶ ‘15.5: Anthropogenic Causes of Climate Change’ (*Geosciences LibreTexts*, 4 November 2019)

<[https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_\(Johnson_Affolter_Inkenbrandt_and_Mosher\)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change](https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_(Johnson_Affolter_Inkenbrandt_and_Mosher)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change)> accessed 17 January 2021.

²⁷*Ibid*.

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forestry, and land use; industry; transportation including automobiles; other energy production; and buildings.²⁸

3. The Legal Framework on Climate Change Mitigation and Adaptation

Climate change mitigation has been defined as a human-mediated reduction of the anthropogenic forcing of the climate system that includes strategies to reduce GHG sources and emissions and enhancing GHG sinks.²⁹ At the global scene, there exist a number of related environmental legal instruments, plans and programmes aimed at combating climate change.

4. International Legal Framework on Climate Change Mitigation and Adaptation

4.1 Montreal Protocol on Substances the Deplete the Ozone Layer

The *Montreal Protocol on Substances the Deplete the Ozone Layer* was signed in 1987 and entered into force in 1989 as a global agreement to protect the Earth's ozone layer by phasing out the chemicals that deplete it, a plan that includes both the production and consumption of ozone-depleting substances.³⁰ The Protocol is believed to have successfully met its objectives thus far as it continues to safeguard the ozone layer today.³¹

²⁸ '15.5: Anthropogenic Causes of Climate Change' (*Geosciences LibreTexts*, 4 November 2019)

<[https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_\(Johnson_Affolter_Inkenbrandt_and_Mosher\)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change](https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_(Johnson_Affolter_Inkenbrandt_and_Mosher)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change)> accessed 17 January 2021; 'How We Know Today's Climate Change Is Not Natural' (*State of the Planet*, 4 April 2017) <<https://blogs.ei.columbia.edu/2017/04/04/how-we-know-climate-change-is-not-natural/>> accessed 17 January 2021; 'The Science of Carbon Dioxide and Climate' (*State of the Planet*, 10 March 2017) <<https://blogs.ei.columbia.edu/2017/03/10/the-science-of-carbon-dioxide-and-climate/>> accessed 17 January 2021.

²⁹ Rinku Singh and GS Singh, 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' (2017) 2 *Energy, Ecology and Environment* 296.

³⁰ 'The Montreal Protocol on Substances That Deplete the Ozone Layer | Ozone Secretariat' <<https://ozone.unep.org/treaties/montreal-protocol/montreal-protocol-substances-deplete-ozone-layer>> accessed 21 January 2021.

³¹ *Ibid.*

4.2 Vienna Convention for the Protection of the Ozone Layer

The Vienna Convention for the Protection of the Ozone Layer was the first convention of any kind to be signed by every country involved, taking effect in 1988 and reaching universal ratification in 2009.³² The Vienna Convention obligates the Parties to take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.³³

4.3 The Kyoto Protocol

The *Kyoto Protocol* was adopted on 11 December 1997 and entered into force on 16 February 2005, currently with 192 Parties.³⁴ The Kyoto protocol was the first agreement between nations to mandate country-by-country reductions in greenhouse-gas emissions. Kyoto emerged from the UN Framework Convention on Climate Change (UNFCCC), which was signed by nearly all nations at the 1992 Earth Summit.³⁵ The Kyoto Protocol operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets,³⁶ whereas the Convention itself only asks those countries to adopt policies and measures on mitigation and to report periodically.³⁷

Notably, the Kyoto Protocol only binds developed countries, and places a heavier burden on them under the principle of “common but differentiated responsibility and respective capabilities”, because it recognizes that they are largely responsible for the current high levels of GHG emissions in the

³² ‘The Vienna Convention for the Protection of the Ozone Layer | Ozone Secretariat’ <<https://ozone.unep.org/treaties/vienna-convention>> accessed 21 January 2021.

³³ Vienna Convention for the Protection of the Ozone Layer, Article 2(1).

³⁴ ‘Untitled’ <https://unfccc.int/kyoto_protocol> accessed 21 January 2021.

³⁵ Extract from The Rough Guide to Climate Change, ‘What Is the Kyoto Protocol and Has It Made Any Difference?’ (*the Guardian*, 11 March 2011) <<http://www.theguardian.com/environment/2011/mar/11/kyoto-protocol>> accessed 21 January 2021.

³⁶ ‘Untitled’ <https://unfccc.int/kyoto_protocol> accessed 21 January 2021.

³⁷ *Ibid.*

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atmosphere.³⁸ While industrialized nations pledged to cut their yearly emissions of carbon, as measured in six greenhouse gases, by varying amounts, averaging 5.2%, by 2012 as compared to 1990, some almost achieved these targets while others like China and United States exceeded the targets by producing more carbon to the point of cancelling the progress made by all other states.³⁹ In addition, some countries such as India and China were never in the list of the original 37 developed countries bound by the Protocol yet China and India together account for approximately 35% of total carbon emissions, as of 2020, while the developed nations of the UK, France, and Germany combined, only account for 4% of the world's carbon emissions.⁴⁰ The Kyoto Protocol was essentially replaced by the Paris Climate Accord in 2015.⁴¹

4.4 Doha Amendment to the Kyoto Protocol

Parties to the Kyoto Protocol adopted an amendment to the Kyoto Protocol by decision 1/CMP.8 in accordance with Articles 20 and 21 of the Kyoto Protocol, at the eighth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) held in Doha, Qatar, on 8 December 2012.⁴² As of **28 October 2020, 147 Parties** had deposited their instrument of acceptance, therefore, the threshold for entry into force of the Doha Amendment had been met.⁴³

The Doha Amendment refers to the changes made to the Kyoto Protocol in 2012, after the First Commitment Period of the Kyoto Protocol concluded. The

³⁸ Ibid.

³⁹ Extract from The Rough Guide to Climate Change, 'What Is the Kyoto Protocol and has It Made any Difference?' (*the Guardian*, 11 March 2011) <<http://www.theguardian.com/environment/2011/mar/11/kyoto-protocol>> accessed 21 January 2021.

⁴⁰ 'Kyoto Protocol - Overview, Components, Current State' (*Corporate Finance Institute*) <<https://corporatefinanceinstitute.com/resources/knowledge/other/kyoto-protocol/>> accessed 21 January 2021.

⁴¹ Ibid.

⁴² 'Untitled' <<https://unfccc.int/process/the-kyoto-protocol/the-doha-amendment>> accessed 21 January 2021.

⁴³ Ibid.

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Amendment adds new emission reduction targets for Second Commitment Period (2012-2020) for participating countries.⁴⁴

4.5 Paris Climate Accord, 2015

The Paris Agreement is a **legally binding international treaty on climate change**, adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016.⁴⁵ Its goal is to **limit global warming** to well below 2, **preferably to 1.5 degrees Celsius**, compared to pre-industrial levels.⁴⁶ Unlike the Kyoto Protocol, the Paris Agreement is a **landmark** in the multilateral climate change process because, for the first time, a binding agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects.⁴⁷

The 26th UN Climate Change Conference of the Parties (COP26) will be held in Glasgow from 1st to 12th November 2021.⁴⁸ The COP26 summit is expected to bring parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.⁴⁹

4.6 United Nations Convention to Combat Desertification

The objective of the *United Nations Convention to Combat Desertification*⁵⁰ is to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the

⁴⁴'Doha Amendment to the Kyoto Protocol (2012)' (COP23) <<https://cop23.com.fj/knowledge/doha-amendment-kyoto-protocol-2012/>> accessed 21 January 2021.

⁴⁵'Untitled' <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>> accessed 21 January 2021.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ 'UN Climate Change Conference (COP26) at the SEC - Glasgow 2021' (UN Climate Change Conference (COP26) at the SEC - Glasgow 2021) <<https://ukcop26.org/>> accessed 17 January 2021.

⁴⁹ Ibid.

⁵⁰United Nations Convention to Combat Desertification (1994).

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achievement of sustainable development in affected areas.⁵¹ This is to be achieved through long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.⁵²

4.7 Agenda 21

Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment.⁵³

4.8 United Nations Framework Convention on Climate Change (UNFCCC)

The *United Nations Framework Convention on Climate Change*⁵⁴ was passed to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere, at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.⁵⁵

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties are to be guided, inter alia, by the following principles: the Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof;⁵⁶

⁵¹ Article 2(1).

⁵² Article 2(2).

⁵³ Agenda 21: Sustainable Development Knowledge Platform' <<https://sustainabledevelopment.un.org/outcomedocuments/agenda21>> accessed 21 January 2021.

⁵⁴ UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly, 20 January 1994, A/RES/48/189.*

⁵⁵ *Ibid*, Article 2.

⁵⁶ *United Nations Framework Convention on Climate Change*, Article 3(1).

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the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration;⁵⁷ the Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties;⁵⁸ the Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change;⁵⁹ the Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.⁶⁰

Intergovernmental Panel on Climate Change (IPCC).

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body established in 1988 for assessing the science related to climate

⁵⁷ *United Nations Framework Convention on Climate Change*, Article 3(2).

⁵⁸ *United Nations Framework Convention on Climate Change*, Article 3(3).

⁵⁹ *Ibid*, Article 3(4).

⁶⁰ *Ibid*, Article 3(5).

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change.⁶¹The Intergovernmental Panel on Climate Change (IPCC) collects, reviews, and summarizes the best information on climate change and its impacts, and puts forward possible solutions.⁶² IPCC often discharges its work through scientific reports, summarizing current and relevant findings in the field and written for policymakers and scientists, but they are available to everyone.⁶³

5. Kenya's Legal Framework on Climate Change Mitigation

5.1 Environmental Management and Co-ordination Act, 1999

The *Environmental Management and Co-ordination Act, 1999*⁶⁴(EMCA) mandates the Cabinet Secretary in charge of environmental matters in consultation with the National Environment Management Authority, to undertake or commission other persons to undertake national studies and give due recognition to developments in scientific knowledge relating to substances, activities and practices that deplete the ozone layer to the detriment of public health and the environment.⁶⁵ The Cabinet Secretary in consultation with the Authority, is then required to issue guidelines and institute programmes concerning the: elimination of substances that deplete the stratospheric ozone layer; controlling of activities and practices likely to lead to the degradation of the ozone layer and the stratosphere; reduction and minimisation of risks to human health created by the degradation of the ozone layer and the stratosphere; and formulate strategies, prepare and evaluate programmes for phasing out ozone depleting substances.⁶⁶

The Act also mandates the Cabinet Secretary, in consultation with relevant lead agencies, to issue guidelines and prescribe measures on climate change.⁶⁷

⁶¹ 'IPCC – Intergovernmental Panel on Climate Change' <<https://www.ipcc.ch/>> accessed 21 January 2021.

⁶² 'The Intergovernmental Panel on Climate Change' (MIT Climate Portal) <<https://climate.mit.edu/explainers/intergovernmental-panel-climate-change>> accessed 21 January 2021.

⁶³ Ibid.

⁶⁴ Environmental Management and Co-ordination Act, No. 8 of 1999, Laws of Kenya.

⁶⁵ Ibid, sec. 56(1).

⁶⁶ Ibid, sec. 56(2).

⁶⁷ Ibid, sec. 56A.

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EMCA also provides for fiscal incentives that are designed to promote climate change mitigation. It empowers the Cabinet Secretary responsible for Finance, on the recommendation of the National Council of Public benefit organizations, to propose to Government tax and other fiscal incentives, disincentives or fees to induce or promote the proper management of the environment and natural resources or the prevention or abatement of environmental degradation.⁶⁸ The tax and fiscal incentives, disincentives or fees may include: customs and excise waiver in respect of imported capital goods which prevent or substantially reduce environmental degradation caused by an undertaking; tax rebates to industries or other establishments that invest in plants, equipment and machinery for pollution control, recycling of wastes, water harvesting and conservation, prevention of floods and for using other energy resources as substitutes for hydrocarbons; tax disincentives to deter bad environmental behaviour that leads to depletion of environmental resources or that cause pollution; or user fees to ensure that those who use environmental resources pay proper value for the utilization of such resources.⁶⁹

EMCA also provides for Strategic Environmental Assessments⁷⁰; Environmental Impact Assessment⁷¹; Environmental Audit⁷²; and Environmental Monitoring⁷³, all of which are meant to protect the environment from environmentally degrading human activities.

5.2 Climate Change Action Plan 2018–2022

The Climate Change Action Plan 2018–2022⁷⁴ aims to further Kenya's development goals by providing mechanisms and measures that achieve low carbon climate resilient development. NCCAP 2018-2022 builds on the first action plan (2013-2017), sets out actions to implement the Climate Change Act

⁶⁸Environmental Management and Co-ordination Act, sec. 57(1).

⁶⁹ Ibid, sec. 57(2).

⁷⁰ Ibid, sec. 57A.

⁷¹ Ibid, sec. 58.

⁷² Ibid, sec. 68.

⁷³ Ibid, sec. 69.

⁷⁴ Government of the Republic of Kenya (2018). *National Climate Change Action Plan 2018-2022*. Ministry of Environment and Forestry, Nairobi.

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(2016), and provides a framework for Kenya to deliver on its Nationally Determined Contribution (NDC) to the Paris Agreement.⁷⁵

5.3 Climate Change Act, 2016

The Climate Change Act 2016⁷⁶ was enacted to provide for a regulatory framework for enhanced response to climate change; to provide for mechanism and measures to achieve low carbon climate development, and for connected purposes.⁷⁷ The Act is to be applied for the development, management, implementation and regulation of mechanisms to enhance climate change resilience and low carbon development for the sustainable development of Kenya.⁷⁸

5.4 Climate Change Mitigation in Kenya: Challenges and Prospects

Africa is classified as one of the continents highly vulnerable to climate change due to several reasons: high poverty level, high dependence on rain-fed agriculture, poor management of natural resources, capacity/technology limitations, weak infrastructure, and less efficient governance/institutional setup.⁷⁹ Arguably, Kenya's challenges as far as combating climate change is concerned are not any different from the ones identified above.

Climate change impacts and the associated socio-economic losses on Kenya have been exacerbated by the country's high dependence on climate sensitive natural resources.⁸⁰ The main climate hazards include droughts and floods which cause economic losses estimated at 3% of the country's Gross Domestic Product (GDP) while Kenya's total greenhouse gas (GHG) emissions are relatively low, out of which 75% are from the land use, land-use change and

⁷⁵ National Climate Change Action Plan: 2018-2022, p.4.

⁷⁶ Climate Change Act, No. 11 of 2016, Laws of Kenya.

⁷⁷ Ibid, Preamble.

⁷⁸ Ibid, sec. 3(1).

⁷⁹ Kimaro, Didas N., Alfred N. Gichu, Hezron Mogaka, Brian E. Isabirye, and Kifle Woldearegay. "Climate Change Mitigation and Adaptation in ECA/SADC/COMESA region: Opportunities and Challenges." <https://www.researchgate.net/publication/346628199_Climate_Change_Mitigation_and_Adaptation_in_ECASADCCOMESA_region_Opportunities_and_Challenges> accessed 17 January 2021.

⁸⁰ GoK, I. N. D. C. "Kenya's Intended Nationally Determined Contribution." (2015).

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forestry and agriculture sectors.⁸¹ Kenya's Vision 2030 which seeks to convert the country into a newly industrialized middle income country by 2030 is expected to increase emissions from the energy sector.⁸²

Kenya's agricultural sector has been greatly affected by climate change and has also seen growth in use of farming chemicals. The growing population in Kenya coupled with dwindling rainfall and shrinking land parcels have all led to the adoption of modern commercial approaches to agricultural production to achieve food security which has coincidentally greatly contributed to environmental degradation and climate change.⁸³

As opposed to the highly commercialized agricultural practices, indigenous agriculture systems are believed to be diverse, adaptable, nature friendly and productive through such approaches as mixed cropping which not only decreases the risk of crop failure, pest and disease but also diversifies the food supply and the higher vegetation diversity in the form of crops and trees escalates the conversion of CO₂ to organic form, thus reducing global warming.⁸⁴

Kenya submitted its Intended Nationally Determined Contribution (INDC) in 2015 as part of its obligations as a signatory and party to the United Nations Framework Convention on Climate Change (UNFCCC).⁸⁵ Their implementation is to begin in this year 2021. Some of the challenges identified are related to technical capacity and financial resource gaps.⁸⁶

⁸¹ Ibid.

⁸² Ibid.

⁸³ Kioko, John, and Moses M. Okello. "Land use cover and environmental changes in a semi-arid rangeland, Southern Kenya." *Journal of Geography and Regional Planning* 3, no. 11 (2010): 322-326.

⁸⁴ Rinku Singh and GS Singh, 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' (2017) 2 Energy, Ecology and Environment 296.

⁸⁵ SusWatch Kenya, 'Nationally Determined Contributions (NDCs) Implementation: The Kenyan Scenario,' Policy Brief, December 2019, 1 <https://www.inforse.org/africa/pdfs/PolicyBrief_Kenya_CS0_view_on_NDCs_Dec_2019.pdf> accessed 17 January 2021.

⁸⁶ Ibid.

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Kenya's updated Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) submitted on 28th December 2020 sets out two important developments from its first NDC, which was submitted in December 2016. As compared to the first NDC target of 30% GHG emission reduction, the updated NDC commits to lower GHG emissions by 32% by 2030 relative to the business as usual (BAU) scenario.⁸⁷ In addition, while the first NDC was fully conditional to international support, the updated NDC intends to mobilize domestic resources to meet 13% of the estimated USD 62 Billion NDC implementation costs.⁸⁸

6. Combating Climate Change for Sustainable Development: Way Forward

6.1 International Cooperation on Climate Change Mitigation

The World Food Programme has in the recent past observed that the coronavirus crisis has shown how faster international action and better cooperation in areas like science and technology could help tackle the problem (food shortage and climate change).⁸⁹

There is a need for Kenya to work closely with other countries and stakeholders at the global level to combat climate change.

The Paris Agreement provides a framework for financial, technical and capacity building support to those countries that need it.⁹⁰ The Paris Agreement reaffirms that developed countries should take the lead in providing financial assistance to countries that are less endowed and more vulnerable, while for the first time also encouraging voluntary contributions by other Parties, as climate finance is needed **for** mitigation and

⁸⁷ 'NDC Update Kenya: Enhanced Reduction Target' (*Changing Transport*, 13 January 2021) <<https://www.changing-transport.org/ndc-update-kenya-enhanced-reduction-target/>> accessed 21 January 2021.

⁸⁸ Ibid.

⁸⁹ 'COVID-19 Caused Food Insecurity to Soar, But Climate Change Will Be Much Worse - Homeland Security Today' <<https://www.hstoday.us/subject-matter-areas/emergency-preparedness/covid-19-caused-food-insecurity-to-soar-but-climate-change-will-be-much-worse/>> accessed 17 January 2021.

⁹⁰ 'Untitled' <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>> accessed 21 January 2021.

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adaptation.⁹¹The Paris Agreement also encourages technology development and transfer for both improving resilience to climate change and reducing GHG emissions, by establishing a technology framework to provide overarching guidance to the well-functioning Technology Mechanism.⁹² Also, in recognition of the fact that not all developing countries have sufficient capacities to deal with many of the challenges brought by climate change, the Paris Agreement places great emphasis on climate-related capacity-building for developing countries and requests all developed countries to enhance support for capacity-building actions in developing countries.⁹³

Kenya's Government should also continually work closely with the UNEP in design and execution of climate change mitigation plans. UNEP assists countries all over the world in their efforts to create National Adaptation Plans (NAPs), which process seeks to identify medium- and long-term adaptation needs, informed by the latest climate science.⁹⁴ NAPs are meant to: reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience; and integrate adaptation into new and existing policies and programmes, especially development strategies.⁹⁵

6.2 Integrated Approach to Reduction of Greenhouse Gases Emission

It has been argued that the Paris Agreement's goal of staying under 2° Celsius and aiming for 1.5°C global warming, as compared to pre-industrial average global temperature, scientifically translates to limiting emissions of greenhouse gases within a finite global carbon budget.⁹⁶

⁹¹ Ibid; see also UN General Assembly, *United Nations Framework Convention on Climate Change*, Article 11.

⁹² Ibid.

⁹³ Ibid; 'Untitled' <<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/key-aspects-of-the-paris-agreement>> accessed 21 January 2021.

⁹⁴ UN Environment, 'National Adaptation Plans' (UNEP - UN Environment Programme, 14 September 2017) <<http://www.unenvironment.org/explore-topics/climate-change/what-we-do/climate-adaptation/national-adaptation-plans>> accessed 21 January 2021.

⁹⁵ Ibid.

⁹⁶ 'Nature-Based Solutions for Better Climate Resilience: The Need to Scale up Ambition and Action | NDC Partnership' <<https://ndcpartnership.org/nature-based-solutions-better-climate-resilience-need-scale-ambition-and-action>> accessed 21 January 2021.

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As already pointed out, greenhouse gas emissions account for the largest causes of anthropogenic climate change. It has been reported that globally, the economic slowdown during the coronavirus pandemic was expected to slash emissions by 4-7% in 2020, bringing them close to where global emissions were in 2010.⁹⁷ However, concentrations of greenhouse gases are still rising rapidly in the atmosphere.⁹⁸ Cutting down greenhouse gas emissions can potentially reduce the impacts and costs associated with climate change.⁹⁹

With the outbreak of COVID-19 pandemic, major cities around the world have reported an increase in the numbers of people cycling and walking in public spaces.¹⁰⁰ Cities such as Bogota, Berlin, Vancouver, New York, Paris and Berlin are reported to have expanded bike lanes and public paths to accommodate the extra cycling traffic, with Australia's New South Wales government also encouraging councils to follow suit.¹⁰¹ The result has been a decline in global daily emissions, with the fall in road traffic being the main driver of the global emissions decline.¹⁰² It is estimated that daily global CO₂ emissions decreased by -17% by early April 2020 compared with the mean 2019 levels, just under half from changes in surface transport.¹⁰³

⁹⁷ Raymond C and Matthews T, 'Global Warming Now Pushing Heat into Territory Humans Cannot Tolerate' (*The Conversation*) <<http://theconversation.com/global-warming-now-pushing-heat-into-territory-humans-cannot-tolerate-138343>> accessed 17 January 2021.

⁹⁸ Ibid.

⁹⁹ UN Environment, 'Adaptation Gap Report 2020' (*UNEP - UN Environment Programme*, 9 January 2021) <<http://www.unenvironment.org/resources/adaptation-gap-report-2020>> accessed 20 January 2021; 'How to Boost Resilience to Climate Change - Adaptation Gap Report 2020 - YouTube' <<https://www.youtube.com/watch?v=-KhZ16QPv2c&feature=youtu.be>> accessed 20 January 2021.

¹⁰⁰ Quéré CL and others, 'Coronavirus Is a "sliding Doors" Moment. What We Do Now Could Change Earth's Trajectory' (*The Conversation*) <<http://theconversation.com/coronavirus-is-a-sliding-doors-moment-what-we-do-now-could-change-earths-trajectory-137838>> accessed 17 January 2021.

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ Le Quéré C and others, 'Temporary Reduction in Daily Global CO₂ Emissions during the COVID-19 Forced Confinement' (2020) 10 *Nature Climate Change* 647.

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The National and County Governments in Kenya could learn from these global trends and encourage more people to embrace cycling to and from work especially around major towns and the cities in Kenya by creating room for bike lanes and public paths as well as improving security in public places and enhancing road safety. This can potentially improve the country's chances of achieving climate mitigation due to the reduced daily emissions from traffic. It has been suggested that encouraging cycling and working from home to continue beyond the current pandemic is likely to help countries in meeting their climate goals.¹⁰⁴

There is also a need for the country to embrace vehicle technology that emits less greenhouse gases such as electric vehicles and trains. While this will certainly require massive amount of investments and time, the investment will be worth it in the long run as far as reduction of greenhouse gas emissions is concerned.

The country has however shown some intended positive steps towards this. Notably, the transport sector makes up the biggest share of petroleum consumption in Kenya; as such about 67% of Kenya's energy-related CO₂ emissions and 11.3% of Kenya's total GHG emissions in 2015 came from transport-related activities (GHG inventory report, 2019).¹⁰⁵ Kenya thus seeks to implement low carbon and efficient transportation systems in its December 2020 updated NDC. These are: Upscaling the construction of roads to systematically harvest water and reduce flooding; Enhancing institutional capacities on climate proofing vulnerable road infrastructure through vulnerability assessments; and Promoting use of appropriate designs and building materials to enhance resilience of at least 4500 km of roads to climate risks.¹⁰⁶ Key actions for the transport sector include: Developing an affordable, safe and efficient public transport system, including a Bus Rapid Transit System in Nairobi and non-motorised transport facilities; Reducing fuel

¹⁰⁴Quéré CL and others, 'Coronavirus Is a "sliding Doors" Moment. What We Do Now Could Change Earth's Trajectory' (*The Conversation*).

¹⁰⁵'NDC Update Kenya: Enhanced Reduction Target' (*Changing Transport*, 13 January 2021) <<https://www.changing-transport.org/ndc-update-kenya-enhanced-reduction-target/>> accessed 21 January 2021.

¹⁰⁶ Ibid.

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consumption and fuel overhead costs, including electrification of the Standard Gauge Railway; Encouraging low-carbon technologies in the aviation and maritime sectors; Climate proofing transport infrastructure; Encouraging technologies such as development of electric modes of transport and research on renewable energy for powering different modes of transport; Creating awareness on issues such as fuel economy and electric mobility options; Putting enabling policies and regulations in place to facilitate implementation of the mitigation and adaptation actions.¹⁰⁷

There is also a need for the country to continually invest in renewable sources of energy such as solar, wind power, biogas, among others.¹⁰⁸

The reduction of GHG emissions can also be done through, inter alia, involving the communities in nature-based solutions to reduce the emissions gap such as improved land use and management which may include low-emissions agriculture, agro-forestry, and ecosystem conservation and restoration all of which could achieve this task if properly implemented.¹⁰⁹ Nature-based solutions combine climate change mitigation, adaptation, disaster risk reduction, biodiversity conservation, and sustainable resource management.¹¹⁰

Reducing Emissions from Deforestation and Forest Degradation (REDD) is a mechanism that has been under negotiation by the United Nations Framework Convention on Climate Change (UNFCCC) since 2005, with the objective of mitigating climate change through reducing net emissions of greenhouse

¹⁰⁷ Ibid.

¹⁰⁸ Muigua, K., Exploring Alternative Sources of Energy in Kenya, *Journal of Conflict Management and Sustainable Development*, Volume 5, No 2, (October, 2020); Muigua, K., Towards Energy Justice in Kenya, February 2020, available at <http://kmco.co.ke/wp-content/uploads/2020/01/Towards-Energy-Justice-in-Kenya.pdf>; Muigua, K., Access to Energy as a Constitutional Right in Kenya, available at <http://www.kmco.co.ke/attachments/article/118/Access%20to%20Energy%20as%20a%20Constitutional%20Right%20in%20Kenya-%20NOVEMBER%202013.pdf>.

¹⁰⁹ 'Nature-Based Solutions for Better Climate Resilience: The Need to Scale up Ambition and Action | NDC Partnership' <<https://ndcpartnership.org/nature-based-solutions-better-climate-resilience-need-scale-ambition-and-action>> accessed 21 January 2021.

¹¹⁰ Ibid.

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gases through enhanced forest management, mostly in the developing countries.¹¹¹ Forests play an important role in reducing GHG emissions. The Constitution of Kenya 2010 obligates the State to ensure that the country achieves a land surface tree cover of at least 10 per cent.¹¹² It has been observed that past attempts to increase forest cover and address the problem of deforestation and forest degradation in the country have not been very successful due to a number of reasons: increasing demand for land for agriculture, settlement and other developments, high energy demand and inadequate funding to support investments in the forestry sector.¹¹³ In order to overcome these challenges, Kenya's participation in REDD+ is premised on the conviction that the process holds great potential in supporting: realization of vision 2030 objectives of increasing forest cover to a minimum of 10%; access to international climate finance to support investments in the forestry sector; Government efforts in designing policies and measures to protect and improve its remaining forest resources in ways that improve local livelihoods and conserve biodiversity; realization of the National Climate Change Response Strategy (NCCRS) goals; and contribution to global climate change mitigation and adaptation efforts.¹¹⁴

These efforts coupled with lifestyle changes and investments in cleaner technologies can potentially reduce greenhouse gases emission in Kenya thus enabling the country to meet and even exceed its global country targets.

6.3 Inclusion of Communities in Climate Change Impact Reduction and Early Warning Systems

The United Nations describes early warning system as an adaptive measure for climate change, using integrated communication systems to help

¹¹¹Kimaro, Didas N., Alfred N. Gichu, Hezron Mogaka, Brian E. Isabirye, and Kifle Woldearegay. "Climate Change Mitigation and Adaptation in ECA/SADC/COMESA region: Opportunities and Challenges," 4.

¹¹² Article 69 (1), Constitution of Kenya 2010.

¹¹³Kimaro, Didas N., Alfred N. Gichu, Hezron Mogaka, Brian E. Isabirye, and Kifle Woldearegay. "Climate Change Mitigation and Adaptation in ECA/SADC/COMESA region: Opportunities and Challenges," 16.

¹¹⁴ Ibid.

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communities prepare for hazardous climate-related events.¹¹⁵ Such systems are meant to save lives and jobs, land and infrastructures and support long-term sustainability, as well as assist public officials and administrators in their planning, saving money in the long run and protecting economies.¹¹⁶

The United Nations, working in diverse partnerships, has been putting in place a number of innovative early warning systems initiatives in vulnerable areas around the world, such as the Strengthening Climate Information and Early Warning Systems (SCIEWS) project, which is a comprehensive programme operating across Africa, Asia and the Pacific, meant to ensure preparedness and rapid response to natural disasters, using a model that integrates the components of risk knowledge, monitoring and predicting, dissemination of information and response to warnings.¹¹⁷

Such systems should actively and meaningfully involve local communities, because as it has been observed, indigenous people are good observers of changes in weather and climate and acclimatize through several adaptive and mitigation strategies.¹¹⁸

6.4 Environmental Education and Creating Awareness on Climate Change Mitigation and Resilience

It has been argued that it is critically important to be aware of the geologic context of climate change processes if we are to understand the anthropogenic (human-caused) climate change because, firstly, this awareness increases the understanding of how and why our activities are causing present-day climate change, and secondly, it allows us to distinguish between natural and anthropogenic processes in the climate record in the past.¹¹⁹

¹¹⁵United Nations, 'Early Warning Systems' (*United Nations*) <<https://www.un.org/en/climatechange/climate-solutions/early-warning-systems>> accessed 20 January 2021.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Rinku Singh and GS Singh, 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' (2017) 2 *Energy, Ecology and Environment* 296.

¹¹⁹ '15.1: Global Climate Change' (*Geosciences LibreTexts*, 26 December 2019) <[https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_\(Jo](https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_(Jo)

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Resilience has been defined as the ability to deal with shocks and stress without crossing tipping points and applies to human and environmental systems, from individual households to financial systems, ecosystems, and the biosphere as a whole. Resilience also includes the capacity to adapt to the change, that is, to deal with change without crossing a threshold, and the ability to transform in situations of crises – essentially, the capacity to rebuild livelihoods or functioning ecosystems after crossing a tipping point.¹²⁰

For mitigation planning, the primary goal is to reduce current and future direct and indirect GHG emissions, particularly from energy production, land use, waste, industry, the built environment infrastructure, and transportation.¹²¹ The primary goal of adaptation is to adjust the built, social, and eco-logical environment to minimize the negative impacts of both slow-onset and extreme events caused by climate change, such as sea-level rise, floods, droughts, storms, and heat waves.¹²²

Arguably, conservation, restoration, and the management of ecosystems play a crucial role in climate change mitigation (for instance, through land use forms that maintain carbon stocks, carbon sequestration and the reduction of greenhouse gas emissions), which practices can be important for climate change adaptation, buffering societies from the impacts of climate change and reducing disaster risk.¹²³

hmsom_Affolter_Inkenbrandt_and_Mosher)/15%3A_Global_Climate_Change/15.01%3A_Global_Climate_Change> accessed 17 January 2021.

¹²⁰ 'Nature-Based Solutions for Better Climate Resilience: The Need to Scale up Ambition and Action | NDC Partnership' <<https://ndcpartnership.org/nature-based-solutions-better-climate-resilience-need-scale-ambition-and-action>> accessed 21 January 2021.

¹²¹Grafakos, S., Pacteau, C., Delgado, M., Landauer, M., Lucon, O., and Driscoll, P. (2018). Integrating mitigation and adaptation: Opportunities and challenges. In Rosenzweig, C., W. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal, and S. Ali Ibrahim (eds.), *Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network*. Cambridge University Press. New York. 101–138, 103 < https://uccrn.ei.columbia.edu/sites/default/files/content/pubs/ARC3.2-PDF-Chapter-4-Mitigation-and-Adaptation-wecompress.com_.pdf> accessed 17 January 2021.

¹²² Ibid.

¹²³ 'Nature-Based Solutions for Better Climate Resilience: The Need to Scale up Ambition and Action | NDC Partnership' <<https://ndcpartnership.org/nature-based-solutions-better-climate-resilience-need-scale-ambition-and-action>>

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There is a need for government bodies in charge of various but relevant sectors to work closely with communities as a way of creating awareness on how their day to day activities are likely to affect the environment and the climatic conditions in general. Dissemination of environmental knowledge as well as creating opportunities for collaborative approaches to combating climate change can go a long way in not only mitigation and adaptation measures but also creating resilient economies and livelihoods. Arguably, in many decision-making processes, perceptions matter more than facts because how we feel about a risk (subjective perceptions of risk) influences what we pay attention to in complicated situations and how we approach and solve problems. Failure to acknowledge this may create and widen the gap between what experts perceive as risk and what the public perceives as risk.¹²⁴

Climate change knowledge should also be incorporated into the primary, secondary and all tertiary level curricula in order to inculcate a sense of environmental ethics in all people from an early age and to ensure that the knowledge acquired will go a long way in combating climate change.

These efforts should be guided by, inter alia, Article 6 of UNFCCC which states that: in carrying out their commitments under Article 4, paragraph 1 (i), the Parties shall: Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities: (i) the development and implementation of educational and public awareness programmes on climate change and its effects; (ii) public access to information on climate change and its effects; (iii) public participation in addressing climate change and its effects and developing adequate responses; and (iv) training of scientific, technical and managerial personnel; Cooperate in and promote, at the international level, and, where appropriate, using existing bodies: (i) the development and

solutions-better-climate-resilience-need-scale-ambition-and-action> accessed 21 January 2021.

¹²⁴Grafakos, S., Pacteau, C., Delgado, M., Landauer, M., Lucon, O., and Driscoll, P. (2018). Integrating mitigation and adaptation: Opportunities and challenges. In Rosenzweig, C., W. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal, and S. Ali Ibrahim (eds.), *Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network*. Cambridge University Press. New York. 101–138, 133.

exchange of educational and public awareness material on climate change and its effects; and(ii) the development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of-personnel to train experts in this field, in particular for developing countries.¹²⁵

6.5 Integrating Traditional Knowledge with Mainstream Scientific Knowledge for Climate Mitigation and Adaptation

The Organisation for Economic Co-operation and Development (OECD), countries can use technological change to address climate change without compromising economic growth through ensuring that their climate and innovation policies provide the right incentives for the development and diffusion of “climate-friendly” technologies.¹²⁶ OECD recommends that this can be achieved through, inter alia: providing predictable and long-term policy signals in order to give potential innovators and adopters of climate-friendly technologies the confidence to undertake the necessary investments; using flexible policy measures to give potential innovators incentives to identify the best way to meet climate objectives, and to avoid locking-in technologies that may become inefficient in future; putting a price on Green House Gas (GHG) emissions, for example through taxes or tradable permits, in order to provide incentives across all stages of the innovation cycle; providing an appropriate mix and sequencing of complementary policy measures in order to overcome barriers to development and diffusion of breakthrough technologies; balancing the benefits of technology-neutral policies with the need to direct technological change toward climate-saving trajectories, by diversifying the portfolio of technologies for which support is provided and identifying general purpose technologies with environmental benefits; since the sources of innovation are widely-dispersed, supporting research and development in a broad portfolio of complementary fields, and not just energy, “climate-friendly” or 'environmental' Research and development (R&D); ensuring that

¹²⁵ UN General Assembly, *United Nations Framework Convention on Climate Change*, Article 6.

¹²⁶ OECD, 'Promoting Technological Innovation to Address Climate Change,' (November 2011), 1 <<http://www.oecd.org/env/cc/49076220.pdf>> accessed 17 January 2021.

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international policy efforts maximise the potential for sharing of knowledge and technologies of mutual benefit, for example through international research-sharing agreements; and supporting international technology-oriented agreements as an important complement to other international efforts (e.g. emissions-based agreements).¹²⁷

Kenya should review and align her science and technological innovation policies to the above recommendations from the OECD in order to ensure their maximum effectiveness in promoting innovation as a tool for combating climate change in the country. Indeed, the starting point should be the Constitution of Kenya. The Constitution of Kenya 2010 obligates the State to, *inter alia*: promote science and recognise the role of science and indigenous technologies in the development of the nation; and promote the intellectual property rights of the people of Kenya.¹²⁸

The *Environmental Management and Co-ordination Act, 1999*¹²⁹ calls for integration of traditional knowledge for the conservation of biological diversity with mainstream scientific knowledge in conservation of conservation of biological resources *in situ*.¹³⁰ Investments in incentivized mitigation programmes, especially in agriculture and forestry, can offer mitigation benefits, increased productivity, improved livelihoods, biodiversity conservation and increased resilience to climate change.¹³¹

The *Science, Technology and Innovation Act, 2013*¹³² was enacted to facilitate the promotion, co-ordination and regulation of the progress of science, technology and innovation of the country; to assign priority to the development of science, technology and innovation; to entrench science, technology and innovation into the national production system and for connected purposes.¹³³ The Act

¹²⁷ Ibid, 1.

¹²⁸ Article 11(2), Constitution of Kenya, 2010.

¹²⁹ Environmental Management and Co-ordination Act, No. 8 of 1999, Laws of Kenya.

¹³⁰ Ibid, sec. 51(f).

¹³¹ Kimaro, Didas N., Alfred N. Gichu, Hezron Mogaka, Brian E. Isabirye, and Kifle Woldearegay. "Climate Change Mitigation and Adaptation in ECA/SADC/COMESA region: Opportunities and Challenges," 4.

¹³² Science, Technology and Innovation Act, No. 28 of 2013, Laws of Kenya.

¹³³ Ibid, Preamble.

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acknowledges that reference to “innovation” under the Act includes ‘indigenous or traditional knowledge by community of beneficial properties of land, natural resources, including plant and animal resources and the environment’, where “traditional knowledge” means the wisdom developed over generations of holistic traditional scientific utilization of the lands, natural resources, and environment.¹³⁴

The Act establishes the National Commission for Science, Technology and Innovation (NACOSTI)¹³⁵ whose objective is to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.¹³⁶ The Government, through NACOSTI should work

¹³⁴ Ibid, sec. 2; see also *Protection of Traditional Knowledge and Cultural Expressions Act*, No. 33 of 2016, Laws of Kenya.

¹³⁵ Ibid, sec. 3.

¹³⁶ Ibid. sec. 4. The functions of the Commission as set out under section 6 thereof are to: develop, in consultation with stakeholders, the priorities in scientific, technological and innovation activities in Kenya in relation to the economic and social policies of the Government, and the country’s international commitments; lead inter-agency efforts to implement sound policies and budgets, working in collaboration with the county governments, and organisations involved in science and technology and innovation within Kenya and outside Kenya; advise the national and county governments on the science, technology and innovation policy, including general planning and assessment of the necessary financial resources; liaise with the National Innovation Agency and the National Research Fund to ensure funding and implementation of prioritized research programmes; ensure co-ordination and co-operation between the various agencies involved in science, technology and innovation; accredit research institutes and approve all Scientific research in Kenya; assure relevance and quality of science, technology and innovation programmes in research institutes; advise on science education and innovation at both basic and advanced levels; in consultation with the National Research Fund Trustees, sponsor national scientific and academic conferences it considers appropriate; advise the Government on policies and any issue relating to scientific research systems; promote increased awareness, knowledge and information of research system; co-ordinate, monitor and evaluate, as appropriate, activities relating to scientific research and technology development; promote and encourage private sector involvement in scientific research and innovation and development; annually, review the progress in scientific research systems and submit a report of its findings and recommendations to the Cabinet Secretary; promote the adoption and application of scientific and technological knowledge and information necessary in attaining national development goals; develop and enforce codes, guidelines and regulations in accordance with the policy determined under this Act for the governance, management and maintenance of standards and quality in research systems; and undertake, or cause to be undertaken, regular inspections,

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closely with all learning institutions as well as stakeholders in the informal sector to not only tap into the innovations but to also identify the challenges that are affecting the growth and development of this sector. Science and technological innovation should be encouraged through adequate funding as well as fiscal incentives and ensuring that there is a ready market for the same. If the Government can work with the locals, they will not only promote the development of science but will also create an opportunity to utilize the local innovations and ideas especially in environmental areas to combat climate change. NACOSTI should also closely work with the Kenya Institute for Public Policy Research and Analysis whose main functions include: identifying and undertaking independent and objective programmes of research and analysis, including macroeconomic, inter-disciplinary and sectoral studies on topics affecting public policy in areas such as human resource development, social welfare, environment and natural resources, agriculture and rural development, trade and industry, public finance, money and finance, macroeconomic and microeconomic modelling.¹³⁷ While coming up with approaches for reducing the country's climate risk and exposure to the main types of climate hazard, their design, implementation and management may and should indeed draw on local and traditional, as well as expert knowledge. Arguably, nature-based solutions – locally appropriate actions that address societal challenges, such as climate change, and provide human well-being and biodiversity benefits by protecting, sustainably managing and restoring natural or modified ecosystems – must become a priority when the government is coming up with solutions to the climate change challenges, with youth, women, indigenous peoples and local communities being key stakeholders.¹³⁸ It has rightly been pointed out that traditional knowledge is holistic in nature due to its multitude applications in diverse fields such as

monitoring and evaluation of research institutions to ensure compliance with set standards and guidelines.

¹³⁷ Kenya Institute for Public Policy Research and Analysis Act, No. 15 of 2006, Laws of Kenya, sec. 6(b).

¹³⁸ UN Environment, 'Adaptation Gap Report 2020' (UNEP - UN Environment Programme, 9 January 2021) <<http://www.unenvironment.org/resources/adaptation-gap-report-2020>> accessed 20 January 2021.

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agriculture, climate, soils, hydrology, plants, animals, forests and human health.¹³⁹

The above listed recommendations by the OECD should provide cue when it comes to creating a conducive policy and legal environment for science and innovation.

6.6 Diversification of Economic Activities for Poverty Eradication and Climate Change Mitigation and Adaptation

The World Bank observed in December 2020 that, considering that “the pandemic and global recession may cause over 1.4% of the world’s population to fall into extreme poverty, in order to reverse this serious setback to development progress and poverty reduction, countries will need to prepare for a different economy post-COVID, by allowing capital, labour, skills, and innovation to move into new businesses and sectors.”¹⁴⁰

A chief scientist at the U.N. Food and Agriculture Organization (FAO) was recorded in 2020 affirming that farmers and poor urban residents have so far borne the brunt of the COVID-19 pandemic, meaning inequality between and within countries could deepen further in 2021.¹⁴¹ This was mainly attributed to the fact that cut off from markets and with a plunge in customer demand, farmers struggled to sell their produce while informal workers in urban areas, living hand to mouth, found themselves jobless as lockdowns were imposed.¹⁴² While the United Nations Sustainable Development Goals set to end hunger by 2030, the World Bank has observed that the COVID-19 pandemic is estimated to have pushed an additional 88 million to 115 million people into extreme poverty in the year 2020, with the total rising to as many

¹³⁹ Rinku Singh and GS Singh, ‘Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production’ (2017) 2 *Energy, Ecology and Environment* 296.

¹⁴⁰ ‘COVID-19 to Add as Many as 150 Million Extreme Poor by 2021’ (*World Bank*) <<https://www.worldbank.org/en/news/press-release/2020/10/07/covid-19-to-add-as-many-as-150-million-extreme-poor-by-2021>> accessed 17 January 2021.

¹⁴¹ ‘COVID-19 Caused Food Insecurity to Soar, But Climate Change Will Be Much Worse – Homeland Security Today’ <<https://www.hstoday.us/subject-matter-areas/emergency-preparedness/covid-19-caused-food-insecurity-to-soar-but-climate-change-will-be-much-worse/>> accessed 17 January 2021.

¹⁴² *Ibid.*

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as 150 million by 2021, depending on the severity of the economic contraction.¹⁴³

There is a need for countries, including Kenya, to create a conducive environment that will allow their citizens to invest and explore new and emerging sectors such as information technology, science and technology, among others. This should target both urban and rural dwellers. This is because the World Bank has estimated that with the effects of COVID-19 expected to continue, increasing numbers of urban dwellers are expected to fall into extreme poverty, which has traditionally affected people in rural areas.¹⁴⁴

6.7 Embracing Climate Resilient Agricultural Production Methods for Climate Change Mitigation and Poverty Reduction

It has rightly been pointed out that sustainable food production poses one of the major challenges of the twenty-first century in the era of global environmental problems such as climate change, increasing population and natural resource degradation including soil degradation and biodiversity loss, with climate change being among the greatest threats to agricultural systems.¹⁴⁵

The adverse effect of agriculture on the environment and climate change (contributors of global warming through a share of about 10–12% increase in total anthropogenic GHG emission) has largely been attributed to the Green Revolution which though multiplied agricultural production several folds jeopardized the ecological integrity of agro ecosystems by intensive use of fossil fuels, natural resources, agrochemicals and machinery and subsequently threatened the age-old traditional agricultural practices.¹⁴⁶

¹⁴³ 'COVID-19 to Add as Many as 150 Million Extreme Poor by 2021' (*World Bank*) <<https://www.worldbank.org/en/news/press-release/2020/10/07/covid-19-to-add-as-many-as-150-million-extreme-poor-by-2021>> accessed 17 January 2021.

¹⁴⁴Ibid.

¹⁴⁵ Rinku Singh and GS Singh, 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' (2017) 2 *Energy, Ecology and Environment* 296.

¹⁴⁶ Ibid.

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Arguably, achieving the goals of eradicating hunger and poverty by 2030 while addressing the climate change impacts need a climate-smart approach in agriculture, an approach based on the objectives of sustainably enhancing food production, climate adaptation and resilience and reduction in GHGs emission.¹⁴⁷

Arguably, the negative impacts of climate change on production, incomes and well-being can be avoided or ameliorated through adaptation, which includes changes in agricultural practices as well as broader measures such as improved weather and early warning systems and risk management approaches.¹⁴⁸ Climate smart agriculture is described as an approach that provides a conceptual basis for assessing the effectiveness of agricultural practice change to support food security under climate change, with particular attention to sustainable land management.¹⁴⁹

It has also been suggested that traditional practices like agro forestry, intercropping, crop rotation, cover cropping, traditional organic composting and integrated crop-animal farming all have potentials for enhancing crop productivity and mitigating climate change considering that indigenous farmers and local people perceive climate change in their own ways and prepare for it through various adaptation practices.¹⁵⁰

The Government and other stakeholders should work closely with farmers to identify and explore the available opportunities for farmers to engage in sustainable farming practices, informed by both science and indigenous knowledge.

7. Conclusion

It has been observed that responding to climate change, reducing rural poverty and achieving global food and nutrition security are three urgent and

¹⁴⁷ Ibid.

¹⁴⁸ McCarthy, N., Brubaker, J. 2014, *Climate-Smart Agriculture and resource tenure in Sub-Saharan Africa: a conceptual framework*, Rome, FAO, 6.

¹⁴⁹ Ibid, 6.

¹⁵⁰ Rinku Singh and GS Singh, 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' (2017) 2 *Energy, Ecology and Environment* 296.

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interlinked problems facing the global community today.¹⁵¹ The biggest threat to the 2030 Agenda is climate change, where the Sustainable Development Goals, from poverty eradication and ending hunger to conserving biodiversity and peace, will be unattainable if climate change is not urgently addressed.¹⁵² Before the outbreak of Corona Virus pandemic, SDG Goal 13 aimed to mobilize US\$100 billion annually by 2020 to address the needs of developing countries to both adapt to climate change and invest in low-carbon development.¹⁵³ However, as things stand currently, countries also have to contend with the Covid-19 pandemic, further complicating the situation.

This paper has put across the argument is that for the country to combat climate change, there is a need for an integrated approach that meaningfully involves all the stakeholders. While it has been acknowledged that efforts to mitigate climate change require political action¹⁵⁴, Governments alone cannot possibly achieve this task. Climate change mitigation is an important step towards achieving sustainability in the country, without which the realisation of both the country's Vision 2030 and the United Nation's 2030 Agenda for Sustainable Development will remain a mirage. There is a need to adopt mitigation and adaptation approaches to address climate change. While mitigation and adaptation policies have different goals and opportunities for

¹⁵¹ McCarthy, N., Brubaker, J. 2014, Climate-Smart Agriculture and resource tenure in Sub-Saharan Africa: a conceptual framework, Rome, FAO, 6 <https://www.researchgate.net/publication/279912013_Climate_Smart_Agriculture_and_Resource_Tenure_in_Sub-Saharan_Africa_A_Conceptual_Framework>accessed 17 January 2021.

¹⁵² 'Aligning SDG and Climate Action' (*Sustainable Goals*, 18 June 2019) <<https://www.sustainablegoals.org.uk/aligning-sdg-and-climate-action/>> accessed 21 January 2021.

¹⁵³ 'Goal 13: Climate Action' (*UNDP*) <<https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-13-climate-action.html>> accessed 21 January 2021.

¹⁵⁴ '15.5: Anthropogenic Causes of Climate Change' (*Geosciences LibreTexts*, 4 November 2019) <[https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_\(Johnson_Affolter_Inkenbrandt_and_Mosher\)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change](https://geo.libretexts.org/Bookshelves/Geology/Book%3A_An_Introduction_to_Geology_(Johnson_Affolter_Inkenbrandt_and_Mosher)/15%3A_Global_Climate_Change/15.05%3A_Anthropogenic_Causes_of_Climate_Change)> accessed 17 January 2021.

Combating Climate Change in Kenya for Sustainable Development

implementation, many drivers of mitigation and adaptation are common, and solutions can be interrelated.¹⁵⁵

According to the *IPCC Fifth Assessment Report*:¹⁵⁶

“[T]he more human activities disrupt the climate, the greater the risks of severe, pervasive and irreversible impacts for people and ecosystems... [W]e have the means to limit climate change and its risks, with many solutions that allow for continued economic and human development. However, stabilizing temperature increase to below 2°C relative to pre-industrial levels will require an urgent and fundamental departure from business as usual.”

Combating climate for Sustainable Development in Kenya is indeed a goal that is achievable.

¹⁵⁵Grafakos, S., Pacteau, C., Delgado, M., Landauer, M., Lucon, O., and Driscoll, P. (2018). Integrating mitigation and adaptation: Opportunities and challenges. In Rosenzweig, C., W. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal, and S. Ali Ibrahim (eds.), *Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network*. Cambridge University Press. New York. 101–138, 102 < https://uccrn.ei.columbia.edu/sites/default/files/content/pubs/ARC3.2-PDF-Chapter-4-Mitigation-and-Adaptation-wecompress.com_.pdf > accessed 17 January 2021.

¹⁵⁶ ‘The Intergovernmental Panel on Climate Change’ (MIT Climate Portal) <<https://climate.mit.edu/explainers/intergovernmental-panel-climate-change>> accessed 21 January 2021.

Actualizing Africa's Green Dream

Abstract

The paper critically discusses the concept of 'green economy' in Africa. It argues that green growth is vital in Africa in the wake of the threat of climate change among other concerns. It further asserts that green growth in Africa can aid in achieving Sustainable Development by striking a balance between human development, environmental conservation and economic development. The paper examines the progress made towards achieving green growth in Africa. It further explores the challenges facing realization of green economy in Africa. The paper also proposes solutions towards actualizing Africa's green dream.

1. Introduction

The concept of 'greening' economies has become a pertinent concern in global politics in the wake of challenges facing the planet including the threat of climate change¹. Effects of climate change such as rising temperatures, drought, crop failure, desertification, depletion of natural resources, water scarcity and rising sea levels have had significant impacts on human development, economic development and environmental sustainability². Consequently, climate change mitigation and adaptation are vital in fostering Sustainable Development³. Proponents of green growth view it as an opportunity to strike a balance between human development, environmental conservation and economic development⁴. Greening growth can thus support the realization of Sustainable Development by taking into account environmental protection, economic development and social concerns which are key considerations in the Sustainable Development agenda⁵.

¹ Bergius. M., 'Towards a Green Modernization Development Discourse: The New Green Revolution in Africa.' *Journal of Political Ecology*, 2019

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

³ ³ 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 03/07/2022)

⁴ Bergius. M., 'Towards a Green Modernization Development Discourse: The New Green Revolution in Africa.' Op Cit

⁵ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1.

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The term 'green economy' has been defined as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities⁶. It has also been defined as policy focus that emphasizes environmentally sustainable economic progress to foster low-carbon, socially inclusive development⁷. Green Growth is one of the strategies to achieve sustainable development that focuses on greening conventional economic systems and developing a green economy, where economic prosperity can go hand-in-hand with ecological sustainability⁸. Various approaches have been taken towards greening economies. In the global North, the main components in the green economy transition have been technological and market-based solutions to existing industrial sectors as well as fiscal instruments in environmental governance⁹. Further, in the global South, green economy implementation majorly focuses on environmental protection along with modernization and shifts in access to and control over forestry, freshwater, fisheries, energy and agriculture among other natural resources¹⁰.

The paper critically examines actualization of Africa's green dream. It explores the progress made towards greening economies in Africa. The paper further discusses opportunities and challenges facing the attainment of green growth in Africa. It also suggests recommendations towards actualizing Africa's green dream for Sustainable Development.

⁶ United Nations Economic Commission for Europe., 'Greening the Economy: Mainstreaming the Environment into Economic Development.' Available at <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=796&menu=1515> (Accessed on 03/07/2023)

⁷ United Nations Economic and Social Commission for Asia and the Pacific., 'Green Growth Uptake in Asia-Pacific Region.' Available at https://unece.org/fileadmin/DAM/env/cep/CEP-20/ppp/Item10_b_ESCAP_GreenGrowthUptake_e_sm.pdf (Accessed on 03/07/2023)

⁸ Ibid

⁹ Bailey, I & Caprotti, F. 'The Green Economy: Functional Domains and Theoretical Directions of Enquiry.' *Environment and Planning*, No. 46 of 2014.

¹⁰ Ibid

2. Green Growth in Africa: Opportunities and Challenges

The concept of 'green economies' has received widespread attention since the Rio+20 conference.¹¹ The outcome of the Conference affirmed the role of green economy in the context of sustainable development and poverty eradication as one of the important tools available for achieving Sustainable Development¹². It calls upon states to embrace green economies as a tool of eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the Earth's ecosystems¹³. The outcome of the Rio+20 Conference further recognizes the importance of green economy in enhancing our ability to manage natural resources sustainably and with lower negative environmental impacts, increasing resource efficiency and reduction of waste¹⁴.

Since the outcome of the Rio+ 20 Conference, the concept of green economy has been embraced at the global, regional and national levels. The universal call for green growth is stipulated under the United Nations 2030 Agenda for Sustainable Development which envisions development which balances social, economic and environmental sustainability¹⁵. The Sustainable Development Goals seek to promote green economies through measures such as ensuring access to affordable and clean energy; promoting sustainable industrialization, innovation and infrastructure; promoting the growth of

¹¹ Bergius. M., 'Towards a Green Modernization Development Discourse: The New Green Revolution in Africa.' Op Cit

¹² United Nations., 'The Future we Want: Outcome document of the United Nations Conference on Sustainable Development held in Rio de Janeiro, Brazil, from 20-22 June 2012.' Available at <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf> (Accessed on 03/07/2023)

¹³ Ibid

¹⁴ Ibid

¹⁵ United Nations Development Programme., 'Sustainable Development Goals.' Available at https://www.google.com/search?q=undp&oq=UNDP&gs_lcrp=EgZjaHJvbWUqDwgAEAA YQxjiAhixAxiKBTIPCAAQABhDGOMCGLEDGIoFMhIIARAUgEMyXwEYsQMY0QM YigUyCQgCEAAyQxiKBTIJCAMQABhDGIoFMgYIBBBFGDwyBggFEEUYPDIGCAYQ RRg8MgYIBxBFGDzSAQgyNzM2ajFqN6gCALACAA&sourceid=chrome&ie=UTF-8 (Accessed on 03/07/2023)

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sustainable cities and communities and combating climate change¹⁶. Achieving the Sustainable Development agenda is essential in fostering green economies in Africa.

At the regional level, the *Africa Union's Agenda 2063* sets out the aspirations of prosperous Africa based on inclusive growth and Sustainable Development¹⁷. It seeks to achieve this goal through measures such as promoting sustainable and inclusive economic growth; ensuring sustainable management of natural resources in Africa; fostering sustainable consumption and production patterns; fostering climate resilience and natural disasters preparedness and prevention and embracing renewable energy in Africa¹⁸. Realizing the aspirations of Agenda 2063 is paramount in actualizing Africa's green dream. In addition, the *Agreement Establishing the African Continental Free Trade Area (AfCFTA)*¹⁹ seeks to promote and attain sustainable and inclusive socio-economic development in the region. It recognizes the need to promote sustainable development in accordance with the Sustainable Development Goals as vital in achieving the economic integration of the African continent²⁰. There is need to promote the vision of the AfCFTA in order to actualize Africa's green dream.

In Kenya, the Constitution embraces Sustainable Development as one of the national values and principles of governance²¹. It further encompasses several provisions that are vital in attaining green growth in Kenya including the recognition of the right to a clean and healthy environment²². The Constitution also stipulates certain obligations in respect of the environment which include ensuring sustainable exploitation, utilisation, management and conservation

¹⁶ Ibid

¹⁷ Africa Union., 'Agenda 2063: The Africa we Want.' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf (Accessed on 03/07/2023)

¹⁸ Ibid

¹⁹ African Union., 'Agreement Establishing the African Continental Free Trade Area.' Available at https://au.int/sites/default/files/treaties/36437-treaty-consolidated_text_on_cfta_-_en.pdf (Accessed on 03/07/2023)

²⁰ Ibid

²¹ Constitution of Kenya, 2010., Article 10 (2) (d), Government Printer, Nairobi.

²² Ibid, Article 42

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of the environment and natural resources; achieving and maintaining a tree cover of at least ten per cent of the land area of Kenya; establishing systems of environmental impact assessment, environmental audit and monitoring of the environment and eliminating processes and activities that are likely to endanger the environment²³. Implementing these among other provisions of the Constitution will enhance green growth in Kenya.

Green growth has been embraced in Africa through measures such as promoting the use of clean and renewable sources of energy. There have been increased investments in renewable sources of energy such as solar, wind, hydro, geothermal and green hydrogen²⁴. Clean and renewable sources of energy are essential in climate change mitigation and adaptation and actualizing the green dream²⁵. Agenda 2063 recognizes the importance of renewable sources of energy in ensuring environmental sustainability and climate resilient economies and communities towards attaining Sustainable Development in Africa²⁶. Africa has vast resource potential in wind, solar, hydro, and geothermal energy and falling costs are increasingly bringing renewables within reach²⁷. It has been pointed out that renewable sources of energy can help address many of Africa's social, economic, health and environmental challenges and foster the realization of a climate-safe future in which sustainable development prerogatives are met²⁸. There is need for increased investments in renewable sources of energy in Africa in order to actualize the green dream.

In addition, green revolution is also being witnessed in the agricultural sector in Africa. Technologies such as genetic engineering have been adopted to

²³ Ibid, Article 69

²⁴ Hafner. M et al., 'Prospects for Renewable Energy in Africa.' *Energy in Africa*, 2018, pp 47-75

²⁵ Crane. D., 'My Clean-Energy Green Dream.' Available at <https://www.greenbiz.com/article/myclean-energy-green-dream> (Accessed on 03/07/2023)

²⁶ Africa Union., 'Agenda 2063: The Africa we Want.' Op Cit

²⁷ International Renewable Energy Agency., 'Renewable Energy Market Analysis: Africa and its Regions.' Available at <https://www.irena.org/publications/2022/Jan/Renewable-Energy-Market-Analysis-Africa> (Accessed on 03/07/2023)

²⁸ Ibid

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transfer the nitrogen-fixing capabilities of legumes such as peas and beans into cereal crops²⁹. This has facilitated the attainment of higher yields, without the use of expensive fertilizers³⁰. This approach also aids in the reduction in the use of chemical nitrogen fertilizers, which contribute substantially to both carbon emissions and environmental pollution³¹. Some African countries have also adopted regenerative agricultural practices such as crop rotation, agroforestry, use of drought- and heat-resistant crops, integrated pest control systems, water harvesting and irrigation³². This has helped in fostering high-yielding, resilient, and adaptive practices that constitute an African approach to climate-smart agriculture³³. Greening of the agricultural sector is vital in actualizing Africa's green dream.

Further, there has been progress towards actualizing Africa's green dream through the adoption of sustainable waste management practices. Countries such as Rwanda and Kenya have banned the use of plastic bags due to their negative environmental impacts³⁴. This has promoted improved waste management and environmental conservation in these countries³⁵. In addition there has been growth of sustainability startups aimed at promoting efficient waste management through measures such as treatment, recycling of waste and conversion of waste into useful products such as compost and biofuel briquettes³⁶.

²⁹ Conrow. J., 'Borlaug's Dream is Being Realized.' Available at <https://allianceforscience.org/blog/2017/04/borlaugs-dream-is-being-realized/> (Accessed on 03/07/2023)

³⁰ Ibid

³¹ Ibid

³² Climate Champions. 'How Regenerative Agriculture Can Increase Africa's Food Production.' Available at <https://climatechampions.unfccc.int/call-to-action-for-climate-resilient-sustainable-food-systems-in-africa/> (Accessed on 03/07/2023)

³³ Ibid

³⁴ Behuria. P., 'Ban the (plastic) Bag? Explaining Variation in the Implementation of Plastic Bag Bans in Rwanda, Kenya and Uganda.' *EPC: Politics and Space*, 2021, P 1-18

³⁵ Ibid

³⁶ Forbes., 'Meet The African Green Entrepreneurs Showing the West How It's Done.' Available at <https://www.forbes.com/sites/davidrvetter/2021/12/14/meet-the-african-green-entrepreneurs-showing-the-west-how-its-done/?sh=6d46b5bf51cb> (Accessed on 03/07/2023)

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Progress has also been made towards fostering green growth in the African tourism sector through eco-resorts or family villages in countries such as Rwanda³⁷. Africa is a continent that is rich in cultural and ecological heritage and recreational development has been identified as one of the measures of promoting green growth in the tourism sector³⁸. This has enhanced sustainability and social growth through a combination of agriculture, the commitment of local businesses and educating and recruitment of local staff in such projects³⁹.

Despite the progress made towards actualizing Africa's green dream, several concerns have hindered the attainment of this ideal. It has been pointed out that the transition towards renewable energy has not been fully embraced due to factors such as insufficient investments with only 2% of global investments in renewable energy in the last two decades being made in Africa, with significant regional disparities⁴⁰. This has significantly affected access to clean cooking fuels and technologies in most parts of Africa⁴¹. Further, it has been asserted that African countries especially those in the North African region which have untapped renewable energy sources including hydrogen have struggled to meet their own renewable energy targets, often as a result of unattractive investment conditions, insufficiently developed legal frameworks for renewable energy development and uneven and inconsistent implementation of regulations⁴². It is necessary to address these challenges in order to actualize Africa's green dream in the energy sector.

³⁷ MTD., 'Green Dream Rwanda.' Available at <https://www.mtdls.nl/en/news/newsarchive/q/nid/337/title/green-dream-rwanda> (Accessed on 03/07/2023)

³⁸ Ibid

³⁹ Ibid

⁴⁰ International Renewable Energy Agency., 'Renewable Energy Market Analysis: Africa and its Regions.' Op Cit

⁴¹ Ibid

⁴² EN: Former., 'North Africa's Hydrogen Potential.' Available at https://www.enformer.com/en/north-africashydrogenpotential/?etcc_med=SEA&etcc_par=Google&etcc_cmp=Energysystems&etcc_grp=135634609600&etcc_bky=hydrogen%20africa&etcc_mty=p&etcc_plc=&etcc_ctv=580888668376&etcc_bde=c&etcc_var=CjwKCAjw44mlBhAQEiwAqP3eViMmP67xkwkqMl4FIRbBPvWOGaNcBckR9BJMhu0bOUf1s-OG4JKuwhoCga4QAvD_BwE&gad=1&gclid=CjwKCAjw44mlBhAQEiwAqP3eViMmP67

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In addition, it has been observed that agricultural practices that supported African communities in the past such as slash-and-burn cultivation and crop rotation are now driving the sector's decline⁴³. These practices combined with long-term ecological impacts of chemical-heavy farming systems contribute to land degradation and crop failure⁴⁴. The situation is worsened by changing weather patterns as result of the threat of climate change and unstable sociopolitical dynamics hindering the attainment of food security⁴⁵. There is need to address concerns in the agricultural sector in order to actualize Africa's green dream.

It also been asserted that despite the abundance of water resources in Africa including lakes, rivers, swamps and underground aquifers, there has been degradation and underutilization of these water resources⁴⁶. Concerns such as pollution, poor agricultural practices and the effects of climate change have affected the quality and quantity of water resources in Africa⁴⁷. This has hindered actualizing Africa's green dream in other areas including agriculture and food production, energy, manufacturing and processing, tourism and health due to the centrality of water in Africa's pursuit of the Sustainable Development Goals⁴⁸. It is imperative that concerns in the water sector be addressed in order to foster Sustainable Development and actualize Africa's green dream.

As a result of the foregoing concerns, it has been observed that Africa continues to lag behind other regions of the world in achieving the Sustainable

xkwwqMI4FIRbBPvWOgaNcBckR9BJMhu0bOUf1s-OG4JKuwhoCga4QAvD_BwE
(Accessed on 03/07/2023)

⁴³ African Wildlife Foundation., 'Sustainable Agriculture.' Available at <https://www.awf.org/community/sustainable-agriculture> (Accessed on 03/07/2023)

⁴⁴ Ibid

⁴⁵ Ibid

⁴⁶ Mugagga, F, & Nabaasa, B., 'The Centrality of Water Resources to the Realization of Sustainable Development Goals (SDG). A Review of Potentials and Constraints on the African Continent.' *International Soil and Water Conservation Research*, Volume 4, No. 3, 2016

⁴⁷ Ibid

⁴⁸ Ibid

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Development agenda⁴⁹. The continent has huge potential to achieve green growth and the transition into green economies. There is need to deal with the above concerns in order to actualize Africa's green dream.

3. Way Forward

In order to actualize Africa's green dream, it is necessary to upscale investments in green energy sources as renewable energy⁵⁰. The continent has vast potential for renewable sources for energy which remains untapped⁵¹. Challenges such as unattractive investment conditions, insufficiently developed legal frameworks for renewable energy development and uneven and inconsistent implementation of regulations have hindered attainment of the green dream in the energy sector in Africa⁵². African countries must address these concerns by creating attractive investment environments, developing efficient legal frameworks on renewable energy and implementing effective regulations in order to enhance the uptake of renewable sources of energy.⁵³ Further, there is need for adoption of market liberalization policies in the energy sector such as supporting public-private investment, improved private sector access to electricity generation and issuing of green bonds in order to promote renewable sources of energy in Africa⁵⁴. This will fast track realization of Africa's green dream in the energy sector.

Further, there is need to adopt green agricultural practices such as regenerative agriculture. Regenerative agricultural practices can aid in fostering climate resilient and sustainable green economies in Africa by avoiding the key problems of highly industrialized agriculture production that damage soil health, including vast tracts of mono-cultivated land, chemical runoffs, overexploitation of water resources, and high chemical and hormonal

⁴⁹ Begashaw. B., 'Africa and the Sustainable Development Goals: A long Way to go.' Available at <https://www.brookings.edu/articles/africa-and-the-sustainable-development-goals-a-long-way-to-go/> (Accessed on 03/07/2023)

⁵⁰ Hafner. M et al., 'Prospects for Renewable Energy in Africa.' Op Cit

⁵¹ Ibid

⁵² EN: Former., 'North Africa's Hydrogen Potential.' Op Cit

⁵³ Ibid

⁵⁴ Ibid

residue levels in food⁵⁵. This will promote the attainment of food security in Africa while also contributing towards climate change mitigation and adaptation in the quest towards Sustainable Development⁵⁶. African countries should thus adopt regenerative agricultural practices such as effective soil systems including no tilling and low tilling, crop rotation, use of drought and heat resistant crops, agroforestry, water harvesting, irrigation and green pest control measures⁵⁷. This will enhance actualization of the green dream in the agricultural sector in Africa.

In addition, it is vital to promote sustainable utilization and management of water resources in Africa. Water plays a fundamental role in the attainment of Sustainable Development. To this extent, it has been observed that there is a clear nexus between properly managed water resources, economic development and social wellbeing which are key pillars of the sustainable development agenda⁵⁸. The importance of water is recognized under the 2030 Agenda for Sustainable Development which seeks to ensure the availability and sustainable management of water and sanitation for all⁵⁹. However, challenges have been witnessed in the water sector in Africa such as degradation and underutilization of these water resources⁶⁰. It has been observed that sustainable management of water resources and access to safe water and sanitation are essential for unlocking economic growth and productivity, and providing significant leverage for existing investments in

⁵⁵ Climate Champions. 'How Regenerative Agriculture Can Increase Africa's Food Production.' Op Cit

⁵⁶ Davis. L.R et al., 'Farmer Led Regenerative Agriculture for Africa.' Available at <https://discovery.ucl.ac.uk/id/eprint/10106717/1/LunnRockliffe%2C%20Davies%20et%20al.%202020%20RA%20report.pdf> (Accessed on 03/07/2023)

⁵⁷ Ibid

⁵⁸ Koudstaal.R et al., 'Water and Sustainable Development' available at <https://www.ircwash.org/sites/default/files/210-92WA-11000.pdf> (Accessed on 03/07/2023)

⁵⁹ United Nations, Department of Economic and Social Affairs, Sustainable Development goal 6- clean water and sanitation, available at <https://sdgs.un.org/goals/goal6> (Accessed on 03/07/2023)

⁶⁰ Mugagga. F, & Nabaasa. B., 'The Centrality of Water Resources to the Realization of Sustainable Development Goals (SDG). A Review of Potentials and Constraints on the African Continent.' Op Cit

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health and education⁶¹. There is need to improve the management of water and water resources in Africa through measures such pollution control, effective waste management, use of water smart landscaping and irrigation and sustainable utilization of water through reusing among other measures⁶². This will promote the attainment of sustainable development goal 6 geared towards enhancing access to clean water and sanitation for all while also actualizing Africa's green dream in the water sector.

Further, Africa should adopt green value chains for minerals. It has been observed that Africa is endowed with a variety of minerals that are central to decarbonization such as the Democratic Republic of the Congo (DRC) which produces over 70% of the world's cobalt, DRC and Zambia which supply 10% of global copper and Mozambique and South Africa which hold significant reserves of graphite, platinum metals, lithium among other countries⁶³. It has been observed that the opportunities presented by the global green mineral boom and domestic achievements such as the African Continental Free-Trade Area can help facilitate development of regional value chains for green economy products in the mining sector⁶⁴. There is need to tap into these opportunities in order foster green value chains towards actualizing Africa's green dream.

Finally, Africa must fast track the attainment of the Sustainable Development goals and the Sustainable Development agenda. It has been argued that Africa continues to lag behind other regions of the world in achieving the Sustainable Development agenda⁶⁵. The continent has made slow progress in attaining

⁶¹ United Nations Environment Programme, 'Goal 6: Clean Water and Sanitation' available at <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-6> (Accessed on 03/07/2023)

⁶² Mugagga, F. & Nabaasa, B., 'The Centrality of Water Resources to the Realization of Sustainable Development Goals (SDG). A Review of Potentials and Constraints on the African Continent.' Op Cit

⁶³ Economic Commission for Africa., 'African Countries Urged to Prioritize Green Value Chains for Minerals.' Available at <https://www.un.org/africarenewal/magazine/february-2023/african-countries-urged-prioritize-green-value-chains-minerals> (Accessed on 03/07/2023)

⁶⁴ Ibid

⁶⁵ Begashaw, B., 'Africa and the Sustainable Development Goals: A long Way to go.' Op Cit

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goals such as ending extreme poverty, promoting access to clean water and sanitation, promoting quality education and achieving gender equality⁶⁶. There is need to enhance the attainment of Sustainable Development Goals in Africa through measures such as increased funding, improved public and private partnerships, strengthening domestic legislations, embracing technology and support from the international community⁶⁷. This will accelerate attainment of Sustainable Development in Africa whilst actualizing Africa's green dream.

4. Conclusion

The concept of 'green economy' is vital in fostering Sustainable Development at the global, regional and national levels⁶⁸. Green growth has been embraced in Africa through measures such as adoption of renewable sources of energy, regenerative agricultural practices and sustainable waste management⁶⁹. However, despite this progress, several concerns hinder effective attainment of green growth in Africa. These include insufficient investments in renewable energy, underutilization and degradation of water resources, poor agricultural practices in some areas and failure to accelerate attainment of the Sustainable Development Goals⁷⁰. There is need to address these challenges by upscaling investments in green energy sources such as renewable energy, adopting green agricultural practices such as regenerative agriculture, promoting sustainable utilization and management of water resources, adopting green value chains for minerals and fast tracking attainment of the Sustainable Development Goals⁷¹. This will enhance green growth and attainment of Sustainable Development in Africa. Actualizing Africa's Green Dream is an idea worth implementing.

⁶⁶ UNDP., 'New Africa SDGs Report shows Slow Progress, calls for Greater Action to Meet Targets.' Available at <https://www.undp.org/africa/press-releases/new-africa-sdgs-report-shows-slow-progress-calls-greater-action-meet-targets> (Accessed on 03/07/2023)

⁶⁷ Ibid

⁶⁸ Bergius. M., 'Towards a Green Modernization Development Discourse: The New Green Revolution in Africa.' Op Cit

⁶⁹ Climate Champions. 'How Regenerative Agriculture Can Increase Africa's Food Production.' Op Cit

⁷⁰ Begashaw. B., 'Africa and the Sustainable Development Goals: A long Way to go.' Op Cit

⁷¹ UNDP., 'New Africa SDGs Report shows Slow Progress, Calls for Greater Action to Meet Targets.' Op Cit

Linking Alternative Dispute Resolution (ADR) and Environmental, Social and Governance (ESG) Tenets for Sustainable Development

Abstract

The paper focuses on the nexus between Alternative Dispute Resolution (ADR) mechanisms and Environmental, Social and Governance (ESG) tenets. It argues that linking ADR and ESG tenets can foster the realization of the Sustainable Development agenda. The paper gives an overview of the concepts of ADR, ESG and Sustainable Development. It then critically examines the relationship between ADR mechanisms and ESG tenets and highlights some of the fundamental concerns thereof. The paper further suggests measures through which ADR mechanisms can be linked with ESG tenets in order to achieve Sustainable Development.

1. Introduction

Alternative Dispute Resolution (ADR) has been defined as an all-encompassing term that entails multiple non-judicial methods of managing conflicts¹. ADR has also been defined as a set of mechanisms for resolving conflicts that function outside formal court litigation processes². ADR thus generally refers to a set of processes that are used to manage conflicts without resort to courts³. These mechanisms include negotiation, mediation, arbitration, adjudication, neutral evaluation, enquiry, expert determination and conciliation⁴. In Kenya, ADR mechanisms have been recognized under the Constitution which mandates courts and tribunals to promote alternative forms of dispute resolution⁵. ADR mechanisms have been hailed for their advantages which include informality, privacy, confidentiality, party autonomy and the ability to foster expeditious and cost effective management of disputes⁶. ADR mechanisms are thus viable in enhancing access to justice.

¹ Block. M. J., 'The Benefits of Alternate Dispute Resolution for International Commercial and Intellectual Property Disputes.' *Rutgers Law Record.*, Volume 44, 2016-2017

² Uwazie. E., 'Alternative Dispute Resolution in Africa: Preventing Conflict and Enhancing Stability.' *Africa Security Brief*, No. 16 of 2011

³ Muigua. K., 'Alternative Dispute Resolution and Access to Justice in Kenya.' Glenwood Publishers Limited, 2015

⁴ Ibid

⁵ Constitution of Kenya, 2010, article 159 (2) (c), Government Printer, Nairobi

⁶ Muigua. K., 'Alternative Dispute Resolution and Access to Justice in Kenya.' Op Cit

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Issues such as climate change, corporate corruption and financial inequality have become pressing global concerns⁷. In turn, corporations have faced growing calls to be more environmentally sustainable, socially responsible and culturally transparent in how they run business⁸. This has led to the emergence of the concept of Environmental, Social and Governance (ESG). This is a concept that seeks to achieve sustainable, responsible and ethical investment by incorporating Environmental, Social and Governance concerns in corporate decision making⁹. ESG is usually a standard and strategy used by investors to evaluate corporate behaviour and to determine the future financial performance of companies¹⁰. ESG entails a subset of non-financial performance indicators which include sustainable, ethical and corporate governance issues such as managing a company's carbon footprint and ensuring there are systems in place to ensure accountability¹¹. It involves monitoring and reporting environmental concerns such as carbon emissions, water consumption and waste generation; social concerns such as employee, product and customer related data and governance concerns such as political lobbying, anti-corruption initiatives and board diversity¹². The goal of ESG is to integrate Environmental, Social and Governance factors in corporate activities in order to enhance the sustainability and social impact of business activities¹³. ESG concerns have never been more important. They play into everything; increasingly driving investment decisions and commercial contracts to company strategy and culture¹⁴. The concept of ESG is pertinent

⁷ CMS., 'Putting the 'S' in 'ESG'- a Corporate Guide.' Available at <https://cms.law/en/int/publication/social-aspect-of-esg-lexicon-of-most-important-terms-and-phrases> (Accessed on 11/07/2023)

⁸ Ibid

⁹ Stuart. L.G et al., 'Firms and social responsibility: A review of ESG and CSR research in corporate finance.' *Journal of Corporate Finance* 66 (2021): 101889.

¹⁰ Li. T.T et al., 'ESG: Research Progress and Future Prospects.' *Sustainability*, No. 13 of 2021.

¹¹ Stuart. L.G et al., 'Firms and social responsibility: A review of ESG and CSR research in corporate finance.' Op Cit

¹² Ibid

¹³ Li. T.T et al., 'ESG: Research Progress and Future Prospects.' Op Cit

¹⁴ Lexology., 'Real Estate Disputes and ESG - A Rise in Mediation?' Available at <https://www.lexology.com/library/detail.aspx?g=75560ce7-518f-4ea4-9dbb-399c2feedf9a> (Accessed on 11/07/2023)

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since Environmental, Social and Governance concerns have become a societal focal point in light of the Sustainable Development agenda¹⁵.

Sustainable Development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs¹⁶. It combines elements such as environmental protection, economic development and social concerns¹⁷. The importance of this concept led to the adoption of the 2030 Agenda for Sustainable Development by member states of the United Nations in 2015 as a shared blue print for peace and prosperity for people and the planet in the quest towards the ideal of Sustainable Development¹⁸. At the heart of the 2030 Agenda for Sustainable Development are 17 Sustainable Development Goals which seek to strike a balance between social, economic and environmental sustainability¹⁹. The Sustainable Development Goals seek to achieve global development within the ESG framework by addressing social concerns such as poverty, hunger, health, education, gender equality, access to clean water and employment through investments in areas such as energy, industry, innovation and infrastructure while mitigating the effects of climate change²⁰. The paper critically examines the relationship between ADR and ESG. It has been posited that ADR mechanisms such as arbitration and mediation can be used to enforce ESG requirements such as human rights, environmental

¹⁵ Sriyani. C. & Heenetigala. K., 'Integrating Environmental, Social and Governance (ESG) Disclosure for a Sustainable Development: An Australian Study.' *Business Strategy and the Environment*, No. 26 of 2017.

¹⁶ World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

¹⁷ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1.

¹⁸ 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 08/07/2023)

¹⁹ Ibid

²⁰ Ibid

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compliance and good corporate governance²¹. The paper explores some of the ESG concerns in ADR. It further discusses practical ways through which ADR mechanisms can be used to realize ESG tenets in the quest towards Sustainable Development.

2. The Nexus between ADR and ESG

It has been pointed out that ADR mechanisms such as arbitration can aid in enforcing ESG concerns including human rights standards²². Business entities such as Multinational Corporations have been accused of perpetrating human right abuses through acts such as killings, rape, and other forms of sexual and gender-based violence, bad labour practices, displacement of people and land injustices against the neighbouring communities while undertaking investment activities in developing countries²³. Further, the activities of multinational corporations especially those involved in the exploration of natural resources have resulted in environmental concerns such as environmental degradation, extinction of biodiversity, contamination and destruction of soil and air pollution affecting the socio-economic lives of indigenous populations²⁴. This affects realizing the Environmental and Social tenets of the ESG framework²⁵. ADR mechanisms can thus be used to enforce ESG standards by holding businesses responsible for violation of environmental and human rights standards²⁶. Indeed there has been rise in investment treaty arbitration across the globe including Africa where Multinational Corporations are contractually bound through investment treaties to comply with ESG standards such as environmental governance and respect for human rights and are further subjected to ADR mechanisms especially arbitration when they violate ESG requirements stipulated in

²¹ Gramatidis, B. & Emvalomenos, D., 'Sustainability in Dispute Resolution -Mediation as an ESG Practice.' Available at <https://www.bahagram.com/sustainability-in-dispute-resolution-mediation-as-an-esg-practice/> (Accessed on 08/07/2023)

²² Ajibade, L.T & Awomuti, A.A. 'Petroleum Exploitation or Human Exploitation? An Overview of Niger Delta Oil Producing Communities in Nigeria' *African Research Review*, Vol. 3 (1), 2009. Pp. 111-124

²³ Ibid

²⁴ Ibid

²⁵ Li, T.T et al., 'ESG: Research Progress and Future Prospects.' Op Cit

²⁶ Ismayilova, A & Jedrzejowski, P., 'ESG and ADR.' Available at <https://www.cpradr.org/news/at-the-council--esg-and-adr##> (Accessed on 11/07/2023)

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investment treaties²⁷. Further, the *United Nations Guiding Principles on Business and Human Rights* provide a framework for realizing Environmental, Social and Governance standards by enshrining the corporate responsibility to respect human rights towards attaining the ESG pillars through sound environmental management, protection of human rights and good corporate governance²⁸. The *Hague Rules on Business and Human Rights Arbitration* flow from the UN Guiding Principles on Business and Human Rights and provide a framework through which business entities can be compelled to comply with ESG standards through arbitration²⁹. The nexus between ADR and ESG is therefore demonstrated through the use of ADR mechanisms to enforce ESG tenets.

ADR mechanisms are also ideal in managing ESG disputes by fostering privacy, cost effective and expeditious management of disputes while also allowing parties to select experts to hear and determine contentious ESG matters³⁰. Business would normally prefer to have their disputes managed in a private manner in order to prevent ruining their image in public and also in an expeditious and cost effective manner in order to protect business interests³¹. ADR mechanisms such as International Commercial Arbitration and International Commercial Mediation allows businesses to attain these benefits by ensuring privacy, confidentiality, cost effectiveness and expeditiousness in management of disputes and further promoting the

²⁷ Dagbanja, D., 'The Environment, Human Rights, and Investment Treaties in Africa: A Constitutional Perspective.' *Handbook on International Investment Law and Policy*, 2020, P 1-30

²⁸ United Nations Guiding Principles on Business and Human Rights., Available at https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf (Accessed on 11/07/2023)

²⁹ The Hague Rules on Business and Human Rights Arbitration., Available at https://www.cilc.nl/cms/wp-content/uploads/2019/12/The-Hague-Rules-on-Business-and-Human-Rights-Arbitration_CILC-digital-version.pdf (Accessed on 11/07/2023)

³⁰ Thailand Arbitration Center., 'Alternative Dispute Resolution: Significance of ESG in Arbitration.' Available at <https://thac.or.th/alternative-dispute-resolution-significance-esg-arbitration/> (Accessed on 11/07/2023)

³¹ Ibid

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enforceability of decisions³². ADR mechanisms also allow business to select expert decision makers such as arbitrators and mediators who are knowledgeable on ESG issues such as human rights, renewable energy and climate change thus fostering effective and efficient management of disputes³³. The growing interest of governments, regulators, Non-Governmental Organisations (NGOs) and private companies in ESG has led to a corresponding increase in the number of disputes involving ESG concerns³⁴. Such disputes may be cross border in nature therefore requiring interpretation of laws from different nations³⁵. ADR mechanisms such as International Commercial Arbitration and International Commercial Mediation are thus ideal in managing ESG related disputes since they have a transnational applicability and can foster privacy, confidentiality, expeditious and cost effective management of disputes. Further, mechanisms such as arbitration can ensure grant of interim reliefs in ESG related disputes important in instances like irreversible environmental damage or gross violation of human rights³⁶. Injunctive relief can be obtained in an expedited manner, and since ESG disputes usually require initial adjudication that cannot be delayed, injunctive reliefs from arbitration proceedings are best suited for such purposes³⁷. For instance, in the event that a business practice could cause irreparable environmental damage, the parties concerned could take advantage of emergency arbitration procedures before the constitution of the arbitral tribunal³⁸. It has also been pointed out that the use of ADR mechanisms such as mediation in managing ESG related disputes is a practical

³² Moses. M., 'The Principles and Practice of International Commercial Arbitration.' Cambridge University Press, 2017

³³ Muigua. K., 'The Viability of Arbitration in management of Climate Change Related Disputes in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2022/04/The-Viability-of-Arbitration-in-management-of-Climite-Change-Related-Disputes-in-Kenya-11th-April-2022.pdf> (Accessed on 11/07/2023)

³⁴ Financier Worldwide., 'The Rise of ESG Disputes and the Role of Arbitration in Resolving Them.' Available at <https://www.financierworldwide.com/the-rise-of-esg-disputes-and-the-role-of-arbitration-in-resolving-them> (Accessed on 11/07/2023)

³⁵ Ibid

³⁶ Mondaq., 'International Arbitration and ESG: A New Trend in Dispute Resolution.' Available at <https://www.mondaq.com/pdf/1273354.pdf> (Accessed on 11/07/2023)

³⁷ Ibid

³⁸ Ibid

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demonstration of a sustainability-oriented business culture since mediation can offer a quick, flexible, consensual and win-win solution based on the mutually accepted interests of the parties³⁹. Consequently, it has been asserted that mediation is an ESG tool and its use adds ESG value to businesses⁴⁰. It is thus ideal in managing ESG disputes including real estate disputes, environmental disputes and disputes relating to consumer and business relationships⁴¹. ADR mechanisms are thus viable in managing ESG related disputes.

In addition, it has been argued that parties can use ADR mechanisms such as negotiation to achieve ESG requirements at workplaces such as fair labour practices that entails the right to equal pay, workplace safety and leave among other entitlements⁴². Fair labour practices are a crucial component of the 'Social' pillar in the ESG debate⁴³. Social factors in the ESG debate include working conditions, health and safety, employee relations, diversity, equity & inclusion, operations in conflict regions, and a vast array of further topics connected with sustainable labour relations⁴⁴. It has been pointed out that negotiation is a big part of life and can be used effectively at workplaces by employees to negotiate with their employers for favorable working terms and conditions including fair labor practices which are vital in the ESG debate⁴⁵. Negotiation has been described as an informal process that involves the parties meeting to identify and discuss issues at hand so as to arrive at a mutually

³⁹ Gramatidis.B & Emvalomenos. D., '*Sustainability in Dispute Resolution -Mediation as an ESG Practice.*' Op Cit

⁴⁰ Ibid

⁴¹ Lexology., '*Real Estate Disputes and ESG - A Rise in Mediation?*' Op Cit; See also Teixeira. A., '*The ESG Concept and Mediation.*' Available at <https://www.linkedin.com/pulse/esg-concept-mediation-antonio-carlos-menezes-teixeira/> (Accessed on 11/07/2023)

⁴² ESG., '*The Path to Equal Pay is Through Negotiation.*' Available at <https://esgnews.bg/en/the-path-to-equal-pay-is-through-negotiation/> (Accessed on 11/07/2023b)

⁴³ Stuart. L.G et al., '*Firms and social responsibility: A review of ESG and CSR research in corporate finance.*' Op Cit

⁴⁴ CMS., '*Putting the 'S' in 'ESG' - a Corporate Guide.*' Op Cit

⁴⁵ ESG., '*The Path to Equal Pay is Through Negotiation.*' Op Cit

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acceptable solution without the help of a third party⁴⁶. It can facilitate parties in coming up with creative solutions in various contexts including the workplace⁴⁷. ADR mechanisms such as negotiation are thus viable in achieving ESG requirements by businesses such as fair labour practices.

It is thus evident that ADR and ESG are interrelated concepts. ADR mechanisms can foster efficient management of ESG related disputes such as those concerning human rights and climate change⁴⁸. Further, ADR mechanisms such as arbitration can aid in enforcing ESG concerns including human rights standards⁴⁹. In addition, mechanisms such negotiation can be used to achieve ESG requirements at workplaces such as fair labour practices⁵⁰. Linking ADR and ESG tenets is thus vital in fostering Sustainable Development by addressing social concerns such as poverty, hunger, health, education, gender equality, access to clean water and employment through investments in areas such as energy, industry, innovation and infrastructure while mitigating the effects of climate change as envisaged under the United Nations 2030 Agenda for Sustainable Development⁵¹. It is therefore imperative to link ADR and ESG tenets in order to achieve Sustainable Development.

3. Way Forward

There is need to link ADR and ESG tenets in order to expedite the realization of the Sustainable Development agenda across the globe. One way through which this goal can be achieved is by incorporating ESG clauses in commercial contracts such as those concerning respect for human rights, environmental management and climate change⁵². This can ensure enforcement and

⁴⁶ Muigua. K., 'Alternative Dispute Resolution and Access to Justice in Kenya.' Op Cit

⁴⁷ ESG., 'The Path to Equal Pay is Through Negotiation.' Op Cit

⁴⁸ Thailand Arbitration Center., 'Alternative Dispute Resolution: Significance of ESG in Arbitration.' Op Cit

⁴⁹ Ajibade, L.T & Awomuti, A.A. 'Petroleum Exploitation or Human Exploitation? An Overview of Niger Delta Oil Producing Communities in Nigeria' Op Cit

⁵⁰ ESG., 'The Path to Equal Pay is Through Negotiation.' Op Cit

⁵¹ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Op Cit

⁵² Millar. L., 'Reviewing and Negotiating Climate Change and other ESG clauses in Commercial Contracts.' Available at <http://in-houseblog.practicallaw.com/reviewing->

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compliance with ESG requirements by businesses⁵³. In addition, parties should consider managing disputes concerning ESG requirements through ADR mechanisms such as arbitration and mediation. It has been observed that ESG disputes are increasingly being managed through ADR mechanisms such as arbitration which are very suitable means of resolving ESG related disputes⁵⁴. Businesses should tap into this opportunity and embrace ADR mechanisms in managing ESG disputes in order to promote flexibility, privacy, confidentiality, expeditiousness and cost effective management of such disputes⁵⁵.

In addition, it is imperative for ADR practitioners such as arbitrators, mediators and adjudicators become familiar with ESG-related trends, regulations and standards, and ensure that they are proactive in complying with best practices so as to promote appropriate ADR procedures for ESG-related disputes⁵⁶. ADR practitioners should also seek expert assistance on complex ESG matters such as determining compliance with climate change commitments⁵⁷. Organizations can also seek expertise from qualified personnel to help them navigate the complexity of ESG and put in place measures to ensure compliance with ESG standards⁵⁸.

It is also pertinent for organizations to uphold ESG practices such as green innovation in order to foster Sustainable Development⁵⁹. Green innovation

and-negotiating-climate-change-and-other-esg-clauses-in-commercial-contracts/ (Accessed on 12/07/2023)

⁵³ Ibid

⁵⁴ Mondaq., 'International Arbitration and ESG: A New Trend in Dispute Resolution.' Op Cit

⁵⁵ Thailand Arbitration Center., 'Alternative Dispute Resolution: Significance of ESG in Arbitration.' Op Cit

⁵⁶ Mondaq., 'International Arbitration and ESG: A New Trend in Dispute Resolution.' Op Cit

⁵⁷ Muigua. K., 'The Viability of Arbitration in management of Climate Change Related Disputes in Kenya.' Op Cit

⁵⁸ CEDR., 'Environmental, Social and Governance (ESG) Expertise.' Available at <https://www.cedr.com/commercial/esg/> (Accessed on 12/07/2023)

⁵⁹ Zhang. F et al., 'The Interaction Effect between ESG and Green Innovation and Its Impact on Firm Value from the Perspective of Information Disclosure.' Available at

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incorporates technological improvements that save energy, prevent pollution or enable waste recycling and can include green product design⁶⁰. This will ensure compliance with ESG requirements such as environmental protection while promoting the financial performance of organizations⁶¹. In the context of ADR, it is essential for practitioners such as mediators, arbitrators and adjudicators to embrace sustainable practice through measures such as the use of electronic correspondence and electronic submissions; avoiding printing unnecessarily and promoting the use of electronic bundles at hearings; encouraging the use of videoconferencing facilities as an alternative to travel, where appropriate (including for the purpose of fact-finding interviews with witnesses and cross-examination of witnesses or experts); selecting suppliers and service providers that are committed to reducing their environmental impact; and avoiding unnecessary travel and offsetting carbon emissions for ADR-related travel⁶². This will enhance Sustainable Development while also achieving ESG tenets such as sound environmental management. ADR practitioners such as arbitrators should also ensure that their awards promote ESG tenets such as respect for human rights⁶³. It is also imperative for ADR practitioners to enforce good governance practices such as transparency,

<https://pdfs.semanticscholar.org/103a/4aa7542fe368e99c42614c11b05a1f4097d7.pdf>
(Accessed on 12/07/2023)

⁶⁰ Chouaibi. S & Chouaibi. J., 'ESG and Corporate Financial Performance: The Mediating Role of Green Innovation: UK common Law versus Germany Civil Law.' Available at https://www.researchgate.net/profile/Jamel-Chouaibi/publication/348476713_ESG_and_corporate_financial_performance_the_mediating_role_of_green_innovation_UK_common_law_versus_Germany_civil_law/links/61fedadd702c892cef07ac56/ESG-and-corporate-financial-performance-the-mediating-role-of-green-innovation-UK-common-law-versus-Germany-civil-law.pdf
(Accessed on 12/07/2023)

⁶¹ Ibid

⁶² Muigua. K., 'Green Arbitration: Aligning Arbitration with Sustainable Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/04/Green-Arbitration-Aligning-Arbitration-with-Sustainable-Development-Kariuki-Muigua-April-2023.pdf> (Accessed on 12/07/2023)

⁶³ Muigua. K., 'Reflections on Human Rights in Arbitration.' Available at <http://kmco.co.ke/wp-content/uploads/2023/06/Reflections-on-Human-Rights-in-Arbitration.pdf> (Accessed on 12/07/2023)

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accountability, reporting and disclosure in their decisions⁶⁴. This is will enhance good governance which is a vital component of the ESG discourse⁶⁵. Through these among other measures, Sustainable Development will be achieved through linking ADR and ESG tenets.

4. Conclusion

ADR and ESG are connected concepts. ADR mechanisms such as arbitration, mediation and adjudication are viable in managing ESG related disputes⁶⁶. ADR mechanisms can also aid in enforcing ESG standards including sound environmental management, respect for human rights and good governance⁶⁷. Connecting ADR and ESG tenets is thus vital in realizing Sustainable Development by addressing social concerns such as poverty, hunger, health, education, gender equality, access to clean water and employment through investments in areas such as energy, industry, innovation and infrastructure while mitigating the effects of climate change as envisaged under the United Nations 2030 Agenda for Sustainable Development⁶⁸. Linking ADR and ESG tenets for Sustainable Development is a quest worth pursuing.

⁶⁴ Mazhorina. M., 'ESG Principles in International Business and Sustainable Contracts.' Available at https://aprp.msal.ru/jour/article/view/3223?locale=en_US (Accessed on 12/07/2023)

⁶⁵ Ibid

⁶⁶ Thailand Arbitration Center., 'Alternative Dispute Resolution: Significance of ESG in Arbitration.' Op Cit

⁶⁷ Mazhorina. M., 'ESG Principles in International Business and Sustainable Contracts.' Op Cit

⁶⁸ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Op Cit

Taking Urgent Action to Combat Climate Change

Abstract

The paper probes the global response towards climate change. It examines measures adopted towards combating climate change at the global, regional and national levels including legal, institutional and policy approaches. It also explores the idea of climate action and the role of other stakeholders in confronting climate change. The paper further discusses the efficacy of the measures adopted towards tackling climate change and suggests recommendations towards enhancing the global response to climate change.

1. Introduction

Climate change refers to the long term shift in global or regional climate patterns and is often associated with the rise in global temperatures from the mid-20th century to present¹. It has also been described as the global phenomenon of climate transformation characterized by the changes in the usual climate of the planet (regarding temperature, precipitation, and wind) that are especially caused by human activities². The *United Nations Framework Convention on Climate Change* (UNFCCC) defines climate change as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods³. Climate change therefore refers to long term shifts in temperatures and weather patterns. It has been observed that such shifts can be natural, due to factors such as changes in the sun's activity or large volcanic eruptions⁴. However, human activities have been the main drivers of climate change due to the burning of

¹ National Geographic., 'Climate Change.' Available at <https://education.nationalgeographic.org/resource/climate-change/> (Accessed on 20/09/2023)

² Climate Change., 'Meaning, Definition, Causes, Examples and Consequences.' Available at <https://youmatter.world/en/definition/climate-change-meaning-definition-causes-and-consequences/> (Accessed on 20/09/2023)

³ United Nations Framework Convention on Climate Change., United Nations, 1992., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 20/09/2023)

⁴ United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 20/09/2023)

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fossil fuels like coal, oil and gas⁵. Human activities have increased the concentration of atmospheric carbon dioxide resulting to the greenhouse effect which contributes to global warming and climate change⁶.

Climate change is an undesirable phenomenon that affects realization of the Sustainable Development agenda across the world by affecting the sustainability of the planet's ecosystems, the stability of the global economy and the future of humankind⁷. The consequences of climate change such as intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are being witnessed across the world⁸. Rising temperatures caused by climate change have made storms and droughts more severe⁹. For example, climate change has resulted in the worst drought in 40 years in the Horn of Africa after five consecutive years of below-average rainfall¹⁰. The drought has affected approximately 50 million people resulting in food insecurity, displacement of people and further threatening human health as a result of malnutrition¹¹.

Further, catastrophic storms brought about by climate change have destroyed lives and homes¹². From June to October 2022, Pakistan suffered extreme flooding which resulted in the deaths of over 1,700 people, destroyed around 2 million homes, and swept away almost half the country's cropland¹³. The

⁵ Ibid

⁶ Ibid

⁷ Climate Change., 'Meaning, Definition, Causes, Examples and Consequences.' Op Cit

⁸ United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 20/09/2023)

⁹ UN Women., 'SDG 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-13-climate-action> (Accessed on 20/09/2023)

¹⁰ Harvey. F., 'Human-Driven Climate Crisis Fuelling Horn of Africa Drought – Study.' Available at <https://www.theguardian.com/environment/2023/apr/27/human-driven-climate-crisis-fuelling-horn-of-africa-drought-study> (Accessed on 20/09/2023)

¹¹ Ibid

¹² UN Women., 'SDG 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

¹³ Giles. M., 'The Principles of Climate Justice at CoP27.' Available at <https://earth.org/principles->

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flooding was caused by heavier than usual monsoon rains and melting glaciers in the country's northern region that followed a severe heat wave all which are factors linked to climate change¹⁴. Recently, in September 2023, Libya suffered devastating floods that resulted in the death of over 5,000 people and destruction of property¹⁵. Climate change has been attributed as one of the causes of the flooding by intensifying the severity of Storm Daniel that resulted in the severe rainfalls¹⁶.

In addition, sea level rise threatens low-lying areas such as small island nations. It has been observed that sea level rise, increasing temperatures and frequency and intensity of tropical cyclones, and storm surges are some of the climate change impacts facing island nations, some of which are in low-lying areas of just 5 meters above sea level at the highest point making them more vulnerable to these impacts¹⁷. Climate change therefore hinders the Sustainable Development agenda by affecting human health, food security, housing, safety and work while simultaneously threatening the environment and natural ecosystems¹⁸.

Due to the foregoing concerns, climate change has been described as the most defining challenge of our time¹⁹. It is the main global challenge that is affecting both developed and developing countries in their efforts towards realization of the Sustainable Development agenda²⁰. The United Nations 2030 Agenda for Sustainable Development acknowledges that climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability

ofclimatejustice/#:~:text=That%20response%20should%20be%20based,the%20consequences%20of%20climate%20change (Accessed on 20/09/2023)

¹⁴ Ibid

¹⁵ Marshall. M., 'Libya Floods: How Climate Change Intensified the Death and Devastation.' Available at <https://www.nature.com/articles/d41586-023-02899-6> (Accessed on 20/09/2023)

¹⁶ Ibid

¹⁷ Bafana. B., 'Climate Change is No 'Future Scenario' for Pacific Island Nations; Climate Change is 'Real' Available at <https://reliefweb.int/report/world/climate-change-no-future-scenario-pacific-islandnations-climate-change-real> (Accessed on 20/09/2023)

¹⁸ United Nations., 'What is Climate Change?' Op Cit

¹⁹ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Glenwood Publishers Limited, 2021

²⁰ Ibid

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of all countries to achieve Sustainable Development²¹. It has been argued that if left unchecked, climate change will undo a lot of the development progress made over the past years and will also provoke mass migrations that will lead to instability and wars²². Climate change has thus risen to the top of the policy agenda, at local, national, and global levels²³. There have been global calls on governments and all other stakeholders to put in place measures towards responding to the threat of climate change and ensuring that economies are climate resilient²⁴. Urgent and transformative action is required to combat climate change and achieve Sustainable Development²⁵. Responding to climate change is one of the fundamental goals under the United Nation's 2030 Agenda for Sustainable Development²⁶. Sustainable Development Goal 13 calls upon countries to take urgent actions towards combating climate change and its impacts²⁷.

The paper probes the global response towards climate change. It examines measures adopted towards combating climate change at the global, regional and national levels include legal, institutional and policy approaches. It also explores the idea of climate action and the role of various stakeholders in confronting climate change. The paper further discusses the efficacy of the measures adopted towards tackling climate change and suggests recommendations towards enhancing the global response to climate change.

²¹ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1

²² United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://www.un.org/sustainabledevelopment/climate-change/> (Accessed on 20/09/2023)

²³ United Nations Department of Economic and Social Affairs., 'Forum on Climate Change and Science and Technology Innovation.' Available at <https://www.un.org/en/desa/forum-climate-change-and-science-and-technology-innovation> (Accessed on 20/09/2023)

²⁴ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Op Cit

²⁵ United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

²⁶ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' Op Cit

²⁷ Ibid, Sustainable Development Goal, 13

2. Global Response to Climate Change

The threat of climate change has resulted in international, regional and national responses aimed at confronting the problem²⁸. The 2030 Agenda for Sustainable Development emphasizes the need to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations²⁹. Sustainable Development Goal (SDG) 13 urges all countries to take urgent action to combat climate change and its impacts through several mechanisms³⁰. These include strengthening resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; integrating climate change measures into national policies, strategies and planning; improving education, awareness-raising, human, and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; implementing the commitment undertaken by developed country parties to the UNFCCC to mobilize jointly \$ 100 billion annually by 2020 to support developing countries and promoting mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states, including focus on women, youth and local and marginalized communities³¹. SDG 13 therefore sets the global threshold towards responding to climate change by stipulating actions designed to help all countries take urgent action to combat climate change.

The *United Nations Framework Convention on Climate Change* (UNFCCC) is the primary international, intergovernmental forum for negotiating the global response to climate change³². The UNFCCC entered into force on 21st March 1994 as the first international legal instrument that focuses on climate change

²⁸ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Op Cit

²⁹ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' Op Cit

³⁰ United Nations., 'Sustainable Development Goal 13' Available at <https://sdgs.un.org/goals/goal13> (Accessed on 21/09/2023)

³¹ Ibid

³² United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' Op Cit

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and sets out measures towards addressing the problem³³. The objective of the UNFCCC is to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system³⁴. It states that such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner³⁵.

The Convention acknowledges the vulnerability of all countries to the effects of climate change and calls for special efforts to ease the consequences, especially in developing countries which lack the resources to do so on their own³⁶. Industrialized nations agree under the Convention to support climate change activities in developing countries by providing financial support for action on climate change above and beyond any financial assistance they already provide to these countries³⁷. Among the key principles of the Convention is the idea of *Common But Differentiated Responsibilities (CBDR)*³⁸. Under this principle, parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities³⁹. The UNFCCC further enshrines various commitments by member states towards confronting climate change. These include promoting and cooperating in the development, application and diffusion, including transfer, of technologies, practices and processes aimed at combating climate change; cooperating in preparing for adaptation to the impacts of climate change; taking climate change considerations into account in social, economic and environmental policies; promoting and cooperating in

³³ United Nations Framework Convention on Climate Change., 'What is the United Nations Framework Convention on Climate Change?' Available at <https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change> (Accessed on 20/09/2023)

³⁴ United Nations Framework Convention on Climate Change., United Nations, 1992., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 20/09/2023)

³⁵ Ibid, Article 2

³⁶ Ibid

³⁷ Ibid

³⁸ Ibid, Article 3 (1)

³⁹ Ibid

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scientific, technological, technical, socio-economic and other research on climate change and promoting and cooperating in education, training and public awareness related to climate change⁴⁰. The UNFCCC is therefore an important milestone in the global response towards climate change. The UNFCCC gave birth to the *Kyoto Protocol*⁴¹ and *Paris Agreement*⁴² which have enhanced the global response to climate change.

The *Kyoto Protocol* to the UNFCCC was adopted on 11th December 1997⁴³. The Protocol operationalizes the UNFCCC by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets⁴⁴. The Protocol only binds developed countries, and places a heavier burden on them under the principle of *Common But Differentiated Responsibilities and respective capabilities* since it recognizes that they are largely responsible for the current high levels of greenhouse gas emissions in the atmosphere⁴⁵. It requires these countries to implement measures and policies geared towards achieving their emission limitation and reduction commitments towards combating climate change⁴⁶. These include enhancement of energy efficiency; promotion of sustainable forms of agriculture in light of climate change considerations; research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies and cooperation between states to enhance the individual and combined

⁴⁰ Ibid, Article 4

⁴¹ United Nations Framework Convention on Climate Change., 'Kyoto Protocol to the United Nations Framework Convention on Climate Change.' Available at <https://unfccc.int/resource/docs/convkp/kpeng.pdf> (Accessed on 20/09/2023)

⁴² United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (Accessed on 20/09/2023)

⁴³ United Nations Framework Convention on Climate Change., 'Kyoto Protocol to the United Nations Framework Convention on Climate Change.' Op Cit

⁴⁴ United Nations Climate Change., 'What is the Kyoto Protocol?' Available at https://unfccc.int/kyoto_protocol (Accessed on 21/09/2023)

⁴⁵ Ibid

⁴⁶ United Nations Framework Convention on Climate Change., 'Kyoto Protocol to the United Nations Framework Convention on Climate Change.' Article 2

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effectiveness of their policies and measures adopted towards confronting climate change⁴⁷.

During the first commitment period of the Kyoto Protocol which ran from 2008 to 2012, 37 industrialized countries and economies in transition and the European Community committed to reduce greenhouse gas emissions to an average of five percent against 1990 levels⁴⁸. During the second commitment period, Parties committed to reduce greenhouse gas emissions by at least eighteen percent below 1990 levels in the eight-year period from 2013 to 2020⁴⁹. The Kyoto Protocol establishes flexible market mechanisms which are based on the trade of emissions permits to help countries achieve emission reduction targets including International Emissions Trading, Clean Development Mechanism and Joint Implementation⁵⁰.

The *Paris Agreement* is a legally binding international treaty on climate change⁵¹. It was adopted by 196 Parties at the United Nations Climate Change Conference (COP 21) in Paris, France, on 12th December 2015 and entered into force on 4th November 2016⁵². The Agreement seeks to strengthen the global response to the threat of climate change, in the context of Sustainable Development and efforts to eradicate poverty through holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels; increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development⁵³.

⁴⁷ Ibid

⁴⁸ United Nations Climate Change., 'What is the Kyoto Protocol?' Op Cit

⁴⁹ Ibid

⁵⁰ United Nations Framework Convention on Climate Change., 'Kyoto Protocol to the United Nations Framework Convention on Climate Change.' Op Cit

⁵¹ United Nations Climate Change., 'The Paris Agreement.' Available at <https://unfccc.int/process-and-meetings/the-paris-agreement> (Accessed on 21/09/2023)

⁵² Ibid

⁵³ Paris Agreement., Article 2 (1)

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The Paris Agreement also requires parties to prepare, communicate and maintain successive national climate action plans known as Nationally Determined Contributions (NDCs) that they intend to achieve which entail inter alia their emission reduction targets⁵⁴. Each successive NDC is meant to reflect an increasingly higher degree of ambition compared to the previous version⁵⁵. The Paris Agreement further requires parties to pursue domestic mitigation measures, with the aim of achieving the objectives of such NDCs⁵⁶. The Agreement further acknowledges the special circumstances of developing countries some which are more vulnerable to the effects of climate change and requires developed countries to support them in their efforts to confront climate change through measures such as provision of financial resources and technology transfer⁵⁷. The Paris Agreement represents a major milestone in enhancing the global response to climate change because for the first time, a binding agreement brings all nations together to combat climate change and adapt to its effects⁵⁸.

3. Combating Climate Change in Africa

Combating climate change is also a matter of priority in Africa. Despite its low contribution to greenhouse gas emissions with just about two to three percent of global emissions, Africa remains the most vulnerable continent to the impacts of climate change⁵⁹. It has been pointed out that Africa faces exponential collateral damage from the impacts of climate change posing systemic risks to its economies, infrastructure investments, water and food systems, public health, agriculture, and livelihoods, threatening to undo its modest development gains and slip the continent into higher levels of extreme poverty⁶⁰. The vulnerability of Africa to the impacts of climate change is compounded by the fact that 95% Sub-Saharan Africa depends on rain-fed agriculture and that a large share of its Gross Domestic Product (GDP) and employment is dependent on climate sensitive agricultural sectors including

⁵⁴ Ibid, Article 4 (2)

⁵⁵ Ibid

⁵⁶ Ibid

⁵⁷ Ibid, Articles 9 (1) & 10

⁵⁸ United Nations Climate Change., 'The Paris Agreement.' Op Cit

⁵⁹ African Development Bank Group., 'Climate Change in Africa.' Available at <https://www.afdb.org/en/cop25/climate-change-africa> (Accessed on 21/09/2023)

⁶⁰ Ibid

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farming, herding and fishing⁶¹. Climate change is therefore a major threat to the attainment of the Sustainable Development agenda in Africa. Climate change is harming food security, ecosystems and economies, fueling displacement and migration and worsening the threat of conflict over dwindling resources including land, water and pastures⁶². The impacts of climate change including heatwaves, heavy rains, floods, tropical cyclones, and prolonged droughts are having devastating impacts on communities and economies in Africa, with increasing numbers of people at risk⁶³. Taking urgent action to combat climate change is therefore vital in Africa if the continent is to realize the SDGs⁶⁴. Laws and policies on climate change have been adopted at regional and national levels towards strengthening the response towards climate change in Africa.

In the East African Region, the *East African Community Climate Change Policy*⁶⁵ recognizes the adverse impacts of climate change as a major challenge to socio-economic development globally. According to the Policy, the African continent including the East African region is particularly vulnerable to climate change since its impacts affect key economic drivers in the continent such as water resources, agriculture, energy, transport, health, forestry, wildlife, land and infrastructure, disaster risk management among others⁶⁶. The purpose of the policy is to foster Sustainable Development within the East African region through harmonized and coordinated regional strategies, programmes and actions to respond to climate change⁶⁷. It sets out several measures aimed at confronting climate change in the region which include establishing a regional framework to guide the harmonization, coordination and implementation of climate change initiatives amongst partner states;

⁶¹ Ibid

⁶² World Meteorological Organization., 'Africa Suffers Disproportionately from Climate Change.' Available at <https://public.wmo.int/en/media/press-release/africa-suffers-disproportionately-from-climate-change> (Accessed on 21/09/2023)

⁶³ Ibid

⁶⁴ African Development Bank Group., 'Climate Change in Africa.' Op Cit

⁶⁵ East African Community., 'East African Community Climate Change Policy.' Available at <https://www.eac.int/environment/climate-change/eac-climate-change-policy-framework> (Accessed on 21/09/2023)

⁶⁶ Ibid

⁶⁷ Ibid

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identifying priority adaptation and mitigation action areas and roles of partner states and other stakeholders to address climate change in the region; promoting public awareness and socio-economic importance of climate change including vulnerability, impacts, risks, and response measures in the region; and promoting capacity building efforts through inter alia education, training, research, technology development and transfer, information and knowledge management⁶⁸. It is imperative to realize the vision of this policy in order to effectively combat climate change in the East African region.

Tackling climate change is also a pertinent issue in Kenya due to its devastating impacts in the country. Kenya's economy is largely dependent on tourism and rain fed agriculture which are both susceptible to climate change and extreme weather events⁶⁹. It has been observed that increasing heat and prolonged droughts are contributing to severe crop and livestock losses, leading to famine, food insecurity, displacement of people, and other threats to human health and wellbeing in Kenya⁷⁰. Adverse impacts of climate change such as extreme drought has affected economic activities including pastoralism in the northern parts of Kenya due to dwindling of natural resources including water and pasture⁷¹. Drought has also resulted in death of wildlife in rangeland ecosystems in the northern parts of Kenya affecting tourism activities⁷². Further, Kenya's predominantly low-lying coastline and surrounding islands are at a great risk from sea level rise, with significant implications for the fisheries sector and storm surge protection⁷³. Climate change is therefore a major hindrance in the achievement of Sustainable Development agenda.

⁶⁸ Ibid

⁶⁹ Climatelinks., 'Climate Change in Kenya.' Available at <https://www.climatelinks.org/countries/kenya> (Accessed on 21/09/2023)

⁷⁰ Ibid

⁷¹ Mokku. J., 'Climate Change Destroys the Livelihoods of Kenyan Pastoralists.' Available at <https://www.un.org/africarenewal/magazine/january-2023/climate-change-destroys-livelihoods-kenyan-pastoralists> (Accessed on 21/09/2023)

⁷² Ibid

⁷³ Climatelinks., 'Climate Change in Kenya.' OpCit

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Kenya enacted the *Climate Change Act*⁷⁴ in order to enhance the national response to climate change and achieve low carbon climate development for Sustainable Development⁷⁵. The Act sets out several ways of achieving this goal such as mainstreaming climate change responses into development planning, decision making and implementation; build national resilience and enhancing adaptive capacity to the impacts of climate change; formulating programmes and plans to enhance the resilience and adaptive capacity of human and ecological systems to the impacts of climate change; mainstreaming intergenerational and gender equity in all aspects of climate change responses; promoting low carbon technologies, improving efficiency and reducing emissions intensity by facilitating approaches and uptake of technologies that support low carbon, and climate resilient development; and facilitating capacity development for public participation in climate change responses through awareness creation, consultation, representation and access to information⁷⁶.

The Climate Change Act has since been amended by the *Climate Change (Amendment) Act*⁷⁷ 2023 in order to enhance climate change mitigation and adaption measures in Kenya through the concept of carbon trading. The Amendment Act introduces the idea of carbon trading in Kenya and defines a carbon market as a mechanism that enables and allows public and private entities to transfer and transact emission reduction units, mitigation outcomes or offsets generated through carbon initiatives, programmes and projects subject to compliance of national and international laws⁷⁸. It also introduces the concept of carbon offset which refers to a reduction or removal of emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere⁷⁹. The Amended Act further requires national and county governments to provide guidance in the development and implementation of carbon markets and nonmarket

⁷⁴ Climate Change Act., No. 11 of 2016, Government Printer, Nairobi

⁷⁵ Ibid, S 3(1)

⁷⁶ Ibid, S 3 (2)

⁷⁷ Climate Change (Amendment) Act, 2023, Government Printer, Nairobi

⁷⁸ Ibid, S 2

⁷⁹ Ibid

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approaches in compliance with international obligations⁸⁰. The amended Climate Change Act is an important milestone in fostering low carbon development in Kenya by providing the legal framework for carbon trading. Although the Climate Change Act, 2016 was intended to enhance national response to climate change and provided mechanisms and measures to achieve low carbon climate-resilient development, it did not envisage the concept of carbon trading⁸¹. Kenya has also formulated a *National Climate Change Policy*⁸² and a *National Climate Change Action Plan*⁸³ (NCCAP) 2023-2027 to strengthen its response to climate change. It is vital for the country to implement these legal instruments and take urgent actions to combat climate change in order to foster Sustainable Development.

4. Taking Urgent Action to Combat Climate Change: Progress and Challenges

SDG 13 encapsulates several targets that are vital in helping countries take urgent action to combat climate change. These include strengthening resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; integrating climate change measures into national policies, strategies and planning; improving education, awareness-raising, human, and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; implementing the commitment undertaken by developed country parties to the UNFCCC to mobilize jointly \$ 100 billion annually by 2020 to support developing countries in the context of meaningful mitigation actions and promoting mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states, including focus on women,

⁸⁰ Ibid, S 3

⁸¹ Section 3 of the Climate Change Act, 2016 stipulates mechanisms and measures to enhance climate change resilience and low carbon development for the Sustainable Development of Kenya. However, it does not embrace the idea of carbon trading

⁸² Sessional Paper No. 5 of 2016., 'National Climate Change Framework Policy.' Available at <http://aiap.or.ke/wp-content/uploads/2018/10/Climate-Change-Framework-PolicyMay2017.pdf> (Accessed on 21/09/2023)

⁸³ Ministry of Environment, Climate Change and Forestry., 'Draft Strategic Plan: 2023-2027' Available at <https://www.environment.go.ke/wp-content/uploads/2023/05/MoECCF-Strategic-Plan-Draft07.05.2023-updated.pdf> (Accessed on 21/09/2023)

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youth and local and marginalized communities.⁸⁴ There has been progress towards meeting these targets as a means of taking urgent action to combat climate change at the global, regional and national levels.

There have been efforts towards strengthening resilience and adaptive capacity to climate-related hazards and natural disasters as envisaged under SDG 13.1⁸⁵. Resilience has been defined as the ability of a system, community or society at risk to withstand, absorb, adapt to, and recover from the effects of disaster in a timely and effective manner, including by preserving and restoring basic structures and functions through risk management⁸⁶. It has been observed that climate change is a slow but irreversible process, and therefore it is important not only to mitigate the effects of climate change by limiting greenhouse gas emissions, but also to strengthen resilience and the capacity to adapt to climate change⁸⁷. This has been achieved through raising awareness of climate threats and risks, increasing the level of preparedness of both communities and civil protection providers for natural disasters, improving early warning and public awareness systems and practices, and introducing nature-based solutions among other ways⁸⁸.

In addition, there has been progress towards integrating climate change measures into national policies, strategies and planning as enshrined under SDG 13.2⁸⁹. These has been achieved through measures such as enactment and adoption of laws and policies on climate change. In Kenya, the *Climate Change Act*⁹⁰, the *National Climate Change Policy*⁹¹ and the *National Climate Change Action Plan*⁹² (NCCAP) 2023-2027 have been adopted to strengthen the

⁸⁴ United Nations., 'Sustainable Development Goal 13' Op Cit

⁸⁵ Ibid, SDG 13.1

⁸⁶ United Nations Development Programme., 'Strengthening Resilience to Natural Disasters in Ukraine.' Available at <https://www.undp.org/sites/g/files/zskgke326/files/migration/ua/Strengthening-resilience-to-natural-disasters.pdf> (Accessed on 21/09/2023)

⁸⁷ Ibid

⁸⁸ Ibid

⁸⁹ United Nations., 'Sustainable Development Goal 13.2' Op Cit

⁹⁰ Climate Change Act., No. 11 of 2016, Government Printer, Nairobi, Op Cit

⁹¹ Sessional Paper No. 5 of 2016., 'National Climate Change Framework Policy.' Op Cit

⁹² Ministry of Environment, Climate Change and Forestry., 'Draft Strategic Plan: 2023-2027' Op Cit

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country's legal regime on climate change. The country's development blueprint, *Vision 2030*, further recognizes the threat of climate change in Kenya and seeks to integrate climate change considerations into development planning⁹³. Integrating climate change considerations into national policies, strategies and planning has enabled countries to pursue low carbon development through measures such as embracing renewable sources of energy, climate resilient agricultural practices and sustainable transport and infrastructure as part of the development agenda⁹⁴.

SDG 13.3 further sets out improving education, awareness-raising, human, and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning as one of the ways of taking urgent action to combat climate change⁹⁵. It has been asserted that educational initiatives play a pertinent role in combating climate change by raising awareness of Sustainable Development and the natural world, including the impacts of climate change⁹⁶. Education gives people the knowledge and tools they need to adapt to the impacts of climate change and the risks it poses to lives, livelihoods and well-being⁹⁷. It can also be a powerful driver for more Sustainable Development, including a transition to greener societies⁹⁸. It is

⁹³ Republic of Kenya., 'Sessional paper On Kenya Vision 2030.' Available at <https://vision2030.go.ke/wp-content/uploads/2018/05/Sessional-paper-No.-10-of-2012-On-Kenya-Vision-2030.pdf> (Accessed on 21/09/2023)

⁹⁴ Muigua. K., 'Enhancing Low Carbon Development for Sustainability.' Available at <http://kmco.co.ke/wp-content/uploads/2023/09/Enhancing-Low-Carbon-Development-for-Sustainability-.pdf> (Accessed on 21/09/2023)

⁹⁵ United Nations., 'Sustainable Development Goal 13.3' Op Cit

⁹⁶ Sustainable Development Goal 13: Climate Action., Available at <https://www.gcint.org/sdg-13-climate-action#:~:text=13.3%20Improve%20education%2C%20awareness%2Drising,impact%20reduction%20and%20early%20warning.&text=Our%20educational%20initiatives%20raise%20an,the%20impacts%20of%20climate%20change>. (Accessed on 21/09/2023)

⁹⁷ Global Partnership for Education., 'Confronting Climate Change through Education.' Available at <https://www.globalpartnership.org/node/document/download?file=document/file/2023-04-confronting-climate-change-through-education.pdf> (Accessed on 21/09/2023)

⁹⁸ Ibid

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thus vital to build knowledge and capacity at all levels in order to combat climate change⁹⁹.

One of the key tools geared towards taking urgent action to combat climate change as envisaged under SDG 13 is implementing the commitment undertaken by developed country parties to the UNFCCC to mobilize jointly \$ 100 billion annually by 2020 to support developing countries in the context of meaningful mitigation actions¹⁰⁰. Despite being a global phenomenon, some people and communities are more vulnerable to climate impacts, especially people and communities living in small island nations and developing countries¹⁰¹. This situation is compounded by the fact that such communities and countries have contributed very little to climate change therefore raising justice concerns¹⁰². Climate finance is therefore seen as a vital tool in enhancing the capacity of developing countries to respond to climate change and foster Sustainable Development¹⁰³. There has been progress towards fostering climate finance in developing countries through initiatives such as funding from the UNFCCC through the Green Climate Fund, funding from developed countries and international and regional financial institutions such as the World Bank and the African Development Bank and national initiatives including public and private funding¹⁰⁴. Further, at COP 27, a breakthrough agreement was reached to provide loss and damage funding for vulnerable countries hit hard by floods, droughts and other climate disasters¹⁰⁵.

⁹⁹ The Global Goals., '13: Climate Action.' Available at <https://www.globalgoals.org/goals/13-climate-action/> (Accessed on 21/06/2023)

¹⁰⁰ United Nations., 'Sustainable Development Goal 13.a' Op Cit

¹⁰¹ Sultana. F., 'Critical Climate Justice' Available at <https://www.farhanasultana.com/wpcontent/uploads/Sultana-Critical-climate-justice.pdf> (Accessed on 21/09/2023)

¹⁰² Ibid

¹⁰³ Hill. A., & Babin. M 'Why Climate Finance is Critical for Accelerating Global Action.' Available at <https://www.cfr.org/in-brief/why-climate-finance-critical-accelerating-global-action> (Accessed on 21/09/2023)

¹⁰⁴ Muigua. K., 'Unlocking Climate Finance for Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/08/Unlocking-Climate-Finance-for-Development.pdf> (Accessed on 21/09/2023)

¹⁰⁵ United Nations Framework Convention on Climate Change., 'Decision -/CP.27 -/CMA.4: Funding Arrangements for Responding to Loss and Damage Associated with the Adverse Effects of Climate Change, Including a Focus on Addressing Loss

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Further, under the principle of Common but Differentiated Responsibilities (CBDR), everyone is to act on climate change but justice demands that those who have contributed more to the problem assume a greater responsibility for solving it¹⁰⁶. The principle therefore requires developed countries to first and fast in cutting emissions and also to provide financial support to countries with more limited means so they can keep up with enormous financial burdens as climate change accelerates¹⁰⁷. Pursuant to this principle, at COP 15 held in Copenhagen Denmark in 2009, developed countries committed to a collective goal of mobilizing \$ 100 billion annually by 2020 for climate action in developing countries¹⁰⁸. However, developed countries have failed to deliver on the agreed target of \$100 billion annually by 2020¹⁰⁹. This has resulted in inadequacy, imbalance and unpredictability of climate finance flows to developing countries affecting implementation of mitigation and adaptation measures¹¹⁰. There is need for developed countries to realize their climate finance commitments pursuant to the principle of common but differentiated responsibilities in order to enable developing countries take urgent actions to combat climate change.

Finally, SDG 13.b requires countries to promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states, including focus on women, youth and local and marginalized communities¹¹¹. It has been observed that the impacts of climate change are more severe on certain groups

and Damage.’ Available at https://unfccc.int/sites/default/files/resource/cma4_auv_8f.pdf (Accessed on 21/09/2023)

¹⁰⁶ United Nations., ‘Finance and Justice.’ Available at <https://www.un.org/en/climatechange/raisingambition/climate-finance> (Accessed on 21/09/2023)

¹⁰⁷ Ibid

¹⁰⁸ United Nations Framework Convention on Climate Change., ‘COP 15 – Decisions.’ Available at <https://unfccc.int/process-and-meetings/conferences/past-conferences/copenhagen-climate-change-conference-december-2009/cop-15/cop-15-decisions> (Accessed on 21/09/2023)

¹⁰⁹ Kone. T., ‘For Africa to meet its Climate Goals, Finance is Essential.’ Available at <https://climatepromise.undp.org/news-and-stories/africa-meet-its-climate-goals-finance-essential> (Accessed on 21/09/2023)

¹¹⁰ Ibid

¹¹¹ United Nations., ‘Sustainable Development Goal 13.b’ Op Cit

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including women since they depend more heavily on natural resources like water and firewood, meaning that if these items become scarce, they may need to travel further to access them¹¹². In addition, gender inequalities within communities may leave women more vulnerable to the immediate aftermath of natural disasters occasioned by the effects of climate change, or excluded from the decision-making table when disaster risk reduction solutions and other climate change responses are designed and implemented¹¹³. The youth are also more vulnerable to the effects of climate change since they are likely to experience the negative effects of climate change for many years compared to older generations¹¹⁴. In addition, marginalized people including persons with disabilities may be severely affected by the effects of climate change due to the difficulty in accessing vital resources in case of food insecurity and water scarcity and difficulties in responding to emergencies in case of disasters associated with climate change such a floods¹¹⁵. It has been pointed out that these groups have a right to all capacities needed to protect themselves, and to participate in decisions with profound implications for people and the planet¹¹⁶. It has also been argued that women can play a fundamental role in climate action and offer valuable insights into better managing the climate and its risks through their experiences and traditional knowledge as stewards of many natural resources¹¹⁷. There has been progress towards realizing this goal through measures such as gender-inclusive climate-change-related planning; public and community participation in climate action; and enhancing specialized support for least developed countries and small island developing states through finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and

¹¹² Pearse. R., 'Gender and Climate Change.' WIREs Climate Change, 2016

¹¹³ Ibid

¹¹⁴ United Nations Children's Fund., 'What is Climate Justice? And what can we do Achieve It?' Available at <https://www.unicef.org/globalinsight/what-climate-justice-and-what-can-we-do-achieve-it> (Accessed on 21/09/2023)

¹¹⁵ Almomani. S., 'Climate Justice for People with Disabilities.' Available at <https://www.worldforgottenchildren.org/blog/climate-justice-for-people-with-disabilities/154> (Accessed on 21/09/2023)

¹¹⁶ United Nations Women., 'SDG 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://lac.unwomen.org/en/noticias-y-eventos/en-la-mira/women-and-the-sdgs/sdg-13-climate-action> (Accessed on 21/09/2023)

¹¹⁷ Ibid

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management, including focusing on women, youth and local and marginalized communities¹¹⁸.

Despite the progress made towards combating climate change, the threat is still present. It has been asserted that due to rising greenhouse gas emissions, climate change is occurring at rates much faster than anticipated¹¹⁹. This situation increasing the frequency and intensity of extreme weather events such as heat waves, severe droughts, floods and tropical cyclones, aggravating water management problems, reducing agricultural productivity and food security, increasing health risks, damaging vital infrastructure and interrupting the provision of basic services such as water and sanitation, education, energy and transport¹²⁰. Climate change is therefore a major threat to the realization of the global Sustainable Development agenda. According to the United Nations, if left unchecked, climate change will undo a lot of the development progress made over the past years and will also provoke mass migrations that will lead to instability and wars¹²¹. There is need for countries to take urgent action to combat climate change. The United Nations asserts that urgent and transformative action going beyond mere plans and promises is crucial in combating climate change¹²².

5. Way Forward

It is imperative for the world to take urgent action to combat climate change. This can be achieved through the measures discussed below.

¹¹⁸ Sustainable Development Goals Data., 'SDG 13: Climate Action.' Available at <https://sdg.data.gov/13-b-1/> (Accessed on 21/09/2023)

¹¹⁹ United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://www.un.org/sustainabledevelopment/climate-change/> (Accessed on 21/09/2023)

¹²⁰ United Nations Environment Programme., 'Goal 13: Climate action.' Available at <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-13> (Accessed on 21/09/2023)

¹²¹ United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

¹²² Ibid

5.1 Building Climate Resilient and Low Carbon Economies

In order to effectively combat climate change, it is imperative for countries to take urgent actions and build climate resilient and low-carbon economies¹²³. Resilience has been defined as the ability of a system, community or society at risk to withstand, absorb, adapt to, and recover from the effects of disaster in a timely and effective manner, including by preserving and restoring basic structures and functions through risk management¹²⁴. Low carbon development refers to forward-looking national economic development plans or strategies that encompass low-emission and/or climate-resilient economic growth¹²⁵. The objective of low-carbon development is to reduce greenhouse gas emissions, exploit low-carbon energy, and ensure economic growth¹²⁶. Low carbon and climate resilient development can accelerate efforts towards combating climate change by strengthening national climate change coordination processes; contributing towards fostering access to clean and efficient energy sources; improving national and local decision making on climate change interventions and contributing towards minimizing the impacts of extreme climate events for improved and resilient livelihoods¹²⁷. Governments at national and local levels have an important role to play in building climate-resilient and low carbon economies by integrating climate change measures into national policies, strategies, and planning¹²⁸. This will ensure that climate change concerns guide the development process towards achieving climate-resilient and low carbon economies¹²⁹.

¹²³ African Development Bank Group., 'Climate Change in Africa.' Op Cit

¹²⁴ United Nations Development Programme., 'Strengthening Resilience to Natural Disasters in Ukraine.' Op Cit

¹²⁵ United Nations., 'Low Carbon Development.' Available at <https://sustainabledevelopment.un.org/index.php?menu=1448#:~:text=The%20concept%20of%20low%20carbon,low%2Dcarbon%20growth%20plans> (Accessed on 22/09/2023)

¹²⁶ Yuan. H, Zhou. P, & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis.' *Energy Procedia*, 5 (2011) 1706-1712

¹²⁷ United Nations Development Programme., 'Low Emissions and Climate Resilient Development In Kenya (LECRD).' Available at <https://www.undp.org/kenya/projects/low-emission-and-climate-resilient-development-kenya-lecrd> (Accessed on 22/09/2023)

¹²⁸ Council of Europe., 'SDG 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://www.coe.int/en/web/congress/goal-13> (Accessed on 22/09/2023)

¹²⁹ Ibid

5.2 Enhancing Climate Change Mitigation and Adaptation Efforts

It is also vital for countries to accelerate their efforts towards climate change mitigation and adaptation. Mitigation and adaptation are vital tools in enhancing global, national and local responses to climate change¹³⁰. Climate change mitigation involves reducing greenhouse gas emissions and stopping the problem of climate change from growing¹³¹. Adaptation on the other hand involves learning how to live with the existing threat of climate change and protecting humanity from the future effects of climate change¹³². It is vital for countries to transform their energy, industry, transport, food, agriculture and forestry systems in order to limit global temperature rise¹³³. Embracing renewable sources of energy such as solar, wind and hydro power; climate smart agricultural practices; green transport and infrastructure and sustainable waste management are essential practices in enhancing climate change mitigation¹³⁴. It is also vital for countries to fulfill their emission reduction commitments as envisaged under the Paris Agreement by strengthening their Nationally Determined Contributions (NDCs) and taking bold, immediate steps towards reducing emissions in order to realize low carbon development and confront climate change¹³⁵. It is therefore vital for countries to take urgent action to combat climate change by investing in climate change mitigation and adaptation.

¹³⁰ World Vision., 'How is the World Responding to Climate Change?' Available at https://www.worldvision.com.au/docs/default-source/school-resources/how-is-the-worldrespondingto-climate-change.pdf?sfvrsn=32021b89_0 (Accessed on 22/09/2023)

¹³¹ Ibid

¹³² Ibid

¹³³ United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

¹³⁴ Muigua. K., 'Reflections on Confronting Climate Change in Africa.' Available at <http://kmco.co.ke/wp-content/uploads/2023/08/Reflections-on-Confronting-Climate-Change-in-Africa.pdf> (Accessed on 22/09/2023)

¹³⁵ United Nations., 'For a Livable Climate: Net-Zero Commitments Must be Backed by Credible Action,' Available at <https://www.un.org/en/climatechange/net-zero-coalition> (Accessed on 22/09/2023)

5.3 Improving Climate Education

In order to effectively combat climate change, it is vital to improve education, awareness-raising, and human and institutional capacity¹³⁶. Education plays a pertinent role in combating climate change by raising awareness of Sustainable Development and the natural world, including the impacts of climate change¹³⁷. It gives people the knowledge and tools they need to adapt to the impacts of climate change and the risks it poses to lives, livelihoods and well-being¹³⁸. Education can encourage people to change their attitudes and behavior and make informed decisions that are vital in combating climate change such as adoption of renewable sources of energy, embracing sustainable waste management and use of sustainable agricultural practices¹³⁹. In addition, education increases 'climate literacy' which is vital in helping people understand, respond and adapt to climate change and its impacts¹⁴⁰. Education is thus a vital tool in combating climate change. It is therefore vital for all stakeholders including governments, Non-Governmental Organizations (NGOs), schools and local community organizations to undertake educational and public awareness campaigns on climate change, and to ensure public participation in programmes and information access on the issue¹⁴¹.

5.4 Unlocking Climate Finance

Further, there is an urgent need for the world to unlock climate finance at the international, regional and national levels in order to effectively combat climate change¹⁴². Finance plays a vital role in the climate agenda by enhancing

¹³⁶ Council of Europe., 'SDG 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

¹³⁷ Sustainable Development Goal 13: Climate Action., Op Cit

¹³⁸ Ibid

¹³⁹ United Nations., 'Education is Key to Addressing Climate Change.' Available at <https://www.un.org/en/climatechange/climate-solutions/education-key-addressing-climate-change> (Accessed on 22/09/2023)

¹⁴⁰ Ibid

¹⁴¹ United Nations., 'Education is Key to Addressing Climate Change.' Available at <https://www.un.org/en/climatechange/climate-solutions/education-key-addressing-climate-change> (Accessed on 22/09/2023)

¹⁴² Muigua. K., 'Unlocking Climate Finance for Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/08/Unlocking-Climate-Finance-for-Development.pdf> (Accessed on 22/09/2023)

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the mitigation and adaptation capabilities of countries especially in the developing world¹⁴³. However, the current global climate finance landscape falls way short of what is required to mitigate the worst impacts of climate change and to deal with the unavoidable consequences¹⁴⁴. A critical concern in the climate finance landscape is that developed countries have failed to deliver on an agreed climate finance target of \$100 billion annually by 2020 resulting in inadequacy, imbalance and unpredictability of climate finance flows to developing countries thus affecting implementation of mitigation and adaptation measures¹⁴⁵.

There is need for all stakeholders including the UNFCCC through its entities such as the Green Climate Fund, developed countries and international and regional financial institutions such as the World Bank to enhance access to climate finance in order to aid developing countries in their climate mitigation and adaptation strategies¹⁴⁶. Further, the Loss and Damage Fund adopted at COP 27 should be actualized in order to promote access to finance needed to respond to the loss and damage associated with climate change¹⁴⁷. It is also imperative for developing countries to unlock climate finance at the national level by strengthening public and private initiatives¹⁴⁸. Through these initiatives, developing countries and the world at large will have access to finance which can then be channeled into urgent actions needed to combat climate change including mitigation, adaptation and responding to loss and damage associated with climate change¹⁴⁹.

¹⁴³ Steckel. J. C., 'From Climate Finance toward Sustainable Development Finance.' *WIREs Climate Change*, 2017

¹⁴⁴ Hong. H., Karolyi. G. A., & Scheinkman. J.A., 'Climate Finance.' *Review of Financial Studies*, Volume 33, Issue 3 (2020)

¹⁴⁵ Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Op Cit

¹⁴⁶ Muigua. K., 'Unlocking Climate Finance for Development.' Op Cit

¹⁴⁷ Muigua. K., 'Interrogating the Viability and Efficacy of the COP 27 Loss and Damage Fund.' Available at <http://kmco.co.ke/wp-content/uploads/2023/09/Interrogating-the-Viability-and-Efficacy-of-the-COP-27-Loss-and-Damage-Fund.pdf> (Accessed on 22/09/2023)

¹⁴⁸ Muigua. K., 'Unlocking Climate Finance for Development.' Op Cit

¹⁴⁹ Ibid

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5.5 Embracing Inclusive Participation in Climate Action

It is imperative to embrace inclusive participation in climate action and climate decision making by giving voice to women, youth and marginalized communities including persons with disabilities¹⁵⁰. These groups are more vulnerable to the impacts of climate change due to several factors including gender roles and disparities, age and ability to access vital resources and respond to the impacts of climate change¹⁵¹. It has been asserted that inclusive climate action is pivotal in reducing the effects of climate change on the most vulnerable and ensuring the benefits and burdens of climate action are equitably distributed¹⁵². Women can play a fundamental role in climate action and offer valuable insights into better managing the climate and its risks through their experiences and traditional knowledge as stewards of many natural resources¹⁵³. Further, youth can play a pertinent role in climate action since they are more concerned about the long term impacts of climate change compared to older generations¹⁵⁴. Further, due to their vulnerability, the adverse impacts of climate change require adequate measures that take into account the specific requirements of persons with disabilities and ensure their participation in disaster response planning for emergency situations and evacuations, humanitarian emergency response and healthcare services¹⁵⁵. It is therefore necessary to foster inclusive participation in climate action in order to effectively combat climate change.

6. Conclusion

Climate change is an undesirable phenomenon that affects realization of the Sustainable Development agenda across the world by affecting the

¹⁵⁰ United Nations., 'Sustainable Development Goal 13.b' Op Cit

¹⁵¹ USAID., 'Inclusive Climate Action: An Emerging Perspective.' Available at https://pdf.usaid.gov/pdf_docs/PA00VPHQ.pdf (Accessed on 22/09/2023)

¹⁵² Ibid

¹⁵³ Ibid

¹⁵⁴ United Nations Children's Fund., 'What is Climate Justice? And what can we do Achieve It?' Available at <https://www.unicef.org/globalinsight/what-climate-justice-and-what-can-we-do-achieve-it> (Accessed on 21/09/2023)

¹⁵⁵ Office of the High Commissioner for Human Rights., 'The Impact of Climate Change on the Rights of Persons with Disabilities.' Available at <https://www.ohchr.org/en/climate-change/impact-climate-change-rights-persons-disabilities#:~:text=The%20adverse%20impacts%20of%20climate,for%20emergency%20situations%20and%20evacuations%2C> (Accessed on 22/09/2023)

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sustainability of the planet's ecosystems, the stability of the global economy and the future of humankind¹⁵⁶. It is the most defining challenge of our time and the main global challenge that is affecting both developed and developing countries in their efforts towards realization of the Sustainable Development agenda¹⁵⁷. If left unchecked, climate change will undo a lot of the development progress made over the past years and will also provoke mass migrations that will lead to instability and wars¹⁵⁸. Sustainable Development Goal 13 calls upon countries to take urgent actions towards combating climate change and its impacts¹⁵⁹. It is imperative for all countries to answer this call by building climate resilient and low carbon economies, enhancing climate change mitigation and adaptation efforts, improving climate education, unlocking climate finance and embracing inclusive participation in climate action¹⁶⁰. The time is now for the world to take urgent action to combat climate change.

¹⁵⁶ Climate Change., 'Meaning, Definition, Causes, Examples and Consequences.' Op Cit

¹⁵⁷ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Op Cit

¹⁵⁸ United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

¹⁵⁹ United Nations., 'Sustainable Development Goal 13' Op Cit

¹⁶⁰ United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Op Cit

Strengthening Environmental Rule of Law for Sustainability

Abstract

This paper critically discusses the concept of environmental rule of law. It defines environmental rule of law and examines its salient principles. The paper further examines progress made towards promoting environmental rule of law at the global, regional and national levels. It also explores some of the challenges facing the realization of environmental rule of law and suggests measures towards strengthening environmental rule of law for sustainability

1. Introduction

The rule of law has been defined as a phenomenon that comprises a number of principles of a formal and procedural character, addressing the way in which a society is governed¹. The formal principles concern the generality, clarity, publicity, stability, and prospectivity of the norms that govern a society². The procedural principles on the other hand concern the processes by which these norms are administered, and the institutions like courts and an independent judiciary that their administration requires³. On some accounts, the rule of law also comprises certain substantive ideals like a presumption of liberty and respect for private property rights⁴. The hallmarks of respect for the rule of law in a society include separation of powers of the executive, legislature, and judiciary; regular, free, and fair elections; an independent and impartial judiciary; free and independent media institutions; and equality of the people before the law⁵.

¹ Waldron, J., 'The Rule of Law.' Available at <https://plato.stanford.edu/Entries/rule-of-law/> (Accessed on 12/09/2023)

² Ibid

³ Ibid

⁴ Muigua, K., 'Rule of Law Approach for Inclusive Participation in Environmental, Social, and Governance (ESG) Accountability Mechanisms for Climate-Resilient Responses.' Available at <http://kmco.co.ke/wp-content/uploads/2023/09/Rule-of-Law-Approach-for-Inclusive-Participation-in-Environmental-Social-and-Governance-ESG-Accountability-Mechanisms-for-Climate-Resilient-Responses-1.pdf> (Accessed on 12/09/2023)

⁵ International Commission of Jurists., 'Democratic Governance & Rule of Law.' Available at <https://icj-kenya.org/what-we-do/democratic-governance-rule-of-law/> (Accessed on 12/09/2023)

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The United Nations defines the rule of law as a principle of governance in which all persons, institutions and entities, public and private, including the state itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights norms and standards⁶. According to the United Nations, the rule of law requires measures to ensure adherence to the principles of supremacy of the law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of arbitrariness, and procedural and legal transparency⁷. The rule of law therefore essentially means that the law and regulation matters and that legal rights will have the backing of the state⁸. In addition, the rule of law infers that the state itself is constrained by law and cannot act unfairly or arbitrarily in relation to its own citizens and businesses⁹.

The rule of law is foundational to resilient democratic societies¹⁰. It has further been asserted that the rule of law is an enabler of justice and development¹¹. According to the International Development Law Organization (IDLO), the rule of law is inseparable from equality, from access to justice and education, from access to health and the protection of the most vulnerable¹². The IDLO further points out that the rule of law is crucial for the viability of communities and nations, and for the environment, that sustains them¹³. The importance of the rule of law is also recognized under the 2030 Agenda for Sustainable

⁶ United Nations., 'What is the Rule of Law.' Available at <https://www.un.org/ruleoflaw/what-is-therule-of-law/> (Accessed on 12/09/2023)

⁷ Ibid

⁸ Lee. P., 'The Rule of Law and Investor Approaches to ESG: Discussion Paper.' Available at https://binghamcentre.biicl.org/documents/155_rule_of_law_and_investor_approaches_to_esg.pdf (Accessed on 12/09/2023)

⁹ Ibid

¹⁰ United States Agency for International Development., 'Democracy, Human Rights and Governance.' Available at <https://www.usaid.gov/democracy/rule-law> (Accessed on 12/09/2023)

¹¹ International Development Law Organization (IDLO)., 'Rule of Law.' Available at <https://www.idlo.int/what-we-do/rule-law> (Accessed on 12/09/2023)

¹² Ibid

¹³ Ibid

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Development at its Sustainable Development Goals (SDGs)¹⁴. SDGs 16 and 16.3 seeks to promote the rule of law at the national and international levels and ensure equal access to justice for all¹⁵.

According to the United Nations Environment Programme (UNEP), the rule of law is essential in all sectors of governance including the environment¹⁶. Consequently, the idea of environmental rule of law has emerged¹⁷. This paper critically discusses the concept of environmental rule of law. It defines environmental rule of law and examines its salient principles. The paper further examines progress made towards promoting environmental rule of law at the global, regional and national levels. It also explores some of the challenges facing the realization of environmental rule of law and suggests measures towards strengthening environmental rule of law for sustainability.

2. Defining Environmental Rule of Law

Environmental law is a collective term encompassing all aspects of the law that provide protection to the environment¹⁸. *It entails a set of regulatory regimes and environmental legal principles which focus on the management of specific natural resources, such as land, wildlife and biodiversity, forests, minerals, water, fisheries and coastal and marine resources*¹⁹. It has been observed that if human society is to stay within the bounds of critical ecological thresholds, it is imperative that environmental laws are widely understood, respected, and enforced and the

¹⁴ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 12/09/2023)

¹⁵ Ibid

¹⁶ United Nations Environment Programme., 'Promoting Environmental Rule of Law.' Available at <https://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law> (Accessed on 12/09/2023)

¹⁷ Ibid

¹⁸ Conserve Energy Future., 'What is Environmental Law: Importance and Components.' Available at <https://www.conserve-energy-future.com/environmental-law-and-its-components.php#:~:text=The%20two%20basic%20factors%20that,preserve%20and%20protect%20the%20environment> (Accessed on 12/09/2023)

¹⁹ Ibid

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benefits of environmental protection are enjoyed by people and the planet²⁰. Environmental rule of law offers a framework for addressing the gap between environmental laws as set out in text and in practice and is key to achieving the Sustainable Development Goals²¹.

Environmental rule of law is understood as the legal framework of procedural and substantive rights and obligations that incorporates the principles of ecologically Sustainable Development in the rule of law²². This concept integrates environmental needs with the essential elements of the rule of law, and provides the basis for improving environmental governance²³. It highlights environmental sustainability by connecting it with fundamental rights and obligations²⁴. It reflects universal moral values and ethical norms of behaviour, and it provides a foundation for environmental rights and obligations²⁵. Environmental rule of law therefore refers to an ideal where environmental laws are widely understood, respected, and enforced and the benefits of environmental protection are enjoyed by people and the planet²⁶. According to the International Union for Conservation of Nature (IUCN), the concept of environmental rule of law is founded upon key elements of governance including development, enactment, and implementation of clear, strict, enforceable, and effective laws, regulations, and policies that are

²⁰ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Available at https://www.unep.org/news-and-stories/press-release/dramatic-growth-laws-protect-environment-widespread-failure-enforce?_ga=2.16775999.845015847.1694504989-17506007.1686563450 (Accessed on 12/09/2023)

²¹ Ibid

²² International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law.' Available at <http://www2.ecolex.org/server2neu.php/libcat/docs/LI/MON-091064.pdf> (Accessed on 12/09/2023)

²³ United Nations Environment Programme., 'Environmental Rule of Law.' Available at <https://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law>
0#:~:text=Environmental%20rule%20of%20law%20is,with%20fundamental%20rights%20and%20obligations (Accessed on 12/09/2023)

²⁴ Ibid

²⁵ Ibid

²⁶ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

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efficiently administered through fair and inclusive processes to achieve the highest standards of environmental quality; respect for human rights, including the right to a safe, clean, healthy, and sustainable environment; measures to ensure effective compliance with laws, regulations, and policies, including adequate criminal, civil, and administrative enforcement, liability for environmental damage, and mechanisms for timely, impartial, and independent dispute resolution; effective rules on equal access to information, public participation in decision-making, and access to justice; environmental auditing and reporting, together with other effective accountability, transparency, ethics, integrity and anti-corruption mechanisms; and use of best-available scientific knowledge²⁷. It has been observed that despite most countries having established, to varying degrees, environmental laws and institutions to foster environmental governance, there is a growing recognition that a considerable implementation gap exists in both developed and developing nations between the requirements of environmental laws and their implementation and enforcement²⁸. UNEP in its global assessment of environmental rule of law finds weak enforcement to be a global trend that is exacerbating environmental threats, despite prolific growth in environmental laws and agencies worldwide over the past few decades²⁹. The goal of environmental rule of law is to bridge this gap and foster the implementation and enforcement of environmental laws³⁰.

IUCN posits that without the environmental rule of law and the enforcement of legal rights and obligations, environmental governance, conservation, and protection may be arbitrary, subjective, and unpredictable³¹. Therefore,

²⁷ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law.' Op Cit

²⁸ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

²⁹ United Nations Environment Programme., 'Dramatic Growth in Laws to Protect Environment, But Widespread Failure to Enforce, Finds Report.' Available at https://www.unep.org/news-and-stories/press-release/dramatic-growth-laws-protect-environment-widespread-failure-enforce?_ga=2.16775999.845015847.1694504989-17506007.1686563450 (Accessed on 12/09/2023)

³⁰ Ibid

³¹ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law.' Op Cit

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environmental rule of law and robust institutions are essential to respond to increasing environmental pressures that threaten the ecological integrity of the Earth, in a way that respects fundamental rights and principles of justice and fairness³². Environmental rule of law is therefore an essential tool of environmental governance³³.

Environmental rule of law is central to Sustainable Development³⁴. The concept of Sustainable Development seeks to foster development that meets the needs of the present without compromising the ability of future generations to meet their own needs³⁵. It combines elements such as environmental protection, economic development and social concerns³⁶. Environmental rule of law provides an essential platform underpinning the four pillars of Sustainable Development – economic, social, environmental, and peace³⁷. It seeks to integrate the fundamental principles of environmental law in environmental governance in order to realize Sustainable Development³⁸. These principles include the principles of intergenerational and intragenerational equity, the polluter-pays principle, the precautionary principle, the principle of public participation and the principle of international cooperation in the management of shared environmental resources³⁹. Environmental rule of law is thus vital in the attainment of the Sustainable Development agenda and the SDGs. UNEP asserts that the rule of law in environmental matters is essential for equity in terms of the advancement of the SDGs, the provision of fair access by assuring a rights-

³² Ibid

³³ Muigua. K., 'Revisiting the Role of Law in Environmental Governance in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2019/06/Revisiting-the-Role-of-Law-in-Environmental-Governance-in-Kenya-Kariuki-Muigua-June-2019.pdf> (Accessed on 12/09/2023)

³⁴ United Nations Environment Programme., 'Environmental Rule of Law.' Op Cit

³⁵ World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

³⁶ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1

³⁷ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

³⁸ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

³⁹ Ibid

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based approach, and the promotion and protection of environmental and other socio-economic rights⁴⁰.

It has been pointed out that without environmental rule of law, development cannot be sustainable⁴¹. However, the presence of environmental rule of law ensures that well-designed laws are implemented by capable government institutions that are held accountable by an informed and engaged public lead to a culture of compliance that embraces environmental and social values⁴². Strengthening environmental rule of law is thus vital in protecting the environmental, social, and cultural values and to achieving ecologically Sustainable Development⁴³. It is therefore imperative that environmental rule of law should serve as the legal foundation for promoting environmental ethics and achieving environmental justice, global ecological integrity, and a sustainable future for all, including for future generations, at local, national, regional, and global levels⁴⁴.

The United Nations observes that environmental law is a foundation for environmental sustainability and the full realisation of its objectives is ever more urgent in lights of growing environmental pressures⁴⁵. The world is facing increasing environmental problems including climate change, biodiversity loss, water scarcity, air and water pollution, soil degradation, among others, which contribute to poverty and to growing social inequalities⁴⁶. Conflicts over natural resources and environmental crimes are further intensifying these problems thus hindering sustainability⁴⁷.

⁴⁰ United Nations Environment Programme., 'Environmental Rule of Law.' Op Cit

⁴¹ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

⁴² Ibid

⁴³ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law.' Op Cit

⁴⁴ Ibid

⁴⁵ United Nations., 'Environmental Law.' Available at <https://www.un.org/ruleoflaw/thematic-areas/land-property-environment/environmental-law/> (Accessed on 12/09/2023)

⁴⁶ Earth. Org., '15 Biggest Environmental Problems of 2023.' Available at <https://earth.org/the-biggest-environmental-problems-of-our-lifetime/#> (Accessed on 12/09/2023)

⁴⁷ Ibid

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Environmental rule of law is vital in addressing these challenges by fostering sound environmental governance and realization of its principles including Environmental Justice and Environmental Democracy⁴⁸. Environmental Justice means the right to have access to natural resources; not to suffer disproportionately from environmental policies, laws and regulations; and the right to environmental information, participation and involvement in decision-making⁴⁹. It also refers to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies⁵⁰. Environmental Justice is attained when every person enjoys the same degree of protection from environmental and health hazards and has access to the decision-making process to have a healthy environment⁵¹. The concept of Environmental Democracy focuses on how decisions are made, with a particular emphasis on the need for citizens, interest groups, and communities generally, to participate and have their voices heard⁵². It enshrines principles such as inclusivity, representativity, accountability, efficiency, and effectiveness, as well as social equity, justice and good governance⁵³. Environmental rule of law seeks to foster these principles by enhancing access to information, public participation, and access to justice and effective remedies in environmental matters⁵⁴. Environmental rule of law is therefore pertinent in fostering sound environmental governance by ensuring that the environment and natural resources are managed sustainably, transparently, and on the basis of the rule

⁴⁸ Muigua. K, Wamukoya. D, & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

⁴⁹ Ako. R., 'Resource Exploitation and Environmental Justice: the Nigerian Experience' Available at <https://www.elgaronline.com/display/edcoll/9781848446793/9781848446793.00011.xml> (Accessed on 12/09/2023)

⁵⁰ United States Environmental Protection Agency; 'Environmental Justice.' Available at <https://www.epa.gov/environmentaljustice> (Accessed on 12/09/2023)

⁵¹ Ibid

⁵² Muigua. K., 'Realising Environmental Democracy in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2018/08/REALISING-ENVIRONMENTAL-DEMOCRACY-IN-KENYA-4th-May-2018-1-1.pdf> (Accessed on 12/09/2023)

⁵³ Ibid

⁵⁴ Ibid

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of law towards Sustainable Development, peace and justice⁵⁵. It is therefore vital to strengthen environmental rule of law for sustainability.

3. Global Trends in Environmental Rule of Law: Prospects and Challenges

The importance of environmental rule of law received global recognition during the first world conference on the environment being the 1972 United Nations Conference on the Human Environment held in Stockholm, Sweden⁵⁶. Participants at the conference adopted a series of principles for sound management of the environment including the [*Stockholm Declaration and Action Plan for the Human Environment*](#) and several resolutions⁵⁷. The Stockholm Declaration provides that the protection and improvement of the human environment is a major issue which affects the well-being of people and economic development throughout the world and it is the urgent desire of the people of the whole world and the duty of all Governments⁵⁸. The Declaration stipulates several principles that are vital in advancing environmental rule of law including the need to protect and improve the environment for present and future generations, careful planning and management of natural resources, halting and preventing environmental pollution, adoption of environmental laws and policies and adopt an integrated and the need to adopt a co-ordinated approach in development planning so as to ensure that development is compatible with the need to protect and improve environment⁵⁹. The Stockholm Declaration was an important milestone for the development of environmental rule of law across the globe since it was the first global document outlining the general principles for the management of natural resources and the environment⁶⁰.

Environmental rule of law was further enhanced following the United Nations Conference on Environment and Development also known as the 'Earth

⁵⁵ United Nations Environment Programme., 'Environmental Rule of Law.' Op Cit

⁵⁶ United Nations., 'United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm.' Available at <https://www.un.org/en/conferences/environment/stockholm1972> (Accessed on 13/09/2023)

⁵⁷ Ibid

⁵⁸ United Nations Environment Programme., 'Stockholm Declaration.' Available at <https://wedocs.unep.org/bitstream/handle/20.500.11822/29567/ELGP1StockD.pdf> (Accessed on 13/09/2023)

⁵⁹ Ibid

⁶⁰ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

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Summit', held in Rio de Janeiro, Brazil, from 3-14 June 1992⁶¹. The Earth Summit concluded that the concept of Sustainable Development was an attainable goal for all the people of the world, regardless of whether they were at the local, national, regional or international level⁶². It also recognized that integrating and balancing economic, social and environmental concerns in meeting our needs is vital for sustaining human life on the planet and that such an integrated approach is possible⁶³. One of the major results of the Earth Summit was the adoption of *Agenda 21*⁶⁴ a daring program of action calling for new strategies to invest in the future to achieve overall sustainable development in the 21st century.

Agenda 21 affirms that integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future⁶⁵. It calls for international cooperation to accelerate Sustainable Development in developing countries and related domestic policies⁶⁶. Agenda 21 further acknowledges the importance of the rule of law in sustainability and provides that laws and regulations suited to country -specific conditions are among the most important instruments for transforming environment and development policies into action, not only through "command and control" methods, but also as a normative framework for economic planning and market instruments⁶⁷. It further stipulates that it is essential to develop and implement integrated, enforceable and effective laws and regulations that are based upon sound social, ecological, economic and

⁶¹ United Nations., 'United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992.' Available at <https://www.un.org/en/conferences/environment/rio1992> (Accessed on 13/09/2023)

⁶² Ibid

⁶³ Ibid

⁶⁴ United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992., 'Agenda 21.' Available at https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf?_gl=1*9uipp7*_ga*MjA2NDk2MDMxMS4xNjcxMjU5NTEw*_ga_TK9BQL5X7Z*MTY5NDU5NjE3MS41NS4xLjE2OTQ1OTgzODUuMC4wLjA. (Accessed on 13/09/2023)

⁶⁵ Ibid, Preamble

⁶⁶ Ibid, Chapter 2

⁶⁷ Ibid, Chapter 8.13

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scientific principles in order to enhance sustainability⁶⁸. It also recognizes the importance of judicial and administrative procedures in advancing environmental rule of law and calls upon Governments and legislators, with the support, where appropriate, of competent international organizations, to establish judicial and administrative procedures for legal redress and remedy of actions affecting environment and development that may be unlawful or infringe on rights under the law, and should provide access to individuals, groups and organizations with a recognized legal interest⁶⁹. Agenda 21 is therefore vital in fostering environmental rule of law by calling upon countries to develop integrated strategies to maximize compliance with their laws and regulations relating to Sustainable Development. These strategies include enactment of enforceable, effective laws, regulations and standards that are based on sound economic, social and environmental principles and appropriate risk assessment, incorporating sanctions designed to punish violations, obtain redress and deter future violations; establishing mechanisms for promoting compliance; strengthening institutional capacity for collecting compliance data, regularly reviewing compliance, detecting violations, establishing enforcement priorities, undertaking effective enforcement, and conducting periodic evaluations of the effectiveness of compliance and enforcement programmes; fostering mechanisms for appropriate involvement of individuals and groups in the development and enforcement of laws and regulations on environment and development and national monitoring of legal follow-up to international instruments⁷⁰.

Another important legal instrument that was adopted during the Earth Summit which is vital in advancing environmental rule of law is the *Rio Declaration on Environment and Development*⁷¹. The Declaration sought to balance the interests of states in exploiting their natural resources for development and environmental conservation with the aim of achieving

⁶⁸ Ibid, Chapter 8.14

⁶⁹ Ibid, Chapter 8.18

⁷⁰ Ibid, Chapter 8.21

⁷¹ United Nations General Assembly., 'Report of the United Nations Conference on Environment and Development: Rio Declaration on Environment and Development.' A/CONF. 151/26 (Vol.1)

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Sustainable Development⁷². The Declaration stipulates that human beings are at the centre of concerns for Sustainable Development and are entitled to a healthy and productive life in harmony with nature⁷³. It further states that in order to achieve Sustainable Development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it⁷⁴. The Rio Declaration upholds key environmental principles that are vital in strengthening environmental rule of law including the principle of inter and intra generational equity, the principle of public participation, the precautionary principle and the principle of international cooperation⁷⁵. It also recognizes the role of women, youth and indigenous people and local communities in environmental management and development⁷⁶.

The Earth Summit was thus an important milestone in advancing environmental rule of law. It has been pointed out that following the 1992 Rio Earth Summit, countries made a concerted effort to enact environmental laws, build environment ministries and agencies, and enshrine environment-related rights and protections in their national constitutions⁷⁷. At the global level, the right to a clean, healthy and sustainable environment has been recognized by the United Nations General Assembly as a fundamental human right⁷⁸. The resolution by the United Nations General Assembly further affirms the importance of the right a clean, healthy and sustainable environment for the enjoyment of all human rights⁷⁹. The declaration by the United Nations General Assembly demonstrates global acceptance of the right to a clean, healthy and sustainable environment as a human right and could stimulate

⁷² Ibid, Principle 2

⁷³ Ibid, Principle 1

⁷⁴ Ibid, Principle 4

⁷⁵ Ibid

⁷⁶ Ibid, Principles 20, 21 and 22

⁷⁷ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

⁷⁸ United Nations General Assembly (UNGA)., 'The Human Right to a Clean, Healthy and Sustainable Environment.' UNGA Resolution 'A/76/L.75.'

⁷⁹ Ibid

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global efforts towards attaining this right and strengthening environmental rule of law⁸⁰.

In addition, there has been progress towards fostering environmental rule of law at the global level through the adoption of treaties, convention and other legal and regulatory instruments geared towards promoting environmental sustainability and Sustainable Development, in general⁸¹. Some of the key instruments include the *Ramsar Convention*⁸² whose purpose is to foster the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving Sustainable Development throughout the world⁸³; the *Convention on Biological Diversity*⁸⁴ whose objective is to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources⁸⁵; the *United Nations Convention on the Law of the Sea*⁸⁶ that seeks to promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment; the *United Nations Framework Convention on Climate Change*⁸⁷ and the *Paris Agreement*⁸⁸ which are geared towards combating climate change. Ensuring compliance with these among

⁸⁰ Muigua. K., 'Realizing the Right to a Clean, Healthy and Sustainable Environment.' Available at <http://kmco.co.ke/wp-content/uploads/2023/06/Realizing-the-Right-to-a-Clean-Healthy-and-Sustainable-Environment.pdf> (Accessed on 13/09/2023)

⁸¹ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

⁸² Convention on Wetlands of International Importance especially as Waterfowl Habitat, 996 UNTS 245; TIAS 11084; 11 ILM 963 (1972)

⁸³ Ibid

⁸⁴ 1992 Convention on Biological Diversity, (1993) ATS 32/ 1760 UNTS 79/ 31 ILM 818 (1992)

⁸⁵ Ibid, Article 1

⁸⁶ United Nations Convention on the Law of the Sea., Available at https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (Accessed on 13/09/2023)

⁸⁷ United Nations Framework Convention on Climate Change., United Nations, 1992., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 13/09/2023)

⁸⁸ United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (Accessed on 13/09/2023)

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other international instruments is vital in promoting international environmental law as a tool for addressing specific environmental threats and for integrating long-term environmental protection into the global economy⁸⁹. The *2030 Agenda for Sustainable Development*⁹⁰ and its 17 SDGs is also vital in fostering environmental rule of law. It is a plan of action for people, planet and prosperity⁹¹. It envisages the realization of Sustainable Development through tackling global environmental problems including water scarcity, lack of access to affordable, reliable, sustainable and modern energy and climate change through a combination of measures including enhancing national laws, policies and planning⁹². Achieving the 2030 Agenda for Sustainable Development is therefore vital in enhancing sustainability through environmental rule of law among other measures.

Further, the International Court of Justice (ICJ) has also played a vital role in enhancing environmental rule of law at the global level by providing an avenue for realizing the right of access to justice and legal remedies in environmental matters⁹³. In the case concerning *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*⁹⁴, ICJ emphasized the need for the two countries to continue their cooperation and devise the necessary means to promote the equitable utilization of the river, while protecting its environment. The Court also recently rendered its first decision on environmental damage and compensation in the case *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*⁹⁵. Such decisions are pertinent in strengthening environmental rule of law at the global level.

⁸⁹ Hunter. D., 'International Treaties and Principles Protect the Environment and Guard against Climate Change.' *Insights on Law and Society.*, Volume 19, Issue 1 (2021)

⁹⁰ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' A/RES/70/1., Op Cit

⁹¹ Ibid

⁹² Ibid

⁹³ The ICJ and Environmental Case Law., Available at <https://www.uio.no/studier/emner/jus/jus/JUS5520/h15/undervisningsmateriale/icj-and-international-environmental-law.pdf> (Accessed on 13/06/2023)

⁹⁴ International Court of Justice., 'Pulp Mills on the River Uruguay (Argentina v. Uruguay).' Available at <https://www.icj-cij.org/case/135> (Accessed on 13/09/2023)

⁹⁵ International Court of Justice., 'Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua).' Available at <https://www.icj-cij.org/case/150> (Accessed on 13/09/2023)

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Environmental rule of law has also been fostered in Africa through regional environmental agreements. It has been argued that a regional approach to environmental governance through regional environmental agreements has an advantage over global agreements since there is greater similarity of interests, norms, perceptions and values at the regional level which enhances international cooperation⁹⁶. In Africa, these instruments include the *African Convention on the Conservation of Nature and Natural Resources*⁹⁷ which seeks to enhance environmental protection; to foster the conservation and sustainable use of natural resources; and to harmonize and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable policies and programmes⁹⁸. Further instruments include the *Bamako Convention*⁹⁹ that is aimed at preventing environmental pollution by hazardous wastes by prohibiting the import into Africa of any hazardous (including radioactive) waste and the *Treaty for the Establishment of the East African Community*¹⁰⁰ which provides for co-operation in environment and natural resources and calls upon partner states to take joint efforts to cooperate in the efficient management of natural resources with key priorities to sectors such as climate change adaptation and mitigation, natural resource management and biodiversity conservation, disaster reduction and management, and pollution control and waste management¹⁰¹.

The African Court of Justice and Human Rights and the African Commission on Human and Peoples' Rights which are judicial bodies established pursuant to the African Charter on Human and People's Rights have also played a pivotal role in fostering environmental rule of law in Africa through some of

⁹⁶ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

⁹⁷ Africa Union, *African Convention on the Conservation of Nature and Natural Resources*, OAU, 1001, UNTS 3.

⁹⁸ Ibid, Article 1

⁹⁹ Africa Union., 'Bamako Convention On the Ban of the Import into Africa and The Control Of TransBoundary Movement And Management Of Hazardous Wastes Within Africa, 1991.' Available at <https://www.informea.org/en/treaties/bamako-convention/text> (Accessed on 13/09/2023)

¹⁰⁰ East African Community, *The Treaty for the Establishment of the East African Community*, Available at https://www.eala.org/uploads/The_Treaty_for_the_Establishment_of_the_East_Africa_Community_2006_1999.pdf (Accessed on 13/09/2023)

¹⁰¹ Ibid

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their decisions¹⁰². In the Endorois Case, the African Commission on Human and People's Rights upheld the right of indigenous communities to utilize natural resources including ancestral land¹⁰³. This decision is integral in enhancing environmental rule of law by recognizing the rights of indigenous people to property, to culture, to the free disposition of natural resources, and to development¹⁰⁴.

At the national level, the Constitution of Kenya recognizes the right to a clean and healthy environment as a fundamental human right¹⁰⁵. The Constitution further stipulates several obligations by the state in respect of the environment including the obligation to ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits, the need to encourage public participation in the management, protection and conservation of the environment, the obligation to protect genetic resources and biological diversity and the obligation to eliminate processes and activities that are likely to endanger the environment¹⁰⁶. Constitutional recognition of environmental related rights is one the key ways of fostering environmental rule of law.¹⁰⁷ In addition, the *Environmental Management and Co-ordination Act*¹⁰⁸ establishes the legal and institutional framework for the management of the environment in Kenya. The Act upholds the right of every Kenyan to a clean and healthy environment and sets out various measures towards upholding this right including environmental planning, protection and conservation of the environment, Environmental Impact Assessment, Environmental Audit and

¹⁰² Muigua. K., 'African Court of Justice and Human Rights: Emerging Jurisprudence.' Available at <http://kmco.co.ke/wp-content/uploads/2020/06/African-Court-on-Human-and-Peoples-Rights-Emerging-Jurisprudence-Kariuki-Muigua-June-2020.pdf> (Accessed on 14/09/2023)

¹⁰³ Claridge. L., 'Landmark Ruling Provides Major Victory to Kenya's Indigenous Endorois.' Available at <https://www.refworld.org/pdfid/4ca571e42.pdf> (Accessed on 14/09/2023)

¹⁰⁴ Ibid

¹⁰⁵ Constitution of Kenya, 2010., Article 42., Government Printer, Nairobi

¹⁰⁶ Ibid, Article 69

¹⁰⁷ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

¹⁰⁸ Environmental Management and Co-ordination Act., No. 8 of 1999, Government Printer, Nairobi

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Monitoring, environmental restoration and conservation orders and enforcement of environmental rights through courts and tribunals¹⁰⁹. The Act further establishes the National Environment Management Authority which has the mandate to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment¹¹⁰.

Courts and tribunals are also integral enhancing environmental rule of law and fostering environmental justice in Kenya¹¹¹. The Constitution of Kenya also recognizes the role of litigation in enforcement of environmental rights¹¹². It allows a person alleging the denial, infringement or violation or of the right to a clean and healthy environment to apply to a court for redress in addition to any other legal remedies that are available¹¹³. The Environmental Management and Co-ordination Act further sets out the role of the Environment and Land Court and the National Environment Tribunal in fostering the right to a clean and healthy environment in Kenya¹¹⁴. Litigation has fostered environmental rule of law in Kenya through decisions that have emanated from the Environment and Land Court, the National Environment Tribunal and other courts and judicial bodies¹¹⁵. Through such decisions, judicial bodies have pronounced themselves on several environmental matters

¹⁰⁹ Ibid

¹¹⁰ Ibid, S 7 & 9.

¹¹¹ Muigua, K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Available at <http://kmco.co.ke/wp-content/uploads/2019/01/The-Role-of-Courts-inSafeguardingEnvironmental-Rights-in-Kenya-A-Critical-Appraisal-Kariuki-Muigua-17th-January-2019-> (Accessed on 14/09/2023)

¹¹² Constitution of Kenya, 2010., Article 70

¹¹³ Ibid

¹¹⁴ Ibid, S 3 & S 125

¹¹⁵ See for example the cases of Peter K. Waweru -vs- Republic, Miscellaneous Civil Application, 118 of 2004, (2006) eKLR; Friends of Lake Turkana Trust vs Attorney General & 2 others., ELC Suit No. 825 of 2012, (2014) eKLR; KM & 9 others v Attorney General & 7 others, Petition No. 1 of 2016 (2020) eKLR; National Environment Management Authority -vs- Kelvin Musyoka & Others⁵⁹, Mombasa Civil Appeal No. E004 of 2020; Mohamed Ali Baadi and others -vs- Attorney General & 11 Others, Petition No. 22 of 2012 (2018) eKLR

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including Sustainable Development, public participation, access to information, climate change, pollution and compensation¹¹⁶.

From the foregoing, it emerges that there have been attempts towards promoting environmental rule of law at the global, regional and national level. However, it has been observed that while environmental laws have become commonplace across the globe, too often they exist mostly on paper because government implementation and enforcement is irregular, incomplete, and ineffective¹¹⁷. In addition, the laws that have been enacted are lacking in ways that impede effective implementation (for example, by lacking clear standards or the necessary mandates)¹¹⁸. As a result, it has been argued that there is no culture of environmental compliance in most societies¹¹⁹. This often hinders sound environmental governance and sustainability¹²⁰. There is need to address these challenges and foster a culture of compliance and enforcement of environmental laws in order to strengthen environmental rule of law for sustainability.

4. Way Forward: Strengthening Environmental Rule of Law for Sustainability

It is imperative to strengthen the rule of law in general in order to enhance environment sustainability and social justice¹²¹. It has been argued that the rule of law is an element not only for economic growth, but also for environment sustainability and social justice¹²². One of the key ways of strengthening environmental rule of law is by enactment, and implementation of clear, strict, enforceable, and effective laws, regulations, and policies that are efficiently administered through fair and inclusive processes to achieve the highest

¹¹⁶ Ibid

¹¹⁷ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

¹¹⁸ Ibid

¹¹⁹ Ibid

¹²⁰ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

¹²¹ Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4355016 (Accessed on 14/09/2023)

¹²² Ibid

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standards of environmental quality; respect for human rights, including the right to a safe, clean, healthy, and sustainable environment¹²³.

In addition, it is vital to embrace civic engagement in order to strengthen environmental rule of law. It has been rightly pointed out that environmental rule of law requires an approach that involves everyone including the civil society¹²⁴. The effective engagement of civil society results in more informed decision making by government, more responsible environmental actions by companies, more assistance in environmental management by the public, and more effective environmental law¹²⁵. Civic engagement can be fostered through public participation and access to information¹²⁶. Public participation is believed to be important in bridging the gap between the government, civil society, private sector and the general public, building a common understanding about the local situation, priorities and programmes as it encourages openness, accountability and transparency, and is thus at the heart of inclusive decision-making¹²⁷.

Further, public participation can improve the quality of decision-making by providing decision-makers with additional, unique information on local conditions¹²⁸. In addition, public participation can also improve policy implementation by increasing the legitimacy of the decision-making process and, in so doing, reducing instances of conflict¹²⁹. Citizen involvement in

¹²³ International Union for Conservation of Nature., 'IUCN World Declaration on the Environmental Rule of Law.' Op Cit

¹²⁴ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

¹²⁵ Ibid

¹²⁶ Ibid

¹²⁷ Muigua. K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2018/08/TOWARDSMEANINGFUL-PUBLIC-PARTICIPATION-IN-NATURAL-RESOURCEMANAGEMENT-IN-KENYA.pdf> (Accessed on 14/09/2023)

¹²⁸ Cerezo. L, & Garcia. G., 'Lay Knowledge and Public Participation in Technological and Environmental Policy.' Available at <https://scholar.lib.vt.edu/ejournals/SPT/v2n1/pdf/CEREZO.PDF> (Accessed on 14/09/2023)

¹²⁹ Ibid

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environmental decision making has been associated with several benefits which include: information and ideas on public issues; public support for planning decisions; avoidance of protracted conflicts and costly delays; reservoir of good will which can carry over to future decisions; and spirit of cooperation and trust between decision makers and the public¹³⁰. The Importance of public participation in environmental decision making is upheld under Principle 10 of the *Rio Declaration on Environment and Development* which stipulates that:

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided (emphasis added)¹³¹.

It is thus pertinent to foster effective public participation and access to information in order to strengthen environmental rule of law. It is also vital to uphold the rights and foster the participation of indigenous people and communities who play an important role in managing the environment and natural resources through traditional ecological knowledge¹³². Local communities possess unique and valuable contextual knowledge of natural resources and have a vested interest in ensuring the sustainable use of land and resources¹³³. It is therefore desirable to uphold indigenous peoples' full

¹³⁰ Muigua. K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Op Cit

¹³¹ Rio Declaration on Environment and Development, Principle 10

¹³² United Nations., 'Indigenous People and the Environment.' Available at <https://www.un.org/development/desa/indigenouspeoples/mandated-areas1/environment.html#:~:text=The%20rights%20to%20lands%2C%20territories,o f%20their%20traditional%20knowledge%20systems> (Accessed on 14/09/2023)

¹³³ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Available at https://www.idlo.int/sites/default/files/pdfs/publications/climate_justice_policy_pa_per_-_climate_action_-_final.pdf (Accessed on 14/09/2023)

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participation in environmental governance in order to strengthen environmental rule of law.

In addition, environmental rule of law can be strengthened by embracing a rights-based approach to environmental governance¹³⁴. A rights-based approach to environmental protection is one that is normatively based on rights and directed toward protecting those rights¹³⁵. This approach differs from regulatory approaches where environmental statutes set forth certain requirements and prohibitions relating to the environment¹³⁶. It has been argued that taking a rights-based approach to improving environmental rule of law provides a strong impetus and means for implementing and enforcing environmental protections¹³⁷. There has been progress towards realizing this goal through the recognition of the right to a clean, healthy and sustainable environment as a human right¹³⁸. This approach provides an impetus for realizing the right to a clean, healthy and sustainable environment and other human rights towards attainment of the Sustainable Development agenda¹³⁹. There is also need to enhance access to justice in order to strengthen environmental rule of law. Courts and tribunals play a pivotal role in enhancing environmental rule of law and fostering environmental justice¹⁴⁰. It has been observed that countries have reinforced and publicized the linkages between human rights and the environment, which has elevated the normative importance of environmental law and empowered courts and enforcement agencies to enforce environmental requirements¹⁴¹. It is thus vital to enhance access to justice by addressing barriers such as high court filing fees, bureaucracy, complex legal procedures, illiteracy, distance from formal courts, backlog of cases in courts and lack of legal knowhow which hinder

¹³⁴ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

¹³⁵ Ibid

¹³⁶ Ibid

¹³⁷ Ibid

¹³⁸ Muigua. K., 'Realizing the Right to a Clean, Healthy and Sustainable Environment.' Op Cit

¹³⁹ Ibid

¹⁴⁰ Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Op Cit

¹⁴¹ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

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effective access to justice¹⁴². It is also crucial to enhance practices such as public interest litigation in order to enhance access to justice in environmental matters¹⁴³.

Capacity building is also vital in strengthening environmental rule of law. It is therefore critical to create strong environmental agencies and continuously strengthen their capacity in order to enhance their effectiveness in environmental governance¹⁴⁴. It is also vital to adequately build capacity for judges, staff and ADR practitioners in environmental law in order to ensure that justice institutions, both formal and informal have the capacity to foster sound environmental governance¹⁴⁵. Further, it is essential to foster public awareness and education on environmental laws and regulations in order to promote compliance and enforcement of such laws¹⁴⁶.

Finally, there is need to move beyond the law in order to enhance sound environmental governance. One of the ways through which these can be achieved is by embracing the concept of community-based natural resource management through organized community legal action or through Alternative Dispute Resolution and traditional justice systems¹⁴⁷. Further, the concept of Environmental, Social and Governance (ESG) plays a fundamental role in environmental governance by incorporating Environmental, Social and Governance matters in corporate decision making in order to foster

¹⁴² Ojwang. J.B , “The Role of the Judiciary in Promoting Environmental Compliance and Sustainable Development,” 1 Kenya Law Review Journal 19 (2007), pp. 19-29: 29

¹⁴³ United Nations Economic Commission for Europe., ‘Access to Justice in Environmental Matters: Standing, Costs and Available Remedies.’ Available at https://unece.org/DAM/env/pp/a.to.j/AnalyticalStudies/SEE_Access2Justice_Study_Final_logos.pdf (Accessed on 14/09/2023)

¹⁴⁴ United Nations Environment Programme., ‘Environmental Rule of Law: First Global Report.’ Op Cit

¹⁴⁵ International Development Law Organization., ‘Climate Justice: A Rule of Law Approach for Transformative Climate Action.’ Op Cit

¹⁴⁶ United Nations Environment Programme., ‘Environmental Rule of Law: First Global Report.’ Op Cit

¹⁴⁷ Muigua. K, Wamukoya. D, & Kariuki. F., ‘Natural Resources and Environmental Justice in Kenya.’ Op Cit

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sustainability¹⁴⁸. It is thus vital for organizations to embrace ESG in order to achieve sustainable, responsible and ethical investments towards sustainability¹⁴⁹. Environmental ethics and morals should also be embraced in environmental governance¹⁵⁰. These ideas recognize the intrinsic value of nature and the responsibility of humans to act in accordance with ethical and moral principles towards environmental protection¹⁵¹. They envisage the moral and ethical obligations of human beings to protect and preserve the environment¹⁵². It is also ideal to embrace science and technology which play an important role in environmental governance in areas such sustainable waste management, climate change mitigation, sustainable agricultural practices and adoption of green and clean technologies¹⁵³.

Through the measures discussed above among others, environmental rule of law will be strengthened towards sustainability.

5. Conclusion

Environmental rule of law plays an important role in environmental governance. It offers a framework for addressing the gap between environmental laws as set out in text and in practice and is key to achieving the Sustainable Development Goals¹⁵⁴. There has been global progress towards promoting environmental rule of law through the enactment of environmental laws, establishment of environment ministries and agencies, and enshrining environment-related rights and protections in national constitutions¹⁵⁵. However, progress towards realizing environmental rule of law has often been

¹⁴⁸ Stuart. L.G et al., 'Firms and social responsibility: A review of ESG and CSR Research in Corporate Finance.' *Journal of Corporate Finance* 66 (2021): 101889.

¹⁴⁹ Ibid

¹⁵⁰ Minter. B., 'Environmental Ethics.' Available at <https://www.nature.com/scitable/knowledge/environmental-ethics-96467512/#:~:text=Environmental%20ethics%20is%20a%20branch,sustain%20biodiversity%20and%20ecological%20systems>. (Accessed on 14/09/2023)

¹⁵¹ Ibid

¹⁵² Ibid

¹⁵³ Muigua. K., 'Utilising Science and Technology for Environmental Management in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2020/04/Utilising-Science-and-Technology-for-Environmental-Management-in-Kenya.pdf> (Accessed on 14/09/2023)

¹⁵⁴ United Nations Environment Programme., 'Environmental Rule of Law.'

¹⁵⁵ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

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thwarted by challenges of implementation and enforcement of environmental laws¹⁵⁶. This often hinders sound environmental governance and sustainability¹⁵⁷. It is thus imperative to strengthen environmental rule of law in order to foster sustainability. This can be achieved through the enactment, and implementation of clear, strict, enforceable, and effective laws, regulations, and policies, embracing civic engagement through public participation and access to information in environmental governance, upholding a rights-based approach to environmental governance, enhancing access to justice in environmental matters, capacity building and moving beyond the law for sound environmental governance¹⁵⁸. Strengthening environmental rule of law for sustainability is a noble endeavour which must be realized.

¹⁵⁶ Ibid

¹⁵⁷ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

¹⁵⁸ United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit; See also Muigua. K., 'Rule of Law Approach for Inclusive Participation in Environmental, Social, and Governance (ESG) Accountability Mechanisms for Climate-Resilient Responses.' Op Cit

Rule of Law Approach for Inclusive Participation in Environmental, Social, and Governance (ESG) Accountability Mechanisms for Climate-Resilient Responses

Abstract

The paper argues a case for the rule of law approach for inclusive participation in Environmental, Social, and Governance (ESG) accountability mechanisms for climate resilient responses. It defines the rule of law. The paper further critically examines how the rule of law advances inclusive participation in ESG accountability mechanisms for climate resilient responses. The paper also explores the challenges facing the rule of law towards this end and offers solutions towards strengthening the rule of law approach in enhancing ESG accountability mechanisms for Sustainable Development.

1. Introduction

Environmental, Social and Governance (ESG) is a concept that seeks to achieve sustainable, responsible and ethical investments by incorporating Environmental, Social and Governance concerns in corporate decision making¹. The rise of ESG has been necessitated by global problems including climate change, corporate corruption and financial inequality². In turn, corporations have faced growing calls to be more environmentally sustainable, socially responsible and culturally transparent in how they run business³. Companies are thus embracing the idea of ESG to measure their impact on the environment, society, and the economy⁴. ESG incorporates Environmental factors such as climate change considerations, energy efficiency, carbon emissions, waste management and resource consumption⁵; Social factors including human rights, labour relations, employee welfare, community

¹ Stuart. L.G et al., 'Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance.' *Journal of Corporate Finance* 66 (2021): 101889.

² CMS., 'Putting the 'S' in 'ESG'- a Corporate Guide.' Available at <https://cms.law/en/int/publication/social-aspect-of-esg-lexicon-of-most-important-terms-and-phrases> (Accessed on 31/08/2023)

³ Ibid

⁴ ESG., 'The Link Between ESG and Community Engagement: Building Stronger Relationships.' Available at <https://vakilsearch.com/blog/the-link-between-esg-and-community-engagement/> (Accessed on 31/08/2023)

⁵ Henisz. W, Koller. T, & Nuttall. R., 'Five Ways that ESG Creates Value.' *McKinsey Quarterly*, 2019

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engagement, diversity and inclusion;⁶ and Governance issues such as board diversity, transparency and internal control systems⁷.

ESG factors are becoming increasingly important to investors and customers. It has been observed that investors are looking for companies that are socially responsible and have a positive impact on the environment and society while customers are also looking for companies that share their values and have a positive impact on the community⁸. Consequently, how companies handle environmental, social and governance issues has become a major concern especially for investors, customers and other key stakeholders⁹. Globally, the importance of Environmental, Social and Governance (ESG) issues is evidenced by the change in the legal and regulatory landscape to reflect the expectations of investors, customers, employees and other stakeholders¹⁰. It has been observed that ESG factors now apply in many areas increasingly driving investment decisions and commercial contracts to company strategy and culture¹¹. The concept of ESG is pertinent since Environmental, Social and Governance concerns have become a societal focal point in light of the Sustainable Development agenda¹².

The concept of ESG is very vital in the global response to the threat of climate change¹³. ESG in the context of climate change refers to environmentally sustainable practices undertaken by companies in order to mitigate their

⁶ Ibid

⁷ Ibid

⁸ ESG., 'The Link Between ESG and Community Engagement: Building Stronger Relationships.' Op Cit

⁹ Muigua. K., 'Embracing Environmental, Social and Governance (ESG) Principles for Sustainable Development in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2022/07/Embracing-ESG-Principles-for-Sustainable-Development-in-Kenya.pdf> (Accessed on 31/08/2023)

¹⁰ Ibid

¹¹ Sriyani. C. & Heenetigala. K., 'Integrating Environmental, Social and Governance (ESG) Disclosure for a Sustainable Development: An Australian Study.' *Business Strategy and the Environment*, No. 26 of 2017

¹² Ibid

¹³ Henisz. W, Koller. T, & Nuttall. R., 'Five Ways that ESG Creates Value.' Op Cit

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negative environmental impacts while continuing to make profit¹⁴. ESG practices can help companies to identify and address climate-related risks and opportunities¹⁵. For example, environmental metrics can help companies to track their greenhouse gas emissions and energy use, while social metrics can help them to assess the impact of climate change on their workforce and local communities¹⁶. Further, governance metrics can also play a critical role in addressing climate-related risks and opportunities, by ensuring that companies have the necessary oversight and accountability mechanisms in place to effectively manage climate-related risks¹⁷. ESG can therefore aid in designing climate-resilient responses¹⁸.

Despite the efficacy of the concept of ESG, it has been observed that some ESG tenets cannot be accurately assessed resulting in accountability challenges¹⁹. As a result, organizations tend to under-report or fail to report their ESG elements when required to do so²⁰. The phenomenon of greenwashing is growing whereby firms exhibit an appearance of transparency and disseminate substantial volumes of environmental, social, and governance (ESG) data, but demonstrate inadequate results in many dimensions of their ESG endeavours²¹. Further, it has been asserted that some ESG designs fail to take an inclusive approach including participation and community

¹⁴ Williams. C, & Nagy. D., 'ESG and Climate Change Blind Spots: Turning the Corner on SEC Disclosure.' Available at <https://texaslawreview.org/wp-content/uploads/2021/07/Williams.Printer.Updated.pdf> (Accessed on 31/08/2023)

¹⁵ Vignesh. P., 'Climate Change and ESG: Challenges and Opportunities.' Available at <https://vakilsearch.com/blog/climate-change-and-esg-challenges-and-opportunities/#:~:text=In%20addition%20to%20mitigating%20risks,enhancing%20their%20reputation%20among%20stakeholders> (Accessed on 31/08/2023)

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Williams. C, & Nagy. D., 'ESG and Climate Change Blind Spots: Turning the Corner on SEC Disclosure.' Op Cit

¹⁹ Perez. L et al., 'Does ESG Really Matter and why?.' Available at <https://www.mckinsey.com/capabilities/sustainability/our-insights/does-esg-really-matter-and-why> (Accessed on 31/08/2023)

²⁰ Ibid

²¹ Zhang D, 'Are Firms Motivated to Greenwash by Financial Constraints? Evidence from Global Firms' Data' *Journal of International Financial Management & Accounting*, No. 33 of 2022, (459)

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engagement²². These concerns can result in inefficient ESG accountability mechanisms which could result in Environmental, Social and Governance problems such as climate change, abuse of poor rights, bad labour practices and poor corporate governance practices²³. On this basis, it has been argued that a rule of law approach can foster inclusive participation in Environmental, Social, and Governance (ESG) accountability mechanisms for Sustainable Development²⁴.

The paper argues a case for the rule of law approach for inclusive participation in Environmental, Social, and Governance (ESG) accountability mechanisms for climate resilient responses. It defines the rule of law. The paper further critically examines how the rule of law can advance inclusive participation in ESG accountability mechanisms for climate resilient responses. The paper also explores the challenges facing the rule of law towards this end and offers solutions towards strengthening the rule of law approach in enhancing ESG accountability mechanisms for Sustainable Development.

2. The Rule of Law and ESG

The rule of law is a phenomenon that comprises a number of principles of a formal and procedural character, addressing the way in which a society is governed²⁵. The formal principles concern the generality, clarity, publicity, stability, and prospectively of the norms that govern a society²⁶. The procedural principles on the other part concern the processes by which these norms are administered, and the institutions like courts and an independent judiciary that their administration requires²⁷. On some accounts, the rule of law also comprises certain substantive ideals like a presumption of liberty and

²² Henisz. W, Koller. T, & Nuttall. R., 'Five Ways that ESG Creates Value.' Op Cit

²³ Stuart. L.G et al., 'Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance.' Op Cit

²⁴ Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4355016 (Accessed on 31/08/2023)

²⁵ Waldron. J., 'The Rule of Law.' Available at <https://plato.stanford.edu/Entries/rule-of-law/> (Accessed on 31/08/2023)

²⁶ Ibid

²⁷ Ibid

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respect for private property rights²⁸. The United Nations defines the rule of law as a principle of governance in which all persons, institutions and entities, public and private, including the state itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights norms and standards²⁹. According to the United Nations, the rule of law requires measures to ensure adherence to the principles of supremacy of the law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of arbitrariness, and procedural and legal transparency³⁰.

The idea of the rule of law encapsulates several principles including accessibility of the law in an intelligible, clear and predictable manner, equal application of the law to all persons, exercise of powers in a fair manner without arbitrariness, adequate protection of fundamental human rights, access to justice and legal remedies and compliance by the state with its obligations under international and national law³¹. The rule of law therefore essentially means that the law and regulation matters and that legal rights will have the backing of the state³². In addition, the rule of law infers that the state itself is constrained by law and cannot act unfairly or arbitrarily in relation to its own citizens and businesses³³. The International Development Law Organization (IDLO) asserts that the rule of law is an enabler of justice and development³⁴. According to IDLO, the rule of law is inseparable from equality, from access to justice and education, from access to health and the protection of the most vulnerable. The IDLO further asserts that the rule of law

²⁸ Ibid

²⁹ United Nations., 'What is the Rule of Law.' Available at <https://www.un.org/ruleoflaw/what-is-the-rule-of-law/> (Accessed on 31/08/2023)

³⁰ Ibid

³¹ Lee. P., 'The Rule of Law and Investor Approaches to ESG: Discussion Paper.' Available at https://binghamcentre.biicl.org/documents/155_rule_of_law_and_investor_approaches_to_esg.pdf (Accessed on 31/08/2023)

³² Ibid

³³ Ibid

³⁴ International Development Law Organization (IDLO)., 'Rule of Law.' Available at <https://www.idlo.int/what-we-do/rule-law> (Accessed on 31/08/2023)

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is crucial for the viability of communities and nations, and for the environment, that sustains them³⁵.

The rule of law is pertinent in ESG. It has been asserted that local regulation plays a key role in the standards applied with regard to Environmental (E) and Social (S) tenets such as environmental compliance, labour practices, human rights concerns, health and safety and occupational health issues, union relations and the right to association, relations with communities local to business operations among others³⁶. The rule of law therefore regulates ESG issues and the extent to which they are enforced in practice³⁷. It has also been argued that the rule of law and underlying legal systems also shape other areas that are seen as part of the G in ESG, including matters such as anti-bribery and corruption measures, and tax responsibility³⁸.

It has been argued that the growing field of ESG compliance encompasses many aspects from recruiting and supporting a diverse workforce to minimizing environmental impact and safeguarding against corruption and human rights abuses³⁹. Therefore, where the rule of law and governance are strong, the private sector benefits from state action on many fronts, from combating discrimination and corruption to protecting human rights, maintaining security, and enforcing environmental regulations⁴⁰. Good governance to this extent complements and reinforces corporate best practices and internal controls⁴¹. However, by contrast, contexts in which rule of law is weak present significant ESG challenges to which even the best compliance program is vulnerable⁴². Studies have shown that countries with low levels of rule of law systems are faced with problems such as corruption, poor

³⁵ Ibid

³⁶ Lee, P., 'The Rule of Law and Investor Approaches to ESG: Discussion Paper.' Op Cit

³⁷ Ibid

³⁸ Ibid

³⁹ Andersen, E., 'Global Rule of Law Trends Pose Challenges for ESG Movement.' Available at <https://businesslawtoday.org/2021/11/global-rule-of-law-trends-challenges-for-esg-environmental-social-governance/> (Accessed on 31/08/2023)

⁴⁰ Ibid

⁴¹ Ibid

⁴² Ibid

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governance, poor transparency and accountability mechanisms, abuse of human rights and depletion of natural resources which are issues that ESG seeks to address⁴³. The rule of law is therefore an element not only for economic growth, but also for environment sustainability and social justice⁴⁴. Strengthening the rule of law is therefore vital in realizing ESG factors.

From the foregoing, it is evident that the rule of law is vital in upholding ESG tenets by enhancing business confidence and institutional integrity, and therefore economic prosperity, sustainability initiatives and international trade⁴⁵. In business terms, in countries where the rule of law is not properly upheld and enforced, the legal risk of operating in the country increases, resulting in a higher cost of capital and a lower likelihood of investment, alongside risks of bribery and corruption and unjust institutions⁴⁶. In the context of climate change mitigation, the rule of law plays a significant part in investor confidence in the delivery of climate commitments, which will be crucial for investment institutions to feel the assurance necessary to make some climate-aware investments⁴⁷. The rule of law can thus aid in the adoption of climate resilient responses by investors and businesses⁴⁸. The United Nations Environment Programme (UNEP) asserts that environmental rule of law is central to Sustainable Development⁴⁹. It integrates environmental needs with the essential elements of the rule of law, and provides the basis for improving environmental governance⁵⁰. It further highlights environmental

⁴³ Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Op Cit

⁴⁴ Ibid

⁴⁵ Environmental, Social and Governance., 'The Rule of Law and Access to Justice.' Available at https://www.hoganlovells.com/-/media/hogan-lovells/global/knowledge/topic-centers/esg/pdf-files/sustainability_rule-of-law-02-tw.pdf (Accessed on 31/08/2023)

⁴⁶ Ibid

⁴⁷ Lee. P., 'The Rule of Law and Investor Approaches to ESG: Discussion Paper.' Op Cit

⁴⁸ Ibid

⁴⁹ United Nations Environment Programme., 'Environmental Rule of Law.' Available at <https://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law-0#:~:text=Environmental%20rule%20of%20law%20is,with%20fundamental%20rights%20and%20obligations> (Accessed on 31/08/2023)

⁵⁰ Ibid

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sustainability by connecting it with fundamental rights and obligations⁵¹. It is thus imperative to embrace the rule of law in order to enhance enforcement of legal rights and obligations, environmental governance and realization of ESG tenets.

3. Embracing the Rule of Law Approach for Inclusive Participation in ESG Accountability Mechanisms for Climate-Resilient Responses

The evolving social, environmental, and economic challenges facing the world have fueled more complex issues such as climate change, environmental pollution, unemployment, and poverty⁵². As the idea that organizations have responsibilities for the well-being of society developed, an increasing number of corporations have shifted their focus towards Environmental, Social, and Governance (ESG) issues⁵³. ESG is regarded as one of the driving forces to realize the Sustainable Development Goals (SDGs) proposed by the United Nations (UN) General Assembly in 2015⁵⁴. The Sustainable Development Goals seek to achieve global development within the ESG framework by addressing social concerns such as poverty, hunger, health, education, gender equality, access to clean water and employment through investments in areas such as energy, industry, innovation and infrastructure while mitigating the effects of climate change⁵⁵. It has been argued that understanding public perceptions of ESG is paramount to gaining public support, advancing ESG actions, and creating a sustainable ESG policy system⁵⁶.

⁵¹ Ibid

⁵² Liu, M, Luo, X, & Lu, W., 'Public Perceptions of Environmental, Social, and Governance (ESG) Based on Social Media Data: Evidence from China.' Available at <https://www.sciencedirect.com/science/article/abs/pii/S0959652622054142#:~:text=Environmental%20and%20social%20challenges%20are,a%20sustainable%20ESG%20policy%20system> (Accessed on 02/09/2023)

⁵³ Ibid

⁵⁴ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 02/09/2023)

⁵⁵ Ibid

⁵⁶ Liu, M, Luo, X, & Lu, W., 'Public Perceptions of Environmental, Social, and Governance (ESG) Based on Social Media Data: Evidence from China.' Op Cit

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Public participation plays a fundamental role in shaping environmental decision-making and can thus be vital in fostering ESG accountability mechanisms for climate-resilient responses⁵⁷. It has been observed that allowing impacted communities and other stakeholders to take part in decision-making is a basic component of democracy⁵⁸. Further, public participation can improve the quality of decision-making by providing decision-makers with additional, unique information on local conditions⁵⁹. In addition, public participation can also improve policy implementation by increasing the legitimacy of the decision-making process and, in so doing, reducing instances of conflict⁶⁰. It has further been observed that effective citizen involvement in environmental decision making has been associated with several benefits which include: information and ideas on public issues; public support for planning decisions; avoidance of protracted conflicts and costly delays; reservoir of good will which can carry over to future decisions; and spirit of cooperation and trust between decision makers and the public⁶¹. In terms of environmental concerns such as pollution, it has been asserted that the public has become the third force which assists in promoting environmental governance, together with local governments and polluting enterprises⁶². Since the public has no executive power, they can participate in environmental governance in an indirect way by lobbying local governments' environmental enforcement of polluting enterprises⁶³. Public participation can lead to the formulation of projects that deliver more social benefits, fewer

⁵⁷ Stockholm Environment Institute., 'Making Space: How Public Participation Shapes Environmental Decision-Making.' Available at <https://www.sei.org/publications/how-public-participation-shapes-environmental-decision-making/> (Accessed on 02/09/2023)

⁵⁸ Cerezo, L., & Garcia, G., 'Lay Knowledge and Public Participation in Technological and Environmental Policy.' Available at <https://scholar.lib.vt.edu/ejournals/SPT/v2n1/pdf/CEREZO.PDF> (Accessed on 02/09/2023)

⁵⁹ Ibid

⁶⁰ Ibid

⁶¹ Muigua, K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2018/08/TOWARDS-MEANINGFUL-PUBLIC-PARTICIPATION-IN-NATURAL-RESOURCE-MANAGEMENT-IN-KENYA.pdf> (Accessed on 02/09/2023)

⁶² Guo, J., & Bai, J., 'The Role of Public Participation in Environmental Governance: Empirical Evidence from China.' *Sustainability*, Volume 11, No. 17 (2019)

⁶³ Ibid

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environmental costs, and greater economic and financial benefits⁶⁴. Public participation is also vital in enhancing the public's environmental awareness, mobilizing multiple forces to reconcile the conflicts among multiple interest groups, supervising corporate environmental behavior, and overcoming the shortcomings of government unilateral decision-making⁶⁵. Public participation is therefore essential in environmental governance.

Public participation is also vital within the ESG framework. The 'E' pillar of ESG encapsulates Environmental factors such as climate change considerations, energy efficiency, carbon emissions, waste management and resource consumption.⁶⁶ Embracing public participation towards this end can therefore enhance climate resilient responses, reduction of emissions, efficient waste management and effective management of natural resources⁶⁷. Organizations can therefore enhance their standards and policies on ESG through public advocacy and participation⁶⁸. In addition, regulators can also enhance the quality of regulatory frameworks on ESG through public advocacy and participation⁶⁹.

It has been observed that environmental and social challenges are intensifying globally including inequitable distribution of land, and conflict over land, high rates of deforestation, soil erosion, declining soil fertility, pollution of water bodies, ineffective disposal of solid waste and violent conflicts over resources⁷⁰. Further, climate change is having a devastating impact around the world especially in developing countries creating food insecurity, poverty, stressing water resources, depleting human health, displacing populations

⁶⁴ Kanu, E.J, Tyonum, E.T, & Uchegbu, S.N., 'Public Participation in Environmental Impact Assessment (EIA): A critical analysis.' *Archit. Eng.* , Volume 3, No. 1, (2018)

⁶⁵ Ibid

⁶⁶ Henisz, W, Koller, T, & Nuttall, R., 'Five Ways that ESG Creates Value.' Op Cit

⁶⁷ Ibid

⁶⁸ Gilberg, S., 'Government and Public Sector Perspective: Aligning values and value through ESG.' Available at <https://www.pwc.com/ca/en/industries/government-and-public-services/aligning-values-and-value-through-esg.html> (Accessed on 02/09/2023)

⁶⁹ Ibid

⁷⁰ Muigua, K, Wamukoya, D, & Kariuki, F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

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and impeding socio-economic development⁷¹. Climate change is also putting pressure on natural resources such as land due to instances of depletion of natural resources, soil erosion, pollution and declining fertility⁷². This has resulted in an increase in conflicts over natural resources and displacement of people thus fueling climate injustices⁷³. In the wake of these challenges, there is a growing demand to deliver successful Environmental, Social, and Governance (ESG) outcomes in order to foster climate resilient development and foster efficient management of natural resources including land, forests and water resources⁷⁴. Understanding public perceptions of ESG is paramount to gaining public support, advancing ESG actions, and creating a sustainable ESG policy system geared towards combating climate change among other challenges⁷⁵. It has been argued that a rule of law approach can foster inclusive participation in ESG accountability mechanisms for climate resilient responses by improving governance of land and natural resources for the most climate vulnerable people through a combination of legal empowerment and institutional development approaches, and to promoting climate justice and climate-resilient development, especially in fragile contexts⁷⁶.

The importance of the rule of law in enhancing inclusive participation towards realizing Sustainable Development Goals such as combating climate change is recognized under the 2030 Agenda for Sustainable Development⁷⁷. Sustainable Development Goal 16 and 16.3 seeks to promote the rule of law at the national and international levels and ensure equal access to justice for all⁷⁸. Fostering

⁷¹ Kimaro. Didas et al., 'Climate Change Mitigation and Adaptation in ECA/SADC/COMESA Region: Opportunities and Challenges.' Available at https://www.researchgate.net/publication/346628199_Climate_Change_Mitigation_and_Adaptation_in_ECASADCCOMESA_region_Opportunities_and_Challenges (Accessed on 02/09/2023)

⁷² Ibid

⁷³ Ibid

⁷⁴ Guo. J, & Bai. J., 'The Role of Public Participation in Environmental Governance: Empirical Evidence from China.' Op Cit

⁷⁵ Ibid

⁷⁶ International Development Law Organization (IDLO)., 'Rule of Law.' Op Cit

⁷⁷ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Op Cit

⁷⁸ Ibid

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this goal is vital in embracing a rule of law approach in climate change mitigation and adaptation.

In Kenya, the 2010 Constitution was enacted to protect the values of the rule of law, key among them being the idea of citizen participation in governance⁷⁹. The Constitution enshrines public participation as among the national values and principles of governance⁸⁰. The Constitution further stipulates the right of access to justice, which is very pertinent in protecting the rule of law⁸¹. The Constitution also envisages the role of public participation in environmental governance and to this extent it mandates the state to encourage public participation in the management, protection and conservation of the environment⁸². It further gives mandate to citizens to enforce environmental rights through courts⁸³. These provisions of the Constitution are vital in fostering a rule of law approach for inclusive participation in environmental governance in areas such as climate change mitigation through public participation and access to justice.

The role of inclusive participation in ESG sectors such as designing climate resilient responses is also recognized under the *Climate Change Act*⁸⁴ of Kenya. The Act requires national and county governments to facilitate capacity development for public participation in climate change responses through awareness creation, consultation, representation and access to information⁸⁵. It also enshrines the role of public consultation in the formulation of the National Climate Change Action Plan in Kenya⁸⁶. The Act further provides that public entities at each level of government shall, at all times when developing strategies, laws and policies relating to climate change, undertake

⁷⁹ Hao, C, Nyaranga, M, & Hongo, D., 'Enhancing Public Participation in Governance for Sustainable Development: Evidence From Bungoma County, Kenya.' Available at <https://journals.sagepub.com/doi/full/10.1177/21582440221088855> (Accessed on 02/09/2023)

⁸⁰ Constitution of Kenya, 2010., Article 10 (2) (a), Government Printer, Nairobi

⁸¹ Ibid, Article 48

⁸² Ibid, Article 69 (1) (d)

⁸³ Ibid, Article 70

⁸⁴ Climate Change Act., No. 11 of 2016, Government Printer, Nairobi,

⁸⁵ Ibid, S 3 (2) (h)

⁸⁶ Ibid, S 13 (1)

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public awareness and conduct public consultations⁸⁷. Actualizing the provisions of the Climate Change Act is therefore imperative in fostering a rule of law approach for inclusive participation in ESG accountability mechanisms for climate-resilient responses.

The rule of law has also been embraced to foster inclusive participation in environmental governance through litigation. Courts in Kenya play an important role in safeguarding environmental rights and fostering environmental justice⁸⁸. The Constitution of Kenya also recognizes the role of litigation in enforcement of environmental rights⁸⁹. It allows a person alleging the denial, infringement or violation or of the right to a clean and healthy environment to apply to a court for redress in addition to any other legal remedies that are available⁹⁰. Courts have consistently held that public participation plays an important role in environmental governance including formulation of laws and designing and implementing projects⁹¹. Consequently, in instances where courts have found that projects fail to embrace public participation in adopting climate-resilient responses, such projects have been halted or orders made for fresh Environmental Impact Assessment (EIA) processes to be undertaken involving public participation⁹². Litigation is therefore vital in fostering a rule of law approach for inclusive participation in ESG accountability mechanisms for climate resilient responses.

⁸⁷ Ibid, S 24 (1)

⁸⁸ Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Available at <http://kmco.co.ke/wp-content/uploads/2019/01/The-Role-of-Courts-in-Safeguarding-Environmental-Rights-in-Kenya-A-Critical-Appraisal-Kariuki-Muigua-17th-January-2019-1.pdf> (Accessed on 02/09/2023)

⁸⁹ Constitution of Kenya, 2010., Article 70

⁹⁰ Ibid

⁹¹ See the cases of Friends of Lake Turkana Trust vs Attorney General & 2 others., ELC Suit No. 825 of 2012, (2014) eKLR; Mohamed Ali Baadi and others -vs- Attorney General & 11 Others, Petition No. 22 of 2012 (2018) eKLR and Mui Coal Basin Local Community & 15 others -vs- Permanent Secretary Ministry of Energy & 17 others, Constitutional Petition No. 305 of 2012, (2015) eKLR.

⁹² See the cases of Save Lamu & 5 others -vs- National Environmental Management Authority (NEMA) & Another, Tribunal Appeal No. NET 196 of 2016, (2019) eKLR and Mohamed Ali Baadi and others -vs- Attorney General & 11 Others, Petition No. 22 of 2012 (2018) eKLR.

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The rule of law is therefore vital in fostering an inclusive approach in ESG accountability mechanisms for climate-resilient responses. The rule of law regulates ESG tenets such as those related to climate change, and the extent to which they are enforced in practice⁹³. In Kenya, laws such as the Climate Change Act are vital in fostering climate-resilient responses. Further, courts play an important role in enforcing ESG matters such as climate change policies and requirements⁹⁴. The rule of law is also vital in promoting inclusive participation in ESG accountability mechanisms for climate-resilient responses as evidenced by the provisions of public participation in environmental governance in Kenya in areas such as climate change mitigation and adaptation⁹⁵. However, it has been shown that the rule of law in some countries is affected by problems such as corruption, poor governance, authoritarian leadership, poor transparency and accountability mechanisms, abuse of human rights and poor management of natural resources⁹⁶. There is need to address these problems in order to strengthen the rule of law across the world and enhance its role towards inclusive participation in ESG accountability mechanisms for climate-resilient responses.

4. Way Forward

There is need to strengthen the rule of law in order to enhance environment sustainability and social justice⁹⁷. It has been argued that the rule of law is an element not only for economic growth, but also for environment sustainability and social justice⁹⁸. Strengthening the rule of law is therefore vital in realization of ESG factors. It has been asserted that the rule of law can accelerate transformative climate action by empowering climate-vulnerable

⁹³ Lee. P., 'The Rule of Law and Investor Approaches to ESG: Discussion Paper.' Op Cit

⁹⁴ Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Op Cit

⁹⁵ Constitution of Kenya, 2010, Articles 10 (2) (a) & 69 (1) (d); See also the provisions of the Climate Change Act, No. 11 of 2016

⁹⁶ Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Op Cit

⁹⁷ Ibid

⁹⁸ Ibid

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communities and people;⁹⁹ investing in people-centered laws and institutions to promote transformative climate action, championing feminist climate action and integrating gender-transformative approaches;¹⁰⁰ strengthening prospects for sustaining peace and stability by preventing and resolving climate-related disputes;¹⁰¹ engaging with customary, informal and indigenous justice systems to protect biodiversity and promote sustainable use of natural resources;¹⁰² harnessing the transformative potential of the rule of law to address the intersecting effects of climate change and mobilizing global multi-stakeholder coalitions to accelerate climate action¹⁰³. It is therefore imperative to strengthen the rule of law and embrace it in order to enhance inclusive participation in ESG accountability mechanisms for climate-resilient responses. One of the key ways of enhancing the rule of law towards this end is by strengthening the regulatory frameworks and institutional capacity for climate –resilient development and ensuring that justice institutions, both formal and informal, have the capacity to deliver on the promise of climate justice¹⁰⁴.

It is also essential to embrace public participation and inclusive governance in order to enhance sustainable management of land and other natural resources¹⁰⁵. Public participation is believed to be important in bridging the gap between the government, civil society, private sector and the general public, building a common understanding about the local situation, priorities and programmes as it encourages openness, accountability and transparency, and is thus at the heart of inclusive decision-making¹⁰⁶. Local communities possess unique and valuable contextual knowledge of natural resources and

⁹⁹ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Available at https://www.idlo.int/sites/default/files/pdfs/publications/climate_justice_policy_paper_-_climate_action_-_final.pdf (Accessed on 02/09/2023)

¹⁰⁰ Ibid

¹⁰¹ Ibid

¹⁰² Ibid

¹⁰³ Ibid

¹⁰⁴ Ibid

¹⁰⁵ Muigua. K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Op Cit

¹⁰⁶ Ibid

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have a vested interest in ensuring the sustainable use of land and resources¹⁰⁷. The rule of law has an important role to play towards achieving this goal. It has been pointed out that strengthening adherence to the rule of law principles and mainstreaming environmental law across public policy can lead to the effective implementation of nature-based solutions, giving greater agency to the communities that depend on the land the most¹⁰⁸. The rule of law improves inclusive governance of land and natural resources, increases climate-resilient development and empowers climate vulnerable people to actively participate in managing their natural environments, enabling the conditions for peace and development to flourish¹⁰⁹. The rule of law is therefore vital in fostering public participation for climate resilient responses within the ESG framework.

Finally, it is important to curb vices which hinder effectiveness of the rule of law such as corruption, poor governance, poor transparency and accountability mechanisms, abuse of human rights and poor governance of natural resources.¹¹⁰ These factors hinder the efficacy of the rule of law in bringing transformative action towards inclusive participation in ESG governance for climate resilient responses¹¹¹. It is important to address these problems in order to enhance the efficacy of the rule of law. The rule of law is positively associated with the other variables that are representative of the good governance such as regulatory quality, control of corruption, transparency and accountability, political stability and absence of violence/terrorism¹¹². Fostering good governance within the 'G' pillar of ESG is therefore vital in upholding the rule of law¹¹³. Through these measures, the

¹⁰⁷ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

¹⁰⁸ International Union for Conservation of Nature., 'Nature-Based Solutions.' Available at <https://www.iucn.org/our-work/nature-based-solutions> (Accessed on 02/09/2023)

¹⁰⁹ Ibid

¹¹⁰ Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Op Cit

¹¹¹ International Development Law Organization (IDLO)., 'Rule of Law.' Op Cit

¹¹² Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Op Cit

¹¹³ Ibid

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role of the rule of law for inclusive participation in ESG accountability mechanisms for climate-resilient responses will be enhanced.

5. Conclusion

The rule of law is pertinent in Environmental, Social and Governance matters since it regulates ESG issues and the extent to which they are enforced in practice¹¹⁴. A rule of law approach has the ability to foster inclusive participation in ESG accountability mechanisms for climate resilient responses by improving governance of land and natural resources for the most climate vulnerable people through a combination of legal empowerment and institutional development approaches, and to promoting climate justice and climate-resilient development, especially in fragile contexts¹¹⁵. However, the efficacy of the rule of law in some countries is affected by problems such as corruption, poor governance, authoritarian leadership, poor transparency and accountability mechanisms, abuse of human rights and poor management of natural resources¹¹⁶. These challenges can be curbed by strengthening the rule of law, embracing public participation and inclusive governance and fostering good governance through measures such as regulatory quality, control of corruption, transparency and accountability, political stability and absence of violence/terrorism.¹¹⁷ Embracing a rule of law approach for inclusive participation in ESG accountability mechanisms for climate-resilient responses is a feasible reality.

¹¹⁴ Ibid

¹¹⁵ International Development Law Organization (IDLO), 'Rule of Law.' Op Cit

¹¹⁶ Leogrande. A., 'The Rule of Law in the ESG Framework in the World Economy.' Op Cit

¹¹⁷ Ibid

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Abstract

The Kenyan Government has been preparing to set up nuclear reactors in the country as an alternative source of energy to add to the national grid as part of the plans to meet the country's development blueprint, Vision 2030 and the Big Four Agenda. Nuclear energy, while a plausible source of energy, comes with its good share of challenges. This paper critically evaluates the viability of different sources of energy including nuclear energy by drawing lessons from other countries where these sources have been explored and either succeeded or failed. The paper also offers recommendations on the possible sources of energy that are worth exploring in the Kenyan context.

1. Introduction

With the ever growing population, advanced technological developments and climate change, the world continues to face challenges as far as energy needs are concerned.¹ In order to meet its energy requirements, the Government of Kenya set out to install nuclear energy reactors as an alternative source of renewable energy in addition to hydropower, wind and geothermal power, among others, in the country.² The country's energy needs are expected to rise due to population increase as well as the country's development blueprint, Vision 2030 and the Big Four Agenda.³ Kenya expects peak demand to top 22,000 megawatts by 2031, partly due to industrial expansion, a component in Kenyatta's Big Four Agenda.⁴

¹ David Bodansky, 'Nuclear Energy: Principles, Practices, and Prospects' (CERN Document Server, 2008) <<https://cds.cern.ch/record/1109377>> accessed 19 August 2020.

² Republic of Kenya, *National Energy Policy*, October, 2018 <https://kplc.co.ke/img/full/BL4PdOqKtxFT_National%20Energy%20Policy%20October%20202018.pdf> accessed 30 September 2020.

³ Kiprop, Eliud, Kenichi Matsui, and Nicholas Maundu. "Can Kenya supply energy with 100% renewable sources?." In *5th International Conference on Environment and Renewable Energy*, pp. 18-19. 2017 <https://www.researchgate.net/publication/328925970_Can_Kenya_Supply_Energy_With_100_Renewable_Sources> accessed 30 September 2020.

⁴ 'Kenya on Course for \$5 Billion Nuclear Plant to Power Industry' *Bloomberg.com* (4 August 2020) <<https://www.bloomberg.com/news/articles/2020-08-04/kenya-on-course-for-5-billion-nuclear-plant-to-power-industry>> accessed 19 August 2020.

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Currently, it is estimated that hydropower accounts for 35 percent of Kenya's electricity generation, with the rest coming from geothermal, wind and diesel powered plants.⁵ Notably, Kenya is not the only African country that is on the journey towards establishing their first nuclear plant, as way of diversifying the countries' energy mix to improve their electricity generation capacity.⁶ However, while Kenya is at an advanced stage with the nuclear power plant establishment, there have been serious concerns relating to the technical issues associated with storage, transportation and the disposal of radioactive material and waste.⁷ This is in view of the nuclear disasters that have occurred in the past and recently across the globe.⁸ There is a need for the Government of Kenya and other stakeholders to be wary of the same even as the country ventures into nuclear energy production.

2. Energy Sources in Kenya: The Challenges

The Ministry of Energy observes that energy is one of the key enablers of Kenya's Vision 2030 and the Big 4 Agenda development programs and thus, Kenya treats energy security as a matter of national priority.⁹ This is based on the fact that the Third Medium Plan 2017-2022 identifies energy as the

⁵ Republic of Kenya, *National Energy Policy*, October, 2018.

⁶ 'A Case for Nuclear Energy in Kenya' (*The Star*) <<https://www.the-star.co.ke/opinion/columnists/2019-04-05-a-case-for-nuclear-energy-in-kenya/>> accessed 19 August 2020.

⁷ 'A Case for Nuclear Energy in Kenya' (*The Star*) <<https://www.the-star.co.ke/opinion/columnists/2019-04-05-a-case-for-nuclear-energy-in-kenya/>> accessed 19 August 2020.

⁸ 'A Brief History of Nuclear Accidents Worldwide | Union of Concerned Scientists' <<https://www.ucsusa.org/resources/brief-history-nuclear-accidents-worldwide>> accessed 6 October 2020; Daniel Bukszpan, '11 Nuclear Meltdowns and Disasters' (CNBC, 16 March 2011) <<https://www.cnn.com/2011/03/16/11-Nuclear-Meltdowns-and-Disasters.html>> accessed 6 October 2020; 'Nuclear Reactor Accidents - History and Legacies' (*Atomic Heritage Foundation*) <<https://www.atomicheritage.org/history/nuclear-reactor-accidents-history-and-legacies>> accessed 6 October 2020; 'Chernobyl Was the World's Worst Nuclear Power Plant Accident. Here's How It Compares to Fukushima and Three Mile Island.' (*Business Insider Africa*, 12:20 200AD) <<https://africa.businessinsider.com/tech/chernobyl-was-the-worlds-worst-nuclear-power-plant-accident-heres-how-it-compares-to/1xl2t91>> accessed 6 October 2020.

⁹ kawi, 'Background' (*Ministry of Energy*) <https://energy.go.ke/?page_id=439> accessed 28 September 2020.

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country's driver into "a newly-industrializing, middle-income economy, providing a high quality of life to all its citizens in a clean and secure environment," and as a result, Kenya considers access to competitively-priced, reliable, quality, safe and sustainable energy as an essential ingredient for the country's social –economic development.¹⁰

It has rightly been pointed out that in the past decade the country has grappled with the challenge of unreliable, expensive and unsustainable energy use supporting a stagnating industrial and manufacturing base. This is due to aging energy infrastructure that can no longer meet the modern day requirements as envisaged in the country's economic blueprint, the Kenya Vision 2030.¹¹

As Kenya seeks to realize the national blueprint for development and the sustainable development agenda as far as energy generation is concerned, there has been efforts to diversify energy sources in the country. It has been observed that Kenya is moving towards procuring more of its additional power from wind and solar and with the substantial growth in hydro, wind and solar energy in the recent years, this has led to a decline in generation from oil, gas and coal sources and electricity imports.¹²

Indeed, Kenya is considered the world's 8th largest geothermal power producer, has the continent's largest wind farm, a vibrant off grid energy market, and an aggressive last mile campaign to connect every citizen.¹³

¹⁰ Ibid.

¹¹ Owiro, D., G. Poquillon, K. S. Njonjo, and C. Oduor. "Situational analysis of energy industry, policy and strategy for Kenya." *Institute of Economic Affairs* (2015) <https://media.africaportal.org/documents/Situational-Analysis-of-Energy-Industry-Policy-and--Strategy-for-Kenya_1.pdf> accessed 28 September 2020, p.5.

¹² Research and Markets, 'Insights on the Energy Requirements of Kenya to 2050 - Moving Towards Procuring More Power from Wind and Solar' (*GlobeNewswire News Room*, 11 September 2020) <<http://www.globenewswire.com/news-release/2020/09/11/2092394/0/en/Insights-on-the-Energy-Requirements-of-Kenya-to-2050-Moving-Towards-Procuring-more-Power-from-Wind-and-Solar.html>> accessed 24 September 2020.

¹³ 'Our Latest Thoughts on Kenya's Power Sector Challenges' (*Energy For Growth*) <<https://www.energyforgrowth.org/blog/our-latest-thoughts-on-kenyas-power-sector-challenges/>> accessed 21 September 2020.

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As at 2015, it was estimated that the energy sector relies on three main sources of energy, biomass, petroleum and electricity, at 68%, 21% and 9% of total energy consumption in Kenya, with biomass constituting the largest source of energy consumed in Kenya in the form of wood fuel and charcoal, extensively used in the rural areas by mostly poor households for cooking and heating purposes, as well as small business, principally kiosks and restaurants within urban centres.¹⁴

Some reports show that Kenya has had one of the fastest increases in electrification rates within sub-Saharan Africa since 2013: by 2018, 75% of the population had access, with the Government aiming to reach full access by 2022.¹⁵ Notably, Government's Kenya Vision 2030 aspires to transform Kenya from low income status into a middle-income country and a key element to this vision is a lower cost of power reaching more broadly across the population.¹⁶ As the African Continent seeks to invest in infrastructural development, including the power sector, Kenya is touted as one of the countries that have made notable progress. For instance, it is noted that the Programme for Infrastructure Development in Africa is forecasting an additional 140,000 MW of power over for the East African Power Pool where Kenya's share of this is 13,852 MW of planned peak demand by 2038 or an increase of just over 11,000 MW over this 20-year period.¹⁷

Despite this positive report, Kenya's energy sector is faced by a myriad of challenges. As far as the use of clean energy is concerned, it is estimated that

¹⁴ Owiro, D., G. Poquillon, K. S. Njonjo, and C. Oduor. "Situational analysis of energy industry, policy and strategy for Kenya." *Institute of Economic Affairs* (2015), p.7.

¹⁵ 'Kenya Energy Outlook - Analysis' (IEA) <<https://www.iea.org/articles/kenya-energy-outlook>> accessed 21 September 2020.

¹⁶ Research and Markets Ltd, 'Kenyan Energy Requirements Forecasted to 2050 - Research and Markets' <<https://www.researchandmarkets.com/reports/5136031/kenyan-energy-requirements-forecasted-to-2050>> accessed 24 September 2020.

¹⁷ Research and Markets, 'Insights on the Energy Requirements of Kenya to 2050 - Moving Towards Procuring More Power from Wind and Solar' (*GlobeNewswire News Room*, 11 September 2020) <<http://www.globenewswire.com/news-release/2020/09/11/2092394/0/en/Insights-on-the-Energy-Requirements-of-Kenya-to-2050-Moving-Towards-Procuring-more-Power-from-Wind-and-Solar.html>> accessed 24 September 2020.

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two-thirds of Kenya's energy currently comes from bioenergy.¹⁸ It has been observed that as Kenya seeks to move from non-renewable energy sources to renewable energy sources, moving an economy which relies heavily on wood fuel and biomass as its largest energy source, to achieve sustainable energy use through the gradual increase in the use of renewable energy sources that are often expensive due to the technology deployed, in the face of oil and coal discoveries that could be more readily accessible in spite of its known effects on the environment is a great challenge.¹⁹

While independent power producers have made considerable efforts to produce enough power to run the country, there have been challenges with uptake of the same by the Kenya Power and Lighting Company Plc (KPLC). For instance, in the recent times and partly due to the Corona Virus (Covid-19) pandemic, there have been reports that measures to contain the pandemic have led to reduced demand for power especially among the commercial consumers who account for over 65% of the power use in the country.²⁰ Reports also indicate that KPLC has prioritized the uptake of geothermal at 39.5 per cent, hydro at 33.9 per cent, wind at 14 per cent, diesel at 9.7 per cent with other sources like solar, imports from Uganda and co-generation accounting for about three per cent.²¹ This has thus left some of the producers with excess power.²² This shows that Kenya's main consumers of electricity are commercial businesses and when these run into problems, the independent power producers are left stranded. This happens while there are still reports that there are homes still not connected to the grid despite the Government's best efforts to do so. Thus, even as the Government looks for

¹⁸ 'Kenya Energy Outlook - Analysis' (IEA) <<https://www.iaea.org/articles/kenya-energy-outlook>> accessed 21 September 2020.

¹⁹ Owiro, D., G. Poquillon, K. S. Njonjo, and C. Oduor. "Situational analysis of energy industry, policy and strategy for Kenya." *Institute of Economic Affairs* (2015), p. 7.

²⁰ 'Consumers Pay the Price as Covid Electricity Cuts Hit Turkana Project - The East African' Monday September 14 2020 <<https://www.theeastafrican.co.ke/tea/business/consumers-pay-the-price-as-covid-electricity-cuts-hit-turkana-project-1939124>> accessed 1 October 2020.

²¹ 'Consumers Pay the Price as Covid Electricity Cuts Hit Turkana Project - The East African' Monday September 14 2020 <<https://www.theeastafrican.co.ke/tea/business/consumers-pay-the-price-as-covid-electricity-cuts-hit-turkana-project-1939124>> accessed 1 October 2020.

²² Ibid.

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ways to produce cleaner power, there is also a need to address the disconnect between production and take up of the power.

It is estimated that Kenya's Lake Turkana wind farm and its 365 turbines make for a generating capacity of more than 300MW, creating one of the most productive projects anywhere in the world.²³ Wind power has become a key contributor to the national grid to the extent that where there is interruption in its production, consumers have ended paying more for electricity in the country.²⁴

Notably, the Lake Turkana Wind Power (LTWP) has been allocated a maximum production quota of 210MW, against an installed capacity of 310MW.²⁵ While this has been attributed to the Covid-19 pandemic that afflicted almost the whole world in 2020, it raises a concern as to whether the power producers' major customers are only the commercial users. This is because, it has already been pointed out that there are households that still mainly rely on kerosene and biomass as their main source of energy for their inability to afford electricity. Thus, even as we vouch for increased transition to renewable energy by way of increased production, this scenario points out the fact that there is more than availability of the renewable energy: the same must not only be made available but must also be made affordable to the local 'mwananchi' (citizen).

3. Nuclear Power as a Substitute for Fossil Fuels

It has been noted that many countries are reconsidering the role of nuclear energy in their energy mix, as a means to alleviate the concerns over climate

²³ 'What's Driving Wind Power in Kenya and What Challenges Lie in Wait?' <<https://www.nsenergybusiness.com/features/wind-power-kenya-challenges/>> accessed 24 September 2020.

²⁴ 'Consumers Pay the Price as Covid Electricity Cuts Hit Turkana Project - The East African' <<https://www.theeastafrican.co.ke/tea/business/consumers-pay-the-price-as-covid-electricity-cuts-hit-turkana-project-1939124>> accessed 1 October 2020.

²⁵ 'Consumers Pay the Price as Covid Electricity Cuts Hit Turkana Project - The East African' <<https://www.theeastafrican.co.ke/tea/business/consumers-pay-the-price-as-covid-electricity-cuts-hit-turkana-project-1939124>> accessed 1 October 2020.

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change, security of energy supply and the price and price volatility of fossil fuels.²⁶

Thus, the need for alternative sources of energy has been fueled by the combination of climate change fears and a continued growth in energy demand as a way of moving away from the global fossil fuel addiction.²⁷ Currently, it is estimated that nuclear fission as one such alternative accounts for 14% of global electricity generation and has the potential to generate significantly more.²⁸ The proponents of use of nuclear energy argue that it has the potential to reduce pollution, cut greenhouse gas emissions, and help countries attain more energy independence.²⁹

The global legal framework on production and use of nuclear energy governs key issues relating to the use and safety of nuclear energy and all countries venturing into this territory are expected to abide by the same. Specifically, the existing international nuclear liability regime is based on the Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982 (1960 Paris Convention) and the Vienna Convention on Civil Liability for Nuclear Damage (1963 Vienna Convention), which set forth the basic principles of nuclear liability law.³⁰ These principles include: the operator of a nuclear installation is exclusively liable for nuclear damage; strict (no fault) liability is imposed on the operator; exclusive jurisdiction is granted to the courts of one State, to the exclusion of

²⁶ Gordelier, Stan, and Ron Cameron. "Comparing nuclear accident risks with those from other energy sources." *Nucl Dev* (2010): 33-40, p.9; Strupczewski, A. "Accident risks in nuclear-power plants." *Applied Energy* 75 (2003): 79-86.

²⁷ 'Nuclear Power: The Good, the Bad and the Ugly'
<<https://sites.google.com/site/asaksdfuyhlaku/>> accessed 8 September 2020.

²⁸ Ibid.

²⁹ 'International Politics - Nuclear Energy'
<<https://sites.google.com/a/ncsu.edu/nuclear-energy/politics/foreign>> accessed 8 September 2020.

³⁰ Gioia, Andrea, "The 1997 Vienna Convention on Civil Liability for Nuclear Damage and the 1997 Convention on Supplementary Compensation. Explanatory Texts." (2007): 5-99 < https://www-pub.iaea.org/MTCD/Publications/PDF/P1768_web.pdf> accessed 8 September 2020.

the courts in other States; and liability may be limited in amount and in time.³¹ The International Atomic Energy Agency is the main institution that oversees the implementation of these legal instruments among other functions.³² Countries such as France have been using nuclear energy as their biggest contributor to domestic electricity needs.³³ However, it should be noted that even such countries as France and Germany that have far much advanced technology and regulatory frameworks in place for nuclear energy are also cutting down on their use of nuclear energy for its potential negative effects if not well handled.³⁴

4. Nuclear Energy in Kenya: Legal and Institutional Framework

The preferred site for the nuclear plant in the country is Tana River County, near the Kenyan coast which was preferred after studies across three regions. The plant will be developed with a concessionaire under a build, operate and transfer model.³⁵ It is noteworthy that Kenya is still at a nascent stage in its plans to set up nuclear reactors, especially as far as regulatory frameworks are concerned.

³¹ Ibid, pp. 1-2.

³² 'International Atomic Energy Agency | Nuclear Energy for Peaceful Uses | NTI' <<https://www.nti.org/learn/treaties-and-regimes/international-atomic-energy-agency/>> accessed 6 October 2020; See also Convention on Third Party Liability in the Field of Nuclear Energy and the Vienna Convention on Civil Liability for Nuclear Damage and the 1997 Vienna Convention on Civil Liability for Nuclear Damage and the 1997 Convention on Supplementary Compensation for Nuclear Damage.

³³ 'Nuclear Power in France | French Nuclear Energy - World Nuclear Association' <<https://www.world-nuclear.org/information-library/country-profiles/countries-a-f/france.aspx>> accessed 6 October 2020; Velasquez, Carlos E., Fidélis BGL e Estanislau, Antonella L. Costa, and Cláudia Pereira. "Assessment of the French nuclear energy system—A case study." *Energy Strategy Reviews* 30 (2020): 100513.

³⁴ '• Nuclear Reactors: Permanent Shutdowns by Country Worldwide 2020 | Statista' <<https://www.statista.com/statistics/513639/number-of-permanent-nuclear-reactor-shutdowns-worldwide/>> accessed 6 October 2020.

³⁵ 'Kenya on Course for \$5 Billion Nuclear Plant to Power Industry' *Bloomberg.com* (4 August 2020) <<https://www.bloomberg.com/news/articles/2020-08-04/kenya-on-course-for-5-billion-nuclear-plant-to-power-industry>> accessed 19 August 2020.

4.1 Nuclear Power and Energy Agency (NuPEA)

The Nuclear Power and Energy Agency, formerly Kenya Nuclear Electricity Board (KNEB), is a State Corporation established under the Energy Act 2019.³⁶ The Agency is charged with, inter alia: being the nuclear energy programme implementing organization and promoting the development of nuclear electricity generation in Kenya; and carrying out research, development and dissemination activities in the energy and nuclear power sector.³⁷ The Agency is therefore expected to work closely with the other stakeholders in the energy sector to oversee the setting up and successful running of nuclear energy production projects in the country.

4.2 Nuclear Regulatory Act 2019

The Nuclear Regulatory Bill 2018 was first published by Parliament on November 19, 2018.³⁸ The Bill has since been enacted as law under *Nuclear Regulatory Act, 2019*³⁹ which was enacted to provide for a comprehensive framework for the regulation of safe, secure and peaceful utilization of atomic energy and nuclear technology; the production and use of radiation sources and the management of radioactive waste; the repeal of the Radiation Protection Act and for connected purposes.⁴⁰ While the Act is quite comprehensive, there will be need for constant review as the stakeholders identify what works and what challenges arise in the course of its implementation.

5. Nuclear Energy in Kenya: Getting it Right

Some commentators on the issue have highlighted some of the issues that have made the general public uncomfortable with the idea of Kenya turning to nuclear energy including: lack of properly trained manpower, the overall cost of the project, suitability of the sites where nuclear plants are to be built and

³⁷ Sec. 56, Energy Act, No. 1 of 2019, Laws of Kenya.

³⁸ Nuclear Regulatory Bill 2018, Kenya Gazette Supplement No.143 (National Assembly Bills No.27).

³⁹ Nuclear Regulatory Act, No. 29 of 2019, Laws of Kenya.

⁴⁰ Ibid, Preamble.

nuclear disaster management.⁴¹ However, even as the Government proceeds with the project, there is a need to consider and continually address the issues discussed hereunder to minimize the risk of coming face to face with the potential ugly consequences of mishandling the nuclear reactors.

5.1 Capacity Building

Considering that there are hardly any nuclear engineers currently working for the Nuclear Power and Energy Agency, and despite it doing a lot to ensure the existing engineers are trained and mentored abroad, the Government of Kenya through the agency has been rolling out annual training programmes targeting Kenyans in various fields to build adequate capacity for the country's nuclear power programme.⁴² The training mostly comprises of short and long term programmes in partnership with local and international institutions.⁴³ In the long run, the Government needs to invest in local institutions to enhance their capacity for training.

5.2 Public Awareness

Considering that nuclear energy is a completely new concept among the Kenyan people, there is a need for authorities to sensitise the public on the same. It is commendable that there have been efforts by the relevant authorities to not only organise public forums but also organise primary and secondary schools' writing competitions on nuclear energy.⁴⁴ This should continue in order to address any concerns that the public may have and also for ensuring that there is clear communication among all stakeholders. A well informed public can process and appreciate any information that is disseminated and it also makes it easier for the Government to tap into any

⁴¹ 'A Case for Nuclear Energy in Kenya' (*The Star*) <<https://www.the-star.co.ke/opinion/columnists/2019-04-05-a-case-for-nuclear-energy-in-kenya/>> accessed 19 August 2020.

⁴² 'A Case for Nuclear Energy in Kenya' (*The Star*) <<https://www.the-star.co.ke/opinion/columnists/2019-04-05-a-case-for-nuclear-energy-in-kenya/>> accessed 19 August 2020.

⁴³ 'A Case for Nuclear Energy in Kenya' (*The Star*) <<https://www.the-star.co.ke/opinion/columnists/2019-04-05-a-case-for-nuclear-energy-in-kenya/>> accessed 19 August 2020.

⁴⁴ 'NuPEA 2020 Essay Contest' <<https://nuclear.co.ke/index.php/en/nupea-2020-essay-contest>> accessed 20 August 2020; 'Library' <<https://nuclear.co.ke/index.php/en/library>> accessed 20 August 2020.

potential talents out their seeking to pursue knowledge and expertise in the area of nuclear energy production.

6. Lessons from Elsewhere: Making the Best of Nuclear Power

It is estimated that currently, over thirty countries produce and use nuclear energy, with some, like France, producing large portions of their electricity from nuclear power, and others like Brazil and the Netherlands producing small percentages of electricity by nuclear power.⁴⁵ Notably, some countries like China are investing heavily into construction of new plants and others like Germany have long term plans to phase out their plants.⁴⁶ However, a few of the major players as highlighted below demonstrate that even as Kenya seeks to start nuclear power project, the Government should consider moving more towards other sources of renewable energy. Kenya is already hailed as one of the notable producers of renewable energy such as wind power and geothermal power. There is a need to explore these at a higher scale because while they are not cheap to produce, nuclear energy may even prove more expensive and complicated to run due to the potential risks.

6.1 France

As at September 2020, it was estimated that France derives about 75% of its electricity from nuclear energy, due to a long-standing policy based on energy security, making France one of the world's largest net exporter of electricity due to its very low cost of generation, and gains over €3 billion per year from this.⁴⁷ In addition, the country has been very active in developing nuclear technology such as reactors and especially fuel products and services have been a significant export.⁴⁸ According to the available data, the total country's electricity generation in 2017 was 562 TWh broken down as follows: nuclear 398TWh (71%); hydro 55.1 TWh (10%); natural gas 40.4 TWh (7%); wind 24.7 TWh (4%); coal 15.1 TWh (3%); biofuels & waste 10.2 TWh; (2%); solar 10.2

⁴⁵ 'International Politics - Nuclear Energy' <<https://sites.google.com/a/ncsu.edu/nuclear-energy/politics/foreign>> accessed 8 September 2020.

⁴⁶ Ibid.

⁴⁷ 'Nuclear Power in France | French Nuclear Energy - World Nuclear Association' <<https://www.world-nuclear.org/information-library/country-profiles/countries-a-ff/france.aspx>> accessed 4 October 2020.

⁴⁸ Ibid.

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TWh (2%); oil 7.4 TWh (1%).⁴⁹ Despite this success in generation of nuclear power, reports from as recent as January 2020 indicate that the Government of France policy is to reduce reliance on nuclear energy from 75% to 50% of the country's electricity by 2035 by bringing in more renewable power.⁵⁰ In addition, some of the challenges that have led to the closure of some of the reactors include but are not limited to safety-related issues reported at some plants over the past several years, including non-lethal radioactive contamination of workers, electrical fault, cracks in a reactor cover, a chemistry error, water pollution, and a fuel leak.⁵¹ France has also been reacting to pressure from its neighbours including Germany which has been arguing that "nuclear power is not a climate savior. It is risky, expensive and leaves behind radioactive waste for thousands of generations."⁵²

Kenya should therefore anticipate and address similar concerns in time and periodic review of the country's performance is critical.

6.2 Germany

Germany itself currently has six nuclear power plants operating all of which are all scheduled to be shut down by the end of 2022.⁵³ The 2011 Fukushima

⁴⁹ Ibid.

⁵⁰ 'France to Cut Nuclear Energy Reliance by 2035: Minister | Reuters' <<https://www.reuters.com/article/us-france-nuclearpower/france-to-cut-nuclear-energy-reliance-by-2035-minister-idUSKCN1NN0OK>> accessed 4 October 2020; Darrell Proctor, 'Last Reactor at Oldest French Nuclear Plant Going Offline' (*POWER Magazine*, 28 June 2020) <<https://www.powermag.com/last-reactor-at-oldest-french-nuclear-plant-going-offline/>> accessed 4 October 2020; Jake Stones, 'French Strategy Boasts Largest 2030 Electrolyser Hydrogen Capacity' (*ICIS Explore*) <<https://www.icis.com/explore/resources/news/2020/09/11/10551839/french-strategy-boasts-largest-2030-electrolyser-hydrogen-capacity>> accessed 4 October 2020.

⁵¹ Darrell Proctor, 'Last Reactor at Oldest French Nuclear Plant Going Offline' (*POWER Magazine*, 28 June 2020) <<https://www.powermag.com/last-reactor-at-oldest-french-nuclear-plant-going-offline/>> accessed 4 October 2020.

⁵² Deutsche Welle (www.dw.com), 'France Shuts down First Reactor of Fessenheim Nuclear Plant near German Border | DW | 22.02.2020' (*DW.COM*) <<https://www.dw.com/en/france-shuts-down-first-reactor-of-fessenheim-nuclear-plant-near-german-border/a-52466064>> accessed 4 October 2020.

⁵³ Deutsche Welle (www.dw.com), 'France Shuts down First Reactor of Fessenheim Nuclear Plant near German Border | DW | 22.02.2020' (*DW.COM*) <<https://www.dw.com/en/france-shuts-down-first-reactor-of-fessenheim-nuclear->

nuclear disaster in Japan led to widespread anti-atomic-power protests across Germany after which it is reported that German Chancellor Angela Merkel announced that all plants would be closed over the next decade, making Germany the second country after Italy to shut down all of its atomic energy stations.⁵⁴ This is a pointer that nuclear energy may not always be the answer and there is a need to tap into more renewable sources of energy in the country.

6.3 Sweden

The construction of Sweden's first commercial nuclear power plant started on 1 August 1966 and grid connection was carried out on 19 August 1971, namely Oskarshamn-1, which was retired in 2017 after an estimated generation of total of 110 TWh over its lifetime.⁵⁵ The shutdown of O1 left eight reactors operating in Sweden, one at Oskarshamn (O3), four at Ringhals and three at Forsmark where Ringhals-2 was scheduled to shut down in 2019, with Ringhals-1 to follow in 2020.⁵⁶ The closure decision was taken for commercial reasons, and although the price of electricity has recovered since 2015, the assessment was

plant-near-german-border/a-52466064> accessed 4 October 2020; 'Germany Shuts down Atomic Plant as Nuclear Phase-out Enters Final Stretch | News | DW | 31.12.2019' <<https://www.dw.com/en/germany-shuts-down-atomic-plant-as-nuclear-phase-out-enters-final-stretch/a-51845616>> accessed 4 October 2020.

⁵⁴ Deutsche Welle (www.dw.com), 'Germany Shuts down Atomic Plant as Nuclear Phase-out Enters Final Stretch | DW | 31.12.2019' (DW.COM) <<https://www.dw.com/en/germany-shuts-down-atomic-plant-as-nuclear-phase-out-enters-final-stretch/a-51845616>> accessed 4 October 2020; 'Germany Demolishes Cooling Tower of Former Nuclear Power Plant | News | DW | 09.08.2019' <<https://www.dw.com/en/germany-demolishes-cooling-tower-of-former-nuclear-power-plant/a-49967279>> accessed 4 October 2020.

⁵⁵ Ihédate and ihedate, 'Sweden Retires First Commercial Nuclear Reactor (Oskarshamn-1)' (*World Nuclear Industry Status Report*, 20 June 2017) <<https://www.worldnuclearreport.org/Sweden-Retires-First-Commercial-Nuclear-Reactor-Oskarshamn-1.html>> accessed 5 October 2020.

⁵⁶ Ibid; 'Ringhals 2 Nuclear Plant Shuts Down' (*Vattenfall*) <<https://group.vattenfall.com/press-and-media/news--press-releases/newsroom/2019/ringhals-2-nuclear-plant-shuts-down>> accessed 5 October 2020; 'Ringhals 2 Enters Retirement: Corporate - World Nuclear News' <<https://world-nuclear-news.org/Articles/Ringhals-2-enters-retirement>> accessed 5 October 2020; 'Sweden Closes Nuclear Reactor after over 40 Yrs of Operation' (*AP NEWS*, 30 December 2019) <<https://apnews.com/article/a08facfe81523e85083e21ffe1ded681>> accessed 5 October 2020.

that it would not be possible to continue operation of either of the two reactors, for both economic and practical reasons.⁵⁷

7. Realizing the Right to Clean and Sustainable Energy for all

It has been argued that since energy cannot be created or destroyed, one of the best ways of ensuring that all Kenyans have access to clean energy is promoting energy efficiency.⁵⁸

Goal 7 of the Sustainable Development Goals (SDGs) seeks to ensure that there is access to affordable, reliable, sustainable and modern energy for all.⁵⁹ Particularly, countries are expected to ensure that by 2030, there is universal access to affordable, reliable and modern energy services; substantial increase in the share of renewable energy in the global energy mix and doubling the global rate of improvement in energy efficiency.⁶⁰ Thus, away from nuclear energy, the Government of Kenya needs to put in place other measures to enhance the efficiency of the available sources of renewable energy as well nonrenewable sources while minimizing any negative effects that these may have on the environment or the public's health.

7.1 Expanding infrastructure and upgrading technology for supplying modern and sustainable energy services

SDG Goal 7.b seeks to ensure that by 2030, countries expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all especially in developing countries, in particular least developed countries, Small Island developing States and landlocked developing countries, in accordance with their respective programmes of support.

⁵⁷ 'Ringhals 2 Nuclear Plant Shuts Down' (Vattenfall) <<https://group.vattenfall.com/press-and-media/news--press-releases/newsroom/2019/ringhals-2-nuclear-plant-shuts-down>> accessed 5 October 2020.

⁵⁸ Munene, Martin Brown, Janes Ouma Odongo, and Anne Nyambane. "Energy Efficiency in Kenya." (2019). Available at < https://ke.boell.org/sites/default/files/energy_efficiency_in_kenya_study_.pdf> Accessed on 1 September 2020.

⁵⁹UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1, SDG Goal 7.

⁶⁰ Ibid.

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In line with the 'Last Mile Project', there is a need for the Government of Kenya to continually invest in infrastructure as well as upgrading energy technology to ensure that all Kenyans have access to modern and sustainable energy. As things stand, there is a huge number of Kenyans who still rely on non-renewable energy such as kerosene, wood and charcoal (biomass), thus making it difficult to achieve the minimum 10% tree cover as provided for under Article 69 of the Constitution of Kenya 2010.⁶¹

Under Kenya's Vision 2030 and specifically the National Renewable Energy Master Plan, the Government of Kenya hopes to 'promote development of renewable energy as an alternative source of energy which will include generation of energy from solar, wind, biogas, development of bio-energy including bio-ethanol and diesel value chains and promotion of the use of improved cooking stoves and charcoal kilns, and re-forestation of water towers.'⁶²

While these aspirations come with social, economic and political challenges, if achieved, they can go a long way in achieving the right to affordable and sustainable energy for all.

7.2 Mainstreaming Gender Issues in Energy and Addressing Poverty

Some authors have argued that if the right to energy for all Kenyans is to be realized, then gender issues ought to be tackled. This is because of the important role that women play when it comes to meeting the energy needs of families especially in the rural setting.⁶³ Facilitating access to clean energy for

⁶¹ 'How Kenya Can Transform the Charcoal Sector and Create New Opportunities for Low-Carbon Rural Development on JSTOR' <https://www.jstor.org/stable/resrep02811?seq=1#metadata_info_tab_contents> accessed 21 September 2020.

⁶² 'Development of New and Renewable Sources of Energy | Kenya Vision 2030' <<https://vision2030.go.ke/project/development-of-new-and-renewable-sources-of-energy/>> accessed 30 September 2020.

⁶³ 'Women in Energy Means More Clean Energy for All across Africa' <<https://www.esi-africa.com/industry-sectors/future-energy/women-in-energy-means-more-clean-energy-for-all-across-africa/>> accessed 28 September 2020.

women not only contributes to strengthening families and their health but also creates business opportunities for them.⁶⁴

There is also a need to address poverty levels in the country. An economically empowered household is likely to have more choices when it comes to energy use for their domestic needs. Enhancing energy production in the country without addressing the socioeconomic factors that make energy unavailable to most households in the first place may not achieve much as far as adoption of cleaner sources of energy is concerned.

7.3 Promoting Energy Efficiency in Kenya

A number of studies have been carried out on factors that affect energy efficiency practices and how the stakeholders in the Kenyan energy sector can enhance energy efficiency in the country. Some of the energy demand and consumption aspects that influence the adoption of energy efficiency practices in the country that have been identified include: the different types of energy being used domestically in the household level; the respondents' knowledge of energy efficiency; household energy consumption monitoring/tracking trends; respondents' perception of energy efficiency; knowledge on the potential energy efficiency practices; benefits associated with energy efficiency; and their knowledge regarding climate change dynamics and how these compare with domestic energy use.⁶⁵

⁶⁴ Ibid.

⁶⁵ Munene, Martin Brown, Janes Ouma Odongo, And Anne Nyambane, 'Energy Efficiency in Kenya: Public Awareness, Strategies, Challenges & Opportunities | Heinrich Böll Stiftung | Nairobi Office Kenya, Uganda, Tanzania, Somalia/Somaliland' (*Heinrich-Böll-Stiftung*) <<https://ke.boell.org/en/2019/09/16/energy-efficiency-kenya-public-awareness-strategies-challenges-opportunities>> accessed 3 October 2020; Zaharia, Alina, Maria Claudia Diaconeasa, Laura Brad, Georgiana-Raluca Lădaru, and Corina Ioanăș. "Factors Influencing Energy Consumption in the Context of Sustainable Development." *Sustainability* 11, no. 15 (2019): 4147; Temiz Dinç, Dilek, and Ece C. Akdoğan. "Renewable energy production, energy consumption and sustainable economic growth in Turkey: A VECM Approach." *Sustainability* 11, no. 5 (2019): 1273; Jian, Jianhui, Xiaojie Fan, Pinglin He, Hao Xiong, and Huayu Shen. "The effects of energy consumption, economic growth and financial development on CO2 emissions in China: A VECM Approach." *Sustainability* 11, no. 18 (2019): 4850.

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Promoting energy efficiency practices has been hailed not only as a way to ensure that there is enough energy for all but also as a climate mitigation measure.⁶⁶ As a result, Kenya's Climate Change Action Plan 2018–2022 has prioritized enhancement of energy efficiency as one of the priority actions to mitigate climate change in the country.⁶⁷ It is important to point out that producing power without promoting efficient consumption of the same will mean that it may be counterproductive as it may never be enough for everyone. There is need for continued promotion of diverse methods of enhancing efficiency across use of all sources of energy and in all sectors such as through ensuring that energy efficient appliances are not only available but also affordable, there is a wider use of efficient technology to take advantage of the available sources of energy such as biomass to come up with the most efficient and less polluting forms of the same and even use of biogas in villages for lighting and cooking. As already pointed out, biomass provides about 69% of the country's overall energy requirements while petroleum accounts for about 22% and electricity about 9% and as at June, 2017, 65.6% of the electricity component was generated using renewable energy sources with fossil fuels providing the balance of 34.4%.⁶⁸ There is a need to expand the use of these sources to generate more electricity.

Private persons may also be considered for funding to come up with larger scale biogas production projects to light villages.⁶⁹ This will not only create employment for more people but will also promote cleaner energy technologies and climate change mitigation.

⁶⁶ 'Promoting Energy Efficiency as a Climate Change Mitigation Action in Kenya | UNDP in Kenya' (UNDP)
<<https://www.ke.undp.org/content/kenya/en/home/stories/2019/lecrd-promoting-energy-efficiency.html>> accessed 4 October 2020.

⁶⁷ Ibid.

⁶⁸ Republic of Kenya, *National Energy Policy*, October, 2018, para. 3.

⁶⁹ Huber, Sebastian. "Small-scale biogas production from organic waste and application in mid-income countries—a case study of a Lebanese community." (2019)
< <http://www.diva-portal.org/smash/get/diva2:1334609/FULLTEXT01.pdf>> accessed 4 October 2020.

7.4 Capacity Building for Adoption of Nuclear Power

It is commendable that the Government of Kenya already put in place the Nuclear Power and Energy Agency as envisaged under the Energy Act, 2019 and also enacted the Nuclear Regulatory Act 2019. However, it is true that the Agency requires to work closely with other stakeholders across the board. While the Government has shown some efforts towards training of personnel to create expertise in nuclear power, there is a need for sustained and long term efforts for capacity building through training of engineers in industry and consultants as well as developing localized university and polytechnic level training in the country.

8. Conclusion

Some of the existing studies have concluded that although the government of Kenya has done so much to turn around energy use practices in the country, and the take up of these is increasing, most citizens still use crude energy sources basically wood, charcoal and crude fuels. There also seems to be a disconnect between the reported government efforts and achievements vis-à-vis actual public energy use practices pointing to both a communication gap and inability of the citizens to quickly take up these projects.⁷⁰ Thus, while this paper supports the government's efforts to diversify the available sources of renewable energy in Kenya, there is also a need for continued public awareness campaigns to sensitize the public on the need for practicing energy efficiency regardless of the energy source in question. It is not just about affordability and availability of energy but also how efficiently the same is utilized.

Such energy sources as nuclear power, while viable in the country require continued consultations, creating public awareness and immense investment in radioactive waste handling and disposal for the sake of public health and environmental protection. Indeed, some commentators have argued that African countries looking to invest in nuclear energy as a source of clean electricity should consider Europe's struggles with disposing of radioactive

⁷⁰ Ibid.

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waste.⁷¹ It is therefore important that the Government expands its choices while trying to meet the current and future energy needs of the country by investing more in the already available renewable sources of energy, enhance efficiency and also ensure affordability by a wider group.

Exploring alternative sources of energy is a worthwhile exercise in line with Kenya's quest for Sustainable Development.

⁷¹ Deutsche Welle (www.dw.com), 'What Happens to Nuclear Waste from Power Plants? | DW | 13.11.2019' (DW.COM) <<https://www.dw.com/en/what-happens-to-nuclear-waste-from-power-plants/a-51216359>> accessed 4 October 2020.

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The paper critically appraises the role of gender equity in fostering environmental sustainability. It examines the disparities between men and women in environmental governance and management and how these differences have hindered realization of environmental sustainability. The paper further evaluates the progress made towards promoting gender equity in environmental matters and challenges thereof. It also proposes reforms towards actualizing gender equity for environmental sustainability towards Sustainable Development.

1. Introduction

Environmental sustainability has been defined as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs without diminishing biological diversity¹. It has also been defined as the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future². This concept received global attention following the release of the Report of the World Commission on Environment and Development (Brundtland Report) which considered it within the context of Sustainable Development³. The Report defined Sustainable Development as development which meets the needs of the present generations without compromising the ability of future generations to meet their own needs⁴. Sustainable Development seeks to foster development that is socially, economically and environmentally sustainable⁵.

¹ Morelli. J., 'Environmental Sustainability: A Definition for Environmental Professionals.' *Journal of Environmental Sustainability*, Volume 1, Issue 1 (2011)

² Sphera., 'What Is Environmental Sustainability?' Available at <https://sphera.com/glossary/what-is-environmental-sustainability/> (Accessed on 11/08/2023)

³ Report of the World Commission on Environment and Development., 'Our Common Future' 1987 (Brundtland Report)

⁴ Ibid

⁵ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1.

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Environmental sustainability thus seeks to promote the various facets of development in a manner that does not harm future generations through loss and damage of global ecosystems⁶. It encapsulates the principle of intergenerational equity which provides that natural resources of the earth must be safeguarded for the benefit of the present and future generations through careful planning and management⁷. The Rio Declaration on Environment and Development further stipulates that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations⁸.

Achieving environmental sustainability has become a pertinent concern in the wake of global environmental challenges⁹. These problems include global warming, loss of biodiversity, pollution, deforestation, ocean acidification, food and water insecurity, soil degradation and depletion of natural resources through overfishing, unsustainable mining among others¹⁰. These environmental problems have been worsened by the threat of climate change which is the most defining challenge of our time¹¹. The impacts of climate change such as warmer temperatures, intense droughts, water scarcity, severe wild fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are being witnessed across the world¹². These environmental problems including climate change affect environmental

⁶ Goodland. R., 'The Concept of Environmental Sustainability.' *Annual Review of Ecology and Systematics*, Volume 26 (1995), 1-24

⁷ United Nations., 'Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972' Principle 2

⁸ United Nations General Assembly., 'Report of the United Nations Conference On Environment and Development: Rio Declaration on Environment and Development.' A/CONF.151/26 (Vol. I), Principle 3

⁹ Robinson. D., '15 Biggest Environmental Problems of 2023.' Available at <https://earth.org/the-biggest-environmental-problems-of-our-lifetime/> (Accessed on 11/08/2023)

¹⁰ Ibid

¹¹ United Nations Department of Economic and Social Affairs., 'Forum on Climate Change and Science and Technology Innovation.' Available at <https://www.un.org/en/desa/forum-climate-change-and-science-and-technology-innovation> (Accessed on 11/08/2023)

¹² United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 11/08/2023)

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sustainability by affecting natural ecosystems as evidenced by loss of biodiversity and depletion of natural resources¹³. It has been argued that environmental problems including climate change are caused by human activities such as burning of fossil fuels like coal, oil and gas, deforestation and unsustainable agriculture practices¹⁴. Addressing these problems towards fostering environmental sustainability therefore requires a change in human behaviour and practices¹⁵.

Realizing environmental sustainability requires sound environmental governance and management¹⁶. One of the fundamental problems identified in environmental governance and management is the issue of gender disparities between men and women with the latter being disproportionately disadvantaged¹⁷. It has been argued that there is a need for active participation of both men and women in the management of natural resources and environmental governance in order to foster environmental sustainability¹⁸. Achieving gender equity is therefore vital in attaining environmental sustainability¹⁹.

The paper critically appraises the role of gender equity in fostering environmental sustainability. It examines the disparities between men and women in environmental governance and management and how these differences have hindered realization of environmental sustainability. The paper further evaluates the progress made towards promoting gender equity in environmental matters and challenges thereof. It also proposes reforms towards actualizing gender equity for environmental sustainability.

¹³ UNICEF., 'Climate Change and Environmental Sustainability.' Available at <https://www.unicef.org/india/what-we-do/climate-change> (Accessed on 11/08/2023)

¹⁴ United Nations., 'What is Climate Change?' Op Cit

¹⁵ Ibid

¹⁶ Goodland. R., 'The Concept of Environmental Sustainability.' Op Cit

¹⁷ Geneva Environment Network., 'Gender and the Environment.' Available at <https://www.genevaenvironmentnetwork.org/resources/updates/gender-and-the-environment/> (Accessed on 11/08/2023)

¹⁸ Muigua. K., 'Gender Perspectives in Biodiversity Conservation.' Available at <http://kmco.co.ke/wp-content/uploads/2021/11/Gender-Perspectives-in-Biodiversity-Conservation-Kariuki-Muigua-November-2021.pdf> (Accessed on 11/08/2023)

¹⁹ Ibid

2. The Nexus between Gender Equity and Environmental Sustainability

The term gender refers to the set of social norms, practices and institutions that regulate the relations between women and men in a society²⁰. It has also been defined as a social construct that ascribes different qualities and rights to women and men regardless of individual competence or desires²¹. Further, the term gender is also used to refer to the socially-constructed expectations about the characteristics, aptitudes and behaviours associated with being a woman or a man, and while gender defines what is feminine and masculine, it shapes the social roles that men and women play and the power relations between them, which can have a profound effect on the use and management of natural resources²².

Gender equality entails giving men and women equal treatment when it comes to rights, responsibilities and opportunities²³. It enshrines equal outcomes for women, men and gender-diverse people²⁴. Gender equity on the other hand is about fairness²⁵. In order to ensure everyone has equal opportunities, gender equity considers privilege, bias and other parameters that can limit how people access opportunities²⁶. Gender equity is the process to achieve gender

²⁰ United Nations, "The Role of Men and Boys in Achieving Gender Equality," Women 2000 and Beyond, December 2008, p.4. Available at <http://www.unwomen.org/~media/headquarters/media/publications/un/en/w2000menandboysweb.pdf> (Accessed on 11/08/2023)

²¹ G. J. Latham, "A study on gender equality as a prerequisite for sustainable development," Report to the Environment Advisory Council, Sweden 2007:2, p. 17. Available at http://www.uft.oekologie.unibremen.de/hartmutkoehler_fuer_studierende/MEC/09-MECreading/gender%202007%20EAC%20rapport_engelska.pdf (Accessed on 11/08/2023)

²² 'What Is Gender and Biodiversity?' Available at <https://www.cbd.int/gender/biodiversity/> (Accessed on 11/08/2023)

²³ Crabtree. E., 'Why we Need Gender Equity, Not Just Equality.' Available at <https://iqeq.com/insights/why-we-need-gender-equity-not-just-equality/#:~:text=Gender%20equality%20is%20giving%20all,limit%20how%20people%20access%20opportunities.> (Accessed on 11/08/2023)

²⁴ Ibid

²⁵ Ibid

²⁶DCED., 'Gender Equality vs Equity.' Available at <https://www.enterprise-development.org/weegateway/gender-equality-vs-equity/> (Accessed on 11/08/2023)

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equality²⁷. It recognizes that due to historical and social disadvantages some people especially women are not in the same position as men and thus treating them 'equally' may not be fair hence the need to address these inequalities²⁸.

It has been observed that men and women relate to the environment in different ways, and environmental changes have different impacts on their lives²⁹. Women play a critical role in sustaining communities and managing natural resources, but their contributions are often undervalued and neglected³⁰. For example, women play a central part in the provision, management and safeguarding of freshwater as a natural resource, and they are often responsible for sanitation and maintaining a hygienic home³¹. Women are also more likely than men to live in poverty, and they are more vulnerable to the impacts of climate change and other environmental hazards, especially in developing countries³².

Natural disasters such as erosion and other forms of soil degradation, pollution of freshwaters, shore-line erosion, flooding, loss of wetlands, drought and desertification impact directly on women in their roles as providers of food, water and fuel³³. It has also been observed that climate change can also impact on women's productive roles since its impacts such as rising sea levels, flooding in low-lying delta areas and increased salt-water intrusion can jeopardize sustainable livelihood strategies³⁴. Further, food security and family well-being are threatened when the resource base on which women rely to carry out their critical roles and obtain supplementary

²⁷ Ibid

²⁸ Ibid

²⁹ United Nations Environment Programme., 'About Gender.' Available at <https://www.unep.org/explore-topics/gender/about-gender> (Accessed on 11/08/2023)

³⁰ Ibid

³¹ SIDA., 'Gender and the Environment.' Available at <https://cdn.sida.se/publications/files/-gender-and-the-environment.pdf> (Accessed on 11/08/2023)

³² United Nations Environment Programme., 'About Gender.' Op Cit

³³ Hannan. C., 'Mainstreaming Gender Perspectives in Environmental Management and Mitigation of Natural Disasters.' Available at https://web.archive.org/web/20180721174301id_/http://www.un.org/womenwatch/osagi/pdf/presnat%20disaster.PDF (Accessed on 12/08/2023)

³⁴ Ibid

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incomes is undermined³⁵. Agriculture is the most important employment sector for women in low and middle income countries and therefore, during periods of drought and erratic rainfall, women, as agricultural workers and primary procurers, work harder to secure income and resources for their families³⁶. This puts added pressure on girls, who often have to [leave school](#) to help their mothers manage the increased burden³⁷. Women also bear a disproportional burden of deteriorating water quality and availability in rural and urban areas due to environmental problems such as pollution and drought and have to travel long distances in search of water to sustain households³⁸. Based on the foregoing, it has been argued that women were more worried about climate change than men and that more women than men felt they could do something to curb climate change and were prepared to take action to that effect³⁹. Actualizing gender equity and giving women a voice in environmental decision making can therefore foster environmental sustainability.

In addition, in the context of corporate governance, it has been observed that women play a more significant role, compared to men, in establishing positive values in terms of social welfare but also toward reducing carbon emissions⁴⁰. Thus, enhancing board gender diversity is vital in enabling firms to 'go green⁴¹.' Gender board diversity is positively related to a firm's 'environmental consciousness and foster environmental sustainability

³⁵ Ibid

³⁶ UN Women., 'Explainer: How Gender Inequality and Climate Change are Interconnected.' Available at https://www.unwomen.org/en/news-stories/explainer/2022/02/explainer-how-gender-inequality-and-climate-change-are-interconnected?gclid=CjwKCAjw29ymBhAKEiwAHJbJ8p-iWBVsiOQq0h8-HiXaObwP7T1nztSxRGPldFcxcRs-flzzRIQIgRoCVrIQAvD_BwE (Accessed on 12/08/2023)

³⁷ Ibid

³⁸ SIDA., 'Gender and the Environment.' Op Cit

³⁹ Kassinis. G et al., 'Gender and Environmental Sustainability: A Longitudinal Analysis.' *Corporate Social Responsibility and Environmental Management* (2016)

⁴⁰ De Silva. DG., & Pownall. RA., 'Going Green: Does it Depend on Education, Gender or Income?' *Applied Economics*, Volume 46, No. 5. (2014) pp573–586.

⁴¹ Ibid

initiatives through Corporate Social Responsibility (CSR) activities⁴². To this extent, it has been argued that women have a lower proclivity for unethical business behavior and are more socially oriented than men, which could mean that more gender diverse boards are less likely to engage in unethical behavior and be more effective in CSR-related decision-making⁴³. Actualizing gender equity in board decision making can thus enhance environmental sustainability.

Based on the foregoing, it has been asserted that Gender equity and environmental sustainability are gaining political momentum as global challenges that require urgent co-ordinated action⁴⁴. Women and men around the world are affected differently by climate change, deforestation, land degradation, desertification, unsustainable infrastructure, growing water scarcity and inadequate sanitation, making the goals of gender equality and environmental sustainability mutually reinforcing⁴⁵. Integrating a gender lens to environmental data collection and policy making can thus foster environmental sustainability⁴⁶.

3. Actualizing Gender Equity for Environmental Sustainability: Prospects and Problems

There have been some attempts towards fostering gender equity for environmental sustainability. The Third United Nations Women's Conference held in Nairobi Kenya in 1985 was among the first international forums that made explicit the linkages between Sustainable Development and women's involvement and empowerment as well as gender equality and equity⁴⁷. The conference identified the environment as an area of concern for women and

⁴² Kassinis. G et al., 'Gender and Environmental Sustainability: A Longitudinal Analysis.' Op Cit

⁴³ Ibid

⁴⁴ The Organization for Economic Cooperation and Development., 'Gender and the Environment.' Available at <https://www.oecd.org/env/gender-and-the-environment-3d32ca39-en.htm> (Accessed on 12/08/2023)

⁴⁵ Ibid

⁴⁶ Ibid

⁴⁷ United Nations., 'Report of the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace.' A/CONF.116/128/Rev.1

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called for a gender perspective on Sustainable Development, planning and implementation⁴⁸. The *Rio Declaration* also envisages the participation of all people in environmental management⁴⁹. Principle 10 of the Rio Declaration states as follows:

'Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided⁵⁰.'

Principle 10 of the Rio Declaration thus encapsulates several tenets that are vital in actualizing gender equity for environmental sustainability including participation of all citizens, access to information and access to justice⁵¹. Upholding these principles can enhance gender equity for environmental sustainability.

In Africa, the *African Charter on Human and People's Rights*⁵² stipulates that all people shall have the right to a general satisfactory environment favourable to their development⁵³. It also calls upon Africa states to ensure the elimination of every discrimination against women⁵⁴. The *African Charter on Human and People's Rights* therefore envisages the ideas of environmental sustainability and gender equity. Further, the *Protocol to the African Charter on Human and*

⁴⁸ Ibid

⁴⁹ United Nations General Assembly., 'Report of the United Nations Conference On Environment and Development: Rio Declaration on Environment and Development.' Op Cit

⁵⁰ Ibid

⁵¹ Ibid

⁵² African Charter on Human and People's Rights., Available at https://au.int/sites/default/files/treaties/36390-treaty-0011_-_african_charter_on_human_and_peoples_rights_e.pdf (Accessed on 12/08/2023)

⁵³ Ibid, Article 24

⁵⁴ Ibid, Article 18 (3)

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*Peoples' Rights on the Rights of Women in Africa*⁵⁵ states that women shall have the right to live in a healthy and sustainable environment⁵⁶. It implores states to ensure greater participation of women in the planning, management and preservation of the environment and the sustainable use of natural resources at all levels⁵⁷. The Protocol thus envisages the role of gender equity in environmental sustainability.

In Kenya, the Constitution enshrines equity and equality as being among the national values and principles of governance⁵⁸. It further captures the right of every person to a clean and healthy environment⁵⁹. The Constitution also obliges the state to encourage public participation in the management, protection and conservation of the environment⁶⁰. It also states 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 resources⁶¹. Actualizing these Constitutional provisions will foster gender equity for environmental sustainability in Kenya. In addition, the *National Policy on Gender and Development*⁶² seeks to create a just, fair and transformed society free from gender-based discrimination in all spheres of life practices⁶³. The policy is further aimed at integrating gender equality and women's empowerment into sectoral policies, planning and programmes including the environment and natural resources management⁶⁴. The policy acknowledges that access to and control over environmental

⁵⁵ Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa., Available at <https://www.ohchr.org/sites/default/files/Documents/Issues/Women/WG/ProtocolontheRightsofWomen.pdf> (Accessed on 12/08/2023)

⁵⁶ Ibid, Article 18 (1)

⁵⁷ Ibid, Article 18 (2) (a)

⁵⁸ Constitution of Kenya, 2010., Article 10 (2) (b)

⁵⁹ Article 42

⁶⁰ Ibid, Article 69 (1) (d)

⁶¹ Ibid, Article 69 (2)

⁶² Republic of Kenya., 'Sessional Paper No. 02 of 2019 on National Policy on Gender and Development.' Available at <http://psyg.go.ke/wp-content/uploads/2019/12/NATIONAL-POLICY-ON-GENDER-AND-DEVELOPMENT.pdf> (Accessed on 12/08/2023)

⁶³ Ibid

⁶⁴ Ibid

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resources is gender biased⁶⁵. It seeks to promote gender equity for environmental sustainability through measures such as having women well represented in decision-making processes over the environment and natural resources; taking into account women's input into climate change adaptation and mitigation strategies; reducing gender disparities in access to natural resources; providing affordable clean water to reduce health risks related to poor quality of water and providing gender-disaggregated data on the impacts of environmental and natural resources' degradation and climate change⁶⁶. Realizing the vision of this policy is vital in actualizing gender equity for environmental sustainability in Kenya.

From the foregoing, it can be deduced that there have been attempts towards fostering gender equity for environmental sustainability. However, it has also been observed that there are still gender disparities which hinder effective realization of gender equity for sustainable development⁶⁷. It has been observed that men are the main actors in the management of renewable and non-renewable natural resources such as forests, wildlife, minerals and natural gas⁶⁸. This has significant implications on the Gross Domestic Product and the livelihoods of Kenyans dependent on the environment and natural resources⁶⁹. Further, gender disparities are also witnessed through cases of unequal and insecure rights over land with women being disproportionately disadvantaged⁷⁰. In Kenya, it has been stated that there are gender inequalities in land ownership and representation⁷¹. The Constitution of Kenya acknowledges this problem and enshrines the elimination of gender

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Kassinis. G et al., 'Gender and Environmental Sustainability: A Longitudinal Analysis.' Op Cit

⁶⁸ Republic of Kenya., 'Sessional Paper No. 02 of 2019 on National Policy on Gender and Development.' Op Cit

⁶⁹ Ibid

⁷⁰ IUCN., 'Gender and the Environment: What are the Barriers to Gender Equality in Sustainable Ecosystem Management?' Available at <https://www.iucn.org/news/gender/202001/gender-and-environment-what-are-barriers-gender-equality-sustainable-ecosystem-management> (Accessed on 12/08/2023)

⁷¹ Kariuki. J., & Birner. R., 'Exploring Gender Equity in Ecological Restoration: The Case of a Market Based Program in Kenya.' Available at <https://er.uwpress.org/content/wper/39/1-2/77.full.pdf> (Accessed on 12/08/2023)

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discrimination in law, customs and practices related to land and property in land as one of the principles of land policy in Kenya⁷². Access to and secure tenure over land is closely linked to natural resource access and management, such as water and forest resources, with benefits for sustainable ecosystems⁷³. In addition, it has been pointed out that looking at gender aspects of the use of natural resources such as water, forests and land and experiences of environmental degradation through climate change, pollution, chemicals, loss of biodiversity illustrates gender inequalities⁷⁴. Women are severely affected by challenges such as the lack of access to modern energy services, lack of access to safe and clean water and inadequate land rights due to their important role in sustaining households⁷⁵. Furthermore, women have been severely impacted by the effects of climate change as witnessed by inadequate access to natural resources such as water, food insecurity due to drought which hinders farming activities and gender based violence⁷⁶. It has also been noted that inadequate representation by women in environmental governance in areas such as energy, forestry and land has resulted in mismanagement of these sectors contributing to the threat of climate change and adverse effects on women⁷⁷. It is necessary to solve these problems in order to actualize gender equity for environmental sustainability.

4. Way Forward

There is need to actualize gender equity in order to enhance environmental sustainability. It has been stated that gender equality and women's empowerment are matters of fundamental human rights and prerequisites to

⁷² Constitution of Kenya., Article 60 (1) (f)

⁷³ IUCN., 'Gender and the Environment: What are the Barriers to Gender Equality in Sustainable Ecosystem Management?' Op Cit

⁷⁴ SIDA., 'Gender and the Environment.' Op Cit

⁷⁵ Ibid

⁷⁶ United Nations Framework Convention on Climate Change., 'New Report: Why Climate Change Impacts Women Differently than Men.' Available at [https://unfccc.int/news/new-report-why-climate-change-impacts-women-differently-than-](https://unfccc.int/news/new-report-why-climate-change-impacts-women-differently-than-men?gclid=CjwKCAjw29ymBhAKEiwAHJbJ8ssIfst99WBehD0DHNpgsbjqaHye6wOiIPq9xBR4ZYRvsL8yf_KNexoCskUQAvD_BwE)

[men?gclid=CjwKCAjw29ymBhAKEiwAHJbJ8ssIfst99WBehD0DHNpgsbjqaHye6wOiIPq9xBR4ZYRvsL8yf_KNexoCskUQAvD_BwE](https://unfccc.int/news/new-report-why-climate-change-impacts-women-differently-than-men?gclid=CjwKCAjw29ymBhAKEiwAHJbJ8ssIfst99WBehD0DHNpgsbjqaHye6wOiIPq9xBR4ZYRvsL8yf_KNexoCskUQAvD_BwE) (Accessed on 12/08/2023)

⁷⁷ SIDA., 'Gender and the Environment.' Op Cit

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meeting Sustainable Development goals around the world⁷⁸. This fact is acknowledged by the *United Nation's 2030 Agenda for Sustainable Development*⁷⁹ which asserts that realizing gender equality and empowerment of women will make a crucial contribution towards progress across all the Sustainable Development Goals and targets⁸⁰. Sustainable Development Goal 5 seeks to ensure effective and full participation of women and equal opportunities at all levels of decision making in political, economic and public life including access to ownership and control over land and natural resources⁸¹. Realizing this goal is vital in actualizing gender equity for environmental sustainability.

Further, there is need to foster participation of women in environmental decision making including formulation of laws and policies on the environment and implementation of environmental projects⁸². Public participation is a fundamental principle that can enhance sound management of the environment and natural resources towards environmental sustainability⁸³. The importance of public participation has been enunciated under the Rio Declaration on Environment and Development⁸⁴. Public participation has also been captured as among the national values and principles of governance in Kenya⁸⁵. The Constitution also obliges the state to encourage public participation in the management, protection and conservation of the environment⁸⁶. Public participation can foster the voice of women in environmental decision making and contribute towards the

⁷⁸ IUCN., 'Gender and the Environment: What are the Barriers to Gender Equality in Sustainable Ecosystem Management?' Op Cit

⁷⁹ 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 12/08/2023)

⁸⁰ Ibid

⁸¹ Ibid

⁸² United Nations Framework Convention on Climate Change., 'New Report: Why Climate Change Impacts Women Differently than Men.' Op Cit

⁸³ Muigua. K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2018/08/TOWARDS-MEANINGFUL-PUBLIC-PARTICIPATION-IN-NATURAL-RESOURCE-MANAGEMENT-IN-KENYA.pdf> (Accessed on 12/09/2023)

⁸⁴ Rio Declaration on Environment and Development., Principle 10

⁸⁵ Constitution of Kenya, 2010., Article 10 (2) (a)

⁸⁶ Ibid, Article 69 (1) (d)

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realization of environmental sustainability through sound and effective decisions that incorporate the decision of all concerned citizens including women⁸⁷. Women have always been the custodians of the environment and incorporating their views in environmental decision making will enhance the quality of such decisions thus fostering Sustainable Development⁸⁸. It is imperative to empower women and enhance access to information which are important tenets in fostering effective public participation⁸⁹.

The *National Policy on Gender and Development*⁹⁰ in Kenya also envisages several ways through which gender equity can be realized for environmental sustainability. These include developing and reviewing environment, and other natural resources (including forests, water, mining, petroleum and energy) management laws, policies and programmes to ensure gender and equity compliance; ensuring availability of water for multiple use to women taking into account the gender division of labour that defines women's domestic and productive activities in the household; ensuring that women participate in and benefit equitably from investments in various natural resources development initiatives; Building capacities of development agencies in gender mainstreaming into environment and climate change laws, policies and programmes and ensure that women participate in and contribute to and benefit from climate resilient programmes and projects and supporting interventions aimed at equitable participation of women in the sustainable utilization of natural resources for economic benefits including opportunities for carbon trading⁹¹. Realizing the vision of this policy is essential in actualizing gender equity for environmental sustainability in Kenya. It is

⁸⁷ Shobeiri, S., & Meiboudi, H., 'Women's Participation in Environmental Management and Development Promotion Culture.' Available at https://www.researchgate.net/publication/311533595_Women's_participation_in_environmental_management_and_development_Promotion_Culture#:~:text=Women%20are%20the%20main%20cause,environmental%20management%20are%20so%20obvious. (Accessed on 12/08/2023)

⁸⁸ Ibid

⁸⁹ Muigua, K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Op Cit

⁹⁰ Republic of Kenya., 'Sessional Paper No. 02 of 2019 on National Policy on Gender and Development.' Op Cit

⁹¹ Ibid, Part 4.9

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indeed possible to achieve gender equality and equity if the National Policy on Gender and Development can be implemented and supported by good will from all groups of persons and all levels of government⁹².

It is also imperative embrace the role of women in in environment and natural resource decision making and leadership⁹³. This can be achieved by appointing women in leadership positions in ministries, state departments, environmental management bodies and other positions in environment related sectors⁹⁴. Economic empowerment of women is also vital in actualizing gender equity and environmental sustainability⁹⁵. It can enhance the ability of women to access resources such as land, energy and water a factor that can enhance effective management of these resources towards environmental sustainability⁹⁶.

Though the foregoing among other measures, gender equity can be actualized for environmental sustainability towards Sustainable Development. It has been argued that if countries are to achieve the Sustainable Development goals as well as their national development plans such as the Vision 2030 development blueprint in Kenya, then gender equality and equity must be addressed as a matter of priority since development requires concerted efforts of both men and women⁹⁷.

5. Conclusion

Achieving environmental sustainability has become a pertinent concern in the wake of global environmental challenges especially the threat of climate

⁹² Muigua. K., 'Actualising the National Policy on Gender and Development in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2020/10/Actualising-the-National-Policy-on-Gender-and-Development-in-Kenya-Kariuki-Muigua-Ph.D-October-2020.pdf> (Accessed on 12/08/2023)

⁹³ IUCN., 'Gender and the Environment: What are the Barriers to Gender Equality in Sustainable Ecosystem Management?' Op Cit

⁹⁴ Ibid

⁹⁵ Organization for Security and Co-operation in Europe., 'Gender and the Environment.' Available at <https://www.osce.org/files/f/documents/4/f/36360.pdf> (Accessed on 12/08/2023)

⁹⁶ Ibid

⁹⁷ Muigua. K., 'Actualising the National Policy on Gender and Development in Kenya.' Op Cit

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change⁹⁸. Despite efforts being made towards fostering gender equity, it has been observed that gender disparities are evident in the sphere of environmental governance and management a situation that hinders environmental sustainability and realization of Sustainable Development⁹⁹. There is a need for active participation of both men and women in the management of natural resources and environmental governance in order to foster environmental sustainability.¹⁰⁰ This can be achieved through public participation and access to information; embracing the role of women in environment and natural resource decision making and leadership; economic empowerment of women and implementing national policies and programmes on gender such as Kenya's National Policy on Gender and Development¹⁰¹. Actualizing gender equity for environmental sustainability is thus feasible.

⁹⁸ Robinson. D., '15 Biggest Environmental Problems of 2023.' Op Cit

⁹⁹ Geneva Environment Network., 'Gender and the Environment.' Op Cit

¹⁰⁰ Muigua. K., 'Gender Perspectives in Biodiversity Conservation.' Op Cit

¹⁰¹ Muigua. K., 'Actualising the National Policy on Gender and Development in Kenya.' Op Cit

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Abstract

The paper argues a case for the adoption of green energy for a bright tomorrow. It posits that access to clean and affordable energy is a fundamental human right as envisaged under the 2030 Agenda for Sustainable Development. The paper further asserts that green energy sources such as renewable energy are environmentally friendly and can aid in fostering Sustainable Development and promoting climate change mitigation and adaptation. It interrogates various attempts towards adopting green energy at the global, regional and national levels. It also highlights the concerns and challenges facing the adoption of green energy and offers proposals towards enhancing the adoption of green energy for a bright tomorrow.

1. Introduction

Energy is a fundamental human need that has been described as a basic factor necessary to sustain life¹. Indeed, access to energy is so fundamental that some authors have argued that food and energy are the two essential resources to support the modern and civilized society of the mankind². Energy is a basic human need that has been equated to food, air and water³. It has been pointed out that energy can spur economic development and poverty eradication⁴. Energy has the potential of accelerating the attainment of socio-economic rights such as the right to food, the right to education, the right to health, the right to water among others⁵. Energy plays a critical role in economic growth and development, and future economic growth has been seen to be largely hinged on the long-term availability of energy which is to be derived from

¹ Goldthau. A & Sovacool. B., 'The Uniqueness of the Energy Security, Justice and Governance Problem' *Energy Policy*, 41 (2012) 232-240

² Tomabechi K, 'Energy Resources in the Future' *Energies* 2010, 3, 686-695, 686.

³ Goldthau. A & Sovacool. B., 'The Uniqueness of the Energy Security, Justice and Governance Problem' *Op Cit*

⁴ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya', available at <http://kmco.co.ke/wp-content/uploads/2018/08/Access-to-Energy-as-a-Constitutional-Right-in-Kenya-NOVEMBER-2013.pdf> (Accessed on 26/06/2023)

⁵The World Bank, 'Sustainable Development Goal on Energy (SDG7) and the World Bank Group', available at <https://www.worldbank.org/en/topic/energy/brief/sustainable-development-goal-onenergy-sdg7-and-the-world-bank-group> (Accessed on 26/03/2023)

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sources that are affordable, accessible and environmentally friendly⁶. Access to energy is thus a fundamental human right.

Energy plays an important role in the Sustainable Development agenda. It has the ability to stimulate development by connecting the Sustainable Development Goals (SDGs) and unlocking sustainable economic growth⁷. On this basis, it has been argued that Sustainable Development will not be achieved without the realization of the right of access to energy⁸. This fact is recognized under the United Nations 2030 Agenda for Sustainable Development which seeks to achieve universal access to affordable, reliable and modern energy services among other targets in the quest towards Sustainable Development⁹.

However, despite the importance of energy as basic human need, several challenges continue to be witnessed in the energy sector in Kenya and across the globe. It has been pointed out that many people across the world lack access to clean energy sources such as electricity and use polluting, inefficient fuels such as firewood for household chores such as cooking¹⁰. This challenge is especially prevalent in Sub-Saharan Africa where majority of the population lack access to clean and affordable energy and depend on traditional fuels¹¹. Access to energy represents one of Africa's greatest obstacles to social and economic development¹². Further, it has been pointed out that the energy

⁶ Muigua. K., Wamukoya. D & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

⁷ Goldthau. A & Sovacool. B., 'The Uniqueness of the Energy Security, Justice and Governance Problem' Op Cit

⁸ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

⁹ 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>

¹⁰ Muigua. K., 'Towards Energy Justice in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2020/02/Towards-Energy-Justice-in-Kenya-00000005.pdf> (Accessed on 26/06/2023)

¹¹ Bildirici. M & Ozaksoy.F., 'Woody Biomass Energy Consumption and Economic Growth in Sub-Saharan Africa' *Procedia Economics and Finance* 38 (2016) 287 - 293.

¹² Hafner. M., 'The Challenge of Energy Access in Africa.' Available at https://link.springer.com/chapter/10.1007/978-3-319-92219-5_1 (Accessed on 26/06/2023)

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sector is by far the main contributor to the global threat of climate change and accounts for approximately 73 percent of human caused greenhouse gases¹³. It is on this basis that the paper argues for adoption of green energy sources such as renewable energy to address the concerns raised above. The paper argues that green energy can promote the right of access to clean and affordable energy and foster Sustainable Development. It defines green energy and identifies its various sources. The paper then examines some of the global, regional and national initiatives towards the adoption of green energy and identifies the challenges thereof. It then suggests reforms and measures towards the adoption of green energy in Kenya and across the globe for a bright tomorrow.

2. The Concept of Green Energy

Growing human populations and rising levels of consumption have elevated energy demands, placing increasing burdens on the environment, particularly on the global climate¹⁴. Conventional energy sources such as fossil fuels cause significant environmental impacts such as climate change¹⁵. This has necessitated the transition to green energy sources.

Green energy which is also referred to as clean, sustainable or renewable energy is energy that is derived from natural resources, such as sunlight, wind or water¹⁶. It has also been described as energy that comes from renewable sources of energy¹⁷. Such sources include solar power, wind power, hydropower, geothermal energy, biomass and biofuels¹⁸. Renewable energy has been defined as energy derived from natural sources that are replenished

¹³ United Nations Development Programme., 'Goal 7: Affordable and Clean Energy.' Available at https://www.undp.org/sustainable-development-goals/affordable-and-clean-energy?gclid=EAlalQobChMIxrfXsO3g_wIVDZhRCh1NqALvEAAAYAiAAEgJwTvD_BwE (Accessed on 26/06/2023)

¹⁴ Gibson. L et al., 'How Green is 'Green' Energy?' *Trends in Ecology & Evolution*, 2306

¹⁵ Ibid

¹⁶ TWI Global., 'What is Green Energy? (Definition, Types and Examples).' Available at <https://www.twi-global.com/technical-knowledge/faqs/what-is-green-energy> (Accessed on 26/06/2023)

¹⁷ Inspire Clean Energy., 'What is Green Energy? Types, Definitions and Examples.' <https://www.inspirecleanenergy.com/blog/clean-energy-101/what-is-green-energy> (Accessed on 26/06/2023)

¹⁸ Ibid

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at a higher rate than they are consumed¹⁹. The Energy Act of Kenya defines renewable energy as non-fossil energy generated from natural non-depleting resources including but not limited to solar energy, wind energy, biomass energy, biological waste energy, hydro energy, geothermal energy and ocean and tidal energy²⁰.

Green energy sources such as renewable energy are environmentally friendly and can aid in fostering Sustainable Development and promoting climate change mitigation and adaptation²¹. Generating green energy from renewable energy sources creates far lower emissions than traditional sources such as burning fossil fuels²². Green energy has the potential of replacing the negative effects of fossil fuels with more environmentally-friendly alternatives²³. Since, it is derived from natural resources, green energy is also often renewable and clean, meaning that it emits no or few greenhouse gases and is often readily available²⁴. Transitioning from fossil fuels, which currently account for the lion's share of emissions, to green energy sources such renewable energy is key to addressing the climate crisis²⁵. Green energy sources such as renewable energy can also enhance security of energy supply and promote energy justice by fostering the attainment of the right of access to clean and affordable energy²⁶.

Despite the viability of green energy sources such as renewable energy, these sources are yet to be widely embraced due to several challenges including inadequate funding and investment in green energy, lack of political goodwill

¹⁹ United Nations., 'What is Renewable Energy?' Available at <https://www.un.org/en/climatechange/what-is-renewable-energy> (Accessed on 26/06/2023)

²⁰ Energy Act, No. 1 of 2019, Laws of Kenya., S 2.

²¹ Mohtasham. J., 'Review Article: Renewable Energies' *Energy Procedia*, 74 (2015) 1289 – 1297

²² Ibid

²³ TWI Global., 'What is Green Energy? (Definition, Types and Examples).' Op Cit

²⁴ Ibid

²⁵ United Nations., 'What is Renewable Energy?' Op Cit

²⁶ Nizic. M.K., 'The Advantages and Disadvantages of Renewable Energy in the Tourist Destination.' Available at https://www.researchgate.net/publication/320584990_The_Advantages_and_Disadvantages_of_Renewable_Energy_in_the_Tourist_Destination (Accessed on 26/06/2023)

and ignorance among consumers²⁷. There is need to adopt green energy in order to achieve energy justice, promote socio-economic development and foster Sustainable Development through climate change mitigation and adaptation²⁸.

3. The Journey towards Green Energy: Prospects and Challenges

There have been several attempts towards recognizing the right of access to clean and affordable energy as a fundamental human right at the global, regional and national levels. The *Energy Charter Treaty* is a multilateral framework for energy cooperation that is designed to promote energy security through the operation of more open and competitive energy markets, while respecting the principles of Sustainable Development and sovereignty over energy resources²⁹. Among the targets of the Treaty is the promotion of energy efficiency and minimising the environmental impact of energy production and use³⁰. The Treaty is one of the best available instruments for improving international energy security by promoting international energy investments and fair access to markets³¹. It also urges its member states to formulate clear policies for improving energy efficiency and reducing the energy cycle's negative environmental impacts³². However, membership of the Energy Charter Treaty is mostly drawn from European nations³³. The Treaty may thus not address energy concerns in most African countries.

²⁷ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

²⁸ Ibid

²⁹ The Energy Charter Treaty., Available at <https://www.energycharter.org/fileadmin/DocumentsMedia/Legal/ECTC-en.pdf> (Accessed on 26/06/2023)

³⁰ Ibid

³¹ Konoplyanik. A & Walde. T., 'Energy Charter Treaty and its Role in International Energy.' Available at http://konoplyanik.ru/ru/publications/articles/417_Energy_Charter_Treaty_and_its_Role_in_International_Energy.pdf (Accessed on 26/06/2023)

³² Ibid

³³ Energy Charter., 'Members and Observers to the Energy Charter Conference.' Available at <https://www.energycharter.org/who-we-are/members-observers/> (Accessed on 26/06/2023)

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The United Nations *2030 Agenda on Sustainable Development* also seeks to foster the adoption of green energy³⁴. Sustainable Development goal 7 is aimed at ensuring universal access to affordable, reliable and modern energy services³⁵. It further recognizes that investing in green energy including renewable sources of energy such as solar, wind and thermal power; improving energy productivity, and ensuring energy for all are vital in the attainment of the Sustainable Development agenda³⁶. Adopting green energy is thus vital in fostering Sustainable Development.

At the regional level, the *Treaty Establishing the East African Community*³⁷ recognizes the role of energy in the East African integration agenda. It urges member states to adopt policies and mechanisms to promote the efficient exploitation, development, joint research and utilisation of various energy resources available within the region³⁸. Further, the Treaty calls upon member states to promote the exploitation and utilisation of new and renewable sources of energy within the East African Community³⁹. The Treaty also implores member states to take measures towards supplying affordable energy to their citizens while taking cognisance of the protection of the environment⁴⁰.

In Kenya, it has been pointed that access to energy is a Constitutional right⁴¹. Although the Constitution does not expressly provide for the right to access to energy, it recognizes energy as part of the natural resources in Kenya⁴². To this extent, the Constitution provides that natural resources means the physical non-human factors and components, whether *renewable or non-renewable*,

³⁴ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Op Cit

³⁵ United Nations Development Programme., 'Goal 7: Affordable and Clean Energy.' Op Cit

³⁶ Ibid

³⁷ Treaty Establishing the East African Community., Available at <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/2487/download> (Accessed on 26/06/2023)

³⁸ Ibid, Article 101 (1)

³⁹ Ibid, Article 101 (2) (a)

⁴⁰ Ibid, Article 101 (2) (f)

⁴¹ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

⁴² Constitution of Kenya, 2010., Article 260, Government Printer, Nairobi

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including inter alia rocks, minerals, fossil fuels and other sources of energy⁴³. The Constitution also enshrines the principle of Sustainable Development in Kenya⁴⁴. Enhancing universal access to affordable, reliable and modern energy services including green energy sources such as renewable energy is an essential part of the Sustainable Development agenda⁴⁵. The Constitution of Kenya thus envisages adoption of green energy.

Further, the *Energy Act*⁴⁶ embraces the concept of green energy by recognizing renewable sources of energy. The Act mandates the government to facilitate the provision of affordable energy services to all persons in Kenya⁴⁷. It also requires the government to promote the development and use of renewable energy technologies, including but not limited to biomass, biodiesel, bioethanol, charcoal, fuelwood, solar, wind, tidal waves, hydropower, biogas and municipal waste⁴⁸. Towards this end, the Act requires the government to undertake several measures including formulating a national strategy for coordinating research in renewable energy; promoting international co-operation on programs focusing on renewable energy sources and harnessing opportunities offered under clean development mechanism and other mechanisms including, but not limited to, carbon credit trading to promote the development and exploitation of renewable energy sources⁴⁹. Actualizing the vision of the Energy Act is paramount in enhancing the right of access to clean and affordable energy in Kenya and adopting green energy.

In addition, the *National Energy Policy* is recognizes energy as a critical component in Kenya⁵⁰. The policy seeks to achieve which several objectives including improving access to affordable, competitive and reliable energy

⁴³ Ibid

⁴⁴ Ibid, Article 10 (2) (d)

⁴⁵ United Nations Development Programme., 'Goal 7: Affordable and Clean Energy.' Op Cit

⁴⁶ Energy Act, No.1 of 2019, Government Printer, Nairobi

⁴⁷ Ibid, Article 7 (1)

⁴⁸ Ibid, S 75 (1)

⁴⁹ Ibid, S 75 (2)

⁵⁰ Ministry of Energy., 'National Energy Policy.' Available at https://repository.kippra.or.ke/bitstream/handle/123456789/1947/BL4PdOqKtxFT_National%20Energy%20Policy%20October%20%202018.pdf?sequence=1&isAllowed=y (Accessed on 26/06/2023)

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services, promoting energy efficiency and conservation and promoting diversification of energy supply sources in Kenya to ensure security of supply among others⁵¹. It contains several proposals towards the use, development and conservation of energy sources in the country such as coal resources, renewable energy and electricity⁵². The Policy also contains energy efficiency and conservation measures aimed at reducing energy consumption without sacrificing productivity or increasing costs⁵³. Effective implementation of the Policy is integral in promoting green energy in Kenya and enhancing the right of access to clean and affordable energy.

The concept of green energy is thus well captured at the global, regional and national levels. The International Energy Agency notes that the rate of adoption of green energy sources such as renewable energy is expected to rise with the world set to add as much renewable power in the next 5 years as it did in the past 20 years⁵⁴. It further observes that renewables have grown rapidly in recent years, driven by policy support and sharp cost reductions for solar photovoltaics and wind power in particular⁵⁵. In addition, it has been asserted that the electricity sector remains the brightest spot for renewables with the strong growth of solar photovoltaics and wind in recent years, building on the already significant contribution of hydropower in the transition towards green energy⁵⁶. In Africa, the African Energy Forum is geared towards driving Africa's green energy transition⁵⁷. It notes that Africa's vast renewable resources give it a distinct advantage in the move towards a green hydrogen future⁵⁸. Among the key themes of its 2023 agenda is to increase pace and scale of Africa's renewable energy projects towards adoption of green energy⁵⁹. Further in Kenya, the Rural Electrification and

⁵¹ Ibid

⁵² Ibid, S 1.2

⁵³ Ibid, S 5.0

⁵⁴ International Energy Agency., 'Renewables.' Available at <https://www.iea.org/fuels-and-technologies/renewables> (Accessed on 27/06/2023)

⁵⁵ Ibid

⁵⁶ Ibid

⁵⁷ Africa Energy Forum., 'Held on 20-23 June 2023 in Nairobi, Kenya', Available at <https://www.africa-energy-forum.com/> (Accessed on 27/06/2023)

⁵⁸ Ibid

⁵⁹ Ibid

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Renewable Energy Corporation is mandated to develop, promote and manage in collaboration with other agencies, the use of renewable energy and technologies⁶⁰. The Corporation has undertaken projects towards implementing this mandate including installation of solar power plants, electrification of public facilities and schools and transformer maximization projects to enhance electricity access and connectivity in areas with large populations⁶¹. Thus, there are immense opportunities for adoption of green energy at the global, regional and national levels.

However, despite the viability of green energy sources including renewable energy, several concerns have hindered their effective adoption. These include inadequate funding, lack of political goodwill and ignorance among consumers⁶². Further, the threat of climate change can hinder adoption of green energy sources such as hydroelectricity due to the depletion of forests and water catchment areas which act as a source for water used in their generation⁶³. There is need to address these concerns in order to foster the adoption of green energy and fast track the transition to a less carbon-intensive and more sustainable energy system.

4. Way Forward

The economic, societal and environmental benefits of green energy sources such as renewable energy are numerous. It is available in abundance, cheaper and a healthier option for people and the planet⁶⁴. There is thus need to promote sustainability in the energy sector through the adoption and investing in the abundant renewable energy available all over the planet⁶⁵. This will be essential in enhancing access to clean and affordable energy which is a fundamental human

⁶⁰ Energy Act, No. 1 of 2019, S 44 (1) (j)

⁶¹ Rural Electrification and Renewable Energy Corporation., Available at <https://www.rerec.co.ke/our-work.php> (Accessed on 27/06/2023)

⁶² Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

⁶³ Muigua. K., Wamukoya. D & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

⁶⁴ United Nations., 'Climate Action.' Available at <https://www.un.org/en/climatechange/how-communities-are-embracing-renewable-energy> (Accessed on 27/06/2023)

⁶⁵ Ibid

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right and a critical component of the Sustainable Development agenda⁶⁶. It has been pointed that in Kenya while notable progress has been made towards enhancing access to electricity through measures such as the rural electrification program, progress remains slow in promoting clean cooking facilities with bio-energy sources such as charcoal and wood fuel still being the most common source of energy in Kenya especially among the rural population⁶⁷. However, the environmental concerns raised by these sources of energy such as climate change calls for the adoption of green sources of energy⁶⁸. Measures can be put in place to enhance access to clean energy sources for purposes of cooking such as reducing the cost of Liquefied Petroleum Gas (LPG) to promote its affordability⁶⁹. Further, costs related to electricity such as connection charges and billing costs should be made affordable for the benefit of all Kenyans especially those in rural areas⁷⁰. This will ensure adoption of green energy while also fostering the right of access to clean and affordable energy.

In addition, there is need for government support through funding and putting in place relevant programs and policy measures in order to ensure adequate investment and adoption of green energy⁷¹. In Kenya, there is need to realize the vision of the Energy Act in order to adopt green energy sources such as renewable energy⁷². Further, the Rural Electrification and Renewable Energy Corporation needs to effectively discharge its mandate in order to promote the adoption of

⁶⁶ Ibid

⁶⁷ Muchiri. L., 'Gender and Equity in Bioenergy Access and Delivery in Kenya' Practical Action East Africa, 2008, available at https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiy2P29z6PnAhUEiFwKHQlyCLoQFjAAegQIBRAB&url=http%3A%2F%2Fwww.cas.ed.ac.uk%2F_data%2Fassets%2Fword_doc%2F0007%2F24793%2FGender_and_Equity_in_Bio_energy_Access_and_Delivery_in_Kenya_final.doc&usg=AOvVaw2AKp1mvoTSC9tafk1KJ-36 (Accessed on 27/06/2023)

⁶⁸ Ibid

⁶⁹ Muigua. K., 'Towards Energy Justice in Kenya.' Op Cit

⁷⁰ Ibid

⁷¹ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

⁷² Centurion., 'Renewable Energy Growth in Kenya.' Available at <https://centurionlg.com/2022/02/01/renewable-energy-growth-in-kenya/> (Accessed on 27/06/2023)

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green energy sources in Kenya⁷³. There is also need for governments to put in place appropriate measures such as tax incentives and appropriate laws and policies in order to encourage investments in green energy sources by entities such as multinational corporations⁷⁴. This will ensure green financing and investment in renewable energy projects and provide practical solutions for filling the green financing gap which is a key concern in adopting green energy especially in developing countries⁷⁵.

It is also necessary promote public participation in the journey towards adopting green energy in order to guarantee energy justice. Sustainability in the energy sector also calls for the identification of the energy needs of consumers in a country and ensuring that the needs are met in a manner that is efficient⁷⁶. Thus in fostering investments in the energy sector, players such as the government and the private sector are required to ensure that they adopt measures towards promoting acceptability of green energy projects to local communities and that further, such projects are socially sustainable⁷⁷. Community consultation through meaningful public participation is important to ensure that there is public acceptance and cooperation in green energy projects⁷⁸. Public participation is an essential component of environmental governance including investments in green energy as envisaged under the Rio Declaration which acknowledges that environmental issues are best handled with the participation of all concerned citizens, at the relevant level⁷⁹. Public participation has also been enshrined as one of the national values and principles under the Constitution of Kenya⁸⁰. Public participation can thus promote energy justice in the quest towards adopting green energy.

⁷³ Ibid

⁷⁴ Taghizadeh-Hesary, F & Yoshino, N., 'Sustainable Solutions for Green Financing and Investment in Renewable Energy Projects.' Available at <https://www.mdpi.com/1996-1073/13/4/788> (Accessed on 27/06/2023)

⁷⁵ Ibid

⁷⁶ Muigua, K., Wamukoya, D & Kariuki, F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

⁷⁷ Ibid

⁷⁸ Muigua, K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

⁷⁹ United Nations General Assembly., 'Report of the United Nations Conference on Environment and Development: Rio Declaration on Environment and Development' 1992' A/CONF.151/26 (Vol. I)

⁸⁰ Constitution of Kenya, 2010., Article 10 (2) (a)

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Finally, there is need to promote sound environmental management in order to enhance adoption of green energy. Conservation of the environment ensures that certain renewable sources of energy such as water used for the generation of hydroelectricity is not exhausted due to the depletion of forests and other water catchment areas⁸¹. It is also imperative to combat climate change through appropriate mitigation and adaptation measures in order to ensure continued availability of green energy sources such as biomass and hydropower⁸². Through these among other measures, adoption of green energy for a bright tomorrow will be realized.

5. Conclusion

Access to clean and affordable energy is an essential human right⁸³. In the wake of environmental concerns such as climate change, adoption of green energy is integral in enhancing access to clean and affordable energy and promoting Sustainable Development. Green energy sources such as renewable energy are environmentally friendly and can aid in fostering Sustainable Development and promoting climate change mitigation and adaptation⁸⁴. However, despite the viability of green energy, several concerns have hindered its adoption at the global, regional and national level. These include inadequate funding, lack of political goodwill and ignorance among consumers.⁸⁵ There is need to address these concerns through measures such embracing green energy sources such as renewable energy, adequate funding and investment in green energy, promoting public participation in green energy projects in order to guarantee energy justice and combating climate change in order to promote sustainability in the energy sector⁸⁶. Through these measures, the ideal of adopting green energy for a bright tomorrow will be realized at the global, regional and national levels.

⁸¹ Muigua. K., Wamukoya. D & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

⁸² Owusu. P. & Asumadu-Sarkodie. S., 'A Review of Renewable Energy Sources, Sustainability Issues and Climate Change Mitigation.' *Cogent Engineering* (2016).

⁸³ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

⁸⁴ Mohtasham. J., 'Review Article: Renewable Energies' Op Cit

⁸⁵ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

⁸⁶ Owusu. P. & Asumadu-Sarkodie. S., 'A Review of Renewable Energy Sources, Sustainability Issues and Climate Change Mitigation.' Op Cit

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Abstract

This paper critically reflects upon the progress made towards confronting climate change in Africa. It examines the threat of climate change in Africa and interrogates the measures undertaken towards combating this threat. The paper further examines challenges experienced in confronting climate change in Africa and offers suggestions towards addressing these problems.

1. Introduction

The *United Nations Framework Convention on Climate Change*¹ defines climate change as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods². Climate change has also been defined under the *Climate Change Act*³ of Kenya as a change in the climate system which is caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period⁴. Climate change therefore refers to long-term shifts in temperatures and weather patterns⁵. Such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions⁶. However, human activities have been the main drivers of climate change due to the burning of fossil fuels like coal, oil and gas⁷. These activities have increased the concentration of atmospheric carbon dioxide (CO₂) resulting to the greenhouse effect which contributes to global warming and climate change⁸.

¹ United Nations Framework Convention on Climate Change., United Nations, 1992., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 14/08/2023)

² Ibid, Article 1 (2)

³ Climate Change Act., No. 11 of 2016, Laws of Kenya.

⁴ Ibid, S 2

⁵ United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 14/08/2023)

⁶ Ibid

⁷ Ibid

⁸ NASA., 'The Causes of Climate Change.' Available at <https://climate.nasa.gov/causes/> (Accessed on 14/08/2023)

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Climate change remains one of the main global challenges that is affecting both developed and developing countries in their efforts towards realization of the Sustainable Development agenda⁹. It has been described as the most defining challenge of our time¹⁰. It has been observed that developing countries have been affected in greater ways by the effects of climate change compared to developed countries¹¹. This is because, since the environment remains the main source of raw materials for national development and a source of livelihoods for many communities especially those living within the rural settings, and climate change affects the ability of the environment to supply these needs, climate change has a direct effect on the livelihoods of communities as well as countries' ability to achieve growth and development¹². In addition, developing countries are more vulnerable to the impacts of climate impacts¹³. Adverse effects of climate change including extreme flooding, severe droughts, sea level rise, increasing temperatures and frequency and intensity of tropical cyclones, and storm surges have majorly affected developing countries and small island nations affecting the development agenda in these countries¹⁴. Confronting climate change is therefore a matter of priority for developing countries and regions of the world including Africa¹⁵.

⁹ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Glenwood Publishers Limited, 2021

¹⁰ United Nations Department of Economic and Social Affairs., 'Forum on Climate Change and Science and Technology Innovation.' Available at <https://www.un.org/en/desa/forum-climate-change-and-science-and-technology-innovation> (Accessed on 14/08/2023)

¹¹ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Op Cit

¹² Ibid

¹³ Sultana. F., 'Critical Climate Justice' Available at <https://www.farhanasultana.com/wpcontent/uploads/Sultana-Critical-climate-justice.pdf> (Accessed on 14/08/2023)

¹⁴ Bafana. B., 'Climate Change is No 'Future Scenario' for Pacific Island Nations; Climate Change is 'Real' Available at <https://reliefweb.int/report/world/climate-change-no-future-scenario-pacific-island-nations-climate-change-real> (Accessed on 14/08/2023)

¹⁵ Ibid

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Due to the threat it poses, climate change has risen to the top of the policy agenda, at local, national, and international levels¹⁶. Responding to the threat of climate change has therefore become both a national priority and a global responsibility¹⁷. The United Nations 2030 Agenda for Sustainable Development acknowledged that climate change is one of the greatest challenge of our time and its adverse impacts undermine the ability of all countries to achieve sustainable development¹⁸. Sustainable Development Goal 13 urges states to take urgent action to combat climate change and its impacts¹⁹. It has been asserted that the world is responding to climate change through two fundamental approaches being mitigation and adaptation²⁰. Climate change mitigation involves reducing greenhouse gas emissions and stopping the problem of climate change from growing²¹. Adaptation on the other hand involves learning how to live with the existing threat of climate change and protecting humanity from the future effects of climate change²².

This paper critically reflects upon the progress made towards confronting climate change in Africa. It examines the threat of climate change in Africa and interrogates the measures undertaken towards combating this threat. The paper further examines challenges experienced in confronting climate change in Africa and offers suggestions towards addressing these problems.

¹⁶ United Nations Department of Economic and Social Affairs., 'Forum on Climate Change and Science and Technology Innovation.' Available at <https://www.un.org/en/desa/forum-climate-change-and-science-and-technology-innovation> (Accessed on 14/08/2023)

¹⁷ United Nations Development Programme., 'Islamic Finance's Answer to SDGs and Climate Change.' Available at <https://www.undp.org/blog/islamic-finance-answer-sdgs-and-climate-change> (Accessed on 14/08/2023)

¹⁸ 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 14/08/2023)

¹⁹ Ibid, Goal 13

²⁰ World Vision., 'How is the World Responding to Climate Change?' Available at https://www.worldvision.com.au/docs/default-source/school-resources/how-is-the-world-responding-to-climate-change.pdf?sfvrsn=32021b89_0 (Accessed on 14/08/2023)

²¹ Ibid

²² Ibid

2. Climate Change in Africa

Africa is classified as a continent that is highly vulnerable to climate change due to several reasons including endemic poverty and high dependence on rain-fed agriculture, complex governance and institutional dimensions, limited access to capital including markets and technology, weak infrastructure, ecosystem degradation and poor management of natural resources, disasters both natural and man-made and conflicts.²³ This vulnerability is worsened by strong dependence of African economies on climate sensitive natural resources²⁴. It has been observed that African countries are already experiencing effects of climate change such as drought, water scarcity, flooding among others²⁵. Climate change is having a devastating impact on the African continent creating food insecurity, stressing water resources, depleting human health, displacing populations and impeding socio-economic development²⁶. It has been observed that in Africa, approximately 50 million people are on the brink of falling below the poverty line for reasons connected to climate change, 100 million people are at risk of being displaced by climate change, and about [600 million people lack energy access](#)²⁷.

It has been asserted that despite having contributed the least to global warming and having the lowest emissions, Africa faces exponential collateral damage from the effects of climate change posing systemic risks to its economies, infrastructure investments, water and food systems, public health, agriculture, and livelihoods, threatening to undo its modest development

²³ Kimaro. Didas et al., 'Climate Change Mitigation and Adaptation in ECA/SADC/COMESA Region: Opportunities and Challenges.' Available at https://www.researchgate.net/publication/346628199_Climate_Change_Mitigation_and_Adaptation_in_ECASADCCOMESA_region_Opportunities_and_Challenges (Accessed on 14/08/2023)

²⁴ Ibid

²⁵ Ibid

²⁶ Rao. V., & Yadav. P., 'Confronting Climate Change in Africa.' Available at <https://knowledge.insead.edu/responsibility/confronting-climate-change-africa> (Accessed on 14/08/2023)

²⁷ Ibid

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gains and slip into higher levels of extreme poverty²⁸. Increasing temperatures and sea levels, changing precipitation patterns and more extreme weather are threatening human health and safety, food and water security and socio-economic development in Africa²⁹. The United Nations Framework Convention on Climate Change observed that climate change is having a growing impact on the African continent, hitting the most vulnerable hardest, and contributing to food insecurity, population displacement and stress on water resources³⁰. Cases of devastating floods, invasion of desert locusts and severe droughts are vivid examples of the impacts of climate change on the continent³¹.

The foregoing concerns demonstrate that the threat of climate change is a pertinent problem in Africa. While Africa has contributed negligibly to climate change, with just about two to three percent of global emissions, it stands out disproportionately as the most vulnerable region in the world³². This situation highlights the inequalities brought about by climate change. It has been observed that developed countries mainly the large industrialised economies of Europe and North America and some Asian countries such as China continuing to benefit more from the industries and technologies that cause climate change while developing nations in places such as Africa, Asia, the Caribbean Islands and the Pacific Islands which due to an unfortunate mixture of economic and geographic vulnerability, continue to shoulder the brunt of the burdens of climate change despite their relative innocence in causing it³³. While climate change is global, the poor are disproportionately vulnerable to

²⁸ African Development Bank Group., 'Climate Change in Africa.' Available at <https://www.afdb.org/en/cop25/climate-change-africa> (Accessed on 14/08/2023)

²⁹ United Nations Framework Convention on Climate Change., 'Climate Change is an Increasing Threat to Africa.' Available at <https://unfccc.int/news/climate-change-is-an-increasing-threat-to-africa> (Accessed on 14/08/2023)

³⁰ Ibid

³¹ Ibid

³² United Nations Environment Programme., 'Responding to Climate Change.' Available at <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change> (Accessed on 14/08/2023)

³³ Giles. M., 'The Principles of Climate Justice at CoP27.' Available at <https://earth.org/principlesofclimatejustice/#:~:text=That%20response%20should%20be%20based,the%20consequences%20of%20climate%20change> (Accessed on 14/08/2023)

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its effects³⁴. This is because they lack the resources to afford goods and services they need to buffer themselves and recover from the effects of climate change³⁵.

Climate change represents a major threat to Africa achieving the Sustainable Development Goals³⁶. Confronting climate change in Africa is thus an urgent need if the continent is to realize the Sustainable Development agenda. It has been observed that implementing the climate action commitments of African states popularly known as Nationally Determined Contributions (NDCs) is vital in fostering socio-economic development in the continent³⁷.

3. Confronting Climate Change in Africa: Prospects and Challenges

Confronting climate change has become an urgent concern not only in Africa but also across the world. Various laws, treaties, conventions, protocols and policies have been adopted towards confronting climate change at the international, regional and national levels.

The *United Nations Framework Convention on Climate Change*³⁸ (UNFCCC) is an international legal instrument geared towards combating climate change by achieving stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The UNFCCC encapsulates several principles that are integral in confronting climate change³⁹. These principles include protection of the climate system for the benefit of present and future generations of humankind (the principle of intergenerational equity); the principle of common but differentiated responsibilities; giving full consideration to the specific needs and special circumstances of developing countries especially those that are particularly vulnerable to the adverse effects of climate change; the precautionary principle; the principle of Sustainable Development and the principle of international cooperation⁴⁰. The UNFCCC further enshrines

³⁴ United Nations Environment Programme., 'Responding to Climate Change.' Op Cit

³⁵ Ibid

³⁶ African Development Bank Group., 'Climate Change in Africa.' Op Cit

³⁷ Ibid

³⁸ 'United Nations Framework Convention on Climate Change,' Op Cit

³⁹ Ibid

⁴⁰ Ibid, Article 3

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various commitments by member states towards confronting climate change. These include promoting and cooperating in the development, application and diffusion, including transfer, of technologies, practices and processes aimed at combating climate change; cooperating in preparing for adaptation to the impacts of climate change; taking climate change considerations into account in social, economic and environmental policies; promoting and cooperating in scientific, technological, technical, socio-economic and other research on climate change and promoting and cooperating in education, training and public awareness related to climate change⁴¹. Realizing the commitments set out in the UNFCCC is vital in confronting climate change.

The *Kyoto Protocol*⁴² to the UNFCCC was an international legal instrument that sought to operationalize the United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce Greenhouse Gases (GHG) emissions in accordance with agreed individual targets⁴³. The Protocol requires these countries to implement measures and policies geared towards achieving their emission limitation and reduction commitments⁴⁴. These include enhancement of energy efficiency; promotion of sustainable forms of agriculture in light of climate change considerations; research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies and cooperation between states to enhance the individual and combined effectiveness of their policies and measures adopted towards confronting climate change⁴⁵. The Kyoto Protocol only binds developed countries, and places a heavier burden on them under the principle of *common but differentiated responsibility and respective capabilities* since it recognizes that they are largely responsible for the current high levels of GHG emissions in

⁴¹ Ibid, Article 4

⁴² United Nations Framework Convention on Climate Change., 'Kyoto Protocol to the United Nations Framework Convention on Climate Change.' Available at <https://unfccc.int/resource/docs/convkp/kpeng.pdf> (Accessed on 15/08/2023)

⁴³ Ibid

⁴⁴ Ibid, Article 2

⁴⁵ Ibid

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the atmosphere⁴⁶. On 8th December 2012, the *Doha Amendment*⁴⁷ to the Kyoto Protocol was adopted for a second commitment period, starting in 2013 and lasting until 2020⁴⁸.

Further, the *Paris Agreement*⁴⁹ was adopted to strengthen the global response to the threat of climate change, in the context of Sustainable Development and efforts to eradicate poverty⁵⁰. It seeks to achieve this goal through measures such as holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production and making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development⁵¹. The Agreement further requires parties to prepare, communicate and maintain successive Nationally Determined Contributions that they intend to achieve⁵². It further requires parties to pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions⁵³. The Agreement further acknowledges the special circumstances of developing countries some which are more vulnerable to the effects of climate change and requires developed countries to support them in their efforts to confront climate change through measures such as provision of

⁴⁶ United Nations Framework Convention on Climate Change., 'What is the Kyoto Protocol?' Available at https://unfccc.int/kyoto_protocol (Accessed on 15/08/2023)

⁴⁷ United Nations., 'Doha Amendment to the Kyoto Protocol.' Available at <https://treaties.un.org/doc/Publication/MTDGS/Volume%20II/Chapter%20XXVII/xxvii-7-c.en.pdf> (Accessed on 15/08/2023)

⁴⁸ United Nations Framework Convention on Climate Change., 'What is the Kyoto Protocol?' Op Cit

⁴⁹ United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (Accessed on 15/08/2023)

⁵⁰ Ibid, Article 2 (1)

⁵¹ Ibid

⁵² Ibid, Article 4 (2)

⁵³ Ibid

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financial resources and technology transfer⁵⁴. Achieving the targets and measures set out under the Paris Agreement is therefore vital in confronting climate change.

Confronting climate change has also been the pertinent topic during the United Nations Climate Change Conferences/Conference of the Parties of the UNFCCC (COP meetings). At COP 27 a breakthrough agreement was reached towards confronting climate change whereby parties agreed to provide loss and damage funding for vulnerable countries hit hard by floods, droughts and other climate disasters⁵⁵. Parties further reaffirmed their commitment to limit global temperature rise to 1.5°C above pre-industrial levels as envisaged under the Paris Agreement⁵⁶. In addition, parties agreed to mobilize more financial support for developing countries towards low emissions and climate resilient development⁵⁷. COP 27 acknowledged that finance is at the heart of all that the world is doing to confront climate change since mitigation, adaptation, loss and damage and climate technology require sufficient funds to function properly and to yield the desired results⁵⁸. COP 28 is aimed at assessing global progress towards confronting climate change and come up with concrete plans and actions on thematic areas including finance, trade, energy, industry, urbanization, built environment, nature, land use and oceans in strengthening global resilience on climate change⁵⁹.

At the regional level, the *East African Community Climate Change Policy*⁶⁰ recognizes the adverse impacts of climate change as a major challenge to socio-economic development globally. According to the Policy, the African

⁵⁴ Ibid, Articles 9 (1) & 10

⁵⁵ United Nations Framework Convention on Climate Change., 'Sharm El-Sheikh Climate Change Conference - November 2022.' Available at <https://unfccc.int/cop27> (Accessed on 16/08/2023)

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ Ibid

⁵⁹United Nations Framework Convention on Climate Change., 'UN Climate Change Conference - United Arab Emirates Nov/Dec 2023.' Available at <https://unfccc.int/cop28> (Accessed on 16/08/2023)

⁶⁰ East African Community., 'East African Community Climate Change Policy.' Available at <https://www.eac.int/environment/climate-change/eac-climate-change-policy-framework> (Accessed on 15/08/2023)

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continent including the East African region is particularly vulnerable to impacts of climate change affecting key economic drivers such as water resources, agriculture, energy, transport, health, forestry, wildlife, land and infrastructure, disaster risk management among others⁶¹. It further recognizes that impacts of climate change in the region include; water stress and scarcity, food insecurity, diminished hydropower generation potential, loss of biodiversity and ecosystem degradation, increased incidence of disease burden, destruction of infrastructure, high costs of disaster management as result of increased frequency and intensity of droughts, floods and landslides associated with the El Niño phenomenon⁶². The Policy is aimed at contributing to Sustainable Development in the EAC region through harmonized and coordinated regional strategies, programmes and actions to respond to climate change⁶³. It identifies several ways of confronting climate change in the region which include establishing a regional framework to guide the harmonization, coordination and implementation of climate change initiatives amongst partner states; identifying priority adaptation and mitigation action areas and roles of partner states and other stakeholders to address climate change in the region; promoting public awareness and socio-economic importance of climate change including; vulnerability, impacts, risks, and response measures in the region an promoting capacity building efforts through inter alia education, training, research, technology development and transfer, information and knowledge management⁶⁴. Actualizing this Policy is vital in confronting climate change in the East African Region.

In Kenya, the *Climate Change Act*⁶⁵ seeks to enhance the national response to climate change and achieve low carbon climate development for the Sustainable Development of Kenya⁶⁶. It identifies several ways of achieving this goal such as mainstreaming climate change responses into development planning, decision making and implementation; build national resilience and enhancing adaptive capacity to the impacts of climate change; formulating

⁶¹ Ibid

⁶² Ibid

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Climate Change Act., No. 11 of 2016, Government Printer, Nairobi

⁶⁶ Ibid, S 3 (1)

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programmes and plans to enhance the resilience and adaptive capacity of human and ecological systems to the impacts of climate change; mainstreaming intergenerational and gender equity in all aspects of climate change responses; promoting low carbon technologies, improving efficiency and reducing emissions intensity by facilitating approaches and uptake of technologies that support low carbon, and climate resilient development and facilitating capacity development for public participation in climate change responses through awareness creation, consultation, representation and access to information⁶⁷. Achieving the targets set out in the Climate Change Act is critical in confronting climate change in Kenya.

Further, the *National Climate Change Policy*⁶⁸ was developed to facilitate a coordinated, coherent and effective response to the local, national and global challenges and opportunities presented by climate change⁶⁹. It further seeks to enhance adaptive capacity and resilience to climate change, and promote low carbon development for the Sustainable Development of Kenya⁷⁰. The Policy sets out several measures towards achieving its aim which include facilitating widespread public awareness, participation, ownership and oversight of Kenya's climate change response efforts and action plans⁷¹. The Policy further enshrines several principles that are vital in confronting climate change such as Sustainable Development; Equity and Social Inclusion and special needs and circumstances of vulnerable people and communities⁷².

From the foregoing discussion, it is evident that confronting climate change is a global, regional and national concern. *Agenda 2063*⁷³ recognizes while Africa has played a relatively minor role and contributed little to the accumulation of

⁶⁷ Ibid, S 3 (2)

⁶⁸ Sessional Paper No. 5 of 2016., 'National Climate Change Framework Policy.' Available at <http://aiap.or.ke/wp-content/uploads/2018/10/Climate-Change-Framework-PolicyMay2017.pdf> (Accessed on 15/08/2023)

⁶⁹ Ibid

⁷⁰ Ibid

⁷¹ Ibid, S 3.2 (v)

⁷² Ibid, S 3.3.

⁷³ Africa Union., 'Agenda 2063: The Africa we Want.' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf (Accessed on 16/08/2023)

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greenhouse gases and the attendant climate change, it is the most vulnerable region to climate change risks. It seeks to foster environmentally sustainable and climate resilient economies and communities in Africa⁷⁴. It has been observed that African countries are scaling up the fight against climate change⁷⁵. There has been progress towards adoption of renewable sources of energy such as solar, wind and hydro power which is vital step in confronting climate change⁷⁶. Further, progress has been made towards investing in sustainable agriculture and addressing deforestation⁷⁷. In addition, most African countries have submitted their Nationally Determined Contributions (NDCs) to the UNFCCC with some committing to reduce their greenhouse gas emissions by 30% by the year 2030⁷⁸. It is therefore evident that there is immense potential in confronting climate change in Africa.

However, several problems hinder the effectiveness of African countries in confronting climate change. One of the key challenges to the implementation of climate change mitigation and adaptation strategies in Africa is financing⁷⁹. It has been observed that costs of adaptation could reach \$ 300 Billion for Africa plus \$ 3 Billion per year for maintenance numbers which sharply contrast with the limited resources currently devoted to climate change mitigation and adaptation in Africa⁸⁰. African governments pledged \$ 264 Billion in domestic public resources to combat climate change, a figure that

⁷⁴ Ibid

⁷⁵ Official Monetary and Financial Institutions Forum., 'African Countries are Scaling Up the Fight Against Climate Change.' Available at <https://www.omfif.org/2023/02/african-countries-are-scaling-up-the-fight-against-climate-change/> (Accessed on 16/08/2023)

⁷⁶ United Nations Framework Convention on Climate Change., 'Four Countries Showcased their Ambitious Climate Action During Africa Climate Week.' Available at <https://unfccc.int/news/four-countries-showcased-their-ambitious-climate-action-during-africa-climate-week> (Accessed on 16/08/2023)

⁷⁷ Ibid

⁷⁸ United Nations Framework Convention on Climate Change., 'Nationally Determined Contributions Registry.' Available at <https://unfccc.int/NDCREG> (Accessed on 16/08/2023)

⁷⁹ Mbaye. A., 'Confronting the Challenges of Climate Change on Africa's Coastal Areas.' Available at <https://www.brookings.edu/articles/confronting-the-challenges-of-climate-change-on-africas-coastal-areas/> (Accessed on 16/08/2023)

⁸⁰ Ibid

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falls short of the estimated \$ 2.8 trillion required to implement Africa's Nationally Determined Contributions (NDCs) between 2020 and 2030⁸¹.

In addition, it has been observed that most African countries lack the technical capacity to adapt to the impacts of climate change, and to develop appropriate low carbon technologies⁸². Further, another big challenge facing Africa is the lack of access to modern and clean sources of energy such as electricity⁸³. This results in the use of traditional sources of energy such as coal which have negative environmental consequences⁸⁴. Further, unsustainable farming practices have also contributed to climate change and degradation of soils leading to food insecurity⁸⁵. There is need to address these challenges in order to effectively confront climate change in Africa.

4. Way Forward

In order to effectively confront climate change and its effects in Africa, there is need to boost climate smart agriculture in order to enhance food security⁸⁶. Achieving the goals of eradicating hunger and poverty while addressing the climate change impacts as envisaged under the 2030 Agenda for Sustainable Development need a climate-smart approach in agriculture that is based on the objectives of sustainably enhancing food production, climate adaptation

⁸¹ Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Available at <https://www.acepis.org/a-huge-financing-gap-for-climateaction-with-public-debt-sustainability-risks-looms-in-east-africa-beyond-cop27/> (Accessed on 16/08/2023)

⁸² United Nations Environment Programme., 'Climate Change Challenges for Africa.' April, 2012

⁸³ Muigua. K., 'Delivering Clean and Affordable Energy for All.' Available at <http://kmco.co.ke/wp-content/uploads/2021/05/Delivering-Clean-and-Affordable-Energy-for-All-Kariuki-Muigua-Ph.D-24th-April-2021-1.pdf> (Accessed on 16/08/2023)

⁸⁴ Ibid

⁸⁵ Hillsdon. M., 'Regenerative Agriculture Seen as Answer to Averting Africa's Growing Food Crisis.' Available at <https://www.reuters.com/business/sustainable-business/regenerative-agriculture-seen-answer-averting-africas-growing-food-crisis-2022-11-07/> (Accessed on 16/08/2023)

⁸⁶ Diagana. O., '3 key Fronts on Which Africa Must Combat Climate Change.' Available at <https://blogs.worldbank.org/africacan/3-key-fronts-which-africa-must-combat-climate-change> (Accessed on 16/08/2023)

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and resilience and reduction in GHGs emission⁸⁷. It has been proved that traditional agricultural practices like agro forestry, intercropping, crop rotation, cover cropping, traditional organic composting and integrated crop-animal farming all have potentials for enhancing crop productivity and mitigating climate change⁸⁸. In addition, it has been suggested that adoption of regenerative agricultural practices such as crop rotation, agroforestry, use of drought- and heat-resistant crops, integrated pest control systems, water harvesting and irrigation can foster high-yielding, climate resilient, and adaptive practices⁸⁹. There is need to adopt these practices in order to effectively confront climate change in Africa.

It is also imperative for African countries to focus and invest in climate adaptation⁹⁰. It has been asserted that the potential to deliver a robust portfolio of green, resilient, and inclusive investments driving transformation and innovation in areas such as energy, infrastructure, agriculture the blue economy and other climate change mitigation and adaption strategies⁹¹. Strong climate action and increased climate financing are vital in helping the continent achieve these goals⁹². It is thus imperative for African countries to identify and mobilize effective and appropriate financing for climate action in order to confront climate change⁹³. International, regional and national financial institutions can also support the capacity of African countries to confront climate change through investments in mitigation and adaptation strategies and, green products including green bonds and green

⁸⁷ Rinku . S & Singh. G., 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' *Energy, Ecology and Environment*, No. 2 of 2017, 296

⁸⁸ Ibid

⁸⁹ Climate Champions. 'How Regenerative Agriculture Can Increase Africa's Food Production.' Available at <https://climatechampions.unfccc.int/call-to-action-for-climate-resilient-sustainable-food-systems-inafrica/> (Accessed on 16/08/2023)

⁹⁰ Diagana. O., '3 key Fronts on Which Africa Must Combat Climate Change.' Op Cit

⁹¹ Ibid

⁹² Ibid

⁹³ United Nations Framework Convention on Climate Change., 'Climate Finance Access and Mobilization Strategy for The Least Developed Countries In Asia: 2022-2030.'

Available at https://unfccc.int/sites/default/files/resource/UNFCCC_NBF_SD_AsianLDCA_final.pdf

(Accessed on 16/08/2023)

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infrastructure⁹⁴. Developed countries should also enhance financial support for African countries in order to enhance their climate resilience⁹⁵.

Further, there is need for African countries to foster environmental education and creating awareness on climate change mitigation and resilience⁹⁶. It has been asserted that it is important for various stakeholders to work closely with communities as a way of creating awareness on how their day to day activities are likely to affect the environment and the climatic conditions in general⁹⁷. Dissemination of environmental knowledge as well as creating opportunities for collaborative approaches to combating climate change can go a long way in not only mitigation and adaptation measures but also creating resilient economies and livelihoods⁹⁸. Further, climate change knowledge should also be incorporated into the primary, secondary and all tertiary level curricula in order to inculcate a sense of environmental ethics in all people from an early age and to ensure that the knowledge acquired will go a long way in combating climate change⁹⁹. Education gives people the knowledge and tools they need to adapt to the impacts of climate change and the risks it poses to lives, livelihoods and well-being¹⁰⁰. Education can also be a powerful driver for more Sustainable Development, including a transition to greener societies¹⁰¹. Africa should therefore embrace education as a tool of confronting climate change.

⁹⁴ Asian Development Bank., 'Unlocking Islamic Climate Finance.' Available at <https://www.adb.org/sites/default/files/publication/838201/unlocking-islamic-climate-finance.pdf> (Accessed on 16/08/2023)

⁹⁵ Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Op Cit

⁹⁶ Muigua. K., 'Combating Climate Change in Kenya for Sustainable Development.' Available at <http://kmco.co.ke/wp-content/uploads/2021/01/Combating-Climate-Change-for-Sustainable-Development-in-Kenya-Kariuki-Muigua-Ph.D-23rd-Jan-2021.pdf> (Accessed on 16/08/2023)

⁹⁷ Ibid

⁹⁸ Ibid

⁹⁹ Ibid

¹⁰⁰ Global Partnership for Education., 'Confronting Climate Change through Education.' Available at <https://www.globalpartnership.org/node/document/download?file=document/file/2023-04-confronting-climate-change-through-education.pdf> (Accessed on 16/08/2023)

¹⁰¹ Ibid

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In addition, it is essential for Africa to adopt science, technology and innovation in order to efficiently confront climate change¹⁰². The *Paris Agreement* recognizes the role of science, technology and innovation in climate change mitigation and adaptation¹⁰³. To this extent, it calls for the use of scientific knowledge in planning, policies and implementation in relation to climate change adaptation and mitigation actions; technology development and transfer and accelerating, encouraging and enabling innovation in order to improve global resilience to climate change and foster Sustainable Development¹⁰⁴. Science, technology and innovation have enhanced the global response to the threat of climate change through measures such as the adoption of clean and green sources of energy including renewable energy, electric cars, use of carbon sequestration technologies and adoption of smart waste technologies¹⁰⁵. African countries should therefore embrace science, technology and innovation in order to enhance their efforts in confronting climate change. International cooperation in this area through technology transfer as envisaged under the Paris Agreement can also enhance the capacity of African countries to confront climate change¹⁰⁶. African countries can also utilize traditional knowledge to confront climate change in areas such as the conservation of biodiversity¹⁰⁷. Through these measures, the ability of African countries to confront climate change will be enhanced.

5. Conclusion

Climate change remains one of the main global challenges that is affecting both developed and developing countries in their efforts towards realization of the Sustainable Development agenda¹⁰⁸. Africa is classified as a continent that is

¹⁰² Muigua. K., 'Embracing Science, Technology and Innovation for Sustainable Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/08/Embracing-Science-Technology-and-Innovation-for-Sustainable-Development.pdf> (Accessed on 16/08/2023)

¹⁰³ Paris Agreement, Op Cit

¹⁰⁴ Ibid

¹⁰⁵ United Nations Economic and Social Commission for Asia and the Pacific., 'Science, Technology and Innovation for Sustainable Development.' E/ESCAP/72/32

¹⁰⁶ Paris Agreement., Op Cit

¹⁰⁷ Muigua. K., 'Combating Climate Change in Kenya for Sustainable Development.' Op Cit

¹⁰⁸ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Op Cit

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highly vulnerable to climate change¹⁰⁹. Cases of devastating floods, invasion of desert locusts and severe droughts are vivid examples of the impacts of climate change on the continent¹¹⁰. Confronting climate change in Africa is thus an urgent need if the continent is to realize the Sustainable Development agenda¹¹¹. There has been progress towards combating climate change in Africa through adoption of renewable sources of energy, investing in sustainable agriculture and addressing deforestation¹¹². However, the persisting threat of climate change calls for more to be done in order to confront climate change in Africa. This can be achieved through boosting climate smart agriculture, investing in climate adaptation, strong climate action and increased climate finance in Africa, fostering environmental education and creating awareness on climate change mitigation and resilience and adopting science, technology and innovation¹¹³. Through these measures, the response towards climate change in Africa will be enhanced. Confronting climate change in Africa is an achievable target.

¹⁰⁹ Kimaro. Didas et al., 'Climate Change Mitigation and Adaptation in ECA/SADC/COMESA Region: Opportunities and Challenges.' Op Cit

¹¹⁰ United Nations Framework Convention on Climate Change., 'Climate Change is an Increasing Threat to Africa.'

¹¹¹ Ibid

¹¹² United Nations Framework Convention on Climate Change., 'Four Countries Showcased their Ambitious Climate Action During Africa Climate Week.' Op Cit

¹¹³ Muigua. K., 'Combating Climate Change in Kenya for Sustainable Development.' Op Cit

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Abstract

The paper critically explores the concept of low carbon development as a tool for combating climate change and fostering Sustainable Development. It discusses global, regional and national efforts towards embracing the idea of low carbon development. The paper further examines the promises and drawbacks facing the realization of low carbon development. It also proposes measures towards enhancing low carbon development for sustainability.

1. Introduction

Climate change has emerged as the most pressing global challenge that affects both developed and developing countries in their efforts towards the realization of the Sustainable Development agenda¹. As a result, there have been global calls on governments and all other stakeholders to put in place measures towards responding to the threat of climate change and ensuring that economies are climate resilient². Responding to climate change is one of the fundamental goals under the United Nation's 2030 Agenda for Sustainable Development³. Sustainable Development Goal 13 calls upon countries to take urgent actions towards combating climate change and its impacts⁴.

Responding to climate change involves a two-pronged approach that entails mitigation and adaptation mechanisms⁵. Mitigation involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing [sources of these gases](#) (for example, the burning of fossil fuels for electricity, heat, or transport) or enhancing the ["sinks" that accumulate and store these gases](#) (such as the oceans, forests, and soil)⁶. Mitigation therefore

¹ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Glenwood Publishers Limited, 2021

² Ibid

³ United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1.

⁴ Ibid, Sustainable Development Goal 13

⁵ NASA., 'Responding to Climate Change.' Available at [https://climate.nasa.gov/solutions/adaptation-mitigation/#:~:text=Responding%20to%20climate%20change%20involves%20two%20possible%20approaches%3A%20reducing%20and,pipeline%20\(%E2%80%9Cadaptation%E2%80%9D\)](https://climate.nasa.gov/solutions/adaptation-mitigation/#:~:text=Responding%20to%20climate%20change%20involves%20two%20possible%20approaches%3A%20reducing%20and,pipeline%20(%E2%80%9Cadaptation%E2%80%9D) (Accessed on 07/09/2023)

⁶ Ibid

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envisages making the impacts of climate change less severe by preventing or reducing the emission of greenhouse gases (GHG) into the atmosphere⁷. [The goal of mitigation](#) is to avoid significant [human interference with Earth's climate](#), “stabilize greenhouse gas levels in a timeframe sufficient to allow ecosystems to adapt naturally to climate change, ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner⁸. Adaptation on the other hand means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause, or taking advantage of opportunities that may arise⁹. Examples of adaptation measures include large-scale infrastructure changes, such as building defenses to protect against sea-level rise, as well behavioral shifts, such as individuals reducing their food waste¹⁰. The aim of mitigation is to reduce our risks from the harmful effects of climate change such sea-level rise, more intense extreme weather events, or food insecurity¹¹. It also includes making the most of any potential beneficial opportunities associated with climate change for example, longer growing seasons or increased yields in some regions¹².

One of the mitigation mechanism that has been embraced in efforts towards confronting climate change is the idea of low carbon development¹³. The concept of low carbon development which is also expressed using the term Low-Emission Development Strategies (LEDS) also known as low-carbon development strategies, or low-carbon growth plans refers to forward-looking national economic development plans or strategies that encompass low-emission and/or climate-resilient economic growth¹⁴. Low carbon

⁷ European Environment Agency., ‘What is the Difference between Adaptation and Mitigation?’ Available at [https://www.eea.europa.eu/help/faq/what-is-the-difference-between#:~:text=In%20essence%2C%20adaptation%20can%20be,\(GHG\)%20into%20the%20atmosphere](https://www.eea.europa.eu/help/faq/what-is-the-difference-between#:~:text=In%20essence%2C%20adaptation%20can%20be,(GHG)%20into%20the%20atmosphere) (Accessed on 07/09/2023)

⁸ NASA., ‘Responding to Climate Change.’ Op Cit

⁹ European Environment Agency., ‘What is the Difference between Adaptation and Mitigation?’ Op Cit

¹⁰ Ibid

¹¹ NASA., ‘Responding to Climate Change.’ Op Cit

¹² Ibid

¹³ United Nations., ‘Low Carbon Development.’ Available at <https://sustainabledevelopment.un.org/index.php?menu=1448#:~:text=The%20concept%20of%20low%20carbon,low%2Dcarbon%20growth%20plans> (Accessed on 07/09/2023)

¹⁴ Ibid

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development has also been defined as forward-looking, climate-friendly growth strategies that can highlight a country's priority actions for climate mitigation and adaptation, and a country's role in the global effort against climate change¹⁵. The idea of low-carbon development aims to achieve the goals of reducing greenhouse gas emissions, exploiting low-carbon energy, and ensuring economic growth¹⁶. It has been observed that LEDS have attracted interest in the climate negotiations as a soft alternative to voluntary or obligatory GHG emission reduction targets in developing countries¹⁷. Low carbon development focuses on addressing and integrating climate change with development objectives and is therefore a more useful approach for developing countries¹⁸. The idea of low carbon development has been advocated as the inevitable choice to confront climate change and achieve Sustainable Development¹⁹. To effectively reduce greenhouse gas emissions while fostering economic growth, different countries have begun to search for new development paths among which low-carbon development has become a widely advocated one²⁰.

The paper critically explores the concept of low carbon development as a tool for combating climate change and fostering Sustainable Development. It discusses global, regional and national efforts towards embracing the idea of low carbon development. The paper further examines the promises and drawbacks facing the realization of low carbon development. It also proposes measures towards enhancing low carbon development for sustainability.

¹⁵ United Nations Economic and Social Commission for Asia and the Pacific., 'Low-Carbon Development Plan.' Available at <https://www.unescap.org/sites/default/files/45.%20FS-Low-Carbon-Development-Plan.pdf> (Accessed on 07/09/2023)

¹⁶ Yuan. H, Zhou. P, & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis.' *Energy Procedia*, 5 (2011) 1706–1712

¹⁷ ¹⁷ United Nations., 'Low Carbon Development.' Op Cit

¹⁸ Ibid

¹⁹ Xin. X, Yuding. W, & Jianzhong. W., 'The Problems and Strategies of the Low Carbon Economy Development.' *Energy Procedia* 5 (2011) 1831–1836

²⁰ Yuan. H, Zhou. P, & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis.' Op Cit

2. Legal Framework on Low Carbon Development

The concept of low carbon development has its roots in the *United Nations Framework Convention on Climate Change (UNFCCC)*²¹ adopted in 1992. The objective of the UNFCCC is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system²². According to the UNFCCC, such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner²³. The UNFCCC further provides that policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change²⁴. The UNFCCC therefore envisions low carbon development through states pursuing economic development while integrating climate change mitigation and adaptation measures in their national development programmes. It further stipulates several commitments by state parties which are vital in realizing low carbon development such as promoting and cooperating in the development; application and diffusion, including transfer, of technologies; practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases; promoting sustainable management, and promoting and cooperating in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases; cooperating in preparing for adaptation to the impacts of climate change and taking climate change considerations into account, to the extent feasible, in relevant social, economic and environmental policies and actions; and employing appropriate methods, for example impact assessments towards confronting climate change²⁵. Achieving the commitments stipulated under the UNFCCC is vital in enhancing low carbon development at the global level.

²¹ United Nations Framework Convention on Climate Change, United Nations, 1992., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 07/09/2023)

²² Ibid, Article 2

²³ Ibid

²⁴ Ibid, Article 3 (4)

²⁵ Ibid, Article 4

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Fostering low carbon development was also a major point of concern under the *Kyoto Protocol*²⁶ to the UNFCCC which sought to operationalize the United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce greenhouse gases emissions in accordance with agreed individual targets²⁷. The Protocol required these countries to implement measures and policies geared towards low carbon development by achieving their emission limitation and reduction commitments²⁸. These measures include enhancement of energy efficiency; promotion of sustainable forms of agriculture in light of climate change considerations; research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies and cooperation between states to enhance the individual and combined effectiveness of their policies and measures adopted towards confronting climate change²⁹. The Kyoto Protocol also required member states to formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change³⁰.

Among the salient provisions of the Kyoto Protocol geared towards fostering low carbon development is the idea of clean development mechanisms³¹. According to the Protocol, the purpose of a clean development mechanism is to assist parties in achieving Sustainable Development and in contributing to the ultimate objective of the UNFCCC by achieving compliance with their quantified emission limitation and reduction commitments³². The Clean Development Mechanism(CDM) was aimed at enabling parties to benefit from project activities resulting in certified emission reductions and using the certified emission reductions accruing from such project activities to

²⁶ United Nations Framework Convention on Climate Change., 'Kyoto Protocol to the United Nations Framework Convention on Climate Change.' Available at <https://unfccc.int/resource/docs/convkp/kpeng.pdf> (Accessed on 07/09/2023)

²⁷ Ibid

²⁸ Ibid, Article 2

²⁹ Ibid

³⁰ Ibid, Article 10 (a)

³¹ Ibid, Article 12

³² Ibid, Article 12 (2)

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contribute to compliance with part of their quantified emission limitation and reduction commitments³³. The Clean Development Mechanism set out under the Kyoto Protocol was vital in enhancing low carbon development by stimulating Sustainable Development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction or limitation targets³⁴. The Kyoto Protocol established the first global, environmental investment and credit scheme of its kind, providing a standardized instrument for offsetting emissions, known as certified emission reductions³⁵. The Kyoto Protocol was vital in fostering low carbon development at the global level until the adoption of the Paris Agreement³⁶.

The *Paris Agreement*³⁷ was adopted to strengthen the global response to the threat of climate change, in the context of Sustainable Development and efforts to eradicate poverty³⁸. It seeks to achieve this goal through measures such as holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production and making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development³⁹. A key provision of the Paris Agreement aimed at fostering low carbon development is the requirement of state parties to communicate and maintain successive Nationally Determined Contributions (NDCs) that they intend to achieve⁴⁰. The Paris Agreement further requires parties to pursue

³³ Ibid, Article 12 (3)

³⁴ United Nations Framework Convention on Climate Change., 'The Kyoto Protocol Mechanisms.' Available at https://cdm.unfccc.int/about/cdm_kpm.pdf (Accessed on 07/09/2023)

³⁵ Ibid

³⁶ Ibid

³⁷ United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (Accessed on 07/09/2023)

³⁸ Ibid, Article 2 (1)

³⁹ Ibid

⁴⁰ Ibid, Article 4 (2)

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domestic mitigation measures, with the aim of achieving the objectives of such NDCs⁴¹. Nationally Determined Contributions envisaged under the Paris Agreement are vital in combating climate change and unleashing national actions and investments towards a low carbon and sustainable future⁴². States through their NDCs have set out ambitious targets towards reducing greenhouse gas emissions through measures such as investments in renewable energy, adopting sustainable agricultural practices and fostering green transport and infrastructure⁴³. The Paris Agreement is therefore of utmost importance in enhancing low carbon development.

At the regional level, the *East African Community Climate Change Policy*⁴⁴ recognizes the adverse impacts of climate change as a major challenge to socio-economic development globally. The Policy is aimed at contributing to Sustainable Development in the East African Community region through harmonized and coordinated regional strategies, programmes and actions to respond to climate change⁴⁵. It further seeks to address the adverse impacts of climate change in the region and harness any potential opportunities posed by climate change in the context of the principle of Sustainable Development⁴⁶. The Policy also seeks to support the integration of climate change into regional development processes and planning including disaster risk management and gender development among other targets⁴⁷. Towards fostering low carbon development in the region, the Policy emphasizes the importance of mainstreaming climate change adaptation and mitigation into national and regional development plans, taking a sectoral approach, with an emphasis on key socio-economic sectors and sub-sectors adversely impacted by climate change and with potential opportunities to contribute to mitigation efforts and

⁴¹ Ibid

⁴² Fragkos, P et al., 'Energy System Impacts and Policy Implications of the European Intended Nationally Determined Contribution and Low-Carbon Pathway to 2050.' *Energy Policy* 100 (2017) 216–226

⁴³ Ibid

⁴⁴ East African Community., 'East African Community Climate Change Policy.' Available at <https://www.eac.int/environment/climate-change/eac-climate-change-policy-framework> (Accessed on 07/09/2023)

⁴⁵ Ibid

⁴⁶ Ibid

⁴⁷ Ibid

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Sustainable Development of the East African region⁴⁸. These sectors include, but are not limited to: water resources, agriculture and food security (crop, livestock, fisheries production), energy, biodiversity and ecosystem services (forests, wildlife, wetlands, coastal and marine ecosystems), land use and soil protection, human health, tourism, industry, transport and infrastructure, disaster risk management, gender and community development, education, training and research and development⁴⁹.

The Policy also acknowledges that climate change mitigation presents an opportunity for East Africa to benefit from project activities that result in Certified Emission Reductions (CERs) under the CDM as provided for under the *Kyoto Protocol* to the UNFCCC or under similar provisions of any other future agreement⁵⁰. It further acknowledges that CDM can foster Sustainable Development in the region while at the same time contributing to the ultimate objective of the UNFCCC which is to reduce greenhouse gas emissions and further assisting the region in securing funding of certified project activities within the sectors with significant mitigation such as energy, forestry, agriculture, waste management and transport⁵¹. In addition, the Policy urges East African countries to exploit opportunities in Reducing Emissions from Deforestation and Forest Degradation (REDD) and REDD+ through a suite of relevant policies for conservation and sustainable management of forests and enhancement of forest carbon stocks⁵². The Policy is vital in enhancing low carbon development in the East African region since it recognizes the critical need for the development of climate change adaptation and mitigation strategies to secure economic growth, social development and environmental sustainability of the region⁵³. Actualizing this Policy is crucial in enhancing low carbon development in the region.

Enhancing low carbon development is also a pertinent objective under the climate change agenda in Kenya as envisioned under the *Climate Change Act*⁵⁴.

⁴⁸ Ibid, Part 3.0

⁴⁹ Ibid

⁵⁰ Ibid, Part 3.2

⁵¹ Ibid

⁵² Ibid

⁵³ Ibid

⁵⁴ Climate Change Act., No. 11 of 2016., Government Printer, Nairobi

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The Act seeks to provide for a regulatory framework for enhanced response to climate change; to provide for mechanism and measures to achieve low carbon climate development among other purposes⁵⁵. The Act has since been amended by the *Climate Change (Amendment) Act*⁵⁶, 2023 in order to enhance climate change mitigation and adaption measures in Kenya. The Amendment Act introduces the idea of carbon trading in Kenya and defines a carbon market as a mechanism that enables and allows public and private entities to transfer and transact emission reduction units, mitigation outcomes or offsets generated through carbon initiatives, programmes and projects subject to compliance of national and international laws⁵⁷. It also introduces the idea of carbon offset which refers to a reduction or removal of emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere⁵⁸. The Amended Act further requires national and county governments to provide guidance in the development and implementation of carbon markets and nonmarket approaches in compliance with international obligations⁵⁹.

Part IV A of the Amended Act provides the framework for the regulation of carbon markets in Kenya⁶⁰. It requires the state to formulate a policy direction on carbon markets which should prescribe carbon reduction credits that aim to reduce emissions from current sources through projects, removal or sequestration credits that take carbon dioxide out of the atmosphere and either use or store it via afforestation, reforestation, nature-based solutions or technology-based removal and technologies and projects towards this end⁶¹. The Act requires the trade in carbon markets in Kenya to ensure that transactions in carbon trading aim towards a reduction of greenhouse gas emissions as per the prescribed carbon standards⁶². The Act envisions the participation in carbon markets through bilateral or multilateral trading agreement, trading with private entities and voluntary carbon markets⁶³.

⁵⁵ Ibid

⁵⁶ Climate Change (Amendment) Act, 2023

⁵⁷ Ibid, S 2

⁵⁸ Ibid

⁵⁹ Ibid, S 3

⁶⁰ Ibid, Part IV A

⁶¹ Ibid, S 23 A

⁶² Ibid, S 23 B

⁶³ Ibid, S 23 C (1)

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Towards this end, the Act gives the Cabinet Secretary in charge of the Ministry of Environment, Climate Change and Forestry power to enter into a bilateral or multilateral agreement with another state party to trade carbon for emission reductions and removals⁶⁴. In pursuance of the principles of Sustainable Development, the Act requires every carbon trading project authorized to undergo an Environmental and Social Impact Assessment in accordance Environmental Management and Coordination Act, 1999⁶⁵. It also requires every carbon project undertaken pursuant to the Act to take into consideration and aim to improve the economic, social and cultural wellbeing of the community around the project⁶⁶.

The amended Climate Change Act is an important milestone in fostering low carbon development in Kenya by providing the legal framework for carbon trading. Although the Climate Change Act, 2016 was intended to enhance national response to climate change and provided mechanisms and measures to achieve low carbon climate-resilient development, it did not envisage the concept of carbon trading⁶⁷. The Amended Act has the potential to facilitate the effective implementation of carbon markets and trading making it possible for Kenya to engage a broader range of stakeholders and support its emissions reduction goals⁶⁸. It has been pointed out that if well designed, carbon markets can be an effective, credible and transparent tool for helping to achieve low-cost emissions reductions in ways that mobilize private sector actors, attract investment, and encourage international cooperation⁶⁹. A price on carbon makes clean energy more profitable, allows energy efficiency to earn a greater return, makes low-carbon products more competitive, and values the carbon

⁶⁴ Ibid, S 23 C (2)

⁶⁵ Ibid, S 23 D (1)

⁶⁶ Ibid, S 23 E (7)

⁶⁷ Section 3 of the Climate Change Act, 2016 stipulates mechanisms and measures to enhance climate change resilience and low carbon development for the Sustainable Development of Kenya. However, it does not embrace the idea of carbon trading

⁶⁸ Kipkemoi. F., 'Key Highlights of Amended Climate Change Act.' Available at <https://www.the-star.co.ke/news/realtime/2023-09-01-key-highlights-of-amended-climate-change-act/> (Accessed on 07/09/2023)

⁶⁹ Natural Justice., 'Kenya's Climate Change Bill: Paving the Way for Sustainable Development and Carbon Markets.' Available at <https://naturaljustice.org/kenyas-climate-change-bill-paving-the-way-for-sustainable-development-and-carbon-markets/> (Accessed on 07/09/2023)

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stored in forests⁷⁰. The amended Climate Change Act can therefore usher in an era of low carbon development in Kenya by incorporating carbon markets and participation in them as a way to enhance national response to climate change. Enhancing low carbon development in Kenya is also a priority under the *Energy Act*⁷¹ and the *National Climate Change Action Plan*⁷² (NCCAP) 2023-2027. The Energy Act requires the state to take measures towards harnessing opportunities offered under CDM and other mechanisms including, but not limited to, carbon credit trading to promote the development and exploitation of renewable energy sources⁷³. The NCCAP seeks to enhance low carbon development through measures such as developing carbon market frameworks for climate change adaptation and mitigation programs and providing incentives for investments in carbon markets and developing and operationalizing ecosystem and carbon benefit sharing framework⁷⁴. The NCCAP outlines key priority climate action areas, with adaptation and mitigation actions across policy and regulatory environments; capacity building; knowledge management; technology and innovation; climate finance; and monitoring; reporting and verification⁷⁵. Kenya has therefore adopted an ambitious plan towards enhancing low carbon development. Enhancing low carbon development in Kenya is necessary in meeting the country's NDC target of a 32% reduction in greenhouse gas emissions by 2030⁷⁶.

From the foregoing, it is evident that there are global, regional and national efforts towards enhancing low carbon development for sustainability.

⁷⁰ Ibid

⁷¹ Energy Act., No. 1 of 2019, Government Printer, Nairobi

⁷² Ministry of Environment, Climate Change and Forestry., 'Draft Strategic Plan: 2023-2027' Available at <https://www.environment.go.ke/wp-content/uploads/2023/05/MoECCF-Strategic-Plan-Draft-07.05.2023-updated.pdf> (Accessed on 07/09/2023)

⁷³ Energy Act, S 75 (2) (g)

⁷⁴ Ministry of Environment, Climate Change and Forestry., 'Draft Strategic Plan: 2023-2027' Op Cit

⁷⁵ Ibid

⁷⁶ NDC Partnership., 'Kenya Unveils Comprehensive Legal Framework to Accelerate Climate Action.' Available at <https://ndcpartnership.org/news/kenya-unveils-comprehensive-legal-framework-accelerate-climate-actio> (Accessed on 07/09/2023)

3. Enhancing Low Carbon Development for Sustainability: Promises and Drawbacks

Enhancing low carbon development has become a global concern in light of the persisting threat of climate change. The COP 27 cover decision known as the *Sharm El-Sheikh Implementation Plan*⁷⁷ highlights that a global transformation to a low-carbon economy is expected to require investments of at least USD 4 trillion to USD 6 trillion a year⁷⁸. It points out that the world needs USD 4 trillion per year needs to be invested in renewable energy up until 2030 to be able to reach net zero emissions by 2050, and that, furthermore, a global transformation to a low-carbon economy is expected to require investment of at least USD 4–6 trillion per year⁷⁹.

Various techniques and approaches have been adopted towards fostering the idea of low carbon development. These include carbon offsets which have become a popular tool in global efforts to mitigate climate change⁸⁰. Carbon offset programs work by offering regulated polluters the opportunity to increase their own emissions if they subsidize equivalent emission reductions in unregulated markets⁸¹. Carbon offsets allow emission reductions in one location to compensate for emissions made elsewhere⁸². They create flexible mechanisms for states, companies, organizations, and individuals to purchase

⁷⁷ United Nations Framework Convention on Climate Change., 'Decision -/CP.27: Sharm El-Sheikh Implementation Plan.' Available at <https://unfccc.int/documents/624444> (Accessed on 08/09/2023)

⁷⁸ Ibid

⁷⁹ Ibid

⁸⁰ Calel, R, 'Do Carbon Offsets Offset Carbon?' Available at <https://cep.lse.ac.uk/pubs/download/dp1808.pdf> (Accessed on 08/09/2023)

⁸¹ Ibid

⁸² Andonova, L, & Sun, Y., 'Private Governance in Developing Countries: Drivers of Voluntary Carbon Offset Programs.' Available at https://d1wqtxts1xzle7.cloudfront.net/81071680/glep_a_00496-libre.pdf?1645352500=&response-content-disposition=inline%3B+filename%3DPrivate_Governance_in_Developing_Countri.pdf&Expires=1694170071&Signature=Acp6vkhp64d5t9RD97FC5hc6lin0n4bIABB4pFgANsbO1nEGWXXh4TTvnWNC09BbBz5HAN~XJENfkHFyLu12V-gfCZq5-x9LMbqCe7wRFutQFLsRoSC8dChKGIDcGwzx-5AG9mkhYaEkHwfV9a4FGCSkLSBj-wl3ZdIJBA1N~XVIIpY8UO75deHZOLY2TTG~A~arO~eRbGMF-MOI7efIT2R4tZCYtPwE29wNW4APrdvpmompl~jbpEvA08CsOFq2oqAEv-OXWKUpN6W4f3mYJJ0WzM02vGv1kBMcx3jnn~AGCYnuHQJ9RwQXSyruf6fQXiaMLDgv2oH6TnM1xEN~Q__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA (Accessed on 08/09/2023)

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carbon credits when their direct emission reductions are too costly or difficult to implement⁸³. These mechanisms were institutionalized at the global level through the Kyoto Protocol through its flexible mechanisms, including the CDM⁸⁴. Carbon offsets have since been embraced as a technique to enhance low carbon development⁸⁵.

The world's largest carbon offset program, the CDM has supported more than USD 90 billion of renewable energy investments in developing countries, equivalent to 13% of their total renewable energy investments⁸⁶. The CDM allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of CO₂⁸⁷. These CERs can be traded and sold, and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol⁸⁸. It has been observed that the CDM mechanism stimulates Sustainable Development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets⁸⁹.

The United Nations has also developed a Carbon Offset Platform, an e-commerce platform where a company, an organization or a regular citizen can purchase units (carbon credits) to compensate greenhouse gas emissions or towards supporting climate action⁹⁰. The platform features UNFCCC certified projects that reduce, avoid or remove greenhouse gas emissions from the atmosphere⁹¹. The projects are majorly implemented in developing countries

⁸³ Ibid

⁸⁴ Kyoto Protocol, Article 12

⁸⁵ Andonova, L., & Sun, Y., 'Private Governance in Developing Countries: Drivers of Voluntary Carbon Offset Programs.' Op Cit

⁸⁶ Calel, R., 'Do Carbon Offsets Offset Carbon?' Op Cit

⁸⁷ United Nations Framework Convention on Climate Change., 'What is the Clean Development Mechanism?.'

<https://cdm.unfccc.int/about/index.html#:~:text=The%20CDM%20allows%20emission%20Dreduction,targets%20under%20the%20Kyoto%20Protocol> (Accessed on 08/09/2023)

⁸⁸ Ibid

⁸⁹ Ibid

⁹⁰ United Nations Framework Convention on Climate Change., 'United Nations Carbon Offset Platform.' Available at <https://unfccc.int/climate-action/united-nations-carbon-offset-platform> (Accessed on 08/09/2023)

⁹¹ Ibid

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and are rewarded with Certified Emission Reductions (CERs), a type of carbon offset measured in tonnes of CO₂ equivalent⁹². The CERs are available for everyone to purchase to offset emissions or in support of the projects⁹³. This platform has aided low carbon development in developing countries through investments in renewable sources of energy such as wind power, hydro power, natural gas and biomass based renewable energy⁹⁴. Carbon offsets are therefore very essential in enhancing low carbon development. In addition to emission reductions, they also support Sustainable Development in the communities where environmentally friendly projects are implemented, ensuring job creation and continuity, health improvements and many more co-benefits⁹⁵.

The idea of emissions trading has also been adopted as a mechanism for enhancing low carbon development as envisaged under the Kyoto Protocol⁹⁶. According to the UNFCCC, emissions trading allows countries that have emission units to spare - emissions permitted them but not "used" - to sell this excess capacity to countries that are over their targets through carbon markets⁹⁷. It has been pointed out that emissions or carbon trading is a vital instrument in reducing greenhouse gases and enhancing the global fight against climate change⁹⁸. Carbon trading works by getting companies and other entities to pay for every ton of CO₂ emitted into the atmosphere⁹⁹. This can be achieved through a carbon tax, which is a fixed price that must be paid for every ton of CO₂ emitted and a 'trade and cap' system which is a concept that caps an organisation's total emissions, and allows it to trade any excess allocation¹⁰⁰. The UNFCCC opines that emissions trading schemes may be established as climate policy instruments at the national level and the regional

⁹² Ibid

⁹³ Ibid

⁹⁴ Ibid

⁹⁵ Ibid

⁹⁶ Kyoto Protocol, Article 17

⁹⁷ United Nations Framework Convention on Climate Change., 'Emissions Trading.' Available at <https://unfccc.int/process/the-kyoto-protocol/mechanisms/emissions-trading> (Accessed on 08/09/2023)

⁹⁸ Channel News Asia., 'CNA Explains: What is Carbon Trading and How Does it Work?.' Available at <https://www.channelnewsasia.com/sustainability/cna-explains-carbon-trading-tax-climate-change-global-warming-3424796> (Accessed on 08/09/2023)

⁹⁹ Ibid

¹⁰⁰ Ibid

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level whereby governments set emissions obligations to be reached by the participating entities¹⁰¹. Countries such as the United States of America (USA) have unveiled voluntary carbon trading market schemes with the aim of boosting private investment in clean energy projects in developing countries¹⁰². At the regional level, the African Carbon Markets Initiative (ACMI) has been developed in order to unlock the potential of voluntary carbon markets for financing Africa's energy, climate and development goals¹⁰³. The ACMI was inaugurated at COP 27 and aims to support the growth of carbon credit production and create jobs in Africa¹⁰⁴. This idea has been introduced in Kenya under the amended *Climate Change Act* which introduces carbon markets as a mechanism that enables and allows public and private entities to transfer and transact emission reduction units, mitigation outcomes or offsets generated through carbon initiatives, programmes and projects subject to compliance of national and international laws¹⁰⁵.

Giving effect to the provisions of the Act on emissions trading will enhance low carbon development in Kenya. Carbon markets are therefore vital in enhancing low carbon development. Carbon markets offer an incredible opportunity to unlock billions for the climate finance needs of African economies while expanding energy access, creating jobs, protecting biodiversity, and driving climate action¹⁰⁶. It is thus imperative to embrace carbon markets in Africa for low carbon development.

In addition, fostering green growth through initiatives such as low carbon infrastructure, smart agricultural practices and sustainable cities is essential in

¹⁰¹ United Nations Framework Convention on Climate Change., 'Emissions Trading,' Op Cit

¹⁰² Milman. O, & Lakhani. N., 'US Introduces New Carbon Trading Scheme to Boost Investment in Developing Countries.' Available at <https://www.theguardian.com/environment/2022/nov/09/cop27-us-carbon-trading-scheme> (Accessed on 08/09/2023)

¹⁰³ Sustainable Energy for All., 'Africa Carbon Markets Initiative (ACMI).' Available at <https://www.seforall.org/our-work/initiatives-projects/ACMI> (Accessed on 08/09/2023)

¹⁰⁴ Ibid

¹⁰⁵ Climate Change (Amendment) Act, 2023, S 2

¹⁰⁶ Climate Champions., 'Africa Carbon Markets Initiative Launched to Dramatically Expand Africa's Participation in Voluntary Carbon Market.' Available at https://climatechampions.unfccc.int/africa-carbon-markets-initiative/?gclid=CjwKCAjwjOunBhB4EiwA94JWsJZ_t3NzOZhvgrVH50425NnhonFqjhUlElc_hKi8OzQKEaq4xFBFwBoC6tIQAvD_BwE (Accessed on 08/09/2023)

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enhancing low carbon development¹⁰⁷. It has been asserted that approximately 79% of global greenhouse gas emissions come from infrastructure construction and operations such as power plants, buildings, and transport¹⁰⁸. In order to curb this situation while maintaining infrastructure as a priority sector for climate action, and national growth in general, climate experts have argued that governments need to radically rethink how infrastructure is planned, delivered and managed in order to make it suitable for a low-emission and resilient future¹⁰⁹. Low-carbon infrastructure development is therefore necessary in enhancing low carbon development since it generates fewer carbon emissions than traditional infrastructure and helps build resilience in vulnerable countries while protecting against exposure to extreme climate change events¹¹⁰. Low carbon infrastructure projects such as railway infrastructure, urban transport projects, such as Metros and Light Rail projects which reduce car usage and renewable energy projects including solar, wind, and hydropower are therefore crucial in enhancing low carbon development¹¹¹. In addition, cities are increasingly adopting Low Carbon City Development Programmes which stipulate a framework and set of comprehensive requirements to help in planning, implementation, monitoring, and accounting for low carbon investments and climate change mitigation actions across all sectors¹¹². Further, climate smart agriculture is vital in enhancing the resilience of the agriculture sector, promoting food security while curbing greenhouse gas emissions¹¹³. Climate smart agriculture

¹⁰⁷ Xin. X, Yuding. W, & Jianzhong. W., 'The Problems and Strategies of the Low Carbon Economy Development.' Op Cit

¹⁰⁸ Brickstone., 'Low-Carbon Infrastructure in Curbing Climate Change.' Available at <https://brickstone.africa/low-carbon-infrastructure-in-climate-change/#:~:text=Urban%20transport%20projects%2C%20such%20as,emissions%20compared%20to%20fossil%20fuels> (Accessed on 08/09/2023)

¹⁰⁹ Ibid

¹¹⁰ Kennedy. C, Ibrahim. N, & Hoornweg. D., 'Low-Carbon Infrastructure Strategies for Cities.' Available at https://www.researchgate.net/profile/Nadine-Ibrahim-2/publication/262954714_Low-carbon_infrastructure_strategies_for_cities/links/5705559e08ae13eb88b9644e/Low-carbon-infrastructure-strategies-for-cities.pdf (Accessed on 08/09/2023)

¹¹¹ Ibid

¹¹² The World Bank., 'Rio de Janeiro Low-Carbon City Development Program.' Available at <https://www.worldbank.org/en/topic/urbandevelopment/publication/rio-low-carbon-city-program> (Accessed on 08/09/2023)

¹¹³ The World Bank., 'Climate-Smart Agriculture.' Available at <https://www.worldbank.org/en/topic/climate-smart-agriculture> (Accessed on 08/09/2023)

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is an integrated approach to managing landscapes including cropland, livestock, forests and fisheries that addresses the interlinked challenges of food security and accelerating climate change¹¹⁴. Embracing climate smart agricultural practices can therefore accelerate low carbon development.

Finally, climate finance has also been embraced as a strategy to enhance low carbon development. Climate finance refers to local and global financing of public and private investment that seeks to support mitigation of and adaptation to climate change¹¹⁵. It has also been defined as finance for activities aimed at mitigating or adapting to the impacts of climate change¹¹⁶. Climate finance is vital in climate change mitigation and adaptation by accelerating clean energy transitions and building resilience in the most vulnerable countries¹¹⁷. The UNFCCC acknowledges the importance of climate finance and seek to mobilise USD 100 billion in climate finance per year to support developing countries¹¹⁸. At COP27, a breakthrough agreement was reached to provide loss and damage funding for vulnerable countries hit hard by floods, droughts and other climate disasters¹¹⁹. This decision has been lauded as historic since it recognizes the need for finance to respond to loss and damage associated with the severe consequences of climate change¹²⁰. It has also been

¹¹⁴ Ibid

¹¹⁵ Hong. H., Karolyi. G. A., & Scheinkman. J.A., 'Climate Finance.' *Review of Financial Studies*, Volume 33, Issue 3 (2020)

¹¹⁶ The London School of Economics and Political Science., 'What is Climate Finance?' Available at <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-finance-and-where-will-it-comefrom/> (Accessed on 08/09/2023)

¹¹⁷ Hill. A., & Babin. M 'Why Climate Finance is Critical for Accelerating Global Action.' Available at <https://www.cfr.org/in-brief/why-climate-finance-critical-accelerating-global-action> (Accessed on 08/09/2023)

¹¹⁸ United Nations Framework Convention on Climate Change., 'Introduction to Climate Finance.' Available at https://unfccc.int/topics/introduction-to-climatefinance?gclid=EAIaIQobChMI18L91LDRgAMValpoCR2_kQzJEAAyAIAAEgI4cfd_BwE (Accessed on 08/09/2023)

¹¹⁹ United Nations Framework Convention on Climate Change., 'Decision -/CP.27 -/CMA.4: Funding Arrangements for Responding to Loss and Damage Associated with the Adverse Effects of Climate Change, Including a Focus on Addressing Loss and Damage.' Available at https://unfccc.int/sites/default/files/resource/cma4_auv_8f.pdf (Accessed on 08/09/2023)

¹²⁰ United Nations Framework Convention on Climate Change., 'Five Key Takeaways from COP 27.' Available at <https://unfccc.int/process-andmeetings/conferences/sharm-el-sheikh-climate-change-conference-november-2022/five-key-takeawaysfrom->

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argued that creation of the Loss and Damage Fund will have a positive impact on the adoption of the carbon market as an addition avenue for climate finance¹²¹. Climate finance is therefore an essential tool of enhancing low carbon development.

From the foregoing discussion, it can be deduced that there has been progress towards enhancing low carbon development. However, despite the efficacy of low carbon development in enhancing sustainability, there are several drawbacks hindering its practice. In the field of carbon trading, it has been pointed out that major polluters might relocate across borders to more lenient jurisdictions in a move known as carbon leakage¹²². Carbon leakage has resulted in companies moving emissions-intensive operations abroad to escape regulation impeding many, perhaps most, mitigation policy options given the perceived risk of these shifting to jurisdictions with weaker climate policies¹²³. Carbon markets have also been accused of resulting in minimal emissions reductions while burnishing the green reputations of large companies¹²⁴. Consequently, it has been asserted that the idea of carbon offsetting allows polluters to keep polluting instead of reducing greenhouse gas emissions¹²⁵. In addition, transparency concerns have been raised in relation to carbon markets¹²⁶. It has been argued that carbon trading focus could encourage dubious carbon accounting and offsetting practices¹²⁷. There

[cop27?gclid=EA1aIQobChMI5_C16jRgAMVDzAGAB1IkW6NEAAYASAAEgL_QfD_BwE](https://www.climatechange.gov/press-releases/2023/08/cop27?gclid=EA1aIQobChMI5_C16jRgAMVDzAGAB1IkW6NEAAYASAAEgL_QfD_BwE)
(Accessed on 08/09/2023)

¹²¹ Climate Trade., 'Top 5 Carbon Market Developments at COP 27.' Available at <https://climatetrade.com/top-5-carbon-market-developments-at-cop27/> (Accessed on 08/09/2023)

¹²² Channel News Asia., 'CNA Explains: What is Carbon Trading and How Does it Work?.' Op Cit

¹²³ Grubb, M., 'Carbon Leakage, Consumption, and Trade.' *Annual Review of Environment and Resources.*, 2022. 47:753–95

¹²⁴ Milman, O, & Lakhani, N., 'US Introduces New Carbon Trading Scheme to Boost Investment in Developing Countries.' Op Cit

¹²⁵ Ibid

¹²⁶ Luhn, A., 'COP27 Boosts Carbon Trading and 'Non-Market' Conservation: But Can they Save Forests?' Available at <https://news.mongabay.com/2022/11/cop27-boosts-carbon-trading-and-non-market-conservation-but-can-they-save-forests/> (Accessed on 09/09/2023)

¹²⁷ Ibid

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is also the risk of double counting in unregulated voluntary carbon market because they do not fall under jurisdiction of the UNFCCC¹²⁸.

Further, another pertinent concern is the potential of human rights violation since such schemes often involve forests and agricultural land where indigenous and pastoral communities have lived sustainably resulting in widespread reports of land grabs and higher food prices linked to carbon markets in some countries¹²⁹. It has been argued that carbon markets have historically failed to fulfil climate goals and often profoundly harm communities and undermine human rights¹³⁰. Carbon markets have been associated with challenges such as exploitation, inequalities and perverse speculations and financial bubbles¹³¹. There is need to effectively implement carbon markets in order to enhance their role in low carbon development. Finally, fostering low carbon development in most countries has been hindered by challenges such as economic barriers, infrastructural and operational challenges, lack of proper policy mechanisms and market barriers¹³². There is need to address these challenges in order to enhance low carbon development.

4. Way Forward

In order to enhance low carbon development, it is vital for countries to fulfill their obligations as stipulated under the international climate change

¹²⁸ Crook. J., 'Was COP 27 the Beginning of the End for Corporate Offsetting?' Available at <https://carbonmarketwatch.org/2022/12/07/was-cop27-the-beginning-of-the-end-for-corporate-offsetting/> (Accessed on 09/09/2023)

¹²⁹ Milman. O, & Lakhani. N., 'US Introduces New Carbon Trading Scheme to Boost Investment in Developing Countries.' Op Cit

¹³⁰ Michaelowa. A., 'Failures of Global Carbon Markets and CDM?.' Available at <https://www.tandfonline.com/doi/pdf/10.3763/cpol.2010.0688> (Accessed on 09/09/2023)

¹³¹ Ibid

¹³² Luthra. K et al., 'Analysing the Adoption Barriers of Low-Carbon Operations: A Step Forward for Achieving Net-Zero Emissions.' Available at <https://repository.derby.ac.uk/item/9vz84/analysing-the-adoption-barriers-of-low-carbon-operations-a-step-forward-for-achieving-net-zero-emissions#:~:text=The%20results%20also%20show%20that,and%20achieving%20net%20zero%20emissions> (Accessed on 09/09/2023)

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framework including the UNFCCC and the Paris Agreement¹³³. The *Paris Agreement* seeks to confront climate change by holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels¹³⁴. The United Nations observes that in order to keep global warming to no more than 1.5°C – as called for in the [Paris Agreement](#) – emissions need to be reduced by 45% by 2030 and reach net zero by 2050¹³⁵. It is therefore important for countries to significantly strengthen their [Nationally Determined Contributions](#) (NDCs) and take bold, immediate steps towards reducing emissions in order to realize low carbon development and confront climate change¹³⁶.

Further, there is need to establish an international carbon market in order to allow countries to offset their emissions with credits based on greenhouse gas-reducing projects elsewhere as envisaged under the Paris Agreement¹³⁷. The Paris Agreement envisages the development of carbon markets through internationally transferred mitigation outcomes and voluntary cooperation between countries among other measures¹³⁸. It is imperative to fulfill these provisions in order to develop carbon markets as tools of low carbon development. The outcome of COP 27 was vital in enhancing carbon markets through initiatives such as the establishment of the Loss and Damage Fund and development of the African Carbon Markets Initiative¹³⁹. There is need to further these efforts through appropriate global and regional initiatives including COP 28 in order to strengthen the role of carbon markets in enhancing sustainability¹⁴⁰.

¹³³ United Nations., 'For a Livable Climate: Net-Zero Commitments Must be Backed by Credible Action,' Available at <https://www.un.org/en/climatechange/net-zero-coalition> (Accessed on 09/09/2023)

¹³⁴ Paris Agreement, Article 2 (1)

¹³⁵ United Nations., 'For a Livable Climate: Net-Zero Commitments Must be Backed by Credible Action,' Op Cit

¹³⁶ Ibid

¹³⁷ Nasralla. S, & Abnett. K., 'U.N. Carbon Market Talks to Drag Beyond COP27 as Deals Elusive.' Available at <https://www.reuters.com/business/cop/un-carbon-market-talks-drag-beyond-cop27-deals-elusive-2022-11-17/> (Accessed on 09/09/2023)

¹³⁸ Paris Agreement, Article 6

¹³⁹ United Nations Framework Convention on Climate Change., 'Five Key Takeaways from COP 27.' Op Cit

¹⁴⁰ Climate Trade., 'Top 5 Carbon Market Developments at COP 27.' Op Cit

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It is also imperative for countries to embrace carbon market initiatives including emissions trading as climate policy instrument at the national level¹⁴¹. There has been progress towards realizing this goal in Kenya through the enactment of the *Climate Change (Amendment) Act* which introduces carbon markets as a mechanism that enables and allows public and private entities to transfer and transact emission reduction units, mitigation outcomes or offsets generated through carbon initiatives, programmes and projects subject to compliance of national and international laws¹⁴². Global and regional cooperation in this sector is also vital in enhancing low carbon development¹⁴³. Low carbon development can also be achieved by countries 'greening' their economies¹⁴⁴. The concept of 'greening' economies has become a pertinent concern in global politics in the wake of challenges facing the planet including the threat of climate change¹⁴⁵. The idea of 'green economy' is a policy focus that emphasizes environmentally sustainable economic progress to foster low-carbon, socially inclusive development¹⁴⁶. Countries should therefore embrace the idea of green economies through measures such as embracing renewable sources of energy including solar, wind and hydropower, adopting climate smart agricultural techniques, fostering sustainable cities and infrastructure and adoption of sustainable waste management techniques¹⁴⁷. It is also vital for countries to embrace the concept of REDD+, or Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, as a mechanism for sustainable management of forests¹⁴⁸. Forests absorb vast amounts of carbon dioxide and can be a source of greenhouse gas emissions

¹⁴¹ United Nations Framework Convention on Climate Change., 'Emissions Trading.' Op Cit

¹⁴² Climate Change (Amendment) Act, 2023, S 2

¹⁴³ United Nations Framework Convention on Climate Change., 'Emissions Trading.' Op Cit

¹⁴⁴ Bergius. M., 'Towards a Green Modernization Development Discourse: The New Green Revolution in Africa.' *Journal of Political Ecology*, 2019

¹⁴⁵ Ibid

¹⁴⁶ United Nations Economic and Social Commission for Asia and the Pacific., 'Green Growth Uptake in Asia-Pacific Region.' Available at https://unece.org/fileadmin/DAM/env/cep/CEP20/ppp/Item10_b_ESCAP_GreenGrowthUptake_e_sm.pdf (Accessed on 09/09/2023)

¹⁴⁷ Muigua. K., 'Actualizing Africa's Green Dream.' Available at <http://kmco.co.ke/wp-content/uploads/2023/07/Actualizing-Africas-Green-Dream.pdf> (Accessed on 09/09/2023)

¹⁴⁸ Luhn. A., 'COP27 Boosts Carbon Trading and 'Non-Market' Conservation: But Can they Save Forests?' Op Cit

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when destroyed or damaged¹⁴⁹. REDD + can enhance low carbon development through sustainable management of forests and the conservation and enhancement of forest carbon stocks¹⁵⁰.

Finally, it is essential for countries to unlock climate finance as an essential tool of confronting climate change and enhancing low carbon development¹⁵¹. Climate finance is vital in climate change mitigation and adaptation by accelerating clean energy transitions and building resilience in the most vulnerable countries¹⁵². The outcome of COP 27 , the *Sharm El-Sheikh Implementation Plan*,¹⁵³ highlights the world needs USD 4 trillion per year needs to be invested in renewable energy up until 2030 to be able to reach net zero emissions by 2050, and that, furthermore, a global transformation to a low-carbon economy is expected to require investment of at least USD 4–6 trillion per year¹⁵⁴. It is therefore imperative for countries to identify and mobilize effective and appropriate financing for climate action in order to enhance their resilience and effectively confront climate change¹⁵⁵.

These measures are integral in enhancing low carbon development for sustainability.

¹⁴⁹ United Nations Framework Convention on Climate Change., 'What is REDD+?' Available at <https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd> (Accessed on 09/09/2023)

¹⁵⁰ Ibid

¹⁵¹ Muigua. K., 'Unlocking Climate Finance for Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/08/Unlocking-Climate-Finance-for-Development.pdf> (Accessed on 09/09/2023)

¹⁵² Hill. A., & Babin. M 'Why Climate Finance is Critical for Accelerating Global Action.' Op Cit

¹⁵³ Sharm El-Sheikh Implementation Plan.' Op Cit

¹⁵⁴ Ibid

¹⁵⁵ United Nations Framework Convention on Climate Change., 'Climate Finance Access and Mobilization Strategy for The Least Developed Countries In Asia: 2022-2030.' Available at https://unfccc.int/sites/default/files/resource/UNFCCC_NBF_SD_AsianLDCA_final.pdf (Accessed on 09/09/2023)

5. Conclusion

The idea of low carbon development has been advocated as the inevitable choice to confront climate change and achieve Sustainable Development¹⁵⁶. The need for low carbon development has been recognized at the global, regional and national levels with various efforts being undertaken towards realizing this ideal¹⁵⁷. Despite progress being made towards realizing carbon development, concerns such as economic barriers, infrastructural and operational challenges, lack of proper policy mechanisms and market barriers are hindering its effective realization¹⁵⁸. Low carbon development can be realized through mechanisms such as countries fulfilling their obligations as stipulated under the international climate change framework including the UNFCCC and the Paris Agreement, establishing an international carbon market, countries embracing carbon market initiatives including emissions trading as climate policy instrument at the national level, greening of economies and accelerating climate finance¹⁵⁹. Enhancing low carbon development for sustainability is an achievable mandatory objective in light of the Sustainable Development agenda.

¹⁵⁶ Xin. X, Yuding. W, & Jianzhong. W., 'The Problems and Strategies of the Low Carbon Economy Development.' Op Cit

¹⁵⁷ Yuan. H, Zhou. P, & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis.' Op Cit

¹⁵⁸ Luthra. K et al., 'Analysing the Adoption Barriers of Low-Carbon Operations: A Step Forward for Achieving Net-Zero Emissions.' Op Cit

¹⁵⁹ Yuan. H, Zhou. P, & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis.' Op Cit

Combating Climate Change Through Sustainable Forests Management for Current and Future Generations

Abstract

This paper critically discusses how taking care of forests can positively contribute to climate change mitigation as part of achieving sustainable development for a better tomorrow. Arguably, continued deterioration of forest areas and the ever growing threat of climate change is likely to affect human life, thus creating the need for combating both. The author argues that taking care of forests is not only important in climate change mitigation but also a key step towards conservation of the rich biodiversity to be found in forest areas and preserving source of livelihood for the people.

1. Introduction

It has rightly been pointed out that in particular, the rural poor, young people, and women, investing in forests and forestry is an investment in people and their means of subsistence. An estimated 1.6 billion people, including more than 2,000 indigenous groups, rely on forests for their survival. As the habitat for more than 80% of the terrestrial species of animals, plants, and insects, forests are the most biologically diverse ecosystems on land. In addition, they give communities that depend on the forest shelter, employment, and security.¹ The future supply of ecosystem services by forests, such as carbon storage, wood production, animal habitats, and hydrological cycle management, will be significantly impacted by how they adapt to climatic variability.² Due to climate change, there are more severe droughts happening more frequently in various parts of the world. Forest function and structure are changed by droughts.³

¹ 'Forests | Department of Economic and Social Affairs'

<<https://sdgs.un.org/topics/forests#publications>> accessed 15 March 2023.

² Zhang, T., Niinemets, Ü., Sheffield, J. and Lichstein, J.W., "Shifts in tree functional composition amplify the response of forest biomass to climate." *Nature* 556, no. 7699 (2018): 99-102, at p. 99.

³ Bennett, A.C., McDowell, N.G., Allen, C.D. and Anderson-Teixeira, K.J., 'Larger Trees Suffer Most during Drought in Forests Worldwide' (2015) 1 *Nature Plants* 15139 <<https://www.nature.com/articles/nplants2015139>> accessed 17 March 2023.

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This paper critically discusses the relationship between climate change and forests and offers recommendations on how climate change mitigation can be promoted through enhanced sustainable forests management.

2. Climate Change and the Forests: The Link

Kenya's Climate Change Act 2016⁴ was enacted to provide for a regulatory framework for enhanced response to climate change; to provide for mechanism and measures to achieve low carbon climate development, and for connected purposes. The Act defines "climate change" to mean a change in the climate system which is caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period.⁵

Being a major source of terrestrial biodiversity and a net sink for atmospheric carbon, forests play a crucial role in maintaining the health of global ecosystems. Many ecological services that trees offer, along with others, may be vulnerable to both short-term climatic fluctuation and climate change.⁶

The United Nations 2030 Agenda for Sustainable Development Goals under Goal 15 seeks to 'protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss'.⁷ Natural catastrophes, such as floods, droughts, landslides, and other catastrophic occurrences, are far less likely to occur when there are more forests. Forests help to maintain the air's balance of oxygen, carbon dioxide, and humidity on a global scale, as

⁴ Climate Change Act, No. 11 of 2016, Laws of Kenya.

⁵ Sec. 2, Climate Change Act, 2016.

⁶ Zhang, T., Niinemets, Ü., Sheffield, J. and Lichstein, J.W., "Shifts in tree functional composition amplify the response of forest biomass to climate." *Nature* 556, no. 7699 (2018): 99-102.

⁷ 'Goal 15: Protect, Restore and Promote Sustainable Use of Terrestrial Ecosystems, Sustainably Manage Forests, Combat Desertification, and Halt and Reverse Land Degradation and Halt Biodiversity Loss – SDG Indicators' <<https://unstats.un.org/sdgs/report/2016/goal-15/>> accessed 6 March 2023.

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well as to safeguard watersheds that provide 75% of the world's freshwater. This is achieved through sequestering carbon from the atmosphere.⁸

3. Combating Climate Change: Saving Our Forests for Today and Tomorrow

This section offers some viable recommendations that can greatly contribute to sustainable management of forests as a step towards climate change mitigation.

3.1. Enhancement of Public-Private Collaborations in Forests Conservation and Climate Change Mitigation

Notably, the Forest Conservation and Management Act 2016 provides that the Kenya Forest Service may, whenever circumstances make it necessary or appropriate to do so, invite the private sector to participate in the sustainable management of forests under their jurisdiction. For this, the Service may issue authorisations for forestry activities in form of – a permit; a timber licence; a special use licence; a contract; a joint management agreement; or a concession agreement.⁹ It is worth exploring these collaborations as a way of enhancing sustainable forest management and conservation, where public-private partnerships are here defined as: “collaborative arrangements in which actors from two or more spheres of society (state, market, and/or civil) are involved in a non-hierarchical process, and through which these actors strive for a sustainability goal”.¹⁰

It has been argued that these collaborations can enhance all the three aspects of sustainability, albeit at different levels. Outcomes of such collaborations can thus be divided broadly into three types: social, ecological and economic. This is in line with the understanding that the concept of sustainable development has evolved over the years:

- a. Social aspect: Respecting human rights and providing equal opportunity for everyone in society is a key component of

⁸ ‘Forests | Department of Economic and Social Affairs’ <<https://sdgs.un.org/topics/forests#publications>> accessed 14 March 2023.

⁹ Sec. 56(1) (2), Forest Conservation and Management Act 2016.

¹⁰ Bjärstig T, ‘Does Collaboration Lead to Sustainability? A Study of Public-Private Partnerships in the Swedish Mountains’ (2017) 9 Sustainability 1685.

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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.¹¹

- b. "Ecological outcome" refers to the management and conservation of resources, particularly those that are finite or vital to maintaining life. Action must be taken to reduce pollution of the air, land, and water as well as to protect biological variety and the world's natural heritage. Natural resource conditions such as water quality, fish populations, biodiversity, improving green infrastructure, stopping soil erosion, etc. are examples of ecological outcomes.¹²
3. Economic success entails fostering wealth at all societal levels and addressing the cost-effectiveness of every economic activity. It is crucially about the capacity of businesses and activities to continue operating over the long term. Economic effects include the capacity of small businesses to compete locally, advancements in technology and efficiency, job prospects, and funding sources.¹³

The net effect of all these outcomes may be better living standards with alternative sources of income, which means reduced pressure on forests as well as more free land for reforestation. This will positively contribute to climate change mitigation through healthier forests as well as alleviation of poverty, which is key objective of Sustainable Development Goals. As has been correctly noted, it is crucial to recognise how intertwined the three sustainability dimensions are and how they may coexist peacefully or conflict.

¹¹ 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.

¹² Bjärstig T, 'Does Collaboration Lead to Sustainability? A Study of Public-Private Partnerships in the Swedish Mountains' (2017) 9 Sustainability 1685, p. 3.

¹³ Ibid, p. 3; see also Shuman M, *The Local Economy Solution: How Innovative, Self-Financing "Pollinator" Enterprises Can Grow Jobs and Prosperity* (Chelsea Green Publishing 2015); 'Macroeconomic Policy and Poverty Reduction' <<https://www.imf.org/external/pubs/ft/exrp/macropol/eng/>> accessed 18 March 2023.

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As such, achieving sustainable development requires finding a balance between these three sustainability aspects.¹⁴

3.2 Investments in Alternative Sources of Energy

Africa has a significant chance to fill the gap in the demand for renewable energy and it has been argued that falling clean technology costs offer new hope for the continent's future. In order to meet Africa's energy and climate targets, energy investment must more than double this decade along with a significant rise in adaptation. In the past two decades, Africa received just 2% of investments in sustainable energy. A \$25 billion yearly investment, or around 1% of current global energy investment, is needed to ensure that all Africans have access to modern energy.¹⁵

Food and Agriculture Organisation (FAO) rightly points out that before petroleum became widely accessible during the past 100 years, wood was historically the most significant source of energy for humans. Wood still serves as the primary source of energy for heating and cooking in many of the world's poorest nations.¹⁶ As previously said, forests offer a variety of functions, including the preservation of biodiversity and the mitigation of climate change, while also producing both timber and non-timber forest products.¹⁷

There is need for more investments alternative sources of renewable energy, away from forests, if significant progress is to be realised in restoration of forest areas especially in the rural areas of developing countries like Kenya. Investments in renewable energy sources and more efficient energy use,

¹⁴ Bjärstig T, 'Does Collaboration Lead to Sustainability? A Study of Public-Private Partnerships in the Swedish Mountains' (2017) 9 Sustainability 1685, p. 3.

¹⁵ 'Climate Change Puts Energy Security at Risk' (10 October 2022) <<https://public.wmo.int/en/media/press-release/climate-change-puts-energy-security-risk>> accessed 18 March 2023.

¹⁶ Broadhead J and Killmann W, *Forests and Energy: Key Issues* (Food & Agriculture Org 2008) <<https://www.fao.org/forestry/13707-0e576ecd14f96f198d96c03149a6db0c0.pdf>> accessed 18 March 2023.

¹⁷ Gondo PC, 'Financing of Sustainable Forest Management in Africa: An Overview of the Current Situation and Experiences' [2010] Southern Alliance for indigenous resources (SAFIRE), p. 12 <https://www.un.org/esa/forests/wp-content/uploads/2014/12/Africa_case_study.pdf> accessed 18 March 2023.

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particularly in transportation and industrial operations, are primarily driven by climate change, rising fossil fuel prices, and the concern about the security of the energy supply.¹⁸

During the next eight years, the amount of power produced from sustainable energy sources must double in order to prevent a rise in global temperatures. According to a new multi-agency 2022 report¹⁹ from the World Meteorological Organization, if we don't act, there's a chance that climate change, more severe weather, and water stress may threaten our energy security and even threaten renewable energy sources.²⁰ According to WMO Secretary-General, Prof Petteri Taalas, Three-quarters of all greenhouse gas emissions worldwide are produced by the energy industry. If we are to survive in the twenty-first century, switching to renewable energy sources like solar, wind, and hydropower is essential. So is increasing energy efficiency. The objective is net zero by 2050. But we will not get there until we double the amount of low-emission power available in the following eight years.²¹

Reduced deforestation and health hazards linked with the usage of firewood are two benefits of diversifying energy sources. The use of renewable energy may also help to achieve SDG Goal 4 on education since it spares women and children from having to spend time gathering firewood, time that might be better spent on other useful activities and education.²²

3.3 Enhanced Implementation of the National Tree Planting Week

Notably, the Constitution of Kenya 2010 outlines one of the environmental obligations of the State as working to achieve and maintain a tree cover of at

¹⁸ Broadhead J and Killmann W, *Forests and Energy: Key Issues* (Food & Agriculture Org 2008), p.1.

¹⁹ Organization (WMO) WM and World Meteorological Organization (WMO), *2022 State of Climate Services: Energy (WMO-No. 1301)* (WMO 2022).

²⁰ 'Climate Change Puts Energy Security at Risk' (10 October 2022) <<https://public.wmo.int/en/media/press-release/climate-change-puts-energy-security-risk>> accessed 18 March 2023.

²¹ 'Climate Change Puts Energy Security at Risk' (10 October 2022) <<https://public.wmo.int/en/media/press-release/climate-change-puts-energy-security-risk>> accessed 18 March 2023.

²² Organization (WMO) WM and World Meteorological Organization (WMO), *2022 State of Climate Services: Energy (WMO-No. 1301)* (WMO 2022), p.44.

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least ten per cent of the land area of Kenya.²³ It is perhaps out of this constitutional requirement that the Forest Conservation and Management Act 2016 provides that the Cabinet Secretary shall plan and execute programmes necessary for observing the national tree-planting week and the International Day of Forests.²⁴ The national tree-planting day in Kenya is observed in April or May. The activities are not bound to a certain day but are confined throughout the lengthy rains season in April -May.²⁵

It is imperative that the State, through the relevant departments takes up this duty seriously and also enhance free supply of the relevant seedlings as a way of encouraging the general public to not only participate but also make it their way of everyday life to plant trees in public places as well as their own private parcels of land. This will go a long way in realisation of Kenya's President's call for reforestation of the country.²⁶

3.4 Tax and fiscal incentives

The Forest Conservation and Management Act 2016 empowers the Cabinet Secretary for the National Treasury, on the recommendation by the Cabinet Secretary, propose tax and other fiscal incentives to increase investments in forest land use and forest resource utilization in order to promote forest

²³ Article 69 (1) (b), Constitution of Kenya 2010.

²⁴ Sec. 55, Forest Conservation and Management Act 2016.

²⁵ Macharia DA, 'National Tree Planting Day' (*Mazingira Safi*, 8 May 2014) <<https://www.mazingirasafi.com/national-tree-planting-day/>> accessed 18 March 2023.

²⁶ 'President Uhuru Sets an Ambitious 30% Target for Forest Cover by 2050 during the Launch of Kenya's Tree Growing Fund and Campaign | United Nations Development Programme' (UNDP) <https://www.undp.org/kenya/press-releases/president-uhuru-sets-ambitious-30-target-forest-cover-2050-during-launch-kenya%E2%80%99s-tree-growing-fund-and-campaign> accessed 18 March 2023; GROUP NK-NM, 'NTV Kenya: President Ruto Launches Tree Restoration Program to Combat Climate Change' (*NTV Kenya*) <<https://ntokenya.co.ke/climate-change/president-ruto-launches-tree-restoration-program-to-combat-climate-change/>> accessed 18 March 2023; 'Kenya to Plant 5 Billion Trees in 5 Years - Ruto' (20 October 2022) <<https://www.pd.co.ke/news/kenya-to-plant-5-billion-trees-in-5-years-ruto-154665/>> accessed 18 March 2023; 'Plant 300 Trees and Get Certificate, Kenyans Told' (21 October 2022) <<https://www.pd.co.ke/news/plant-300-trees-and-get-certificate-154782/>> accessed 18 March 2023; 'First Lady Rachel Ruto Embarks on Reforestation Crusade - Kenya News Agency' (17 November 2022) <<https://www.kenyanews.go.ke/first-lady-rachel-ruto-embarks-on-reforestation-crusade/>> accessed 18 March 2023.

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conservation and management, and to prevent or abate forest degradation.²⁷ The tax and fiscal incentives, may include – (a) customs and excise waiver in respect of imported capital goods or tax rebates to forest industries and other establishments investing in plants, equipment and machinery for improved resource utilization and for using other energy resources as substitutes for hydrocarbons; (b) exemption from payment of all or part of the land rates and such other charges as may be levied in respect of the land on which a private forest is established; and (c) income and other tax deductions to landowners in exchange for the establishment of a forest conservation easement. These incentives can greatly contribute to sustainable forest management in Kenya, if efficiently implemented.

3.5 Tapping into Indigenous Knowledge

The Climate Change Act 2016 provides that ‘In formulating the National Climate Change Action Plan, the Cabinet Secretary shall be informed by, *inter alia*, indigenous knowledge related to climate change adaptation and mitigation’.²⁸ Similarly, the role of indigenous knowledge was recognised by the Court in the case of *Joseph Letuya & 21 others v Attorney General & 5 others* [2014] eKLR²⁹ where the Court stated as follows:

Quite apart from the special consideration that needs to be given to the Ogiek community as a minority and indigenous group when allocating forest land that this court has enunciated on in the foregoing, this court also recognizes the unique and central role of indigenous forest dwellers in the management of forests. This role is recognized by various international and national laws. The Convention on Biological Diversity which Kenya has ratified and which is now part of Kenyan law by virtue of Article 2(6) of the Constitution recognizes the importance of traditional knowledge, innovations and practices of indigenous and local communities for the conservation and sustainable use of biodiversity and that such traditional knowledge should be

²⁷ Sec. 54(1), Forest Conservation and Management Act 2016.

²⁸ Sec. 13(5)(g), climate Change Act 2016.

²⁹ *Joseph Letuya & 21 others v Attorney General & 5 others* [2014] eKLR, Elc Civil Suit 821 of 2012 (Os).

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respected, preserved and promoted. Article 8 (j) of the Convention places an obligation on State Parties in this respect to:

“Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.”

This court is also guided in this respect by several multilateral environmental agreements which now shape the strategies and approaches by governments in relation to the environment and development, including forest policy. These include the Rio Declaration on Environment and Development and Agenda 21 which are widely accepted sources of international customary environmental law. Principle 22 of the Rio Declaration on Environment and Development provides that indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States are encouraged to recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development. Chapter 26 of Agenda 21 is likewise dedicated to strengthening the role of indigenous communities in sustainable development.

The Forest Conservation and Management Act, 2016³⁰ also highlights this by providing that some of the principles of this Act shall be: public participation and community involvement in the management of forests; and protection of indigenous knowledge and intellectual property rights of forests resources.³¹ On the relationship between forests and climate change mitigation, the Forest Conservation and Management Act, 2016 provides that ‘all indigenous forests

³⁰ Forest Conservation and Management Act, No. 34 of 2016, Laws of Kenya.

³¹ Sec. 4 (a) (e), Forest Conservation and Management Act 2016.

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and woodlands shall be managed on a sustainable basis for purposes of, *inter alia*: conservation of water, soil and biodiversity; and carbon sequestration and other environmental services.³²

There is a need to tap into and incorporate this knowledge in enhancing sustainable forests management in the country.

3.6 Diversified Financing for Sustainable Forest Management

As per part III (sections 23-29) of the Forest Conservation and Management Act, 2016, majority of the forests conservation activities in Kenya are to be funded by the government of Kenya. Naturally, this comes with its limitations due to inadequate resources and calls for diversification of funding mechanisms for these activities.

It has been argued that due to the numerous benefits and purposes of trees and forests, as well as the numerous stakeholders and actors who can and do influence forest management and management decisions, sustainable forest management should not be the exclusive domain of the government but rather of society at large. As a result, new strategies, institutional frameworks, and funding sources are required to make this a reality.³³ Aside from that, the new funding systems that are needed must take into consideration the financial requirements of various players as well as the various management objectives, taking into account the unique characteristics of various forest ecosystems and the socioeconomic circumstances of every nation.³⁴ By providing revenue, employment, food security, and shelter where it is most desperately needed, sustainable forest management may support economic growth. Sustainable forest management is all about finding a means to strike a balance between

³² Sec. 42(1), Forest Conservation and Management Act 2016.

³³ Gondo, P.C., 'Financing of Sustainable Forest Management in Africa: An Overview of the Current Situation and Experiences' 2010<<https://www.semanticscholar.org/paper/FINANCING-OF-SUSTAINABLE-FOREST-MANAGEMENT-IN-AN-OF-Gondo/c63f5beca0178f60763046d3c0779ef6caf2a21f>> accessed 18 March 2023, p.61.

³⁴ Gondo, P.C., 'Financing of Sustainable Forest Management in Africa: An Overview of the Current Situation and Experiences' 2010, p. 61.

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human requirements and concerns about the long-term viability of forest resources.³⁵

Commentators have also noted that the continent's current systems for financing forests are still insufficient to create the conditions needed to stop deforestation and forest degradation processes, encourage rehabilitation and afforestation/reforestation, and increase the areas of forest under sustainable management.³⁶ It has been suggested that in order to provide the institutional framework for effective forest governance and sustainable forest management and to foster the crucial local community engagement, partnerships between a number of actors are required. The rationale behind this is that by pooling the resources, expertise, knowledge, and political influence of players operating at various scales, the parties would be able to do more together than they could alone.³⁷

Enhanced coordination at the national level would include integrating tools like national forest finance policies and information sharing, which might be handled through suitable arrangements spearheaded by governments. Also, the government should develop the necessary capacities to fully use the increasingly complex and diverse external and internal financial mechanisms for forests.³⁸

³⁵ United Nations Forum on Forests, 'Enabling Sustainable Forest Management: Strategies for equitable development, for forests, for people' <https://www.un.org/esa/forests/wp-content/uploads/2015/06/Enabling_SFMM_highlights.pdf> accessed 18 March 2023.

³⁶ Gondo, P.C., 'Financing of Sustainable Forest Management in Africa: An Overview of the Current Situation and Experiences' 2010, p. 61.

³⁷ Ros-Tonen, M.A., Van Andel, T., Morsello, C., Otsuki, K., Rosendo, S. and Scholz, I., 'Forest-Related Partnerships in Brazilian Amazonia: There Is More to Sustainable Forest Management than Reduced Impact Logging' (2008) 256 *Forest Ecology and Management* 1482.

³⁸ Gondo, P.C., 'Financing of Sustainable Forest Management in Africa: An Overview of the Current Situation and Experiences' 2010, p. 61; see also Besacier, C., Garrett, L., Iweins, M. and Shames, S. 2021. Local financing mechanisms for forest and landscape restoration – A review of local level investment mechanisms. Forestry Working Paper No. 21. Rome, FAO. <https://doi.org/10.4060/cb3760en>; cf. Kamara Y, 'Existing and Potential Forest Financing Mechanisms for Smallholders and Community Forestry in West Africa' [2011] Initiatives Conseil International. Burkina Faso: Food and Agriculture Organization of the United Nations; Gomez-Echeverri L, 'National

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4. Conclusion

It has rightly been pointed out that woodlands and forests contribute significantly to the global carbon cycle and, as a result, to the acceleration or slowing of global climate change.³⁹ This is because around 50% of the world's terrestrial organic carbon stores are found in forests, while 80% of all terrestrial biomass is found in forests. More over two thirds of the world's terrestrial net primary output comes from forests. So, slowing down forest loss and re-establishing forest cover in deforested regions might help lessen the effects of climate change.⁴⁰

For climate change to be mitigated, fossil fuel use must be reduced, and for that, global carbon emissions must peak by 2025 and reach net zero by 2050. Sadly, the speed of carbon emissions continues to be inconsistent with the objectives of the Paris agreement (IPCC, 2021).⁴¹

According to studies conducted in a few emerging nations, the security of agriculture, water, and energy is at systemic risk due to the effects of climatic unpredictability and change, expanding economies, and rising urbanization. For disadvantaged rural communities, agricultural output is a significant source of employment. From small-scale subsistence farming to large-scale export-oriented agriculture, water availability is essential for agricultural output. In addition, the capacity for producing electricity, the control of peak supply and demand, and the safety of dams are all seriously impacted by climate change and unpredictability (including both deficiencies and surpluses in rainfall).⁴² Arguably, forests not only contribute in climate change

Climate Funds', *Handbook of International Climate Finance* (Edward Elgar Publishing 2022); 'Developing the International Financing Facility for Forests (IFFFor) | Profor' <<https://www.profor.info/knowledge/developing-international-financing-facility-forests-iffor>> accessed 18 March 2023.

³⁹ Shvidenko A and Gonzalez P, 'Chapter 21: Forest and Woodland Systems', p.587.

⁴⁰ Ibid.

⁴¹ Cevik S, 'Climate Change and Energy Security: The Dilemma or Opportunity of the Century?' 2022 IMF Working Paper, WP/22/174

<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4224062> accessed 18 March 2023.

⁴² 'Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENANDES) (Chile, Colombia, Peru) - Adaptation Fund' <<https://www.adaptation-fund.org/project/chile-colombia-peru-enhancing-adaptive-capacity-andean-communities-climate-services-enandes/>> accessed 18 March 2023.

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mitigation but also in some areas act as sources of rivers, which are evidently important for agriculture and generation of hydropower. This thus calls for concerted efforts towards forests conservation and restoration not only for climate change mitigation but also to secure the future of both current and future generations. This should be done alongside employment of measures that reduce pressure on these forests, as discussed in this paper.

Promoting Climate Litigation in Kenya for Sustainability

Abstract

Due to the impact that climate change is having on people's ability to make a living and the legal frameworks that have been put in place in response to this impact by both the worldwide environmental community and individual nations, there has been a discernible rise in the number of cases that fall under the category of climate litigation. Individuals, non-governmental organisations, and organized communities in various countries have been bringing lawsuits against their governments in court for claimed inaction or matters that expressly raise a question of fact or law connected to the causes or implications of climate change. This study makes the observation that although this trend may not yet have gained momentum in Kenya, it is only a matter of time as more and more people become aware of their environmental rights and expect more from the government and other actors in their reaction to climate change-related effects on their life. This paper also makes the observation that while this trend may not yet have gained traction in Kenya, it will do so soon. As part of the process of ensuring that sustainable development is brought to fruition, the author contends that encouraging climate litigation in Kenya may be a significant component in addressing this worldwide challenge.

1. Introduction

Climate change is defined in section 2 of the Climate Change Act 2016¹ to mean, “a change in the climate system which is caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period.” There is however no universally accepted definition of a climate change-related dispute.²

¹ Climate Change Act, No. 11 of 2016, Laws of Kenya, Government Printer Nairobi

² C. Mark Baker, Cara Dowling, Dylan McKimmie, Tamlyn Mills, Kevin O’Gorman, Holly Stebbing, Martin Valasek, “What are climate change and sustainability disputes? Key arbitration examples (Part 1 contractual disputes)”, in James Rogers, London; Cara Dowling, Vancouver (eds), *International arbitration report*, Norton Rose Fulbright – Issue 16 – June 2021, p. 40. < <https://www.nortonrosefulbright.com/-/media/files/nrf/nrfweb/publications/international-arbitration-report-issue-16.pdf?revision=40c8a703-6e1d-413c-8c7e-ac1201697383&revision=40c8a703-6e1d-413c-8c7e-ac1201697383>> accessed 7 August 2023.

Promoting Climate Litigation in Kenya for Sustainability

In the past, many nations located in the Global South have not considered climate change to be one of their most significant challenges. Instead, they have prioritized more pressing issues, such as the need for immediate economic development, the reduction of poverty, and energy security, as well as more immediate environmental challenges, such as the presence of hazardous waste and the availability of safe drinking water.³ Some authors have however observed that climate change is a "threat multiplier," which can increase human security issues such as food and water scarcity while also leading to (violent) conflict in climate-vulnerable countries.⁴ This is as a result of the fact that climate change's negative repercussions, such as water scarcity, crop failure, food insecurity, economic shocks, migration, and displacement, can exacerbate the risk of conflict and violence⁵. Environmental conflicts and disputes can be divided into two categories: first, access to environmental resources as a source of livelihood and as a foundation for economic activity, and second, conflicts over what are known as "side effects" of economic activity, such as biodiversity loss and pollution.⁶

The practice of taking legal action over climate change has been on the rise in national courts all around the world, with the majority of cases being claimed as breaches of human rights.⁷ Climate change mitigation is one of the key environmental goals of the United Nations' 2030 Agenda for Sustainable Development Goals (SDGs)⁸, as captured in Sustainable Development Goal 13, which aims to help countries attain resilience and adaptability.⁹

Although climate change litigation may refer to a wide variety of various procedures, in general, it is understood to refer to claims that specifically raise

³ Setzer J and Benjamin L, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law*.

⁴ Froese, Rebecca, and Janpeter Schilling, "The Nexus of Climate Change, Land Use, and Conflicts." (2019).

⁵ 'Tackling the Intersecting Challenges of Climate Change, Fragility and Conflict' <<https://blogs.worldbank.org/dev4peace/tackling-intersecting-challenges-climate-change-fragility-and-conflict>> accessed 30 March 2022.

⁶ Arild Vatn, *Environmental Governance: Institutions, Policies and Actions* (Paperback edition, Edward Elgar Publishing 2016) 2.

⁸ UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1.

⁹ *Ibid*, SDG 13.

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a question of fact or law related to the causes or implications of climate change. This definition holds true even though climate change litigation can refer to a wide variety of different actions.¹⁰ The 2020 Global Climate Litigation Report on Status Review defines “climate change litigation” to include cases that raise material issues of law or fact relating to climate change mitigation, adaptation, or the science of climate change.¹¹

It has been noted that activist organisations have been utilising litigation to promote ambition in climate action.¹² These groups are adopting a longer term perspective that looks beyond the immediate victories and losses of specific lawsuits. In particular, environmental advocacy organisations are resorting to the judicial system in an effort to hasten the adoption of more stringent levels of mitigation ambition, new policies, as well as more efficient execution and compliance with current ones.¹³ This kind of lawsuit is helping to supplement the execution of the Paris Agreement at the national level, which is one of the ways in which it is contributing in novel ways to the governance of the global climate at the international level.¹⁴

The climate lawsuits that have been brought up to this point often fall into one or more of the following six categories: (1) climate rights; (2) domestic enforcement; (3) keeping fossil fuels in the ground; (4) corporate accountability

¹⁰ ‘Climate Change Litigation in Africa: Current Status and Future Developments | White & Case LLP’ (9 November 2021) <<https://www.whitecase.com/insight-our-thinking/climate-change-litigation-africa-current-status-and-future-developments>> accessed 7 August 2023.

¹¹ Burger M and Tigre MA, ‘Global Climate Litigation Report: 2023 Status Review’, p. 6.

¹² ‘Climate Change Litigation in Africa: Current Status and Future Developments | White & Case LLP’ (9 November 2021) <<https://www.whitecase.com/insight-our-thinking/climate-change-litigation-africa-current-status-and-future-developments>> accessed 7 August 2023.

¹³ Higham C, Setzer J and Bradeen E, ‘Challenging Government Responses to Climate Change through Framework Litigation’ (2022) <<https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/09/Challenging-government-responses-to-climate-change-through-framework-litigation-final.pdf>> accessed 8 August 2023.

¹⁴ ‘Climate Change Litigation on the African Continent’ (*Regional Programme Energy Security and Climate Change in Sub-Saharan Africa*, 21 June 2021) <<https://www.kas.de/en/web/climate-energy-africa/single-title/-/content/climate-change-litigation-on-the-african-continent>> accessed 5 August 2023.

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and responsibility; (5) failure to adapt and the implications of adaptation; and (6) climate disclosures and greenwashing.¹⁵

There has been a recent surge in the number of people who are taking their governments to court over their failure to take measures to prevent climate change. A significant number of these cases are being brought (at least in part) on the basis of human rights legislation.¹⁶ However, it has been claimed that utilising human rights as a foundation for a lawsuit against a government in relation to climate change is not a foolproof strategy.¹⁷ It is not that straightforward to trace damage due to climate change to the actions or omissions of individual governments and identify these consequences as human rights breaches. In addition, there are concerns of admissibility and justiciability that need to be taken into consideration.¹⁸ It is worth pointing out that any challenges or crisis attributable to climate change could give rise to climate litigation due to the global scale of the problem of excessive greenhouse gas emissions and the various localized actions made by different parties that contribute towards resolving the issue.¹⁹ As a consequence of this, academics have contended with questions such as the following in an effort to give the concept of climate litigation in the literature some form:²⁰

- a) **whether to include only cases that expressly raise issues of climate change policy or science, or whether to extend study to cases motivated by concerns over climate change issues (e.g., a challenge to a coal plant proposal on the grounds of its broader environmental or amenity impacts), or with consequences for addressing climate**

¹⁵ Burger M and Tigre MA, 'Global Climate Litigation Report: 2023 Status Review', p. 13.

¹⁶ Dewaele J, 'The Use of Human Rights Law in Climate Change Litigation : Inquiring Human Rights Obligations of States in the Context of Climate Change; and the Use of Human Rights Law in Urgenda and Other Climate Cases' (Global Campus of Human Rights 2019) <<http://doi.org/20.500.11825/1295>> accessed 8 August 2023.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ 'Climate Litigation More than Doubles in Five Years, Now a Key Tool in Delivering Climate Justice' (*UN Environment*, 27 July 2023) <<http://www.unep.org/news-and-stories/press-release/climate-litigation-more-doubles-five-years-now-key-tool-delivering>> accessed 15 August 2023.

²⁰ Peel J and Osofsky HM, 'Climate Change Litigation' (2020) 16 *Annual Review of Law and Social Science* 21.

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- change (e.g., cases concerned with the costs of and compensation for extreme weather events like hurricanes), even if the litigation itself is not explicitly framed in terms of climate change;
- b) whether to focus on judgments issued by courts or to include other types of quasi-judicial decision-making processes and actions that lead to outcomes other than judgments, such as a settlement decision; and
 - c) whether to include only cases with a pro-regulatory focus or also those brought by industry challenging climate regulatory measures.²¹

These factors thus make it relevant to discuss the concept of climate change litigation and how these challenges can be overcome, especially in the context of Kenya.

2. Justiciability of Climate Litigation in Kenya

The provisions of *Climate Change Act 2016* acknowledge the role of courts in upholding rights relating to climate change and spell out the role of the court in the following words: “a person may, pursuant to Article 70 of the Constitution, apply to the Environment and Land Court, alleging that a person has acted in a manner that has or is likely to adversely affect efforts towards mitigation and adaptation to the effects of climate change”.²² In such applications, the court may make an order or give directions to: prevent, stop or discontinue an act or omission that is harmful to the environment; compel a public officer to take measures to prevent or discontinue an act or omission that is harmful to the environment; or provide compensation to a victim of a violation relating to climate change duties.²³

Notably, Kenya’s Environment and Land Court Act, 2011²⁴ provides for the jurisdiction of the Environment and Land Court as including power to hear and determine disputes relating to climate issues.²⁵ Considering that this is

²¹ Peel J and Osofsky HM, ‘Climate Change Litigation’ (2020) 16 Annual Review of Law and Social Science 21.

²² Section 23(1), Climate Change Act, 2016.

²³ Section 23(2), Climate Change Act, 2016. Government Printer, Nairobi

²⁴ Environment and Land Court Act, No. 19 of 2011, Laws of Kenya Government printer, Nairobi

²⁵ *ibid*, section 13(2)(a).

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still a relatively new concept in Kenya and that the law in Kenya envisages only ‘climate related issues’ litigation by both the Environment and Land Court and the Magistrate’s courts, as seen in the next section of this paper, the discussion herein will not be restricted to any special category of these cases in particular but all cases that relate to effects of climate change.

3. Promoting Climate Litigation in Kenya for Sustainability: Challenges and Prospects

It must be noted that while climate [change] litigation refers to a diverse body of legal proceedings, involving many different types of challenges, a specific subset of climate litigation consists of cases in which litigants challenge the ambition or implementation of a national or subnational government’s overall policy response to climate change.²⁶ The term ‘government framework litigation’ has been used to describe this group of cases.²⁷ The Government and its various agencies must thus be aware of these types of cases. For example, it has been documented that as of the 31st of July in 2022, at least 80 instances of framework litigation have been brought against governments from throughout the globe.²⁸ Only one year, 2021, saw the filing of little under half of these lawsuits.²⁹ Cases have been brought before the national courts of 24 countries, as well as the General Court of the European Union, the European Court of Human Rights, the Inter-American Commission on Human Rights, the United Nations Committee on the Rights of the Child, the United Nations Human Rights Committee, and other UN Special Procedures.³⁰

The Hague District Court’s decision in *Urgenda Foundation v State of the Netherlands* (2015) found that the Dutch government’s emission reduction

²⁶ Higham C, Setzer J and Bradeen E, ‘Challenging Government Responses to Climate Change through Framework Litigation’ (2022) <<https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/09/Challenging-government-responses-to-climate-change-through-framework-litigation-final.pdf>> accessed 8 August 2023.

²⁷ Ibid.

²⁸ ‘Governments Face Tide of Framework Litigation Cases | The Actuary’ <<https://www.theactuary.com/2022/09/21/governments-face-tide-framework-litigation-cases>> accessed 15 August 2023.

²⁹ Ibid.

³⁰ Higham C, Setzer J and Bradeen E, ‘Challenging Government Responses to Climate Change through Framework Litigation’ (2022).

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targets to be inadequate to safeguard Dutch citizens from the impacts of climate change, a ruling that has since been upheld by the Dutch Court of Appeal and then on December 20, 2019, by the Dutch Supreme Court [*State of the Netherlands v Urgenda (2019)*].³¹

The 2020 Global Climate Litigation Report on Status Review identified 5 key issues that may present challenges to future growth and development of climate litigation:

First, there has been a surge in the number of consumer and investor fraud cases that are being filed against businesses, saying that the businesses either neglected to disclose information concerning climate risk or misrepresented the information that they did disclose. Second, it seems that in recent years there has been an increase in the number of pre- and post-disaster claims that are based on the defendant's inability to adequately prepare for or manage the repercussions of severe weather occurrences. Third, the execution of court orders will present additional obstacles as more cases are brought forward and as some of those cases get an outcome. Fourth, as cases that attempt to assign blame for private actors' contributions to climate change and cases that argue for stronger government action to mitigate both progress and spread, courts and litigants will increasingly be called on to confront the law and science of climate attribution. This is because of the rising number of lawsuits that seek to assign responsibility. Last but not least, parties to legal disputes are increasingly taking their cases to international adjudicatory organisations. These entities may lack the capacity to implement their decisions, but their statements have the potential to modify and enrich judicial knowledge.³²

It has rightly been pointed out that in Global South countries where environmental law already exists, policymakers are confronted with a variety

³¹ Peel J and Osofsky HM, 'Climate Change Litigation' (2020) 16 Annual Review of Law and Social Science 21.

³² Burger M and Tigre MA, 'Global Climate Litigation Report: 2023 Status Review', p. 4.

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of obstacles that make enforcement difficult.³³ These obstacles include weak and fragmented institutions, poor legal foundations, and a lack of political will.³⁴ A number of Global South nations do not have the necessary resources, infrastructure, technology, or monitoring facilities to enable effective enforcement. In addition, environmental regulation could be out of date or might not take into account the constraints of the current technological, economic, or human resource landscape.³⁵ In addition, the creation of entirely novel agencies is often necessary for environmental regulation.³⁶ When they do exist, these organisations often have inadequate resources and fragmented institutional frameworks, which may cause administrators to work in isolation.³⁷

Some of the most significant difficulties that climate litigation may experience include determining whether or not the court has the jurisdiction to settle the dispute; locating the origin of an enforceable climate-related right or obligation; formulating a remedy that will lessen the plaintiffs' injuries; and, most importantly, marshalling the science of climate attribution.³⁸

It is commendable that courts and tribunals in Kenya have not shied away from their role in promoting climate change mitigation. For instance, in the case of *Save Lamu & 5 others v National Environmental Management Authority (NEMA) & another* [2019] eKLR³⁹, where the grounds of the appeal included,

³³ Hub ISK, 'Environmental Laws Impeded by Lack of Enforcement, First-Ever Global Assessment Finds | News | SDG Knowledge Hub | IISD' <<https://sdg.iisd.org:443/news/environmental-laws-impeded-by-lack-of-enforcement-first-ever-global-assessment-finds/>> accessed 15 August 2023.

³⁴ Setzer J and Benjamin L, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law*.

³⁵ Minneti J, 'Environmental Governance and the Global South' [2018] *William & Mary Environmental Law and Policy Review*, Forthcoming.

³⁶ *Ibid.*

³⁷ Setzer J and Benjamin L, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law*.

³⁸ Burger M and Tigre MA, 'Global Climate Litigation Report: 2023 Status Review', p. 4; Banda ML and Fulton CS, 'Litigating Climate Change in National Courts: Recent Trends and Developments in Global Climate Law' (2017) 47 *Environmental Law Reporter*.

³⁹ *Save Lamu & 5 others v National Environmental Management Authority (NEMA) & another* [2019] eKLR, Tribunal Appeal Net 196 of 2016.

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'contribution to climate change and making the Project inconsistent with Kenya's low carbon development commitments', the National Environment Tribunal observed as follows:

16. The purpose of the Environment Impact Assessment (EIA) process is to assist a country in attaining sustainable development when commissioning projects. The United Nations has set Sustainable Development Goals (SDGs), which are an urgent call for action by all countries recognizing that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

38. Climate Change issues are pertinent in projects of this nature and due consideration and compliance with all laws relating to the same. The omission to consider the provisions of the Climate Change Act 2016 was significant even though its eventual effect would be unknown.

139. In applying the precautionary principle where there is lack of clarity on the consequences of certain aspects of the project it behooves the Tribunal to reject it. On climate change issues this is of greater importance and made the provisions on climate change within the report incomplete and inadequate.

Notably, this approach is similar to one that was adopted in *EarthLife Africa Johannesburg v. Minister of Environmental Affairs & Others*, where the South African High Court determined that global climate change was a relevant consideration in the environmental review of plans for a new coal-fired plant.⁴⁰ Similarly, section 20 of the Climate Change Act 2016 provides that, "the [National Environment Management] Authority shall integrate climate risk and vulnerability assessment into all forms of assessment, and for that purpose liaise with relevant lead agencies for their technical advice." Thus, as highlighted in the *Lamu case*, it is expected that the National Environment

⁴⁰ Setzer J and Benjamin L, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law* <https://www.researchgate.net/publication/338346001_Climate_Litigation_in_the_Global_South_Constraints_and_Innovations> accessed 8 August 2023.

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Management Authority and the other lead agencies should consider climate change issues while reviewing applications for issuance of various development licenses as legal requirement.

In addition, Section 9 of the Magistrate's Act 2015⁴¹ reads as follows:-

9. A magistrate's court shall –

(a) in the exercise of the jurisdiction conferred upon it by section 26 of the Environment and Land Court Act and subject to the pecuniary limits under section 7(1), hear and determine claims relating to –

(i) environmental planning and protection, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources;

While it is to be acknowledged that the judicial officers appointed to head environment and land courts are appointed on the basis of having relevant knowledge in the area, it must also be acknowledged that they may not always be well versed with all matters that come before them due to the evolving nature of the emerging matters in the area.⁴² Thus, there is need for not only engaging experts in the area but also continuous building of capacity of the judicial officers in the technical matters relating climate change.

It has been observed that government framework cases may concern the design and overall ambition of a government's response to climate change (58 'ambition cases'), or they may concern the adequacy of the implementation of a policy response (9 'implementation cases'). Some cases concern both (13 'ambition and implementation cases').⁴³ There is thus a need for continuous

⁴¹ Magistrates Courts Act, Act No. 26 of 2015, Laws of Kenya, Government Printer, Nairobi

⁴² May JR and Daly E, 'Global Judicial Handbook on Environmental Constitutionalism' (2019); Shelton D and Kiss AC, *Judicial Handbook on Environmental Law* (UNEP/Earthprint 2005); 'Tilting Scales of Justice in Favour of Climate in Kenya' <<https://www.unodc.org/easternafrika/Stories/tilting-scales-of-justice-in-favour-of-climate-in-kenya.html>> accessed 15 August 2023.

⁴³ Higham C, Setzer J and Bradeen E, 'Challenging Government Responses to Climate Change through Framework Litigation' (2022) <<https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/09/Challenging-government-responses-to-climate-change-through-framework-litigation-final.pdf>> accessed 8 August 2023.

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review of the existing legal and policy measures put in place by both the national and county governments to enhance their effectiveness. The implementing bodies should also continue building capacity. All levels of government should prepare for the possibility of being required by law to take action against climate change and work on establishing internal decision-making procedures that are congruent with the goal of mitigating the negative effects of climate change.⁴⁴

It has been posited that strategic litigation concerning climate change in the Global South might gain advantage from (i) access to justice in combination with the presence of progressive climate and/or environmental rights laws, and (ii) judicial opportunism.⁴⁵ When these factors are brought together, they have the potential to assist actors in the Global South in overcoming countervailing dynamics of significant capacity constraints in implementing environmental legislation and managing fragmented and under-resourced institutional structures.⁴⁶ As a result, they have the ability to contribute to progressive outcomes.⁴⁷ In countries that have taken progressive procedural as well as regulatory approaches to environmental protection and justice, this, it has been suggested, may lead to decisions that maintain or advance climate change protection, especially around climate change adaptation.⁴⁸

Access to justice is contingent upon the fulfilment of certain preconditions, one of which is the physical presence of a court.⁴⁹ In order for litigants to be given the right of access to courts, whether individually, collectively, or as a third

⁴⁴ Ibid.

⁴⁵ 'Enhancing Access to Justice to Tackle Climate Change and Pollution and Protect Biodiversity | UNECE' <<https://unece.org/climate-change/news/enhancing-access-justice-tackle-climate-change-and-pollution-and-protect>> accessed 15 August 2023; Wright RG, 'The Proper Role of Judicial Opportunism in Constitutional Rights Scrutiny' (2023) 26 *Richmond Public Interest Law Review* 49; Carnwath, Lord, CVO, 'Judges and the Common Laws of the Environment—At Home and Abroad' (2014) 26 *Journal of Environmental Law* 177.

⁴⁶ Ibid.

⁴⁷ Setzer J and Benjamin L, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law*.

⁴⁸ Ibid.

⁴⁹ Rashid NM, 'Access to Justice' (*United Nations and the Rule of Law*) <<https://www.un.org/ruleoflaw/thematic-areas/access-to-justice-and-rule-of-law-institutions/access-to-justice/>> accessed 15 August 2023.

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party or *amicus curiae*, the criteria pertaining to standing, which differ from jurisdiction to jurisdiction, must be followed.⁵⁰ Luckily for Kenyans, the 2010 Constitution of Kenya is very progressive and the courts have been implementing the same as captured in the case of *Martin Osano Rabera & another v Municipal Council of Nakuru & 2 others* [2018] eKLR⁵¹, where 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 assessment, environmental audit and monitoring of the environment and to eliminate processes and activities that are likely to

⁵⁰ Setzer J and Benjamin L, 'Climate Litigation in the Global South: Constraints and Innovations' (2019) 9 *Transnational Environmental Law*.

⁵¹ *Martin Osano Rabera & another v Municipal Council of Nakuru & 2 others* [2018] eKLR, Petition No. 53 of 2012.

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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; 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.

52. I have outlined all these provisions to underscore the importance placed by the constitution and statute law on protection of the right to a

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clean and healthy environment and conservation of the environment generally.

The human rights approach to solving human problems is at the core of the 2030 Agenda for Sustainable Development.⁵² 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.⁵³ 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.⁵⁴

According to the Swedish International Development Cooperation Agency, the following are key questions to ask when applying the Human Rights-Based Approach:⁵⁵

- a) **Participation: Do all relevant stakeholders engage actively, in a way which allows rights holders to contribute meaningfully and influence outcomes?**
- b) **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 outcomes?**
- c) **Accountability: Who are the duty bearers at different levels, and do they have sufficient capacity and interest to be accountable to rights holders?**

⁵² 'OHCHR and the 2030 Agenda for Sustainable Development' (OHCHR) <<https://www.ohchr.org/en/sdgs>> accessed 15 August 2023.

⁵³ United Nations, 'Support Sustainable Development and Climate Action' (United Nations) <<https://www.un.org/en/our-work/support-sustainable-development-and-climate-action>> accessed 15 August 2023.

⁵⁴ Choondassery Y, 'Rights-Based Approach: The Hub of Sustainable Development' (2017) 8 Discourse and Communication for Sustainable Education.

⁵⁵ Cybercom, 'Human Rights Based Approach' (Sida) <<https://www.sida.se/en/for-partners/methods-materials/human-rights-based-approach>> accessed 15 August 2023.

- d) **Are there mechanisms for participation and complaints in place for rights holders, civil society and other stakeholders to hold the duty bearers to account?**
- e) **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?**
- f) **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,**
- g) **finally, transparency: What measures are put in place to ensure that all stakeholders are able to access relevant information and knowledge regarding the intervention?⁵⁶**

Respecting human rights and providing equal opportunity for everyone in society is a key component of sustainability.⁵⁷ With an emphasis on reducing poverty, it necessitates an equal distribution of resources.⁵⁸ 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.⁵⁹ Hence, social outcomes comprise social capital, trust, increased equity, and raised living standards.⁶⁰

⁵⁶ Ibid.

⁵⁷ Kaltenborn M, Markus K and Kuhn H, *Sustainable Development Goals and Human Rights* (2020); Yimbessalu J and Zakus D, 'The Sustainable Development Goals as Human Rights' (2019); Bexell M, Hickmann T and Schapper A, 'Strengthening the Sustainable Development Goals through Integration with Human Rights' (2023) 23 *International Environmental Agreements: Politics, Law and Economics* 133.

⁵⁸ Ibid; 'Human Rights Principles' (*United Nations Population Fund*) <<https://www.unfpa.org/resources/human-rights-principles>> accessed 15 August 2023.

⁵⁹ Popova O, 'Inclusive Development: A New Concept or an Update of the Sustainable Development Concept?' [2020] *Economy and Forecasting* 128.

⁶⁰ 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, 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.

4. Conclusion

The 2020 Global Climate Litigation Report on Status Review rightly points out that:

In conclusion, the number of lawsuits concerning climate change is growing, the number of legal theories is expanding, and it has become abundantly clear that climate cases can contribute significantly to meaningfully compel governmental actors and corporate actors to pursue more ambitious climate change mitigation and adaptation goals. Climate litigation will continue to have an important role to play as the international community moves deeper into the third decade of this millennium. This is a crucial decade in which nations must change their course to drastically reduce emissions of greenhouse gases, enact reforms to achieve the United Nations Sustainable Development Goals, and also respond to and recover from the COVID-19 pandemic.⁶¹

The concept of a rights-based approach to climate litigation is arguably consistent with the 2030 Agenda for Sustainable Development.⁶² It is worth pointing out that the interconnectedness among these rights was also captured in 2022, when the United Nations General Assembly (UNGA) adopted a resolution declaring a clean, healthy & sustainable environment as a human right.⁶³ They acknowledged that the right to a clean, healthy and sustainable environment is related to other rights and existing international law.⁶⁴ It was also affirmed that the promotion of the human right to a clean, healthy and sustainable environment requires the full implementation of the multilateral

⁶¹ Burger M and Tigre MA, 'Global Climate Litigation Report: 2023 Status Review', p. 5.

⁶² Mahadew, R., "A Human-Rights-Based Approach to Climate Change." *Revue juridique de l'Océan Indien* 31 (2021): 155-168.

⁶³ United Nations General Assembly, *The Human Right to a Clean, Healthy and Sustainable Environment: resolution* / adopted by the General Assembly, UN. General Assembly (76th sess.: 2021-2022); 'In Historic Move, UN Declares Healthy Environment a Human Right' (UNEP, 28 July 2022) <<http://www.unep.org/news-and-stories/story/historic-move-un-declares-healthy-environment-human-right>> accessed 15 August 2023; 'UN General Assembly Declares Access to Clean and Healthy Environment a Universal Human Right | UN News' (28 July 2022) <<https://news.un.org/en/story/2022/07/1123482>> accessed 15 August 2023.

⁶⁴ United Nations General Assembly, *The Human Right to a Clean, Healthy and Sustainable Environment: resolution* / adopted by the General Assembly, UN. General Assembly (76th sess.: 2021-2022), para. 2.

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environmental agreements under the principles of international environmental law.⁶⁵

Due to the "triple planetary catastrophe" of human-caused climate change, widespread biodiversity loss, and unchecked pollution currently threatening to cross the planetary boundaries necessary to live securely on Earth as well as air pollution, polluted water, pollution from plastics, and chemical pollutants, all of which can jeopardise the right to life, dignity, and health, the U.N. responded to the calls to establish a right to a clean, healthy, and sustainable environment.⁶⁶

As a result, more work has to be done in the implementation, monitoring, and assessment of the Sustainable Development Goals to guarantee that the full range of benefits offered by a rights-based approach is realized, especially as far as climate justice is concerned.⁶⁷ Even as the debate on what climate justice entails and the best approaches to the same continue, Kenyans must continually be encouraged to utilise the human-rights approaches and the courts and tribunals must remain proactive in addressing matters relating to climate change, as a prerequisite for realisation of Sustainable Development agenda.

Promoting Climate litigation in Kenya for sustainability is thus a venture that is worth pursuing.

⁶⁵ Ibid, para. 3.

⁶⁶ 'The UN Just Declared a New Human Right' (*World Economic Forum*, 9 August 2022) <<https://www.weforum.org/agenda/2022/08/the-un-just-declared-a-universal-human-right-to-a-healthy-sustainable-environment-here-s-where-resolutions-like-this-can-lead/>> accessed 15 August 2023.

⁶⁷ 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.

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Abstract

The paper succinctly examines the idea of climate finance. It posits that climate finance is vital in fostering Climate Justice since it recognizes the inequalities between countries with developing countries which are most vulnerable to the effects of climate change requiring financial resources to aid their mitigation and adaptation programmes. The paper discusses global, regional and national levels towards unlocking climate finance. It further points out challenges hindering effective access to climate finance. Finally, the paper offers some suggestions towards unlocking climate finance towards enhancing development.

1. Introduction

Climate change has risen to the top of the policy agenda, at local, national, and international levels¹. It has been described as the most defining challenge of our time². The effects of climate change including intense droughts, water scarcity, severe wild fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are being witnessed across the world³. Climate change hinders the attainment of Sustainable Development by affecting human health, food security, housing, safety, work and hindering access to vital natural resources due to loss of biodiversity⁴. As such, climate change is relevant to priority development objectives such as combating poverty, food security, access to basic services such as clean water, sanitary living conditions, energy and education⁵.

¹ United Nations Department of Economic and Social Affairs., 'Forum on Climate Change and Science and Technology Innovation.' Available at <https://www.un.org/en/desa/forum-climate-change-and-science-and-technology-innovation> (Accessed on 09/08/2023)

² Ibid

³ United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 09/08/2023)

⁴ Ibid

⁵ Muigua. K., 'Nurturing our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

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Responding to the threat of climate change has become both a national priority and a global responsibility⁶. It has been asserted that the world is responding to climate change through two fundamental approaches being mitigation and adaptation⁷. Climate change mitigation involves reducing greenhouse gas emissions and stopping the problem of climate change from growing⁸. Adaptation on the other hand involves learning how to live with the existing threat of climate change and protecting humanity from the future effects of climate change⁹. The United Nations Environment Programme further observes that addressing the threat of climate change can be pursued through several avenues including adaptation and building resilience to climate change; mitigation and moving towards low carbon societies; reduction of emissions from deforestation and forest degradation; and finance for new models for the green economy¹⁰.

It has been observed that finance plays a vital role in the climate agenda by enhancing the mitigation and adaptation capabilities of countries especially in the developing world¹¹. This paper explores the concept of climate finance and its role in climate change mitigation and adaptation. It defines climate finance and discusses some of the national, regional and global efforts towards embracing this idea. The paper critically examines the efficacy of climate finance as a tool of climate change mitigation and adaptation. It further examines the problems inherent in the idea of climate finance. The paper concludes by proposing reforms towards unlocking climate finance at the national, regional and global levels in order to foster development.

⁶ United Nations Development Programme., 'Islamic Finance's Answer to SDGs and Climate Change.' Available at <https://www.undp.org/blog/islamic-finance-answer-sdgs-and-climate-change> (Accessed on 09/08/2023)

⁷ World Visions., 'How is the World Responding to Climate Change?' Available at https://www.worldvisions.com.au/docs/default-source/school-resources/how-is-the-world-responding-to-climate-change.pdf?sforsn=32021b89_0 (Accessed on 08/09/2023)

⁸ Ibid

⁹ Ibid

¹⁰ United Nations Environment Programme., 'Responding to Climate Change.' Available at <https://www.unep.org/regions/europe/regional-initiatives/responding-climate-change#:~:text=The%20UN%20Environment%20Programme%20supports,new%20models%20for%20the%20green> (Accessed on 09/08/2023)

¹¹ Steckel. J. C., 'From Climate Finance toward Sustainable Development Finance.' *WIREs Climate Change*, 2017

2. Climate Finance: An Overview

Climate finance has been defined as local and global financing of public and private investment that seeks to support mitigation of and adaptation to climate change¹². It has also been described as finance for activities aimed at mitigating or adapting to the impacts of climate change¹³. The United Nations Framework Convention on Climate Change defines climate finance as local, national or transnational financing drawn from public, private and alternative sources of financing that seeks to support mitigation and adaptation actions that will address climate change¹⁴. From the foregoing definitions, climate finance represents the flow of funds to all activities, programmes or projects intended to help address climate change through both mitigation and adaptation across the world. The landscape of climate finance can be considered from several dimensions among them being the source of finance which could be public, private or hybrid; the type of finance or instrument used to provide it which could be development aid, equity or debt; where finance flows from and to such as domestic flows and international flows; the sector and purpose of the activity or asset that receives finance including whether actions are directly or indirectly related to mitigation, adaptation or compensation for damages and whether finance is incremental¹⁵.

Climate finance aims at reducing emissions and enhancing sinks of greenhouse gases, reducing vulnerability of, and maintaining and increasing the resilience of, human and ecological systems to negative climate change impacts¹⁶. It has been correctly observed that climate finance is needed for

¹² Hong, H., Karolyi, G. A., & Scheinkman, J.A., 'Climate Finance.' *Review of Financial Studies*, Volume 33, Issue 3 (2020)

¹³ The London School of Economics and Political Science., 'What is Climate Finance?' Available at <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-finance-and-where-will-it-come-from/> (Accessed on 09/08/2023)

¹⁴ United Nations Framework Convention on Climate Change., 'What is Climate Finance?' Available at <https://unfccc.int/topics/introduction-to-climate-finance> (Accessed on 09/08/2023)

¹⁵ The London School of Economics and Political Science., 'What is Climate Finance?' Op Cit

¹⁶ UNFCCC Standing Committee on Finance., '2014 Biennial Assessment and Overview of Climate Finance Flows Report.' Available at https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/2014_biennial_assessment_and_overview_of_climate_finance_flows_report_web.pdf (Accessed on 09/08/2023)

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mitigation, because large-scale investments are required to significantly reduce emissions¹⁷. Climate finance is equally important for adaptation, since significant financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate¹⁸. Climate finance is thus crucial in combating climate change since the adaptation and mitigation processes crucial in enhancing national, regional and global response to climate change require funding¹⁹.

Climate finance is very essential for developing countries. It has been asserted that efforts to address climate change can cost billions of dollars, often making them out of reach for developing countries, which have contributed far fewer greenhouse gas emissions than developed countries²⁰. Climate change has had uneven and unequal burdens across the globe with nations and communities that contribute the least to climate change suffering the most from its consequences²¹. However, many developing countries and small island nations lack the financial resources to prepare for and cope with the impacts of climate change including deeper droughts, more intense storms, greater heat extremes, bigger wildfires, and rising sea levels and to transition to clean energy²². Consequently, such countries have had to bear heavy burden due to the adverse effects of climate change as evidenced by cases of severe droughts, extreme floods resulting in deaths and damage of infrastructure, displacement of people among others²³. As a result, climate finance is seen as a vital tool in

¹⁷ United Nations Framework Convention on Climate Change., 'What is Climate Finance?' Op Cit

¹⁸ Ibid

¹⁹ Climate Finance., 'Climate Finance Essential for Mitigating and Adapting to Climate Change.' Available at <https://www.iberdrola.com/sustainability/what-is-climate-finance> (Accessed on 09/08/2023)

²⁰ Hill. A., & Babin. M 'Why Climate Finance is Critical for Accelerating Global Action.' Available at <https://www.cfr.org/in-brief/why-climate-finance-critical-accelerating-global-action> (Accessed on 09/08/2023)

²¹ Sultana. F., 'Critical Climate Justice' Available at <https://www.farhanasultana.com/wpcontent/uploads/Sultana-Critical-climate-justice.pdf> (Accessed on 10/08/2023)

²² Hill. A., & Babin. M 'Why Climate Finance is Critical for Accelerating Global Action.' Op Cit

²³ Muigua. K., 'Fostering Climate Justice for Sustainable Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/07/Fostering-Climate-Justice-for-Sustainable-Development.pdf> (Accessed on 09/08/2023)

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enhancing the capacity of developing countries to respond to climate change²⁴. It has been stated that huge financial resources are needed to support countries in promoting climate change mitigation and adaptation and financing has a critical role to play in this quest²⁵.

Climate finance is vital in fostering Climate Justice since it recognizes the inequalities between countries with developing countries being the most vulnerable to the effects of climate change and thus requiring financial resources to aid their mitigation and adaptation programmes²⁶. The concept of Climate Justice recognizes the inequalities brought about by climate change with developing nations in places such as Africa, Asia, the Caribbean Islands and the Pacific Islands which due to an unfortunate mixture of economic and geographic vulnerability, continue to shoulder the brunt of the burdens of climate change despite their relative innocence in causing it²⁷. Climate Justice focuses on how climate change impacts people differently, unevenly and disproportionately and seeks to address the resultant injustices in fair and equitable ways²⁸. Climate finance fosters Climate Justice by ensuring that vulnerable countries and communities have access to financial resources required to address the injustices brought by climate change and foster mitigation and adaptation measures²⁹.

The role of climate finance in climate change mitigation and adaptation is recognized in various legal instruments. The *United Nations Framework*

²⁴ Hill. A., & Babin. M 'Why Climate Finance is Critical for Accelerating Global Action.' Op Cit

²⁵ Climate Finance Leadership Initiative., 'Financing Sustainable Infrastructure in Emerging Markets.' Available at https://www.bloomberg.com/cfli/mobilizing-investment/?utm_medium=cpc_search&utm_campaign=NB_ENG_DSAXX_DSAXXXXXX XXXXX_EVG_XXXX_XXX_Y0469_EN_EN_X_BLOM_GO_SE_XXX_XXXXXXXXXX X&gclid=Cj0KCQjwz8emBhDrARIsANNJjS4wepzVumLzWNAJWjkAvoejDfVwY4SO1nlqXklkpscSno0stXd-4H8aAiAhEALw_wcB&gclid=aw.ds (Accessed on 09/08/2023)

²⁶ Colenbrander. S et al., 'Using Climate Finance to Advance Climate Justice: The Politics and Practice of Channeling Resources to the Local Level.' *Climate Policy*, 2017

²⁷ Giles. M., 'The Principles of Climate Justice at CoP27.' Available at <https://earth.org/principlesofclimatejustice/#:~:text=That%20response%20should%20be%20based,the%20consequences%20of%20climate%20change> (Accessed on 10/08/2023)

²⁸ Sultana. F., 'Critical Climate Justice' Op Cit

²⁹ Colenbrander. S et al., 'Using Climate Finance to Advance Climate Justice: The Politics and Practice of Channeling Resources to the Local Level.' Op Cit

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*Convention on Climate Change*³⁰ enshrines the role of financing in enhancing the global response to the threat of climate change. It requires developing countries take all practicable steps to promote, facilitate and *finance*, (emphasis added) as appropriate, the transfer of, or access to, environmentally sound technologies and knowhow to other parties, particularly developing country parties, to enable them to implement the provisions of the Convention³¹. Further, the *Paris Agreement*³² encourages developed countries to continue to take the lead in mobilizing *climate finance* from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country parties³³.

Further, the Agreement provides that such mobilization of climate finance should represent a progression beyond previous efforts³⁴. The Paris Agreement thus calls for capacity building to enhance the ability of developing countries including those vulnerable to the adverse effects of climate change, such as small island developing states to take effective climate change action through measures such as access to climate finance³⁵. These instruments thus acknowledge the fundamental role of climate finance in fostering climate change mitigation and adaptation especially in developing countries.

At the regional level, the *East African Community Climate Change Policy*³⁶ recognizes the importance of financial resources in implementing climate change mitigation and adaptation measures. It acknowledges challenges facing climate financing in East Africa and seeks to mobilize sustainable funding from development partners, including multilateral agencies, bilateral

³⁰ United Nations Framework Convention on Climate Change., Available at https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf (Accessed on 09/08/2023)

³¹ Ibid, Article 4 (5)

³² Paris Agreement., Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (Accessed on 09/08/2023)

³³ Ibid, Article 9 (3)

³⁴ Ibid

³⁵ Ibid, Article 11 (1)

³⁶ East African Community Climate Change Policy., Available at <https://www.eac.int/environment/climate-change/eac-climate-change-policy-framework> (Accessed on 10/08/2023)

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partners and intergovernmental agencies and the private sector in order to enhance climate change mitigation and adaptation in the region³⁷. It also stipulates the importance of capacity building in climate finance in order to enhance the climate resilience of the East African region³⁸.

In Kenya, the *Climate Change Act*³⁹ also envisages the role of climate finance in enhancing climate change resilience and low carbon development for the Sustainable Development of Kenya⁴⁰. The Act defines climate finance as monies available for or mobilized by government or non-government entities to finance climate change mitigation and adaptation actions and interventions⁴¹. It mandates the Climate Change Directorate to optimize the country's opportunities to mobilize *climate finance*⁴². The Act also establishes the Climate Change Fund whose purposes include to *finance* climate change actions and enhance achievement of low carbon climate resilient development⁴³. The Climate Change Act envisages use of the Climate Change Fund to *finance*, through grants and loans the implantation of climate change adaptation and mitigation actions⁴⁴. The idea of climate finance is thus well captured in Kenya.

From the foregoing, it is evident that climate finance is a pertinent idea in fostering global response to climate change through mitigation and adaptation actions. The concept of climate change faces several promises and pitfalls.

3. Unlocking Climate Finance: Promises and Pitfalls

The landscape of climate finance presents numerous opportunities. The United Nations Framework Convention on Climate Change (UNFCCC) has established the Green Climate Fund which is mandated to support countries particularly those that are vulnerable to the impacts of climate change, including least developed countries, small island developing states, and

³⁷ Ibid

³⁸ Ibid

³⁹ Climate Change Act, No. 11 of 2016, Laws of Kenya

⁴⁰ Ibid, S 3

⁴¹ Ibid, S 2

⁴² Ibid, S 9 (8) (d) (iii)

⁴³ Ibid, S 25 (5) (c)

⁴⁴ Ibid, S 25 (8) (c)

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African nations⁴⁵. The Green Climate Fund is the world's largest climate fund and plays a fundamental role in helping developing countries raise and realize their Nationally Determined Contributions (NDC) ambitions towards low-emissions and climate-resilient pathways as envisaged under the Paris Agreement⁴⁶. Since 2015, the Green Climate Fund has approved over \$12 billion for projects across more than 125 developing countries to accelerate clean energy transitions, build resilience in the most vulnerable countries, and catalyze private investment⁴⁷. These projects are expected to reduce 2.5 billion tons of emissions and increase the resilience of over 900 million people⁴⁸. The Green Climate Fund therefore plays a key role in unlocking climate finance. Furthermore, at the 2022 United Nations Climate Change Conference/Conference of the Parties of the UNFCCC (COP27), a breakthrough agreement was reached to provide loss and damage funding for vulnerable countries hit hard by floods, droughts and other climate disasters⁴⁹. This decision has been lauded as historic since it recognizes the need for finance to respond to loss and damage associated with the severe consequences of climate change⁵⁰. The decision recognizes the urgent and immediate need for new, additional, predictable and adequate financial resources to assist developing countries that are particularly vulnerable to the adverse effects of climate change in responding to economic and non-economic loss and damage associated with the adverse effects of climate change⁵¹. The decision supports

⁴⁵ United Nations Framework Convention on Climate Change., 'Report of the Conference of the Parties on its Sixteenth Session, held in Cancun from 29 November to 10 December 2010.' FCCC/CP/2010/7/Add.1

⁴⁶ Green Climate Fund., 'About GCF.' Available at <https://www.greenclimate.fund/about> (Accessed on 10/08/2023)

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ UNFCCC., 'Five Key Takeaways from COP27.' Available at https://unfccc.int/process-and-meetings/conferences/sharm-el-sheikh-climate-change-conference-november-2022/five-key-takeaways-from-cop27?gclid=EAIaIQobChMI-5_C16jRgAMVDzAGAB1IkW6NEAAYASAAEgL_QfD_BwE (Accessed on 10/08/2023)

⁵⁰ Ibid

⁵¹ UNFCCC., 'Decision -/CP.27 -/CMA.4: Funding Arrangements for Responding to Loss and Damage Associated with the Adverse Effects of Climate Change, Including a Focus on Addressing Loss and Damage.' Available at https://unfccc.int/sites/default/files/resource/cma4_auv_8f.pdf (Accessed on 10/08/2023)

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the UNFCCC commitment to jointly mobilise \$100 billion in climate finance per year to support developing countries⁵². Actualizing the decision of COP27 and meeting UNFCCC's commitment on climate funding is vital in unlocking climate finance for development.

In addition, developed countries have embraced climate finance by providing financial assistance to developing countries to support their climate change mitigation and adaptation activities as envisaged under the Paris Agreement⁵³. The United States of America (USA) has pledged to enhance climate support for developing countries to more than \$11 billion a year by 2024⁵⁴. In addition, the USA recently provided \$1 billion to the Green Climate Fund (GCF) to support climate change mitigation and adaptation measures in developing countries⁵⁵. Further, the United Kingdom has committed to spend £11.6 billion on International Climate Finance from financial years 2021/2022 to 2025/2026⁵⁶. The UK notes that this funding is crucial in climate action through investments in priority areas including clean energy, adaptation and resilience and sustainable cities, infrastructure and transport⁵⁷. Developing countries therefore play an important role in unlocking climate finance for development. International and regional financial institutions have also been key catalysts in unlocking climate finance. The World Bank acknowledges that financing transformative climate action is vital for development and to support the poorest people who are most affected by climate change⁵⁸. The World Bank

⁵² United Nations Framework Convention on Climate Change., 'Introduction to Climate Finance.' Available at https://unfccc.int/topics/introduction-to-climate-finance?gclid=EAIaIQobChMI18L91LDRgAMVAlpoCR2_kQzJEAAYAiAAEgI4cfD_BwE (Accessed on 10/08/2023)

⁵³ Paris Agreement, Article 9 (3)

⁵⁴ The White House., 'FACT SHEET: President Biden to Catalyze Global Climate action through the Major Economies Forum on Energy and Climate.' Available at <https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/20/fact-sheet-president-biden-to-catalyze-global-climate-action-through-the-major-economies-forum-on-energy-and-climate/> (Accessed on 10/08/2023)

⁵⁵ Ibid

⁵⁶ Government of the United Kingdom., 'UK International Climate Finance Strategy.' Available at <https://www.gov.uk/government/publications/uk-international-climate-finance-strategy> (Accessed on 10/08/2023)

⁵⁷ Ibid

⁵⁸ The World Bank., '10 Things You Should Know About the World Bank Group's Climate Finance.' Available at

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delivered a record \$ 31.7 Billion in fiscal year 2022 to help countries address climate change representing a 19% increase from the \$ 26.6 Billion reached in the fiscal year 2021⁵⁹. The World Bank continues to be the largest multilateral financier of climate action in developing countries⁶⁰. In Africa, the African Development Bank is committed to action on climate change and green growth, and to ensuring that development across the continent drives growth that is not only economically empowering but also decarbonized, climate-friendly, environmentally sustainable, and socially inclusive⁶¹. In its Climate Action Plan, the African Development Bank recognizes the importance of leveraging climate finance and mobilizing resources for climate action and green growth⁶². The Bank's climate finance investments increased from \$2.1 billion in 2020 to \$2.4 billion in 2021 and \$3.6 billion in 2022⁶³. International and regional financial institutions are therefore promoting access to climate finance.

Countries have also furthered their own efforts to unlock climate finance. The Government of Kenya estimates that \$ 62 Billion is required to implement the country's National Determined Contributions (NDCs) between 2020-2030⁶⁴. Kenya has made progress in realizing climate finance through public climate finance, bilateral and multilateral external funding and private climate finance

<https://www.worldbank.org/en/news/factsheet/2022/09/30/10-things-you-should-know-about-the-world-bank-group-s-climate-finance> (Accessed on 10/08/2023)

⁵⁹ Ibid

⁶⁰ Ibid

⁶¹ African Development Bank Group., 'Climate Change.' Available at <https://www.afdb.org/en/topics-and-sectors/sectors/climate-change> (Accessed on 10/08/2023)

⁶² African Development Bank., 'African Development Bank Climate Change and Green Growth Strategic Framework: Action Plan 2021-2025.' Available at <https://www.afdb.org/en/documents/climate-change-and-green-growth-strategic-framework-operationalising-africas-voice-action-plan-2021-2025> (Accessed on 10/08/2023)

⁶³ African Development Bank Group., 'Climate Change.' Op Cit

⁶⁴ Republic of Kenya., 'Kenya's Submission on the Objective of the New Collective Quantified Goal On Climate Finance with Respect Article two of the Paris Agreement.' Available at <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Aascds%3AUS%3Aa62d186-0d91-3d24-b799-eb0b32b939a> (Accessed on 10/08/2023)

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involving both foreign investors and Kenyan investors⁶⁵. The country has also established budget programmes for biodiversity protection as part of its mitigation and adaptation measures⁶⁶. Kenya has also adopted a green bond programme to promote financial sector innovation by developing a domestic green bond market⁶⁷. The programme is vital in enhancing the climate resilience of the country by fostering green investments⁶⁸. In addition, Kenya has pioneered climate finance for pastoralist and vulnerable communities to reduce their vulnerability to climate change⁶⁹. This has enabled pastoralist communities to build community resilience and carry out climate-resilient development in a manner that fosters participation and community inclusion⁷⁰. It has further been observed that county governments in the drylands of Kenya have established local-level climate adaptation funds with technical support from government and non-government organisations⁷¹. These funds are essential in supporting community-prioritised investments to build climate resilience⁷². The landscape of climate finance in Kenya looks promising due to the availability of public finance, private climate and nature finance and innovative options for climate and nature finance such as green bonds⁷³.

From the above discussion, it emerges that there are huge promises for climate finance at the global, regional and national levels. However, several problems

⁶⁵ Nicholson. K., 'Kenya Climate and Nature Financing Options Analysis Final Report.' Available at <https://acrobat.adobe.com/link/review?uri=urn%3Aaaid%3Aascds%3AUS%3A5f6c09bf-c917-3b18-9c63-4c2c03af8151> (Accessed on 10/08/2023)

⁶⁶ Ibid

⁶⁷ Green Finance Platform., 'The Kenya Green Bond Programme.' Available at <https://www.greenfinanceplatform.org/policies-and-regulations/kenya-green-bond-programme> (Accessed on 10/08/2023)

⁶⁸ Ibid

⁶⁹ Global Center on Adaptation., 'Kenya Pioneers Climate Finance for Pastoralist and Vulnerable Communities.' Available at <https://gca.org/kenya-pioneers-climate-finance-for-pastoralist-and-vulnerable-communities/> (Accessed on 10/08/2023)

⁷⁰ Ibid

⁷¹ International Institute for Environment and Development., 'Local Climate Finance Mechanism Helping to Fund Community-Prioritised Adaptation.' Available at <https://www.iied.org/local-climate-finance-mechanism-helping-fund-community-prioritised-adaptation> (Accessed on 10/08/2023)

⁷² Ibid

⁷³ Nicholson. K., 'Kenya Climate and Nature Financing Options Analysis Final Report.' Op Cit

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hinder effective realization of the ideal of climate finance for development. It has been observed that despite developed economies committing to provide climate financing to developing countries, some of them have not followed through on their commitments⁷⁴. Developed countries have failed to deliver on an agreed climate finance target of \$100 billion annually by 2020⁷⁵. This results in adequacy, imbalance and unpredictability of climate finance flows to developing countries⁷⁶. This has affected implementation of mitigation and adaptation measures in developing countries⁷⁷.

Africa also faces several problems in unlocking climate finance. African governments pledged \$ 264 Billion in domestic public resources to combat climate change a figure that falls short of the estimated \$ 2.8 trillion required to implement Africa's Nationally Determined Contributions (NDCs) between 2020 and 2030⁷⁸. It has also been observed that the debt crisis in Africa hinders the Continent's ability to unlock climate finance⁷⁹. This has affected investor confidence and the ability of African countries to access international markets⁸⁰. Further, it is argued that governance problems limit the potential of Africa to unlock climate concerns due to concerns about transparency, accountability, and efficient allocation of funds aimed towards climate

⁷⁴ Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Available at <https://www.acepis.org/a-huge-financing-gap-for-climate-action-with-public-debt-sustainability-risks-looms-in-east-africa-beyond-cop27/> (Accessed on 10/08/2023)

⁷⁵ Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Available at <https://climatepromise.undp.org/news-and-stories/africa-meet-its-climate-goals-finance-essential> (Accessed on 10/08/2023)

⁷⁶ United Nations., 'Accessing Climate Finance: Challenges and opportunities for Small Island Developing States.' Available at https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/accessing_climate_finance_challenges_sids_report.pdf (Accessed on 10/08/2023)

⁷⁷ Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Op Cit

⁷⁸ Ibid

⁷⁹ Agyir. K., 'African Countries Must Act Strategically to Unlock Climate Finance in the Face of a Debt Crisis.' Available at <https://blogs.lse.ac.uk/africaatlse/2023/06/15/african-countries-must-act-strategically-to-unlock-climate-finance-in-the-face-of-a-debt-crisis/> (Accessed on 10/08/2023)

⁸⁰ Ibid

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action⁸¹. It has also been asserted that limited capacity, expertise and human resources can hinder the potential of developing countries to unlock climate finance due to concerns over ability to implement projects aimed at climate change mitigation and adaptation⁸². It is imperative to address these concerns in order to unlock climate finance in Africa and other developing countries. Further, whereas the decision of COP 27 to establish and operationalize a [loss and damage](#) fund, particularly for nations most vulnerable to the climate crisis is commendable, there are still concerns about who should pay into the fund, where this money will come from and which countries will benefit⁸³. There is need to address these concerns in order to unlock climate finance.

4. Way Forward

In order to unlock climate finance, it is imperative for countries to identify and mobilize effective and appropriate financing for climate action⁸⁴. This can be achieved by finding ways to build public-private partnerships to attract financing for climate change, addressing the need for better access and mobilization of climate finance, promoting more simplified procedures, including direct access to international climate finance, and address challenges in accessing funds⁸⁵. Such measures are vital in unlocking climate finance. Financial institutions can also foster climate finance by investing in green products including green bonds and green infrastructure⁸⁶. It has been argued that the Environmental, Social, and Governance (ESG) revolution has created

⁸¹ Ibid

⁸² United Nations., 'Accessing Climate Finance: Challenges and opportunities for Small Island Developing States.' Op Cit

⁸³ United Nations Environment Programme., 'COP27 Ends with Announcement of Historic Loss and Damage Fund.' Available at <https://www.unep.org/news-and-stories/story/cop27-ends-announcement-historic-loss-and-damage-fund> (Accessed on 10/08/2023)

⁸⁴ United Nations Framework Convention on Climate Change., 'Climate Finance Access and Mobilization Strategy for The Least Developed Countries in Asia: 2022-2030.' Available at https://unfccc.int/sites/default/files/resource/UNFCCC_NBF_SD_AsianLDCA_final.pdf (Accessed on 10/08/2023)

⁸⁵ Ibid

⁸⁶ Asian Development Bank., 'Unlocking Islamic Climate Finance.' Available at <https://www.adb.org/sites/default/files/publication/838201/unlocking-islamic-climate-finance.pdf> (Accessed on 10/08/2023)

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the need for an ethical and responsible finance industry⁸⁷. Complying with ESG tenets requires financial institutions such as banks to embrace a sustainable, responsible and ethical investment environment including supporting investments geared towards climate change mitigation and adaptation⁸⁸. Global and regional financial institutions such as the World Bank and the African Development Bank have been at the forefront in fostering climate finance through financial support and investments in developing countries⁸⁹. However, it has been observed that while financial institutions have responded proactively to the challenge imposed by climate change and that there is a tendency in the banking sector to develop green products aimed at achieving sustainability results, it is considered that they are still isolated initiatives, not systemic or integrated ones, that fail to trigger significant climate outcomes at national or regional levels⁹⁰. These processes undertaken individually by banking or financial entities could be strengthened through a national and regional approach that identifies barriers and opportunities for the climate financial business, while generating exchange of successful experiences, as well as mechanisms for monitoring and following up impacts⁹¹. Financial institutions thus have a vital role in unlocking climate finance.

Developed countries should also enhance financial support for developing countries especially those that are most vulnerable to the effects of climate change⁹². Despite efforts by some developed countries such as the USA and UK to provide funds to developing countries in form of climate finance, it has been observed that developed countries have failed to deliver on an agreed

⁸⁷ Stuart. L.G et al., 'Firms and social responsibility: A review of ESG and CSR Research in Corporate Finance.' *Journal of Corporate Finance* 66 (2021): 101889

⁸⁸ Ibid

⁸⁹ See for example, the World Bank., '10 Things You Should Know About the World Bank Group's Climate Finance.' Op Cit and African Development Bank Group., 'Climate Change.' Op Cit

⁹⁰ Green Climate Fund., 'Enhancing Climate Finance and Investment in LAC Banking Sector.' Available at <https://www.greenclimate.fund/document/enhancing-climate-finance-and-investment-lac-banking-sector#:~:text=These%20processes%20undertaken%20individually%20by,monitoring%20and%20following%20up%20impacts%20> (Accessed on 10/08/2023)

⁹¹ Ibid

⁹² Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Op Cit

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climate finance target of \$100 billion annually by 2020⁹³. It is therefore important for developed countries to increase climate funding to developing countries which face the greatest risks from climate change and require adequate funding to finance adaptation and mitigation measures⁹⁴.

The United Nations Framework Convention on Climate Change (UNFCCC) also has an important role to play in unlocking climate finance through its entities and programmes such as the Conference of the Parties (COP) and the Green Climate Fund⁹⁵. The UNFCCC should thus spearhead its role in unlocking climate finance through increased financial support and investments to developing countries via the Green Climate Fund⁹⁶. It is also imperative to implement the decision of COP 27 and operationalize the loss and damage climate fund in order to unlock climate finance in vulnerable countries hit hard by floods, droughts and other climate disasters⁹⁷.

Finally, in order to enhance climate finance in Africa, there is need for the Continent to rise above its governance and debt challenges and reposition itself to unlock the needed financing to boost climate resilience and inclusive socio-economic development⁹⁸. It has been argued that there is need for African countries to establish robust governance structures including creating or enhancing the capacity of existing national bodies aimed at coordinating

⁹³ Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Available at <https://climatepromise.undp.org/news-and-stories/africa-meet-its-climate-goals-finance-essential> (Accessed on 10/08/2023)

⁹⁴ Georgieva. K et al., 'Poor and Vulnerable Countries Need Support to Adapt to Climate Change.' Available at <https://www.imf.org/en/Blogs/Articles/2022/03/23/blog032322-poor-and-vulnerable-countris-need-support-to-adapt-to-climate-change> (Accessed on 10/08/2023)

⁹⁵ United Nations Framework Convention on Climate Change., 'Climate Change.' Available at <https://unfccc.int/topics/climate-finance/the-big-picture/climate-finance-in-the-negotiations/climate-finance> (Accessed on 10/08/2023)

⁹⁶ Roberts. J et al., 'Rebooting a Failed Promise of Climate Finance.' Available at https://www.researchgate.net/profile/Romain-Weikmans/publication/349426191_Rebooting_a_failed_promise_of_climate_finance/links/60924fba6fdccaebd093ff2/Rebooting-a-failed-promise-of-climate-finance.pdf (Accessed on 10/08/2023)

⁹⁷ United Nations Environment Programme., 'COP27 Ends with Announcement of Historic Loss and Damage Fund.' Op Cit

⁹⁸ Agyir. K., 'African Countries Must Act Strategically to Unlock Climate Finance in the Face of a Debt Crisis.' Op Cit

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climate finance efforts in a manner that enhances transparency, accountability, and efficient allocation of funds⁹⁹. In addition, there is need for African countries to remain vigilant and actively engage in global discussions on climate finance including COP meetings and other international conferences in order to safeguard their interests, secure necessary financial, technological, and capacity building resources, and contribute to shaping a more inclusive and equitable global financial landscape that puts the needs of the most vulnerable front and foremost¹⁰⁰. Further, it has been observed that aligning climate action with national development priorities is crucial for accessing climate finance¹⁰¹. African countries need to integrate climate change considerations into their national development plans thereby demonstrating their commitment to addressing climate risks while pursuing sustainable economic growth¹⁰². By incorporating climate targets, strategies, and indicators into their development frameworks, African countries can showcase the coherence of their climate and development agendas, thereby increasing their attractiveness to climate financiers and thus unlocking climate finance for development¹⁰³.

Adopting the above suggestions is vital in unlocking climate finance especially in developing countries which are most vulnerable to the effects of climate change.

5. Conclusion

Climate finance plays a vital role in the climate agenda by enhancing the mitigation and adaptation capabilities of countries especially in the developing world¹⁰⁴. Climate finance is also vital in fostering Climate Justice since it recognizes the inequalities between countries with developing countries which are most vulnerable to the effects of climate change requiring

⁹⁹ Ibid

¹⁰⁰ Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Op Cit

¹⁰¹ Samuwai. J., & Hills. J., 'Assessing Climate Finance Readiness in the Asia-Pacific Region.' *Sustainability*, Volume 10, No. 4 (2018)

¹⁰² Agyir. K., 'African Countries Must Act Strategically to Unlock Climate Finance in the Face of a Debt Crisis.' Op Cit

¹⁰³ Ibid

¹⁰⁴ Steckel. J. C., 'From Climate Finance toward Sustainable Development Finance.' Op Cit

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financial resources to aid their mitigation and adaptation programmes¹⁰⁵. There have been efforts towards unlocking climate finance at the global, regional and national levels through initiatives by the United Nations Framework Convention for Climate Change, funding from developed countries and international financial institutions such as the World Bank and the African Development Bank and national initiatives including public and private funding¹⁰⁶. However, despite these efforts, several problems affect effect access to climate finance. These include failure by developed countries to deliver their promise on climate funding and problems in developing countries including debt crises and unfavourable investment environment¹⁰⁷. The landscape of climate finance can be enhanced through several measures including countries identifying and mobilizing effective and appropriate financing for climate action; financial institutions enhancing climate finance by investing in green products including green bonds; developed countries increasing financial support for developing countries especially those that are most vulnerable to the effects of climate change; the UNFCCC upscaling its mandate in climate finance through the Green Climate Fund and actualizing the loss and damage climate fund; and African countries creating a viable environment for climate finance¹⁰⁸. Unlocking climate finance for development can thus be realized.

¹⁰⁵ Colenbrander. S et al., 'Using Climate Finance to Advance Climate Justice: The Politics and Practice of Channeling Resources to the Local Level.' Op Cit

¹⁰⁶ See for example UNFCCC., 'Decision -/CP.27 -/CMA.4: Funding Arrangements for Responding to Loss and Damage Associated with the Adverse Effects of Climate Change, Including a Focus on Addressing Loss and Damage.' Op Cit; The White House., 'FACT SHEET: President Biden to Catalyze Global Climate action through the Major Economies Forum on Energy and Climate.' Op Cit; and African Development Bank., 'African Development Bank Climate Change and Green Growth Strategic Framework: Action Plan 2021-2025.' Op Cit

¹⁰⁷ Aguir. K., 'African Countries Must Act Strategically to Unlock Climate Finance in the Face of a Debt Crisis.'

¹⁰⁸ Roberts. J et al., 'Rebooting a Failed Promise of Climate Finance.' Op Cit

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Abstract

This paper explores the concept of benefit sharing in natural resources exploitation in Kenya. The author argues that benefit sharing should be interpreted in its various forms, namely monetary and non-monetary since a narrower conception is likely to create confusion, potential conflict between investors and local communities as well as diminished hopes of improving the livelihoods of communities. The paper highlights the international best practices in the area of benefits sharing in natural resources exploitation and briefly looks at Nigeria and Ghana to draw lessons on the likely effects of mismanagement of natural resources. The author gives viable suggestions on some of the ways that Kenya can ensure that communities reap maximum benefits from exploitation of natural resources, including the recently discovered oil in the Northern part of the country.

1. Introduction

The role of government in establishing a framework to manage and invest revenues derived from oil, gas, and mining projects is crucial to ensure that the sector contributes positively to sustainable development.¹ It has also been observed that most private-sector investors realize that projects that are good for the host country and communities, and whose benefits are perceived to be shared reasonably, are less likely to face disruption, renegotiation, or even expropriation.²

Effective Natural Resources Management (NRM) contemplates the use, access of resources to preserve and conserve for the good of all generations.³ The NRM role is bestowed upon the state but with duty on cooperation from

¹ Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), p. 11. Available at http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC_Art+and+Science+of+Benefits+Sharing_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b [Accessed on 26/04/2016].

² Ibid.

³ Child, B., et al, *Zimbabwe's CAMPFIRE Programme: Natural Resource Management by the People*. (1997) IUCN-ROSA Environmental Issues Series No. 2

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everyone to ensure that there is sound use of the natural resource.⁴ It is also noteworthy that whereas some natural resources are renewable, others are not. Thus, it is necessary to take care of natural resources to ensure that the benefits that accrue undoubtedly serve the present and the generations to come.⁵ The issue of benefit sharing has been a great challenge as far as natural resource exploitation is concerned as many factors hinder communities from achieving an equitable share of the benefits that accrue from natural resource exploitation. This has largely been attributed to lack of proper and ineffective management.⁶

This paper reflects on equitable benefit sharing in the context of the emerging extractive industry in Kenya. The author briefly discusses ways in which communities can benefit while drawing lessons from other countries on how best to avoid the 'resource curse' phenomenon. The discourse thus goes beyond reliance on extractive industries to encourage communities on how best they can overcome the perennial problems of economic underdevelopment and consequently, poverty.

2. Extractive Industries Resources: The New Canaan for Kenya?

In the year 2012, the then president Hon. Mwai Kibaki announced the discovery of oil in Turkana County. Tullow Oil (London) and African Oil (Vancouver) evidenced the presence of enough crude oil viable. The three wells discovered were estimated to hold at least 250 million barrels.⁷ This

⁴ See Article 69, Constitution of Kenya 2010.

⁵ See United Nations, *World Economic and Social Survey 2013: Sustainable Development Challenges*, E/2013/50/Rev. 1, ST/ESA/344. Available at <https://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf> [Accessed on 22/05/2016]; See also Kibert, C.J., 'The Ethics of Sustainability,' available at <http://rio20.net/wp-content/uploads/2012/01/Ethics-of-Sustainability-Textbook.pdf> [Accessed on 22/05/2016].

⁶ Ochola, O.W., et al (eds), *Managing Natural Resources for Development in Africa: A resource Book*. IDRC, 2010. Available at <http://www.gbv.de/dms/zbw/646005146.pdf> [Accessed on 30/2016].

⁷ Kagwe, W., 'Kenya strikes new oil well, doubles estimates,' *The Star*, 4 July 2013. Available at <http://allafrica.com/stories/201307040991.html> [Accessed on 22/05/2016]; Liloba, H., 'Kenya: Tullow Hits another Oil Field,' *East African Business Week* (Kampala), 9 July, 2013.

Available at <http://allafrica.com/stories/201307100096.html>

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announcement has led to a change in perception of the County. The North Western Kenya is predominantly pastoralist populated area. Turkana County borders West Pokot County, Marsabit County, Baringo County in the South, South East and East respectively. The county also borders South Sudan and Uganda.

Expanding extractive industries, particularly in sub-Saharan Africa, is characterized by increasing levels of political, social, technical and environmental risk.⁸ Changes brought about by extractive investment can have negative social impacts, such as rapid urban growth, physical and economic displacement of communities, weakening of traditional social structures, new conflicts, and even impoverishment.⁹ Sudan, DRC and Nigeria are just but few examples of African states that have gone on internal armed conflict because of their rich natural resources. There are natural resources in Democratic Republic of Congo in the tropical rain forest which covers more than 100 Million hectares. However, there has been recorded cases of terrible violence and immense human suffering.¹⁰ The war has largely impacted on the environment and native wildlife. Parties to armed conflicts have resorted to occupying natural habitats thereby scaring animals away. Further, the illegal trade of minerals bars communities from benefiting from its resources.¹¹

⁸ Alstine, J.V., et al, Resource Governance Dynamics: The Challenge Of 'New Oil' In Uganda, *Resources Policy*, Vol. 40, 2014, pp.48–58, p. 48.

⁹ Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), op cit. p. 55.

¹⁰ Samndong, R.A. & Nhantumbo, I., *Natural resources governance in the Democratic Republic of Congo:*

Breaking sector walls for sustainable land use investments, (International Institute for Environment and Development Country Report, February 2015), p. 11. Available at <http://pubs.iied.org/pdfs/13578IIED.pdf> [Accessed on 19/05/2016].

¹¹ See 'Diamonds in Sierra Leone, A Resource Curse?' available at <http://erd.eui.eu/media/wilson.pdf> [Accessed on 22/05/2016]; Kinniburgh, C., 'Beyond "Conflict Minerals": The Congo's Resource Curse Lives On,' *Dissent Magazine*, Spring 2014, available at <https://www.dissentmagazine.org/article/beyond-conflict-minerals-the-congos-resource-curse-lives-on> [Accessed on 22/05/2016]; Free the Slaves, 'Congo's Mining Slaves: Enslavement at South Kivu Mining Sites,' *Investigative Field Report*, June 2013. Available at <https://www.freetheslaves.net/wp-content/uploads/2015/03/Congos-Mining-Slaves-web-130622.pdf> [Accessed on 22/06/2016].

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There is conflicting literature on the potential of extractive industries capacity to promote national development. It has been observed that proponents of resource-led development, (i.e. how the extractive industries can contribute to poverty alleviation and sustainable development in the developing world) argue that the inflow of foreign direct investment (FDI) into the country and a model of export based growth will provide jobs, economic growth and ultimately, poverty reduction.¹² However, for many resource rich developing countries pursuing this model, the reality has been low economic growth, environmental degradation, deepening poverty and, in some cases, violent conflict.¹³ Kenya is no different as far as expectations are concerned. There has been renewed hopes of 'spurred economic growth and development' in the country as a result of the recently discovered oil resources in the country.¹⁴ The Northwestern region of the country, where the deposits were first discovered, has been seen as the new frontier in driving Kenya's economy. Turkana County has been documented as one of the Counties with the highest level of poverty in Kenya.¹⁵ The distrust between local communities around the region against each other¹⁶ has led to constant conflicts as well as cross border conflicts.¹⁷ The conflict is largely sparked by livestock rustling, harsh climate

¹² Alstine, J.V., et al, Resource Governance Dynamics: The Challenge of 'New Oil' In Uganda, op cit, p. 48.

¹³ Ibid, p. 48.

¹⁴ See Institute for Human Rights and Business, 'Human Rights Risks and Responsibilities: Oil and Gas Exploration Companies in Kenya,' *Background Paper*, 2013. Available at

http://www.americanbar.org/content/dam/aba/events/international_law/2015/06/Africa%20Forum/Security1.authcheckdam.pdf [Accessed on 18/05/2016].

¹⁵ *Turkana County -United Nations Joint Programme 2015-2018*, (Executive Office, Turkana County Government, Lodwar, Turkana UN Resident Coordinator Office, Nairobi, Kenya), p. 4.

Available at <https://info.undp.org/docs/pdc/Documents/KEN/ProDoc%20Turkana-UN%20Joint%20Programme%20final%205th%20%20March%202015-binder%20%282%29.pdf> [Accessed on 26/05/2016].

¹⁶ Bollig, M., "Ethnic Conflicts in North-West Kenya: Pokot-Turkana Raiding 1969–1984." *Zeitschrift Für Ethnologie* 115 (1990), pp. 73-90. <http://www.jstor.org/stable/25842144>. [Accessed on 19/05/2016].

¹⁷ Johannes, E.M., et al, 'Oil discovery in Turkana County, Kenya: a source of conflict or development?' *African Geographical Review*, Vol. 34, No.2, 2015, pp.142-164, p. 142.

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and boundary dispute. Due to low literacy levels,¹⁸ other communities have subsequently been employed as locals had no skills for drilling and seismic work.¹⁹

The local communities have viewed the oil discovery as 'heaven sent' in that it will help 'open' the region to development by the national government. While there are prospects of 'real' development in the region, the foregoing averments in the international arena affirms that the expected development may not be realized or may not achieve the desired outcome for the country and specifically the locals.²⁰ Pegging hopes of development on the extractive resources only may mean that the region remains under-developed or undeveloped for longer as the oil may not turn out as expected. If anything, it may add to the above mentioned problems that characterise the region in question. The fear of poor and low economic development despite the

¹⁸ Chikwanha, A.B., 'The Anatomy of Conflicts in the East African Community (EAC): Linking Security With Development,' *Keynote speech to Development Policy Review Network-African Studies Institute, Leiden University, the Netherlands, 2007*. Available at <https://www.issafrika.org/uploads/EACANNIE.PDF> [Accessed on 21/05/2016]. See also <http://opendata.go.ke/Education/Percentage-disribution-of-population-15years-by-/jbxify92>

¹⁹ See Cordaid, 'Oil Exploration in Kenya: Success Requires Consultation,' *Assessment of Community Perceptions of Oil Exploration in Turkana County, Kenya, August 2015*, p. 36. Available at https://www.cordaid.org/media/publications/Turkana_Baseline_Report_DEF-LR_Cordaid.pdf [Accessed on 20/05/2016]. See also *Turkana is the least educated, says report*, Daily Nation November 25, 2013. Available at <http://www.nation.co.ke/news/Turkana-is-the-least-educated-says-report-/1056/2087018/-/vopnq1z/-/index.html>; Kenya National Bureau of Statistics, *Exploring Kenya's Inequality: Pulling Apart or Pooling Together?*

²⁰ Sigam, C. & Garcia, L., *Extractive Industries: Optimizing Value Retention in Host Countries*, (UNCTAD, 2012). Available at http://unctadxiii.org/en/SessionDocument/suc2012d1_en.pdf [Accessed on 22/05/2016]

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discovery of oil looms.²¹ Failed economies result in conflicts,²² as a result of natural resources bad governance or mismanagement.²³

It is expected that the economic gains that are likely to accrue from this venture will come with both rights and responsibilities for the concerned communities. However, also true is the fact that skewed distributions of benefits from natural resources can fuel social exclusion and conflict, threatening sustainability.²⁴ This is especially true for Kenya because, unlike the common perception that extractive industries come with a lot of wealth, this sector also requires much capital to venture and this may eat into the cumulative wealth accruing to the country of origin. For instance, in the case of Kenya, there has been reports that the Irish oil Firm Tullow, which was allocated the Lokichar Basin oil reserves, has so far incurred \$ 1.5 billion (Kenya Shillings 150 billion) in exploration costs and this amount is to be recovered once production begins.²⁵ This has led to the fears that in the absence of proper audits by Kenya, explorers such as Tullow Oil may inflate recoverable costs ultimately denying Kenyans the full benefits of their national resource.²⁶ The recovery of the full costs over production cycle is one of the contractual terms in the production sharing contracts signed between Kenya and oil explorers. Indeed, Kenya has in the past been advised that since it has a very short period within which it

²¹ See Billion, P., *Wars of Plunder: Conflicts, Profits and Politics*, (New York: Columbia University Press, 2012.)

²² Maphosa, S.B., *Natural Resources and Conflict: Unlocking the Economic dimension of peace-building in Africa*. ASIA Policy brief Number 74, 2012.

²³ Billion, P., *Wars of Plunder: Conflicts, Profits and Politics*. (New York: Columbia University Press, 2012.); See also Wiebelt, M., et al, 'Managing Future Oil Revenues in Uganda for Agricultural Development and Poverty Reduction: A CGE Analysis of Challenges and Options,' (Kiel Working Paper No. 1696, May 2011). Available at <https://www.ifw-members.ifw-kiel.de/publications/managing-future-oil-revenues-in-uganda-for-agricultural-development-and-poverty-reduction-a-cge-analysis-of-challenges-and-options/kap-1696.pdf>

²⁴ Saboe, N.T., 'Benefit Sharing Among Local Resource Users: The Role of Property Rights,' *World Development*, Vol. 72, pp. 408–418, 2015, p. 408.

²⁵ Herbling, D., 'Tullow's Sh 150bn Exploration bill Raises Queries on Costing methods,' *Business Daily*, Monday, April 18, 2016 (Nation Media Group Publication No. 2331), pp. 1 & 4.

²⁶ *Ibid*, p. 1.

can maximize benefits from the oil sector before their depletion, it should continue to focus on key sectors such as agribusiness and service sectors.²⁷

Resource governance has been defined as the hard and soft rules which shape and constrain the way hydrocarbons contribute to sustainable development and poverty alleviation within host countries.²⁸ It is for this reason that this discourse explores evidence from other jurisdictions with a view to identifying ways in which the country can ensure that maximum benefits accrue to the locals from extractive industries though not necessarily directly and without relying on what may be referred to as hand-outs from the government of the day. It seeks to suggest ways in which the country can achieve effective resource governance in the said sector and other natural resource-reliant sectors.

3. Benefit Sharing: Community Rights and Responsibilities

Equitable benefit sharing can be defined as the access to benefits that accrue from natural resources by stakeholders including indigenous communities.²⁹ It has been noted that the notion of benefit sharing in natural resources was first formalised in international law in 1992 through the Convention on Biological Diversity (CBD), a move that was expected at the time to address problems with the governance of socio-ecological systems in developing countries.³⁰ The international recognition of the right to benefit from natural resources wealth may be predicated upon such recognised rights of communities as the right to self-determination, right to development and the right of peoples to freely dispose of their wealth and natural resources.³¹

²⁷ Ibid, p. 4.

²⁸ Alstine, J.V., et al, *Resource Governance Dynamics: The Challenge of 'New Oil' In Uganda*, op cit., p. 49.

²⁹ Jonge, B., *What is Fair and Equitable Benefit Sharing? Journal on agricultural and environmental ethics*, vol. 24, issue 2, 2011.

³⁰ Pham, T.T., et al, 'Approaches to benefit sharing: A preliminary comparative analysis of 13 REDD+ countries,' Working Paper 108, 2013, CIFOR, Bogor, Indonesia, p. 1. Available at http://www.cifor.org/publications/pdf_files/WPapers/WP108Pham.pdf [Accessed on 28/05/2016].

³¹ UN General Assembly, *International Covenant on Civil and Political Rights*, 16 December 1966, United Nations, Treaty Series, vol. 999, p. 171, Article 1.

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Article 21(1) of the *African Charter on Human and Peoples' Rights*³² provides that all peoples shall freely dispose of their wealth and natural resources. This right is to be exercised in the exclusive interest of the people and in no case should people be deprived of it. The free disposal of wealth and natural resources must however be exercised without prejudice to the obligation of promoting international economic cooperation based on mutual respect, equitable exchange and the principles of international law.³³ The Charter also obligates States parties to the Charter to undertake to eliminate all forms of foreign economic exploitation particularly that practiced by international monopolies so as to enable their peoples to fully benefit from the advantages derived from their national resources.³⁴ Further, Article 22(1) provides that all peoples have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind. States also have the duty, individually or collectively, to ensure the exercise of the right to development.³⁵

The international framework on natural resources and the environment envisages a scenario where the benefits accruing from the exploitation of resources in a country or region will in turn benefit the lives of the concerned people through improved livelihoods and an improved national economy for overall development of the country. Indeed, one of the international principles of sustainable development is that states are under a duty to manage natural resources, including natural resources solely within their own territory or jurisdiction, in a rational, sustainable and safe way so as to contribute to the development of their peoples, with particular regard for the rights of indigenous peoples, and to the conservation and sustainable use of natural resources and the protection of the environment, including ecosystems.³⁶

³² Organization of African Unity (OAU), *African Charter on Human and Peoples' Rights* ("Banjul Charter"), 27 June 1981, CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982).

³³ Art. 21(3).

³⁴ Art. 21(5).

³⁵ Art. 22(2).

³⁶ CISDL, 'The Principles of International Law Related to Sustainable Development,' available at <http://cisdl.org/tribunals/overview/principles/1.html> [Accessed on 28/05/2016].

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The principle of equitable benefit sharing is acknowledged in several international environmental and natural resources law instruments some of which are highlighted in this section.

Convention on Biological Diversity³⁷ which governs the activities of countries in biodiversity protection in its third objective emphasizes the essential need to fairly and equitably share benefits from resources³⁸ taking into account rights over those resources.³⁹ The aim of natural resource management is to ensure the sound use of the environment for the food of the present and future generations. Working towards ensuring equitable benefit sharing may guarantee conservation and protection of natural resources, coexistence among communities, promote human rights and sustainable and economic development.⁴⁰ Article 19 of the OECD Energy Charter Treaty 1994⁴¹ obligates contracting states to strive to minimize in an economically efficient manner harmful environmental impacts by acting in cost effective manners.

Implementation of equal benefit sharing in natural resources requires balancing with the need to achieve sustainable development. Article 162 of the Constitution of Kenya⁴² establishes an environmental court to deal with environmental matters. Through their decisions, the court has attempted to promote the right of communities to benefit from natural resources while at the same time safeguarding the need for the country to achieve sustainable development. In the case of *R v Kenya Forest Services ex parte the National Alliance of Community Forest Association*, the appellant sought orders to quash

³⁷ It was adopted in 1992 at the Earth Summit, Rio de Janeiro, Brazil; UNGA.

³⁸ The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable and the Fair and Equitable Sharing of Benefits Arising from their utilization to the Convention of the Biological Diversity was adopted in 2010 at the 10th Conference of Parties.

³⁹ An Ad-Hoc Open-ended Working Group was established between 2000 and 2007 to implement this objective and was mandated to come up with Bonn Guidelines to assist parties with the implementation of the benefit sharing.

⁴⁰ See Huggins, C., et al., 'Chapter 12: Environment for Peace and Regional Cooperation,' *Africa Environment Outlook 2: Our Environment, Our Wealth*. Available at http://www.unep.org/DEWA/Africa/docs/en/aeo-2/chapters/aeo-2_ch12_ENVIRONMENT_FOR_%20PEACE_AND.pdf [Accessed on 28/05/2016].

⁴¹ 1994, OECD

⁴² Government printer, Nairobi, 2010.

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the respondent's decision⁴³ calling on individuals and interested institutions to apply for concessions in state forest plantations for parcels of between 1000 and 12000 hectares each. The court granted their prayer to prohibit any processing of any bids that may be received by the officials, agents, servants or officers and compelled the respondent to comply with the constitutional requirement that requires forests and catchment areas in Kenya are protected and that a tree cover of at least 10% is maintained in Kenya.

As a potentially major importer of oil in future,⁴⁴ the discovery of oil is deemed as a major boost to the Kenyan economy.⁴⁵ The economic value of oil is expected to be high and central to the development of the local community, though it has its benefits and challenges in equal measure.⁴⁶ Indeed, it has been reported that the discovery of oil has facilitated infrastructural developments such as schools, health amenities and making the area easily accessible. Within two years of discovery, buildings were erected, human population was recorded at 500% growth in several towns within Turkana County.⁴⁷ This is an indication of the high hopes that have been pegged on the potential benefits that may accrue from this venture.

The *Nagoya Protocol* is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.⁴⁸ One of the key factors informing the drafting of this protocol was the

⁴³ *R v Kenya Forest Service Ex parte and Clement Kariuki & 2 others suing as the Chairman, Secretary and Treasurer of the National Alliance of Community Forest Association*, Judicial Review Case No 285 of 2012.

⁴⁴ The 2015 Economic Survey Report by Kenya National Bureau of Statistics.

⁴⁵ <http://www.tradingeconomic.com/kenya/imports>

⁴⁶ BBC (2012, March 26) Kenya oil discovery after Tullow Oil Drilling; The *paradox of plenty* is a fear that may hit the county In comparison to countries in Africa, those which are rich in minerals are the lowest in terms of development.

⁴⁷ Kenya County Fact Sheet, 2014; Kornet, J., 'Oil in the cradle of mankind - A glimpse of Africa's future,' available at <http://www.frontiermarketscompendium.com/index.php/news-commentary/entry/oil-in-the-cradle-of-mankind-a-glimpse-of-africa-s-future> [Accessed on 20/05/2016].

⁴⁸ Convention on Biological Diversity, 'The Nagoya Protocol on Access and Benefit-sharing,' available at <https://www.cbd.int/abs/>. Art. 1 thereof is to the effect that 'the objective of this Protocol is the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic

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recognition that that public awareness of the economic value of ecosystems and biodiversity and the fair and equitable sharing of this economic value with the custodians of biodiversity are key incentives for the conservation of biological diversity and the sustainable use of its components.⁴⁹ It was also an acknowledgement of the potential role of access and benefit-sharing to contribute to the conservation and sustainable use of biological diversity, poverty eradication and environmental sustainability and thereby contributing to achieving the Millennium Development Goals.⁵⁰ Although the scope of application of this Protocol is limited to genetic resources within the scope of Article 15 of the Convention and to the benefits arising from the utilization of such resources, as well as to traditional knowledge associated with genetic resources within the scope of the Convention and to the benefits arising from the utilization of such knowledge,⁵¹ it nevertheless offers important guidelines on benefit sharing.

Of particular relevance is the Annex to the *Nagoya Protocol* which provides for both monetary and non-monetary forms of benefits. It envisages monetary benefits which may include, but not be limited to: access fees/fee per sample collected or otherwise acquired; up-front payments; milestone payments; payment of royalties; licence fees in case of commercialization; special fees to be paid to trust funds supporting conservation and sustainable use of biodiversity; salaries and preferential terms where mutually agreed; research funding; joint ventures; and joint ownership of relevant intellectual property rights.⁵²

On the other hand, there are a number of non-monetary benefits. Some of the benefits include the sharing of research and development results and collaboration, cooperation and contribution in scientific research and development programmes, particularly biotechnological research activities,

resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components.'

⁴⁹ Preamble to the Protocol.

⁵⁰ Ibid.

⁵¹ Art. 3.

⁵² *Annex to the Nagoya Protocol on Access and Benefit-sharing.*

where possible in the Party providing genetic resources. While this is specific to the genetic resources, it is within the type of natural resources that should be protected as envisaged under the current Constitution of Kenya. The Constitution obligates the State to recognise the role of science and indigenous technologies in the development of the nation; and promote the intellectual property rights of the people of Kenya.⁵³ One of the ways of implementing the constitutional provision is through ensuring that communities participate fully and meaningfully as envisaged by the Nagoya Protocol.

The other forms of non-monetary benefit are through participation in product development; collaboration, cooperation and contribution in education and training; admittance to *ex situ* facilities of genetic resources and to databases; transfer to the provider of the genetic resources of knowledge and technology under fair and most favourable terms, including on concessional and preferential terms where agreed, in particular, knowledge and technology that make use of genetic resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity; strengthening capacities for technology transfer; institutional capacity-building; human and material resources to strengthen the capacities for the administration and enforcement of access regulations; training related to genetic resources with the full participation of countries providing genetic resources, and where possible, in such countries; access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies; contributions to the local economy; research directed towards priority needs, such as health and food security, taking into account domestic uses of genetic resources in the Party providing genetic resources; institutional and professional relationships that can arise from an access and benefit-sharing agreement and subsequent collaborative activities; food and livelihood security benefits; social recognition; and joint ownership of relevant intellectual property rights.⁵⁴

⁵³ Art. 11(2) (b) (c), Constitution of Kenya 2010.

⁵⁴ *Annex to the Nagoya Protocol on Access and Benefit-sharing.*

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These approaches arguably form the core of an effective benefit sharing agreement. This is because they are geared towards building capacity for the local people that may go beyond the lifespan of the resources being exploited. They are also meant to address the real needs of the people by investing in tangible projects. This is a viable means of ensuring benefits accrue to the communities in ways that are not prone to corruption and wastage of resources, as it would be the case in the monetary forms of benefits.

It is also worth pointing out that most of these benefits are applicable to the exploitation of other types of natural resources, including oil. The Nagoya protocol approach to benefits sharing can help in building benefit sharing mechanisms applicable in the exploitation of the other forms of natural resources. They are important in ensuring that even as communities receive benefits in forms of access fees/fee per sample collected or otherwise acquired, up-front payments, milestone payments, payment of royalties and licence fees in case of commercialization, they also get to participate by engaging in activities that will ensure that they benefit from the exploitation of the resources beyond the resources' lifespan. The monetary forms of benefits may be limited in the ways they benefit communities while the non-monetary benefits are likely to reach a bigger group of beneficiaries and thus more effective.

Capacity building within the community ensures that communities become less dependent on the immediate benefits accruing from commercial exploitation of the resources and instead have enduring sources of livelihoods. Research may go a long way in helping communities realise the other forms of investments or economic activities that may be viable within their localities. Thus, communities should not only seek to receive the monetary benefits but should also take advantage by acquiring the relevant skills and investing in businesses or venture that will help them in the long term even after the oil reserves are depleted.

4. Legal Framework on Benefit Sharing and Natural Resource Exploitation in Kenya

One of the most important provisions in the current Constitution of Kenya 2010 outlines the national values and principles of governance as including,

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inter alia: patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of the people; human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalised; good governance, integrity, transparency and accountability; and sustainable development.⁵⁵ These values and principles are binding on all State organs, State officers, public officers and all persons whenever any of them-- applies or interprets this Constitution; enacts, applies or interprets any law; or makes or implements public policy decisions.⁵⁶ Arguably, one of the ways of implementing these principles as far as natural resources governance and management is concerned is equitable benefit sharing. A viable benefit sharing framework should be able to reflect and promote the foregoing values and principles of governance.

The Constitution also guarantees every person's right to a clean and healthy environment, which includes the right – 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 to have obligations relating to the environment fulfilled under Article 70.⁵⁷ The Constitution also outlines the principles of land policy and provides that land in Kenya must be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance with the following principles – equitable access to land; security of land rights; sustainable and productive management of land resources; transparent and cost effective administration of land; sound conservation and protection of ecologically sensitive areas; elimination of gender discrimination in law, customs and practices related to land and property in land; and encouragement of communities to settle land disputes through recognised local community initiatives consistent with this Constitution.⁵⁸ These principles are to be

⁵⁵ Art. 10(2).

⁵⁶ Art. 10(1).

⁵⁷ Art. 42. Art. 70 (1) 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 a court for redress in addition to any other legal remedies that are available in respect to the same matter.

⁵⁸ Art. 60(1).

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implemented through a national land policy developed and reviewed regularly by the national government and through legislation.⁵⁹

Relevant to this discussion is the provision for community land which is to vest in and be held by communities identified on the basis of ethnicity, culture or similar community of interest.⁶⁰ The Constitution also provides that all land in Kenya belongs to the people of Kenya collectively as a nation, as communities and as individuals.⁶¹ Land in Kenya is also classified as public, community or private.⁶² Also noteworthy is the provision that regardless of their location, the Constitution classifies all minerals and mineral oils as defined by law and all rivers, lakes and other water bodies as defined by an Act of Parliament as forming part of public land.⁶³

The Constitution also outlines the obligations of the State in respect of the environment and these may be relevant as far as benefit sharing in natural resources exploitation is concerned. The State is required to, *inter alia* – ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the *equitable sharing of the accruing benefits* (emphasis added); protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the

⁵⁹ Art. 60(2).

⁶⁰ Art. 63(1). Art. 63(2) provides that community land consists of – (a) land lawfully registered in the name of group representatives under the provisions of any law; (b) land lawfully transferred to a specific community by any process of law; (c) any other land declared to be community land by an Act of Parliament; and (d) land that is –

(i) lawfully held, managed or used by specific communities as community forests, grazing areas or shrines; (ii) ancestral lands and lands traditionally occupied by hunter-gatherer communities; or (iii) lawfully held as trust land by the county governments, but not including any public land held in trust by the county government under Article 62 (2). Clause (3) thereof further provides that any unregistered community land shall be held in trust by county governments on behalf of the communities for which it is held. Clause (4) also provides that community land must not be disposed of or otherwise used except in terms of legislation specifying the nature and extent of the rights of members of each community individually and collectively.

⁶¹ Art. 61(1).

⁶² Art. 61(2).

⁶³ Art. 62(1) (f) (i).

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communities; encourage public participation in the management, protection and conservation of the environment; protect genetic resources and biological diversity; establish systems of environmental impact assessment, environmental audit and monitoring of the environment; eliminate processes and activities that are likely to endanger the environment; and utilise the environment and natural resources for the benefit of the people of Kenya.⁶⁴

However, 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.⁶⁵

The Constitution also tasks the Parliament to enact legislation ensuring that investments in property benefit local communities and their economies.⁶⁶ This may be strengthened by the provision that a transaction is subject to ratification by Parliament if it-- involves the grant of a right or concession⁶⁷ by or on behalf of any person, including the national government, to another person for the exploitation of any natural resource of Kenya.⁶⁸ The resources in question range from wildlife resources and habitats; resources of gazetted forests, water resources, resources on community land; and biodiversity resources. This provision is to be implemented through the proposed law, *Natural Resources (Classes of Transactions Subject to Ratification) Act, 2015*.

The *Natural Resources (Classes of Transactions Subject to Ratification) Act, 2015* is meant to give effect to Article 71 of the Constitution of Kenya, 2010 and for connected purposes.⁶⁹ Notably, the proposed law outlines the relevant considerations in deciding whether or not to ratify an agreement as follows – the applicable Government policy; recommendations of the relevant

⁶⁴ Art. 69(1).

⁶⁵ Art. 69(2).

⁶⁶ Art. 66(2).

⁶⁷ "concession" is defined in the proposed legislation, *Natural Resources (Classes of Transactions Subject to Ratification) Act, 2015*, to mean the right to exploit a natural resource pursuant to an agreement between the grantor and the beneficiary or a permit issued under national or county legislation (clause 2).

⁶⁸ Art. 71(1).

⁶⁹ See also S. 124A, *Environment (Management and Coordination) Act*, No.8 of 1999, Laws of Kenya.

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regulatory agency; comments received from the county government within whose area of jurisdiction the natural resource that is the subject of the transaction is located; adequacy of stakeholder consultation; the extent to which the agreement has struck a fair balance between the interests of the beneficiary and the benefits to the country arising from the agreement; the benefits which the local community is likely to enjoy from the transaction; and whether, in granting the concession or right the applicable law has been complied with.⁷⁰

While these provisions are commendable in that they acknowledge the need for public participation and benefit sharing in natural resources exploitation arrangements, the proposed law is quiet on the thresholds necessary for such approval. This leaves room for political manipulation by politicians and other powerful groups creating the likelihood of an elite capture scenario where the exploitation is approved by a few for their own selfish interests. The effectiveness of this legislation will largely depend on the goodwill of the law enforcers as well as the level of information held by the affected communities. It is also noteworthy that the means and extent of benefits accruing to the community is to be left to community or their representatives. Thus, the communities will get a deal as good as the negotiation ability of their representatives or the leaders. While there are other laws that may be resorted to, some of the issues that will arise may not be addressed under such laws. These may include social and cultural effects of the resource exploitation. This affects the 'social licence' required for such activities by both local and foreigner investors.

The proposed legislation *Natural Resources (Benefit Sharing Bill)*⁷¹ seeks to establish a system of benefit sharing in resource exploitation between resource exploiters, the national government, county governments and local communities, to establish the natural resources benefit sharing authority and for connected purposes. The Act applies with respect to petroleum and natural gas, among other natural resources. The Act provides for guiding principles to include transparency and inclusivity, revenue maximization and adequacy,

⁷⁰ Clause 9.

⁷¹ 2015 (Government Printer, Nairobi, 2015).

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efficiency and equity and accountability.⁷² The legislation proposes setting up a Benefit Sharing Authority which will be mandated to coordinate the preparation of benefit sharing agreements between local communities and affected organizations, review and where appropriate determine the royalties payable to an affected organization engaged in natural resource exploitation, identify counties that require to enter into benefit sharing agreement for the commercial exploitation of natural resources within the counties oversee the administration of funds sets out for county projects as identified and determined under and benefit sharing agreement, monitor the implementation of any benefit sharing agreement entered between a county and an affected organization, conduct research regarding the exploitation and development of natural resources and benefit sharing in Kenya recommend on better exploitation of natural resources in Kenya, determine appeals arising out of conflict and advise the national government on policy/ enactment of legislation relating to natural resource benefit sharing.⁷³

The *Environment (Management and Coordination) Act* (EMCA)⁷⁴ is the framework law providing for the legal and institutional framework for the management of the environment. It recognizes in its preamble that the environment is the foundation of the economic, social, cultural and spiritual enrichment. Section 3 of the Act entitles every Kenyan to a healthy and clean environment and obligates them to safeguard and enhance the environment.

The *Environmental Management and Co-ordination (Amendment) Act, 2015*⁷⁵ amends section 48 of EMCA by inserting subsection (3) to the effect that where a forested area is declared to be a protected area under section 54(1), the Cabinet Secretary may cause to be ascertained, any individual, community or government interests in the land and forests and shall provide incentives to promote community conservation.⁷⁶ This is an important clause that can promote forests conservation through the use of incentives. The incentives can

⁷² S. 4.

⁷³ Clause 6, *Natural Resources (Benefit Sharing Bill)*, 2015.

⁷⁴ No. 8 of 1999, *Laws of Kenya* (Government Printer, Nairobi, 1999).

⁷⁵ No. 5 of 2015, *Laws of Kenya*.

⁷⁶ S. 31, *Environmental Management and Co-ordination (Amendment) Act, 2015*.

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be in the form of benefits that accrue to the community from the forests resources.

The Mining Act 2016, defines a “mineral” as a geological substance whether in solid, liquid or gaseous form occurring naturally in or on the earth, in or under water, in mine waste or tailing and includes the minerals specified in the First Schedule but does not include petroleum, hydrocarbon gases or groundwater.⁷⁷ The Bill also defines mining operations to mean an operation carried out in connection with a mine- to win a mineral from where it occurs; to extract metal or precious mineral from a mineral so won, or to beneficiate a mineral so won; or to dispose of a mine waste or tailings resulting from winning, extraction or benefaction.⁷⁸ The Act provides for accruing benefits in the form of financial and other benefaction to which communities in mining areas are entitled to receive from the proceeds of mining and related activities.

The *Petroleum (Exploration and Production) Act*⁷⁹ defines petroleum as mineral oil including crude oil, natural gas and hydrocarbons produced or capable of being produced from oil shales or tar sands.⁸⁰ In the Act, “petroleum operations” is defined as the exploration for, development, extraction, production, separation, and treatment, storage, transportation and sale or disposal of, petroleum including natural gas processing but does not include petroleum refining operations.⁸¹ The Petroleum (Exploration and Production) Act⁸² provides that the relationship between the Government and an exploration and production company is governed by a Production Sharing Contract (PSC).⁸³

The PSC stipulates that the exploration and production company gets a share of the oil and gas produced and its share is in the form of oil barrels. Essentially, the petroleum exploration and production company does not own

⁷⁷ Act No. 12 of 2016, Laws of Kenya, s.4.

⁷⁸ Ibid, s.4.

⁷⁹ Chapter 308, Laws of Kenya.

⁸⁰ Ibid, S. 2.

⁸¹ Ibid.

⁸² Chapter 308, Laws of Kenya.

⁸³ Ibid.

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the oil or gas but rather the Government retains title to the oil or gas produced. Should the exploration and production company not find any oil then the cost of exploration is borne solely by the company. The Government does not participate in meeting any exploration costs that do not result in any oil revenue. Therefore should oil be produced, the exploration and production company can recover that cost against the oil produced.⁸⁴

The proposed law, *Petroleum (Exploration, Development and Production) Bill, 2015*, was developed to provide a framework for the contracting, exploration, development and production of petroleum; cessation of upstream petroleum operations; to give effect to relevant articles of the Constitution in so far as they apply to upstream petroleum operations; and for connected purposes. If approved, the Bill seeks to repeal *Petroleum (Exploration and Production) Act*.⁸⁵

Notably, the Bill introduces the concept of "local content" which means the added value brought to the Kenyan economy from petroleum related activities through systematic development of national capacity and capabilities and investment in developing and procuring locally available work force, services and supplies, for the sharing of accruing benefits.⁸⁶ For the purpose of subsection (1) the contractor must, before engaging in upstream petroleum operations, prepare and submit a long term and annual local content plan which corresponds with the work program to the Authority for approval.⁸⁷ The local content plan should address- employment and training; research and development; technology transfer; industrial attachment and apprenticeship; legal services; financial services; insurance services; and succession plans for positions not held by Kenyans.⁸⁸

The proposed law requires that a contractor and a sub-contractor of the contractor conducting upstream petroleum operations must comply with local content requirements in all of the contractor's or sub-contractor's operations;

⁸⁴ See Muigua, K., et al, *Natural Resources and Environmental Justice in Kenya*, (Glenwood Publishers Limited, Nairobi, August, 2015), pp. 248-251.

⁸⁵ Chapter 308, Laws of Kenya.

⁸⁶ Clause 77(1), *Petroleum (Exploration, Development and Production) Bill, 2015*.

⁸⁷ *Ibid*, Clause 77(2).

⁸⁸ Clause 77(3).

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give priority to services provided and goods manufactured in Kenya where the goods meet the specifications of the petroleum industry as prescribed by the Kenya Bureau of Standards or in absence of a Kenyan standard any other internationally acceptable standard that the (Upstream Petroleum Regulatory) Authority shall approve; and ensure that priority is given for the employment or engagement of qualified and skilled Kenyans at all levels of the value chain: Provided that the cost of local content should not be higher than at any other place.⁸⁹

The requirement on local content can go a long way in enhancing benefit sharing mechanism in the extractive industry in Kenya, an aspect that was missing or inadequate in the Kenyan framework.

The *National Sovereign Wealth Fund Bill, 2014* is a proposed legislation that seeks to establish Kenya's National Sovereign Wealth Fund to undertake diversified portfolio of medium and long term local and foreign investment to build a savings base for purposes of national development, stabilization the economy at all times, enhance interregional equity in Kenya, to give effect to the provisions of Article 201 of the constitution of Kenya and connected purposes.⁹⁰ The object and purpose of the fund is to – build a savings base for the people of Kenya; protect and stabilize the budget and economy from excess volatility in revenues or exports; provide a mechanism for the diversification from non-renewable commodity exports; assist monetary authorities dissipate unwanted liquidity; increase savings for future generations; fund social and economic development; enhance sustainable long term capital growth; and support and promote any other strategic objectives of the country.⁹¹ This fund will be important in promoting intergenerational and intragenerational equity in natural resource benefits sharing.

⁸⁹ Clause 77(1), *Petroleum (Exploration, Development and Production) Bill, 2015*.

⁹⁰ Preamble, *National Sovereign Wealth Fund Bill, 2014*.

⁹¹ *National Sovereign Wealth Fund Bill, 2014, Clause 4*.

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According to the draft National Energy Policy, 2014,⁹² the Government shall adopt and implement the Extractive Industries Transparency Initiative (EITI)⁹³ as a demonstration of its commitment to good governance, increased scrutiny over revenue collection from petroleum and coal resources and improvement of the country's investment climate, reconstitution of the National Fossil Fuels Advisory Committee (NAFFAC) and development of mechanisms for sharing of benefits between the National and County Governments as well the local communities in accordance with Article 69 of the Constitution. The Government also commits to establish a one stop shop for licensing of fossil fuel operations and undertakings with a view to enhancing development of the requisite infrastructure for fossil fuels.⁹⁴

The proposed National Assembly's *Community Land Bill, 2015* is meant to give effect to Article 63 (5) of the Constitution; to provide for the recognition, protection and registration of community land rights; management and administration of community land; to provide for the role of county governments in relation to unregistered community land and for connected purposes.⁹⁵ The proposed law defines "community" to mean an organized group of users of community land who are citizens of Kenya and share any of the following attributes- common ancestry; similar culture; socio-economic or other common interest; geographical space; or ecological space.⁹⁶ This definition is relevant in that it helps clarify the target group in case of benefits accruing from what would fall under community land and consequently avert potential conflict. This is affirmed under clause 31 thereof provides that every

⁹² Draft National Energy Policy, 2014, Government Printer, Nairobi.

⁹³ See Extractive Industries Transparency Initiative (EITI) <https://eiti.org/eiti>. This is voluntary mechanism setting international standards for enhanced transparency and accountability in the oil, gas and mining sectors. The Extractive Industries Transparency Initiative (EITI) was launched at the World Summit on Sustainable Development (Earth Summit), held in Johannesburg, September 2002 as a way to address the resource curse phenomenon, globally. (Ugolor, D., *Briefing Paper on the Extractive Industries Transparency Initiative (EITI)* (Heinrich Boll Foundation). Available at

https://www.boell.de/sites/default/files/assets/boell.de/images/download_de/intlpolitics/ugolor_nigeria.pdf [Accessed on 02/06/2016].

⁹⁴ Draft National Energy Policy, 2014, p. 4.

⁹⁵ Preamble, *Community Land Bill, 2015*.

⁹⁶ *Ibid*, Clause 2.

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member of the community has the right to equal benefit from community land, where equality includes full and equal enjoyment of rights of use and access. This is a form of promoting benefit sharing as far as community land is concerned.

Clause 36 provides that subject to any other law, natural resources found in community land should be used and managed—sustainably and productively; for the benefit of the whole community including future generations; with transparency and accountability; and on the basis of equitable sharing of accruing benefits. This provision thus requires all those charged with administration of such jointly owned resources to not only ensure equitable sharing of accruing benefits but also sustainable and productive use and management of the same.

Where need for concessions arise, the proposed law provides that an agreement relating to investment in community land should be made after a free, open consultative process and should contain provisions on the following aspects – an environmental, social, cultural and economic impact assessment; stakeholder consultations and involvement of the community; continuous monitoring and evaluation of the impact of the investment to the community; payment of compensation and royalties; requirement to re-habilitate the land upon completion or abandonment of the project; measures to be put in place to mitigate any negative effects of the investment; capacity building of the community and transfer technology to the community; and any other matters necessary for determining how local communities will benefit from investments in their land.⁹⁷

The content of this provision, if fully implemented, is likely to impact positively on the community in ways that ensure that the community becomes self-sustaining as far as livelihood sustenance is concerned. However, it must be noted that for the community to benefit through the ways contemplated above, they must be willing to take up opportunities that would be brought their way. They must be made to understand that the expected benefits will not only come in monetary terms only and must be made aware of the various

⁹⁷ Ibid, Clause 37.

non-monetary forms that benefits may accrue to them, envisaged under the *Nagoya Protocol*. Some of the forms would only be made possible through concerted efforts from both sides, that is, the concerned community and the investor and possibly with assistance from the county or national governments.

5. Lessons from Ghana: Catapulting National Development through Extractive Industries

It has been observed that while many African countries do not have a strong track record of managing mineral wealth well, Ghana is often considered a model of best practice, based on the government's distribution of a proportion of mining rents to mining affected communities.⁹⁸ In Ghana's mining sector, the system devised to distribute mining wealth to local level is royalty, with royalty agreements being set at between 3% and 6%, provided directly to the government quarterly, which is the main source of revenue derived by gold mining.⁹⁹ The mine revenue is paid to the Large Tax Unit of the Ghana Revenue Authority, which then dispenses the money into the Consolidated Fund. Of this sum, 80% is retained by the government and used for general budget support. 10% is dispensed into the Mineral Development Fund (MDF), which is ostensibly used to help fund public mining sector institutions and for funding ad-hoc flagship projects in mining communities.¹⁰⁰

Decentralization of mining revenue in Ghana is legislated as compensation for mining-affected communities; it is not a dividend or admission that citizens in mining areas have economic rights to mineral deposits.¹⁰¹ It is however noteworthy that even in Ghana, it has been observed that as is the case in many countries, the relationship between industrial mining and communities in Ghana is complex and highly contested, because, despite macroeconomic

⁹⁸ Standing, A., 'Ghana's extractive industries and community benefit sharing: The case for cash transfers,' *Resources Policy*, vol. 40, 2014, pp.74–82, p. 74.

⁹⁹ Ibid, p. 75; See S. 25, *Minerals and Mining Act*, 2006 (Act 703), Laws of Ghana.

¹⁰⁰ Ibid, p. 75.

¹⁰¹ Standing, A., 'Ghana's extractive industries and community benefit sharing: The case for cash transfers,' op cit, p. 74; See also Ayee, J., et al, 'Political Economy of the Mining Sector in Ghana,' *The World Bank Policy Research Working Paper 5730*, July 2011. Available at <http://www.cmi.no/publications/file/4091-political-economy-of-the-mining-sector-in-ghana.pdf> [Accessed on 29/05/2016].

growth fueled by the mining boom, Ghana remains a country with high rural poverty.¹⁰² There have even been instances of misappropriation of mineral benefits distributed through the grassroots leaders, namely, village chiefs who are supposed to ensure that the funds are invested well for the benefit of the communities.¹⁰³ The result has been unending poverty despite the presence of resources. Ghana can offer good lessons in terms of models of division, while ensuring that Kenya does not fall into the same problem of misappropriation of funds.

Thus, while Ghana remains a model country for countries venturing into extractive industries in Kenya, it demonstrates the important point that national development should not entirely be pegged on resources accruing from extractive industries but local communities should be supported and encouraged to diversify their sources of livelihood in a way that ensures sustainability in income and growth for both the communities and the country.

6. Nigeria: Resource Curse or Blessing?

There has been documented evidence from the vast majority of resource-rich countries, especially those endowed with depletable natural resources (i.e. fuels, ores, minerals and metals), which suggests that resource riches can be a “curse” rather than a “blessing”.¹⁰⁴ Some of the factors that are believed to contribute to such eventualities include unpredictable commodity prices with abrupt fluctuations, booms and busts in macroeconomic and fiscal balances that follow the swings in resource rents, inter- and intra-generational misallocation of resource revenues and increasing corruption.¹⁰⁵ One such country is Nigeria, which is listed as one of the largest economies of the African continent and one of the leading oil producer in the world.¹⁰⁶ It is estimated that oil accounts for more than 90 percent of the country’s exports, 25 percent of the Gross Domestic Product (GDP), and 80 percent of

¹⁰² Ibid, p. 75.

¹⁰³ Ibid.

¹⁰⁴ Tsani, S., Natural resources, governance and institutional quality: The role of resource funds,’ *Resources Policy*, 38(2013), pp.181–195, p. 181.

¹⁰⁵ Ibid.

¹⁰⁶ See Agbaeze, E. K, ‘Resolving Nigeria’s dependency on oil – The derivation model,’ *Journal of African Studies and Development*, Vol. 7(1), pp. 1-14, January 2015.

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government total revenues.¹⁰⁷ Notable is the observation that the oil boom of the 1970s led to the neglect of agriculture and other non-oil tax revenue sectors, expansion of the public sector, and deterioration in financial discipline and accountability.¹⁰⁸

Oil revenues are divided between the three tiers of government: federal, state and local. The federal government typically gets about half of revenues; the 36 state governments about a quarter; and the 774 local governments about a fifth. The rest flows to special funds.¹⁰⁹ Despite the oil revenue, poverty rates are generally higher and infrastructure is poorer in the oil-rich states and there is disproportionate allocation of such funds.¹¹⁰ It has been observed that while oil exports have fuelled real GDP growth of over 5 per cent a year in Nigeria, the official unemployment rate climbed from 15 per cent in 2005 to 25 per cent in 2011, and youth unemployment rates are estimated to be as high as 60 per cent.¹¹¹

In Nigeria, negative effects of the extractive sector which is said to be poorly regulated have not only been the limited resources accruing to the locals. There has also been huge environmental damage. It is contested that the source of Nigeria's vast oil wealth is also a site of an ecological disaster that has destroyed livelihoods of farmers and fisher folk in the delta's inlets on a huge scale.¹¹² This is because environmental damage not only affects health and wellbeing but also decimates livelihoods, such as fishing and agriculture that depend upon natural resources.¹¹³

¹⁰⁷ Ibid, p. 3.

¹⁰⁸ Ibid, p. 2.

¹⁰⁹ Shaxson, N., 'Nigeria's Extractive Industries Transparency Initiative: Just a Glorious Audit?' (Royal Institute of International Affairs, 2009), pp. 3-4.

¹¹⁰ Ibid, p. 4.

¹¹¹ Africa Progress Panel, 'Equity in Extractives: Stewarding Africa's natural resources for all,' *Africa Progress Report 2013*, p. 31. Available at http://appcdn.acwupload.co.uk/wpcontent/uploads/2013/08/2013_APR_Equity_in_Extractives_25062013_ENG_HR.pdf [Accessed on 27/05/2016].

¹¹² Ibid, p. 32.

¹¹³ Ibid, p. 33.

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The scenario has led to legal battles: *Wiwa v. Royal Dutch Petroleum*, *Wiwa v. Anderson*, and *Wiwa v. Shell Petroleum Development Company* were three lawsuits filed by the Center for Constitutional Rights (CCR) and co-counsel from EarthRight International on behalf of relatives of murdered activists who were fighting for human rights and environmental justice in Nigeria.¹¹⁴ Royal Dutch/Shell began using land in the Ogoni area of Nigeria for oil production in 1958. Pollution resulting from the oil production has contaminated the local water supply and agricultural land upon which the region's economy is based. Also, Royal Dutch/Shell for decades, is said to have worked with the Nigerian military regime to suppress any and all demonstrations that were carried out in opposition to the oil company's activities.¹¹⁵

It has been alleged that Shell's aim for the lowest possible production cost including the practice of gas flaring, without regard for the resulting damage to the surrounding people and land, wreaked havoc on local communities and the environment.¹¹⁶ In the early 1990s, the Ogoni, led by Ken Saro-Wiwa and the Movement for the Survival of the Ogoni People, began organized, non-violent protests against Shell's practices. Shell grew increasingly concerned with the heightened international prominence of the Ogoni movement and made payments to security forces that they knew to be engaging in human rights violations against the local communities. The military government violently repressed the demonstrations, arrested Ogoni activists, and falsely accused nine Ogoni activists of murder and bribed witnesses to give fake testimony.¹¹⁷ From the foregoing, it is apparent that the Nigerian people have not benefited much, if at all, from the extractive industry in their country but instead have suffered more tragedy as a result.

¹¹⁴ Centre for Constitutional Rights, *Wiwa et al v. Royal Dutch Petroleum et al.*, available at <http://ccrjustice.org/home/what-we-do/our-cases/wiwa-et-al-v-royal-dutch-petroleum-et-al> [Accessed on 29/05/2016].

¹¹⁵ Ibid.

¹¹⁶ Centre for Constitutional Rights, *Settlement Reached in Human Rights Cases Against Royal Dutch/Shell*, New York, June 8, 2009. Available at <http://ccrjustice.org/home/press-center/press-releases/settlement-reached-human-rights-cases-against-royal-dutchshell> [Accessed on 29/05/2016].

¹¹⁷ Ibid.

Kenya should therefore avoid a scenario where oil exploration result in human rights abuse and environmental degradation which in turn affects the livelihoods of the people. Corruption should also be shunned as it would lead to a scenario where the intended beneficiaries are locked out for the benefit of a few people, both in the public sector and private individuals.

7. Opportunities: Making Natural Resources Wealth Count

Arguably, benefit-sharing mechanisms involve a variety of institutional means, governance structures and instruments for distributing finance and other benefits.¹¹⁸ Further, Benefit-sharing mechanisms can be organized along two main axes: a *vertical axis* of benefit sharing across scales from national to local, and a *horizontal axis* of sharing within scales, including within and across communities, households and other local stakeholders.¹¹⁹

It has been argued that Free and prior informed consent of local communities and transparent and equitable benefit-sharing mechanisms can bring affected communities into the mainstream of a natural resource dominant development model.¹²⁰ Understanding who the key stakeholders are, what their aspirations, concerns and expectations of a project are, and what drives these is important for judging the reasonableness of a benefit sharing settlement and its legitimacy and durability over time.¹²¹ Key stakeholders may include the government (national and sometimes county), citizens at large, affected communities, and investors.¹²²

Some governments argue that no special transfer of revenues to producing regions is justified. These governments hold that the most effective approach

¹¹⁸ Pham, T.T., et al, 'Approaches to benefit sharing: A preliminary comparative analysis of 13 REDD+ countries,' op cit. p. 1.

¹¹⁹ Ibid.

¹²⁰ Talbott, K. & Thoumi, G., 'Common ground: balancing rights and responsibilities for natural resource investments and community development,' 3rd April 2015, available at <https://news.mongabay.com/2015/04/common-ground-balancing-rights-and-responsibilities-for-natural-resource-investments-and-community-development/> [Accessed on 28/04/2016]

¹²¹ Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), op cit. p. 12.

¹²² Ibid.

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to governance and development is for national governments to collect all tax revenues and then use them to benefit the country as a whole, including producing areas. They feel that the producing regions will gain net benefits from projects in their regions, such as jobs, infrastructure, and economic activity, so no additional resources are justified. Other governments and commentators maintain that natural resource projects impose costs on producing regions, and that communities should be compensated adequately for the 'loss' of a non-renewable resource.¹²³

The UN Declaration on the Rights of the Indigenous Peoples, adopted by the UNGA, guarantees indigenous people to fully enjoy human rights and fundamental freedom without discrimination. Article 4 of the convention obligates state to take up special measure in accordance with their free wishes in protecting the vulnerable themselves, their culture, environment and property.

Article 1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR)¹²⁴ recognizes the right of states to self-determination including the right to freely determine their political status, pursue their economic social and cultural goals and manage and dispose of their resources. Equitable benefit sharing is a prerogative of the government. From equitable benefit sharing stems economic development, co-existence and co-operation as well as sound natural resource management system. The preamble to the constitution of Kenya 2010 acknowledges the will of the people of Kenya as being proud of their ethnic, cultural and religious diversity and determined to live in peace and unity as one indivisible sovereign nation; respectful of the environment which is their heritage and determined to sustain it for the future generations benefit of future generations and committed to nurturing and protecting well-being of the individual, the family, communities and the nation and recognizing the aspirations of all Kenyans for the government based on the essential values of human rights, equality, freedom, democracy, social justice and the rule of law and in exercising their sovereign and inalienable Right to determine the form of governance of their country and having participated fully in the making of the constitution.

¹²³ Ibid, p. 37.

¹²⁴ UN General Assembly, *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, United Nations, Treaty Series, vol. 993, p. 3.

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On the other hand, state and state organs actions must be bound by the constitutional values and principles of governance. The national values and principles of governance include: patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of people; human dignity, equality, social justice, inclusiveness, equity, human rights, nondiscrimination and protection of marginalized; good governance, integrity, transparency and protection and accountability and sustainable development.¹²⁵

The social and economic development is essential to enable for a favourable living and working environment.¹²⁶ Natural Resource Management plays a key role in the conservation of the environment. The benefit of a clean environment extends to biodiversity and wildlife ecosystems which ultimately enables for the enjoyment of other rights.¹²⁷ Human rights remains the obligation of the state to protect and may be done through inclusive decision making processes.¹²⁸

Therefore, while it is important for the state to promote the people's right to benefit from their natural resources as envisaged in international and national legal and human rights instruments, this should be done within the framework of achieving sustainable development. All stakeholders must work towards implementing the sustainable development agenda which would mean that communities are obligated to diversify modes of development and production through adoption of more sustainable means. However, it is important for the Kenyan people to look beyond oil resources in the country and invest in innovation to boost production in other areas such as livestock

¹²⁵ Article 10, Constitution of Kenya, 2010.

¹²⁶ Principle 8, UN General Assembly, *United Nations Conference on the Human Environment*, 15 December 1972, A/RES/2994.

¹²⁷ Article 24 of the ACHPR provides that every person shall have a right to a general satisfactory environment for development. This right connects to other human rights such as the right to life and the right to standard health care.

¹²⁸ Aarhus Convention in Access to Information, Public participation in decision making and Access to Justice in Environmental Matters 1989 recognizes the nexus between human right and the environment as being essential in the well-being of human beings.

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and agriculture production as well as innovative business investment in creative technologies.

7.1 Foundations and Trusts

The approaches taken by Kenya towards resource management for instance has been through Foundations, Trusts and Funds initiatives in the energy sector. FTF represent a wider range of financial and institutional framework that channel revenues to local communities. This mode of benefit sharing enable for the operation of government payment, compensation and community investment. The author suggests that they establish a systematic, professional formal approach to development. This has been successful in jurisdictions such as Senegal, Ghana, Australia and Canada.¹²⁹

7.2 Enhancing Local Accountability and Building Capacity

Minerals are non-renewable resources.¹³⁰ There is emphasis on the importance of sound environmental management and effective governance as priority to ensure rapid development and poverty reduction. There is demonstrable shift from a predominantly centralized natural resource management to devolved models such as CBNRM.¹³¹ Communities with more control over access and better common property management regimes play stronger decision making roles.¹³² They acknowledge that land-use decision making is inherently a multilevel process since numerous actors are involved both directly and indirectly representing multiple sectors with different roles, interests and incentives.¹³³

¹²⁹ Muigua K., et al, *Natural Resources and Access to Environmental Justice in Kenya*, (Glenwood Publishers, Nairobi, 2015).

¹³⁰ Masters, L. & Kisiangani, E., *Natural resource Governance in Southern Africa*, (Institute of Global Dialogue, South Africa, 2010).

¹³¹ Roe, D., et al, *Community management of natural resources: impacts experiences and future directions*. IIED Publishing.

¹³² Myrers, R., et al, 'Benefit sharing in context: a comparative analysis of 10 land-use change case study in Indonesia,' *Infobriefs*, No. 118, May 2015. Available at http://www.cifor.org/publications/pdf_files/infobrief/5585-infobrief.pdf [Accessed on 26/05/2016].

¹³³ Ibid, p.1.

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It has been suggested that in terms of transparency, resource fund establishments may provide what it seems to be of great importance for the resource-rich countries: transparency on resource wealth management.¹³⁴ Arguably, resource funds (RF) may provide, even to a limited degree, a track record of windfalls.¹³⁵ It has also been suggested that through CSR and social investment strategies, extractive firms can provide local socio-economic development where the government is unable or unwilling to do so, and thus may help mitigate against the potentially harmful impacts of resource-led growth.¹³⁶ Some of the suggested types of CSR and social investment programmes include those relating to employment, such as local hiring practices; environmental impact assessments and mitigation measures; local community development projects, such as providing safe drinking water, building health centres and school classrooms, training peer educators for community health programmes and supplying equipment; providing microcredit schemes; and scholarships for youth and women.¹³⁷ Notable is the assertion that the ideal goal is for private sector development interventions to supplement government service provision, to avoid a situation of dependency on the private sector, and not to impact the willingness or ability of the state to develop its capacity.¹³⁸

However, it is noteworthy that CSR as a means of benefit sharing, albeit informally, may not be effective as it wholly depends on the goodwill of the company or corporation in question. It may therefore be necessary to have a more formalized framework under which the same benefits can accrue to the communities in a more certain and sustainable manner. This may call for a

¹³⁴ Tsani, S., *Natural resources, governance and institutional quality: The role of resource funds*, op cit, p. 190; cf. Alstine, J.V., et al, *Resource Governance Dynamics: The Challenge of 'New Oil' In Uganda*, op cit, p. 50. There is an argument that transparency in resource governance in and of itself may not be capable of facilitating good governance. The argument, thus, is that synergies with other poverty reduction and sustainable development initiatives need to be explored. One of the suggested approaches is synergy with CSR initiatives of extractive industry firms at the regional and local levels.

¹³⁵ Ibid.

¹³⁶ Alstine, J.V., et al, *Resource Governance Dynamics: The Challenge of 'New Oil' In Uganda*, op cit, p. 50.

¹³⁷ Ibid, p. 50.

¹³⁸ Ibid.

framework that is anchored in law to shield it from the uncertainties that come with CSR arrangements. This also increases accountability not only to the local communities but also the government.

7.3 Achieving Right to environmental information

Environmental information comprises of information held by authorities, factors that affect the environment, research on the environment, health and safety measures¹³⁹, and reports on the implementation of environmental legislation and so forth.¹⁴⁰ Lack of environmental information regarding conservation and management becomes more technical in undertaking natural resource management.

Like many African countries that have natural resources, Kenya generally lacks the capacity to explore and extract them as they lack the required equipment and knowledge on the same.¹⁴¹ Illiteracy levels remain high in the county as it is in many parts across the country. African governments have entered into multinational contracts inviting foreign investors to their countries. The foreign investors, with the literacy, technology and advanced equipment, explore, extract and export to their countries for manufacturing. African countries import these finished products at a higher price.¹⁴² As far as indigenous communities are concerned, their right to information should be upheld by ensuring that any information needed is received as soon as possible. Enabling access to environmental information forms basis to access environmental justice.¹⁴³ Communities are also likely to understand the implications of extractive industries on their day to day lives as far as the environment is concerned.

¹³⁹ Convention on Environment Impact Assessment in a Transboundary Context, 1991, calls for the establishment of EIA procedures that involves public participation.

¹⁴⁰http://www.citizensinformation.ie/en/environment/environmental_law/access_to_environmental_information.htm.

¹⁴¹ World Bank Investments Projects, www.ggr.org

¹⁴² African Development Bank, et al, *African Economic Outlook 2013: Structural Transformation and Natural Resources*, 2013, available at <http://www.undp.org/content/dam/rba/docs/Reports/African%20Economic%20Outlook%202013%20En.pdf>, [Accessed on 29/05/2016].

¹⁴³ Muigua, K., *Natural Resources and Environmental justice in Kenya*, op cit; See also The Access to Information Bill, 2015 (Government Printer, Nairobi, 2015); See also Art. 35 of the Constitution of Kenya 2010.

7.4 Devolution and Benefit Sharing

The 2010 Constitution requires that services be devolved and both the national and county governments ensure reasonable access to its services so far as it is appropriate.¹⁴⁴ Ideally, local communities should be allowed to access natural resources for them to be able to uphold their responsibilities for future generations.¹⁴⁵ Natural resources are a source of livelihood as they form part of their economic activity. If natural resources are accessed and well managed, they provide for raw materials which are then processed to get products that are sold and thereby generating income. Allowing communities to access natural resources will undoubtedly promote sustainable development. However, criticisms of fiscal decentralization focus on weak capacity of Sub-national governments (SNGs) to manage intrinsic volatility in revenue flows, and limited know-how of public financial management, planning and investments, and fragility of financial control systems. They also point to poor accountability of local authorities and corruption as a result. Moreover, complete decentralization of resource rents could deprive central government of funds necessary for providing national functions and could create geographical disparity and conflict.¹⁴⁶

In contrast, proponents argue that devolution would enhance allocative efficiency, as SNGs can more accurately determine needs and find appropriate solutions. Importantly, supporters argue that producing regions must be compensated for negative impacts and for the loss of a non-renewable resource which local communities feel they own.¹⁴⁷

¹⁴⁴ Article 6, Constitution of Kenya, 2010.

¹⁴⁵ Article 40, United Nations Declaration on the Right of the Indigenous people, 2007; In *Joseph Letuya and 21 others v AG and 5 others elc civil suit no 821 of 2012*, the court was challenged to determine whether an indigenous community (Ogiek) had rights arising from their occupation of parts of the East Mau forest and whether their eviction was an infringement to their right. The court held that the applicant were indeed recognized as indigenous people being a minority, they had been discriminated upon by the said eviction. Their rights to life, dignity, economic and social rights had been infringed from the eviction.

¹⁴⁶ Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), op cit. p. 33.

¹⁴⁷ Ibid, p. 33.

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Despite the foregoing arguments, it is important to make use of the devolved system to empower communities and build capacity through investing accrued benefits in sustainable development projects which will go beyond the lifespan of oil exploration and at the same time uplift the livelihoods of the local people. The County governments are in a better position to identify the most viable and sustainable projects.

7.5 Public participation

The principles that govern natural resource management have been enshrined in the 2010 Constitution of Kenya.¹⁴⁸ The *Public participation* allows individuals to express their views on key governmental policies and laws concerning conditions in their communities. Fostering public participation will mean that authorities dispense their constitutional and legislative obligation, positive deviation in terms of contribution and motivation. *In The Matter of the National Land Commission [2015] eKLR*,¹⁴⁹ one of the issues that the Supreme Court of Kenya had to deal with was the role and place of public participation in the administration and management of land in Kenya. Mutunga, CJ observed that *public participation was a major pillar, and bedrock of democracy and good governance. It was the basis for changing the content of the State, envisioned by the Constitution, so that the citizens had a major voice and impact on the equitable distribution of political power and resources. With devolution being implemented under the Constitution, the participation of the people in governance would make the State, its organs and institutions accountable, thus making the country more*

¹⁴⁸ Article 61, Constitution of Kenya, 2010; *Sustainable development* principle seeks to lessen the depletion of the non-renewable resources and pollution in the environment. The Brundtland Commission defined sustainable development as development that meets the needs of the present generation without comprising the ability of the future generations to meet their own needs. *Sustainable use* principle considers the need to reduce and eliminate unsustainable patterns of production and consumption. It is applied to determine the permissibility of the natural resource exploitation and is central to the principle of sustainable development. *Polluter pays principle* provides that where a person is responsible for causing the pollution, costs for such pollution should be borne by that person. States are held liable for internationally wrongful acts or omissions that arise out of their customary international law or treaty obligations. The concept of state responsibility protects fundamental values. In the *Corfu channel case*, it was held that states have an obligation not to allow knowingly its territory to be used for acts contrary to the rights of other states. *Precautionary principle* aims at averting danger to the environment before it actually occurs.

¹⁴⁹ Advisory Opinion Reference No. 2 of 2014, December 2, 2015.

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*progressive and stable. The role of the Courts, whose judicial authority was derived from the people of Kenya, was the indestructible fidelity to the value and principle of public participation. The realization of the pillars of good governance would become weak and subject to the manipulation by the forces of status quo if the participation of the people was excluded (emphasis added).*¹⁵⁰ He went further to state that *public participation was the community based process, where people organise themselves and their goals at the grassroots level and work together through governmental and non-governmental community organisations to influence decision making processes in policy, legislation, service delivery, oversight and development matters. It was a two way interactive process where the duty bearer communicates information in a transparent and timely manner, engages the public in decision making and is responsive and accountable to their needs. The definition could be applied to the management and administration of land in Kenya. In order to achieve efficient land administration and management, the national and county governments; the arms of government; and the commissions and independent offices, must conduct meaningful consultation, communication, and engagement with the people (emphasis added).*¹⁵¹ The Chief Justice further rightfully stated that the principle of the participation of the people did not stand in isolation; it was to be realised in conjunction with other constitutional rights, especially the right of access to information (article 35); equality (article 27); and the principle of democracy (article 10(2)(a)). The right to equality related to matters concerning land, where State agencies were encouraged also to engage with communities, pastoralists, peasants and any other members of the public. Thus, public bodies should engage with specific stakeholders, while also considering the views of other members of the public. Democracy was another national principle that was enhanced by the participation of the people.¹⁵²

The Supreme Court's advisory opinion is an affirmation of the important role that the principle of public participation can play in enhancing people's appreciation of the management of natural resources in the country. Apart from enhancing people's role in management, public participation may

¹⁵⁰ Ibid, para. 45.

¹⁵¹ Ibid, para. 47.

¹⁵² Ibid, para. 49.

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promote co-existence among indigenous communities.¹⁵³ All the concerned groups may get a chance to express their fears and concerns as well as needs as far as resource exploitation is concerned. Although it may slow down the decision making process, public participation will prevent conflict of decisions and this may also enable the investors obtain the 'social license' to operate in the affected regions.¹⁵⁴ If the state seeks to implement this principle, recourse must be paid to the existing traditional institutional structures which provide a structural base to public participation. In addition, promoting public participation contributes to their economic development.¹⁵⁵ It has also been observed that procedural equity, which concerns participation in decision-making and the inclusion and negotiation of competing views, is seen as critically important for any benefit-sharing mechanism.¹⁵⁶

There is need to diversify the type of expected benefits from the exploitation of the existing resources. The benefits envisaged should be in both monetary and non-monetary forms where possible. Equitable Benefit Sharing may take monetary or non-monetary forms.¹⁵⁷ It may also be direct or indirect. This may include participation, sharing scientific research and development results access to technology and payment of royalties and other compensation. Kenyan people and policy makers, however, seem to be more concerned with royalties, at the expense of other forms of accruing benefits which may arguably have longer sustainability as far as improving the lives of the people is concerned.

The International Finance Corporation (IFC) suggests practical processes for sharing benefits with communities.¹⁵⁸ One of the ways that this can be

¹⁵³ See Yagoub, A.M., 'Public Participation in Natural Resource Management in Sudan.'

¹⁵⁴ Mohair, P., *Public Participation and Natural resource Decision Making: the Case of RARE II Decisions*, Utah Agricultural Experiment Station, Journal Paper No. 3282.

¹⁵⁵ *R v Kenya Forest Services ex parte the National Alliance of Community Forest Association*.

¹⁵⁶ Pham, T.T., et al, 'Approaches to benefit sharing: A preliminary comparative analysis of 13 REDD+ countries,' op cit. p. 31.

¹⁵⁷ Nandozie, K., et al, *African Perspective on Genetic Resources: A Handbook of Laws Policies and Institutions*. (Environmental Law Institute, Washington DC, 2003).

¹⁵⁸ Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), op cit. p. 61.

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achieved is through maintaining active relationships built on trust with communities through appropriate and effective communication. This implies that genuine consultations and participation in decision-making will happen whenever possible and that perceptions and expectations are closely aligned with reality. They also propose carrying out comprehensive, participatory baseline studies of the community's socioeconomic, cultural heritage, and socio-environmental context before project development, agreeing to joint objectives for the project's community programs, monitoring outcomes (including community feedback), and responding as needed. This, according to IFC, helps address misconceptions, manage expectations, and assuage fears or concerns.¹⁵⁹

There is also the suggestion on establishing robust grievance mechanisms that are understood, accessible and linked directly to project performance measures. Where justified, third party mediation may be required. Foundations and other long-term approaches may also be good vehicles to achieve community development objectives if they ensure broader stakeholder participation and helping identify areas of focus and consistency of priorities across actors, such as company, governments, donors, and communities. Finally, integrating project development and community development plans as effectively as practicable with local and national government planning to support development aspirations and balance the expectations and demands of different communities may be useful.

The suggestions by IFC are worth considering in the case of Kenya, to build sustainable and enduring local economies for the local people. These propositions are closely related to the non-monetary forms of benefits as envisaged in the *Nagoya protocol*. They ought to be integrated into the national legal framework on natural resource management and benefit sharing since they are more practical and likely to result in realistic and viable outcomes for easy implementation. This is because by their very nature, they would be based on commendations from all the relevant stakeholders, including the affected communities. This enhances chances of the outcome being more

¹⁵⁹ Ibid, p. 61.

acceptable to the community for purposes of social licence in natural resources exploitation.

7.6 Addressing Resource Capture Phenomenon/Corruption

It has been argued that rent-seeking models assume that resource rents can be easily appropriated hence encouraging bribes, distorted public policies and diversion of public towards favour seeking and corruption.¹⁶⁰ Corruption has been termed as a threat to protected human security.¹⁶¹ It calls for global effort to combat corruption.¹⁶² Resources have fostered corruption, undermined inclusive economic growth, incited armed conflict and damaged the environment.¹⁶³ The governments managing significant resource rents, rent appropriation may be preferable when compared to the promotion of wealth creation policies.¹⁶⁴ The argument is based on the preposition that rent appropriation may dominate over wealth generation as it offers immediate economic and political gains. These gains appear quite appealing as they can, arguably, be highly personal, favouring the specific members of the ruling elite.¹⁶⁵

8. Conclusion

It is a blessing that Kenya has natural resources that can be exploited. Effective management of these resources and equitable benefit sharing are essential. The natural resources can assist Kenya to achieve sustainable development as

¹⁶⁰ Tsani, S., Natural resources, governance and institutional quality: The role of resource funds,' *Resources Policy*, 38(2013), pp.181-195, p. 184.

¹⁶¹ Alao, A., *Natural Resource Management and Human Security in Africa*, in Abass, A., *Protecting Human Security in Africa* (ISBN-13: 9780199578986, Oxford University Press, 2010).

¹⁶² Lawson, T. R. & Greestein, J., 'Beating the resource Curse in Africa: A global Effort,' *Africa in Fact*, August 2012. Available at <http://www.cfr.org/africa-sub-saharan/beating-resource-curse-africa-global-effort/p28780> [Accessed on 26/05/2016].

¹⁶³ Aled, W., et al, *Corruption in Natural Resource Management: An introduction* (Bergen: Michelsen Institute, 2008). Available at <http://www.cmi.no/publications/file/2936-corruption-in-natural-resource-management-an.pdf> [Accessed on 29/05/2016].

¹⁶⁴ Ibid.

¹⁶⁵ Ibid.

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envisaged in the United Nations sustainable development goals.¹⁶⁶ There is need for debate and consensus on how best to manage natural resources and the extractive industry so as to avoid the resource curse and alleviate poverty and promote development. A strong legal framework for benefit sharing ought to be put in place covering the expectations, rights and obligations of all parties concerned.

¹⁶⁶ United Nations, Transforming our world: the 2030 Agenda for Sustainable Development, Resolution adopted by the General Assembly on 25 September 2015, A/RES/70/1.

Fostering Climate Justice for Sustainable Development

Abstract

The paper explores the concept of Climate Justice. It highlights and discusses some of the justice concerns arising from the effects of climate change. The paper further examines global, regional and national efforts towards fostering Climate Justice. It also considers the challenges affecting the attainment of Climate Justice and proposes measures towards fostering Climate Justice for Sustainable Development.

1. Introduction

Climate change is the defining global development challenge of our time, with significant implications for the achievement of the 2030 Agenda for Sustainable Development¹. Climate change has been defined as 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 periods². The [consequences of climate change](#) such as intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are being witnessed across the world³. Climate change can affect human health, food security, housing, safety and work⁴. Further, conditions like sea-level rise and saltwater intrusion have advanced to the point where whole communities have had to relocate, and protracted droughts are putting people at risk of famine⁵. It is expected that the number of climate change

¹ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Available at <https://www.idlo.int/publications/climate-justice-rule-law-approach-transformative-climate-action> (Accessed on 29/07/2023)

² 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 28/07/2023)

³ United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 28/07/2023)

⁴ Ibid

⁵ European Commission., 'Consequences of Climate Change.' Available at https://climate.ec.europa.eu/climate-change/consequences-climate-change_en (Accessed on 28/07/2023)

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refugees across the globe will continue to rise due to the effects of climate change⁶.

Climate change impacts the attainment of the Sustainable Development agenda⁷. It affects the availability of basic necessities like freshwater, food, and energy, while efforts to redress climate change, both through adaptation and mitigation similarly inform and shape the global development agenda⁸. It has also been observed that climate change results in food insecurity, water scarcity, depletion of natural resources, displacement of people, health hazards, social inequity and unemployment thus hindering the attainment of Sustainable Development⁹.

The global threat of climate change has led to concerted efforts through various legal instruments geared towards mitigating and adapting to its effects. *The United Nations Framework Convention on Climate Change* (UNFCCC) is geared towards combating climate change by achieving stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system¹⁰. The *Paris Agreement* is aimed at strengthening the global response to the threat of climate change towards Sustainable Development¹¹. It seeks to achieve this goal through measures such as holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change and increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions

⁶ Ibid

⁷ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

⁸ United Nations Sustainable Development Goals., 'Climate Change.' Available at <https://sustainabledevelopment.un.org/topics/climatechange> (Accessed on 28/07/2023)

⁹ Muigua.K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

¹⁰ United Nations Framework Convention on Climate Change., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 28/07/2023)

¹¹ United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/resource/parisagreement_publication.pdf (Accessed on 28/07/2023)

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development, in a manner that does not threaten food production¹². Further, the *United Nations 2030 Agenda for Sustainable Development*¹³ urges the global community to take urgent action to combat climate change and its impacts through measures such as strengthening the resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; integrating climate change measures into national policies, strategies and planning; and improving education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning¹⁴. In Kenya, the *Climate Change Act*¹⁵ is an Act of Parliament that provides a regulatory framework for enhanced response to climate change and sets out mechanisms and measures to enhance climate change resilience and low carbon climate development for the Sustainable Development of Kenya¹⁶. However, despite these global and national efforts to respond to the threat of climate change, the effects of climate change continue to persist resulting in justice concerns¹⁷. It has been observed that some people and communities are more vulnerable to climate impacts, such as people living in small island nations and developing countries¹⁸. Further, the communities that have contributed the least to climate change are the ones that are the most affected by its impacts¹⁹. The concept of Climate Justice has thus emerged to deal with the justice concerns brought about by climate change. Climate Justice seeks to address the causes and impacts of climate change in a manner that recognizes

¹² Ibid

¹³ 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 28/07/2023)

¹⁴ Ibid, Sustainable Development goal 13

¹⁵ Climate Change Act, No. 11 of 2016, Laws of Kenya

¹⁶ Ibid

¹⁷ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

¹⁸ United Nations., 'What is Climate Change?' Op Cit

¹⁹ Sultana. F., 'Critical Climate Justice' Available at <https://www.farhanasultana.com/wpcontent/uploads/Sultana-Critical-climate-justice.pdf> (Accessed on 28/07/2023)

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and fosters the rights and concerns of vulnerable people, communities and countries²⁰.

The paper explores the concept of Climate Justice. It highlights and discusses some of the justice concerns arising from the effects of climate change. The paper further examines global, regional and national efforts towards fostering Climate Justice. It also considers the challenges affecting the attainment of Climate Justice and proposes measures towards fostering Climate Justice for Sustainable Development.

2. Defining Climate Justice

It has been pointed out that climate change has had uneven and unequal burdens across the globe with nations and communities that contribute the least to climate change suffering the most from its consequences²¹. Recently, Pakistan which contributes less than 1 % of global greenhouse gases which lead to climate change suffered extreme flooding which resulted in the deaths of over 1,700 people, destroyed around 2 million homes, and swept away almost half the country's cropland²². There is a general consensus in the scientific community that the flooding was made worse by climate change since global warming makes air and sea temperatures rise resulting in more evaporation taking place thus increasing the intensity of rainfall²³. The melting of glaciers in the country's northern region, again due to the increase in global temperatures, compounded the problem by releasing even more water and debris into the floods²⁴. Further, it has been observed that the Horn of Africa, a region with very little contribution to the climate change problem, is facing a severe drought following the worst performing rains in 73 years and five

²⁰ Schlosberg, D & Collins, L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' WIREs Clim Change 2014

²¹ Sultana, F., 'Critical Climate Justice' Op Cit

²² Giles, M., 'The Principles of Climate Justice at CoP27.' Available at <https://earth.org/principles-of-climatejustice/#:~:text=That%20response%20should%20be%20based,the%20consequences%20of%20climate%20change>. (Accessed on 28/07/2023)

²³ Ibid

²⁴ Ibid

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successive failed rainy seasons²⁵. Further, it has been pointed out that the frequency and severity of the drought is likely to increase affecting more than 36 million people due to food insecurity, with women and girls disproportionately affected by the direct and indirect impacts of the drought²⁶. Further, small island nations in the Caribbean and Pacific islands such as Vanuatu and the Solomon Islands have suffered from severe impacts of climate change cyclone that killed residents, displaced thousands and damaged infrastructure²⁷. Despite their little contribution to climate change, sea level rise, increasing temperatures and frequency and intensity of tropical cyclones, and storm surges are some of the climate change impacts facing island nations, some of which are in low-lying areas of just 5 meters above sea level at the highest point making them more vulnerable to these impacts²⁸.

It is thus evident that the climate change has adverse impacts especially on nations and communities that contribute the least to its threat. The concept of Climate Justice acknowledges this concern. It recognizes that some countries mainly the large industrialised economies of Europe and North America have benefitted much more from the industries and technologies that cause climate change than have developing nations in places such as Africa, Asia, the Caribbean Islands and the Pacific Islands which due to an unfortunate mixture of economic and geographic vulnerability, continue to shoulder the brunt of the burdens of climate change despite their relative innocence in causing it²⁹. It seeks to promote justice in climate related concerns. Climate justice links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable people and sharing the burdens

²⁵ United Nations Development Programme., 'Can Groundwater act as a Catalyst for Sustainable Development in Africa's borderlands?' Available at https://www.undp.org/africa/africa-borderlands-centre/blog/can-groundwater-act-catalyst-sustainable-development-africasborderlands?gclid=EAIaIQobChMIpM6GnoGxgAMV1uZ3Ch0bkAPOEAMYAyAAEgLKG_D_BwE (Accessed on 28/07/2023)

²⁶ Ibid

²⁷ Bafana. B., 'Climate Change is No 'Future Scenario' for Pacific Island Nations; Climate Change is 'Real' Available at <https://reliefweb.int/report/world/climate-change-no-future-scenario-pacific-island-nations-climate-change-real> (Accessed on 28/07/2023)

²⁸ Ibid

²⁹ Giles. M., 'The Principles of Climate Justice at CoP27.' Op Cit

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and benefits of climate change and its impacts equitably and fairly³⁰. It entails understating climate change as an issue that relates to equity, fairness, ethics and human rights and not just an environmental phenomena³¹. Climate Justice is a framework that focuses on the intersection between climate change and social inequalities³². This is achieved by linking the effects of climate change to the notions of justice particularly environmental and social justice by examining the concepts of equality and human rights within the lens of climate change³³. It focuses on how climate change impacts people differently, unevenly and disproportionately and seeks to address the resultant injustices in fair and equitable ways³⁴.

Climate Justice encapsulates various facets of justice including distributive justice, procedural justice and justice as recognition³⁵. Distributive justice concerns itself with the disproportionate impact that climate change has on the people, communities and countries that are least responsible for climate change and its impacts³⁶. Climate Justice seeks to ensure the just distribution of the burdens and benefits of climate change among nations³⁷. It further insists on redressing the imbalances caused by the effects of climate change by imposing what is sometimes referred to as a climate debt on those nations primarily responsible for causing climate change³⁸. Procedural justice on the other hand is aimed at addressing distributive climate injustices by creating processes that are participatory, fair, inclusive and accessible³⁹. Procedural justice requires that citizens be informed about and involved in decision-

³⁰ Mary Robinson Foundation Climate Justice., 'Principles of Climate Justice.' Available at <https://www.mrfcj.org/principles-of-climate-justice/> (Accessed on 28/07/2023)

³¹ United Nations Environment Programme., 'Climate Justice.' Available at <https://leap.unep.org/knowledge/glossary/climate-justice> (Accessed on 28/07/2023)

³² Ibid

³³ Sultana. F., 'Critical Climate Justice' Op Cit

³⁴ Ibid

³⁵ Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' *Alternative Law Journal* (47) 3 pp 199-203

³⁶ Ibid

³⁷ Giles. M., 'The Principles of Climate Justice at CoP27.' Op Cit

³⁸ Ibid

³⁹ Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' Op Cit

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making on climate change matters⁴⁰. Justice as recognition on its part seeks to give a voice to people who have been traditionally marginalized in climate change matters as a result of structural inequality⁴¹. Climate Justice is thus a multidimensional idea that requires the various facets of justice to be recognized and upheld simultaneously⁴².

The idea of Climate justice is therefore significant for the entire world since it stands seeks to achieve an agenda that links the struggle for a prosperous, safe future for all with a fight against inequalities and exclusion⁴³. It envisages linking human rights with development and climate action, having a people centred approach to climate action, understanding that not everyone has contributed to climate change in the same way and combatting injustices resulting from climate change social, gender, economic, intergenerational and environmental injustices⁴⁴. It seeks to achieve equal access to natural resources, fair and effective solutions in response to climate change and the assigning of responsibility for those who contribute most to the global threat of climate change⁴⁵. Climate Justice is thus guided by several principles including the protection and empowering of vulnerable individuals and communities, promoting public participation in decision making, fostering global collaboration in the response to climate change, achieving intergeneration equity in order to protect future generations from the effects of climate change and assigning of responsibility to nations that contribute most to global

⁴⁰ Ibid

⁴¹ Sultana. F., 'Critical Climate Justice' Op Cit

⁴² Ibid

⁴³ Foundation for European Progressive Studies., 'United for Climate Justice.' Available at <https://feps-europe.eu/wpcontent/uploads/downloads/publications/short%20united%20for%20climate%20justice%20-%204.pdf> (Accessed on 28/07/2023)

⁴⁴ UNICEF., 'What is Climate Justice? and What can we do Achieve it?' Available at <https://www.unicef.org/globalinsight/what-climate-justice-and-what-can-we-do-achieve-it#:~:text=Utilizing%20a%20climate%20justice%20approach,vulnerability%20to%20the%20climate%20crisis.> (Accessed on 28/07/2023)

⁴⁵ New Internationalist., 'Four Principles for Climate Justice.' Available at <https://newint.org/features/2009/01/01/principles-climate-justice> (Accessed on 28/07/2023)

greenhouse gas emissions⁴⁶. Climate Justice is thus vital in ensuring effective climate change mitigation and adaptation towards Sustainable Development.

3. Fostering Climate Justice: Prospects and Challenges

Various attempts have been made towards fostering Climate Justice at the global, regional and national levels. The *Rio Declaration on Environment and Development*⁴⁷ encapsulates fundamental principles of Climate Justice. It enshrines the principles of access to information, participation in decision making and access to effective remedies in all environmental matters including those concerning climate change⁴⁸. The Declaration is important in fostering Climate Justice at the global level. *The United Nations Framework Convention on Climate Change (UNFCCC)*⁴⁹ calls for *cooperation* and *participation* by all countries in combating climate change. The Convention also calls upon state parties to promote and facilitate *public access to information* on climate change and its effects and *public participation* in addressing climate change and its effects and the development of adequate responses⁵⁰. The UNFCCC thus upholds the principles of *access to information* and *public participation* which are key elements of procedural justice in the climate justice debate. The *Paris Agreement*⁵¹ also affirms the importance of public awareness, public participation, public access to information and cooperation at all levels in combating climate change⁵². In addition, the Paris Agreement recognizes the specific and special needs of developing countries which are most vulnerable to the adverse effects of climate change⁵³. It thus calls for equity and the promotion of the principle of Common but Differentiated Responsibilities and capabilities in light of different national circumstances in combating climate change⁵⁴. This is key towards promoting distributive justice in climate change matters.

⁴⁶ Giles. M., 'The Principles of Climate Justice at Cop27.' Op Cit

⁴⁷ Report of the United Nations Conference on Environment and Development., 'Rio Declaration on Environment and Development.' A/CONF.151/26 (Vol. I),

⁴⁸ Ibid, Principle 10

⁴⁹ 'United Nations Framework Convention on Climate Change.' Op Cit

⁵⁰ Ibid, Article 6 (a)

⁵¹ 'Paris Agreement', Op Cit

⁵² Ibid, Preamble

⁵³ Ibid

⁵⁴ Ibid, Article 2 (2)

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At the regional level, the *Africa Union Agenda 2063*⁵⁵ to promote environmentally sustainable and climate resilient economies and communities through sustainable natural resource management; biodiversity conservation; promoting renewable energy and climate resilience and natural disasters preparedness and prevention⁵⁶. Agenda 2063 is vital in fostering Climate Justice in Africa. In Kenya, the *Climate Change Act*⁵⁷ seeks to facilitate capacity development for public participation in climate change responses through awareness creation, consultation, representation and access to information⁵⁸. The Act further seeks to mainstream the principle of Sustainable Development into the planning for and decision making on climate change response⁵⁹. The Climate Change Act is integral in attaining Climate Justice in Kenya.

In addition to the above mentioned legal instruments, there have been various actions and decisions adopted by the global community and individual countries towards fostering Climate Justice. The United Nations Climate Change Conferences which serve as the formal meeting of the UNFCCC parties (Conference of the Parties i.e COP) have been vital in assessing global progress in responding to climate change⁶⁰. At the COP 27 (Sharm El-Sheikh Climate Change Conference – 6 November-20 November 2022) held in Egypt, the UNFCCC agreed on several issues that are vital in enhancing Climate Justice⁶¹. These include establishing a dedicated fund to cater for loss and damage for vulnerable countries hit hard by floods, drought and other climate disasters; holding businesses and institutions accountable for actions which contribute to climate change; mobilizing more financial support for developing countries and implementation of climate change mitigation and

⁵⁵ African Union., 'Agenda 2063: The Africa We Want.' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf (Accessed on 28/07/2023)

⁵⁶ Ibid

⁵⁷ Climate Change Act, No. 11 of 2016, Laws of Kenya

⁵⁸ Ibid, S 3 (2) (h)

⁵⁹ Ibid, S 3 (2) (k)

⁶⁰ United Nations Framework Convention on Climate Change., 'Conference of the Parties (COP).' Available at <https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop> (Accessed on 28/07/2023)

⁶¹ United Nations Framework Convention on Climate Change., 'Sharm El-Sheikh Climate Change Conference - November 2022.' Available at <https://unfccc.int/cop27> (Accessed on 28/07/2023)

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adaptation measures across the world⁶². Implementing the outcome of COP 27 will foster Climate Justice.

There has been an increase in climate change funding where developed countries, multilateral development banks and multilateral climate funds have provided funding to developing and underdeveloped countries to aid in their climate change mitigation and adaptation measures⁶³. It has been asserted that financial resources and sound investments are needed to address climate change, to both reduce emissions, promote adaptation to the impacts that are already occurring, and to build resilience⁶⁴. The World Bank which is the largest multilateral funder of climate investments in developing countries notes that climate finance is crucial in fostering Climate Justice through investments in programs that reduce or avoid greenhouse gas emissions such as clean technology, renewable energy and sustainable forestry⁶⁵. Climate finance is thus essential in fostering Climate Justice by enhancing the capacity of vulnerable countries and communities to respond to the effects of climate change.

Finally, Climate Justice has also been promoted through climate change litigation. Climate change litigation entails filing of lawsuits pertaining the causes and consequences of climate change⁶⁶. Through climate change litigation, courts and tribunals are able to adjudicate upon pertinent issues in climate change such mitigation and adaptation measures as well as climate

⁶² Ibid

⁶³ Hong, H., 'Climate Finance.' *Review of Financial Studies*, Volume 33, No. 3, 2020

⁶⁴ United Nations., 'Financing Climate Action.' Available at <https://www.un.org/en/climatechange/raising-ambition/climate-finance> (Accessed on 28/07/2023)

⁶⁵ The World Bank., '3 Things You Need to Know About Climate Finance.' Available at <https://www.worldbank.org/en/topic/climatechange/brief/3-things-you-need-to-know-about-climate-finance> (Accessed on 28/07/2023)

⁶⁶ Setzer, J., 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance.' Available at https://www.researchgate.net/profile/JoanaSetzer/publication/331499727_Climate_change_litigation_A_review_of_research_on_courts_and_litigants_in_climate_governance/links/5e89690d92851c2f527f820d/Climate-change-litigation-A-review-ofresearch-on-courts-and-litigants-in-climate-governance.pdf (Accessed on 28/07/2023)

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change-related loss and damage⁶⁷. It has been used as a tool to enforce the principles of Climate Justice across the world such as public participation, access to information, access to justice and access to remedies⁶⁸. Climate change litigation has consequently become a tool to enforce or enhance climate commitments by countries across the globe⁶⁹. It can be used to foster Climate Justice by promoting its principles and holding countries accountable in respect of laws and policies on climate change⁷⁰.

From the foregoing discussion, it is evident that there has been progress towards fostering Climate Justice across the world. However, despite these efforts, climate injustices are still prevalent. Geographical injustices are evident from the demonstrable fact that many of the countries least responsible for the current climate crisis are, nevertheless, those feeling its effects most acutely⁷¹. The studies have highlighted the example of countries of Pakistan, countries in the Horn of Africa, countries in the Caribbean and Pacific Islands among others⁷². Further, it has been pointed out that gender inequalities are evident in the climate change discourse with women often bearing the brunt of climate disasters since they depend more heavily on natural resources like water and firewood, meaning that if these items become scarce, they may need to travel further for them⁷³. Further, gender inequalities within communities may leave women more vulnerable to the immediate aftermath of natural disasters occasioned by the effects of climate change, or excluded from the decision-making table when disaster risk reduction solutions and other climate change responses are designed and implemented⁷⁴. Climate change has also resulted in other injustices such as

⁶⁷ Ibid

⁶⁸ Setzer, J & Higham, C., 'Global Trends in Climate Change Litigation: 2022 Snapshot' Available at <https://www.ccecp.ac.uk/wp-content/uploads/2022/06/Global-trends-in-climate-change-litigation2022-snapshot.pdf> (Accessed on 28/07/2023)

⁶⁹ Ibid

⁷⁰ Setzer, J., 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance.' Op Cit

⁷¹ Concern Worldwide., '10 Climate Injustices and How to Fight Them.' Available at <https://www.concern.net/news/climate-injustices> (Accessed on 28/07/2023)

⁷² Bafana, B., 'Climate Change is No 'Future Scenario' for Pacific Island Nations; Climate Change is 'Real' Op Cit

⁷³ Pearse, R., 'Gender and Climate Change.' *WIREs Climate Change*, 2016

⁷⁴ Ibid

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economic inequalities, intergenerational injustices with future generations predicted to bear the most burden due to the effects of climate change, discrimination, environmental racism and displacement of people resulting in climate refugees⁷⁵. There is need to address these problems in order to realize Climate Justice.

4. Way Forward

In order to foster Climate Justice there is need to promote access to information and public and community participation and access to in decision making processes including the design and implementation of projects and formulation of laws, policies and guidelines concerning climate change⁷⁶. Access to information and public participation are fundamental principles of Climate Justice and have been captured in various legal instruments on climate change⁷⁷. Public participation is fundamental in climate change mitigation and adaptation since it enhances the capacity to cope with climate change risks and further ensures that decisions reflect local values⁷⁸. It can also foster investment in people-centered laws and institutions to promote transformative climate action and adoption of customary, informal and indigenous approaches to protect biodiversity and promote sustainable use of natural resources⁷⁹. Public participation should thus be embraced in order to realize Climate Justice.

There is also need to eliminate structural inequalities in climate action including gender and intragenerational inequalities⁸⁰. It has been asserted that women often bear the brunt of climate disasters since they depend more

⁷⁵ Concern Worldwide., '10 Climate Injustices and How to Fight Them.' Op Cit

⁷⁶ Brower. A., 'Fighting Climate Injustice: 10 Strategies for Action.' Available at <https://www.gensler.com/blog/fighting-climate-injustice-10-strategies-for-action> (Accessed on 29/07/2023)

⁷⁷ See for example Principle 10 of the Rio Declaration; Article 6 (a) of the United Nations Framework Convention on Climate Change (UNFCCC); The Preamble to the Paris Agreement and, S 3 (2) (h) of the Climate Change Act, No. 11 of 2016 Laws of Kenya.

⁷⁸ Hugel. S., & Davies. A., 'Public Participation, Engagement, and Climate Change Adaptation: A Review of the Research Literature.' *WIREs Climate Change*, 2020

⁷⁹ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

⁸⁰ Ibid

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heavily on natural resources like water and firewood, meaning that if these items become scarce, they may need to travel farther for them⁸¹. However, women, youth and person with disabilities among other marginalized groups are often excluded from the decision-making table when disaster risk reduction solutions and other climate change responses are designed and implemented contributing to climate injustices⁸². Unequal participation in decision-making processes and labour markets by these groups compound inequalities and often prevent them from fully contributing to climate-related planning, policy-making and implementation⁸³. Women can and do play a critical role in response to climate change due to their local knowledge of and leadership in areas such as sustainable resource management and leading sustainable practices at the household and community level⁸⁴. It has also been asserted that the voice of the youth is pertinent in climate action since the younger generation, will suffer the consequences of climate change more greatly than their parents and grandparents⁸⁵. In addition, people with disabilities may be severely affected by the effects of climate change due to the difficulty in accessing vital resources in case of food insecurity and water scarcity and difficulties in responding to emergencies in case of disasters associated with climate change such a floods⁸⁶. It is thus imperative to foster the participation of women, youth, person with disabilities and other marginalized groups in climate action in order to realize Climate Justice.

It is also essential to increase funding to developing countries and regions of the world in order to enhance their ability to respond to the effects of climate change⁸⁷. It has been observed that developing countries in Africa, Asia, the

⁸¹ Pearse. R., 'Gender and Climate Change.' Op Cit

⁸² Ibid

⁸³ United Nations Framework Convention on Climate Change., 'Introduction to Gender and Climate Change.' Available at <https://unfccc.int/gender> (Accessed on 29/07/2023)

⁸⁴ Ibid

⁸⁵ United Nations Children's Fund., 'What is Climate Justice? And what can we do Achieve It?' Available at <https://www.unicef.org/globalinsight/what-climate-justice-and-what-can-we-do-achieve-it> (Accessed on 29/07/2023)

⁸⁶ Almomani. S., 'Climate Justice for People with Disabilities.' Available at <https://www.worldforgottenchildren.org/blog/climate-justice-for-people-with-disabilities/154> (Accessed on 29/07/2023)

⁸⁷ Hong. H., 'Climate Finance.' Op Cit

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Caribbean Islands and the Pacific Islands which due to an unfortunate mixture of economic and geographic vulnerability, continue to shoulder the brunt of the burdens of climate change despite their relative innocence in causing it⁸⁸. Consequently, these countries have suffered from catastrophic consequences of climate change including severe storms, tropical cyclones, flooding and drought resulting in loss of lives, destruction of property and vital infrastructure and food insecurity among others⁸⁹. Due to their geographical vulnerability and low economic development, most of these countries are unable to effectively respond to the effects of climate change thus compounding the problem⁹⁰. Therefore, it is imperative for developed countries and international financial institutions such as the World Bank to increase climate funding to these countries in order to enhance their climate resilience through measures such as investments in food security, clean technology, renewable energy and sustainable forestry⁹¹.

There is also need for developed countries which are the largest contributors to global greenhouse emissions to comply with their climate commitments under the Paris Agreement⁹². At the heart of the Paris Agreement are national pledges to contribute to global mitigation and adaptation goals⁹³. The Paris Agreement sets out a mechanism under which each country produces a Nationally Determined Contribution (NDC), which must be submitted at a maximum of five-yearly intervals⁹⁴. These NDCs are determined unilaterally and are expected to include targets for greenhouse gas emission reductions and adaptation⁹⁵. Consequently, countries such as the United States of America (USA), which accounts for 12.74% of global greenhouse gas emissions have committed to reducing their net greenhouse gas emissions by 50-52 %

⁸⁸ Giles. M., 'The Principles of Climate Justice at CoP27.' Op Cit

⁸⁹ United Nations Development Programme., 'Can Groundwater act as a Catalyst for Sustainable Development in Africa's borderlands?' Op Cit

⁹⁰ Giles. M., 'The Principles of Climate Justice at CoP27.' Op Cit

⁹¹ The World Bank., '3 Things You Need to Know About Climate Finance.' Op Cit

⁹² Mace. M., 'Mitigation Commitments under the Paris Agreement and the Way Forward.' *Climate Law*, No. 6 of 2016, pp 21-39

⁹³ European Bank for Reconstruction and Development., 'The Paris Agreement.' Available at <https://www.ebrd.com/paris-agreement> (Accessed on 29/07/2023)

⁹⁴ *Paris Agreement*, Article 4

⁹⁵ Mace. M., 'Mitigation Commitments under the Paris Agreement and the Way Forward.' Op Cit

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below 2005 levels by the year 2030⁹⁶. Further, China which accounts for 27.79% of global greenhouse gas emissions has set various targets under its NDC including having CO₂ emissions peak before 2030; achieving carbon neutrality before 2060 and lowering CO₂ emissions per unit of GDP by over 65% from the 2005 level⁹⁷. It is important for developed countries to comply with their commitments under NDCs in order to foster Climate Justice.

Finally, it is vital to enhance climate litigation in order to realize Climate Justice. Climate litigation has become a tool to enforce or enhance climate commitments by countries across the globe⁹⁸. It can be used to foster Climate Justice by promoting its principles such as public participation, access to information, access to justice and access to remedies and holding countries accountable in respect of laws and policies on climate change⁹⁹. Climate litigation can also strengthen prospects for sustaining peace and stability by preventing and resolving climate-related disputes¹⁰⁰. The public, environmental activists, Non-Governmental Organizations and members of the legal profession can foster Climate Justice through climate litigation¹⁰¹. Climate litigation should thus be embraced as a tool to promote Climate Justice.

⁹⁶ United Nations Framework Convention on Climate Change., 'The United States of America Nationally Determined Contribution.' Available at <https://unfccc.int/sites/default/files/NDC/202206/United%20States%20NDC%20April%2021%202021%20Final.pdf> (Accessed on 29/07/2023)

⁹⁷ United Nations Framework Convention on Climate Change., 'China's Achievements, New Goals and New Measures for Nationally Determined Contributions.' Available at <https://unfccc.int/sites/default/files/NDC/202206/China%E2%80%99s%20Achievements%20C%20New%20Goals%20and%20New%20Measures%20for%20Nationally%20Determined%20Contributions.pdf> (Accessed on 29/07/2023)

⁹⁸ Setzer, J. & Higham, C., 'Global Trends in Climate Change Litigation: 2022 Snapshot' Op Cit

⁹⁹ Setzer, J., 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance.' Op Cit

¹⁰⁰ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

¹⁰¹ Muigua, K., 'Redefining the Role of Lawyers in Climate Justice.' Available at <http://kmco.co.ke/wp-content/uploads/2023/06/Redefining-the-Role-of-Lawyers-in-Climate-Justice-.pdf> (Accessed on 29/07/2023)

Through these measures, the idea of Climate Justice will be fostered.

5. Conclusion

The effects of climate change and the ensuing mitigation and adaptation measures have resulted in justice concerns including economic inequalities, gender inequalities, inter and intra generational inequalities, discrimination, environmental racism and displacement of people resulting in climate refugees¹⁰². Climate Justice seeks to address the causes and impacts of climate change in a manner that recognizes and fosters the rights and concerns of vulnerable people, communities and countries¹⁰³. It seeks to achieve the ideal of public participation, access to information, access to justice and access to remedies in climate action¹⁰⁴. There have been efforts to foster Climate Justice through measures such as adoption of the principles of Climate Justice in laws and policies, climate funding and climate litigation¹⁰⁵. However, in the wake of continued climate injustices, there is need to foster Climate Justice through promoting public participation and access to information, giving voice to women, youth and person with disabilities in climate action, increasing climate funding to developing countries, complying with NDCs especially for developed countries and enhancing climate litigation¹⁰⁶. Through these measures, the ideal of Climate Justice will be fostered at the national, regional and global levels in the quest towards Sustainable Development.

¹⁰² Concern Worldwide., '10 Climate Injustices and How to Fight Them.' Op Cit

¹⁰³ Schlosberg. D & Collins. L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' Op Cit

¹⁰⁴ Sultana. F., 'Critical Climate Justice' Op Cit

¹⁰⁵ United Nations., 'Financing Climate Action.' Op Cit

¹⁰⁶ International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

Redefining the Role of Lawyers in Climate Justice

Abstract

The paper critically explores the role of lawyers in promoting Climate Justice. The paper conceptualizes Climate Justice and posits that it is a fundamental element of the Sustainable Development agenda. It analyzes the enabling legal framework for Climate Justice at the global, regional and national levels. The paper then delves into practical ways through which the legal profession can contribute towards promoting the ideal of Climate Justice as a precursor of Sustainable Development. The overall argument in the paper is that achieving Climate Justice is crucial in attainment of the ideal of Sustainable Development.

1. Introduction

Sustainable Development has been widely embraced as the global blueprint for development. It has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs¹. The 2030 Agenda for Sustainable Development which was adopted by member states of the United Nations in 2015 represents a shared blue print for peace and prosperity for people and the planet in the quest towards the ideal of Sustainable Development². At the heart of the 2030 Agenda for Sustainable Development are 17 Sustainable Development Goals that seek to achieve various targets including ending extreme poverty and hunger; promoting good health and well-being for all people; achieving gender equality; promoting access to affordable and clean energy and combating climate change³. However, several factors pose a threat to attainment of the ideal of Sustainable Development. Key among them is climate change⁴.

Climate change has been defined as 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

¹ World Commission on Environment and Development., *'Our Common Future.'* Oxford, (Oxford University Press, 1987)

² United Nations., *'Sustainable Development Goals.'* Available at <https://sdgs.un.org/goals> (Accessed on 14/06/2023)

³ Ibid

⁴ Ibid

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comparable time periods⁵. Climate change hinders attainment of the Sustainable Development agenda since it results in food insecurity, water scarcity, depletion of natural resources, displacement of people, health hazards, social inequity and unemployment⁶. The effects of climate change have often resulted in justice concerns. Indeed, it has been observed that communities that have contributed the least to climate change are the ones that are the most affected by its impacts⁷. The concept of Climate Justice has thus emerged to deal with the justice concerns brought about by climate change. Climate Justice seeks to address the causes and impacts of climate change in a manner that recognizes and fosters the rights and concerns of vulnerable people, communities and countries⁸.

The paper seeks to critically discuss the role of the legal profession in promoting Climate Justice in Kenya. It has been rightly observed that responding to climate change requires involvement of all sectors including the legal profession⁹. The paper conceptualizes Climate Justice and analyzes its enabling legal framework at the global, regional and national levels. It further highlights practical ways through which the legal profession can contribute towards promoting Climate Justice in the quest for Sustainable Development.

2. Conceptualizing Climate Justice

The concept of Climate Justice is a subset of Environmental Justice¹⁰. Environmental Justice refers to the right to have access to natural resources; not to suffer disproportionately from environmental policies, laws and regulations; and the right to environmental information, participation and

⁵ 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 12/06/2023)

⁶ Muigua.K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

⁷ Sultana. F., 'Critical Climate Justice' Available at <https://www.farhanasultana.com/wp-content/uploads/Sultana-Critical-climate-justice.pdf> (Accessed on 14/06/2023)

⁸ Schlosberg. D & Collins. L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' *WIREs Clim Change* 2014

⁹ Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' *Alternative Law Journal* (47) 3 pp 199-203

¹⁰ Ibid

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involvement in decision-making¹¹. It has also been defined as the fair treatment and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies¹². Environmental Justice is attained when every person enjoys the same degree of protection from environmental and health hazards and has access to the decision-making process to have a healthy environment¹³. Environmental Justice thus seeks to address distributive inequity, lack of recognition, disenfranchisement and exclusion in environmental matters¹⁴. It seeks to achieve the ideal of access, participation and procedural justice in environmental decision making¹⁵. Environmental Justice is a key pillar of Sustainable Development.

Climate Justice flows from Environmental Justice and seeks to promote justice in climate related concerns. It entails understating climate change as an issue that relates to equity, fairness, ethics and human rights and not just an environmental phenomena¹⁶. Climate Justice is a framework that focuses on the intersection between climate change and social inequalities. This is achieved by linking the effects of climate change to the notions of justice particularly environmental and social justice by examining the concepts of equality and human rights within the lens of climate change¹⁷. It focuses on how climate change impacts people differently, unevenly and disproportionately and seeks to address the resultant injustices in fair and equitable ways¹⁸.

¹¹ Ako. R., 'Resource Exploitation and Environmental Justice: the Nigerian Experience' Available at <https://www.elgaronline.com/display/edcoll/9781848446793/9781848446793.00011.xml> (Accessed on 12/06/2023)

¹² United States Environmental Protection Agency; 'Environmental Justice.' Available at <https://www.epa.gov/environmentaljustice> (Accessed on 12/06/2023)

¹³ Ibid

¹⁴ Schlosberg. D & Collins. L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' Op Cit

¹⁵ Ibid

¹⁶ United Nations Environment Programme., 'Climate Justice.' Available at <https://leap.unep.org/knowledge/glossary/climate-justice> (Accessed on 12/06/2023)

¹⁷ Ibid

¹⁸ Sultana. F., 'Critical Climate Justice' Op Cit

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Climate Justice encapsulates various facets of justice including distributive justice, procedural justice and justice as recognition¹⁹. Distributive justice concerns itself with the disproportionate impact that climate change has on the people, communities and countries that are least responsible for climate change and its impacts²⁰. It has been argued that communities that have contributed the least to climate change are the ones are the most affected by its impacts²¹. Procedural justice on the other hand is aimed at addressing distributive climate injustices by creating processes that are participatory, fair, inclusive and accessible²². Procedural justice requires that citizens be informed about and involved in decision-making on climate change matters. Justice as recognition on its part seeks to give a voice to people who have been traditionally marginalized in climate change matters as a result of structural inequality²³.

Climate Justice is thus a multidimensional idea that requires the various facets of justice to be recognized and upheld simultaneously²⁴. In order to effectively respond to climate change and promote Climate Justice there is need for involvement of all sectors of the society²⁵. The legal profession has an important role to play in promoting Climate Justice.

3. Legal Framework on Climate Justice

Various laws, treaties, conventions and policies have been adopted towards attaining climate justice at the international, regional and national level.

¹⁹ Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' Op Cit

²⁰ Ibid

²¹ Sultana. F., 'Critical Climate Justice' Op Cit

²² Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' Op Cit

²³ Ibid

²⁴ Ibid

²⁵ Knight. S., 'System Change for Climate Justice: Legal Actions and Activist Lawyers.' Available at https://www.scienceopen.com/document_file/404a2b47-e68d-40b7-8d15-05f22ded4707/ScienceOpen/socialistlawyer.84.0024.pdf (Accessed on 12/06/2023)

3.1 International Legal Framework

The *Rio Declaration on Environment and Development*²⁶ encapsulates key principles towards attaining Environmental Justice and Climate Justice. The Declaration provides that human beings are at the centre of all concerns for Sustainable Development²⁷. This calls for the need for involvement of all human beings in all matters concerning Sustainable Development such as combating climate change. Towards this end, the Declaration calls of the co-operation of all states and all people in achieving Sustainable Development through measures such as environmental protection²⁸. The Declaration further acknowledges that environmental issues are best handled with the participation of all concerned citizens at the relevant level²⁹. It calls for access to information, participation in decision making and access to effective remedies in all environmental matters including those concerning climate change³⁰. The Rio Declaration thus captures and seeks to promote key elements of Climate Justice.

The *United Nations Framework Convention on Climate Change (UNFCC)* is geared towards combating climate change by achieving stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system³¹. In order to achieve this goal, the UNFCC calls for *cooperation* and *participation* by all countries which are key components of Climate Justice³². The Convention also calls upon state parties to promote and facilitate public access to information on climate change and its effects and public participation in addressing climate change and its effects and the development of adequate responses³³. The UNFCC thus upholds the pillars of access to information and public participation which are key elements of procedural justice in the climate justice debate.

²⁶ Report of the United Nations Conference on Environment and Development., '*Rio Declaration on Environment and Development.*' A/CONF.151/26 (Vol. I)

²⁷ Ibid, Principle 1

²⁸ Ibid, principle 5

²⁹ Ibid, Principle 10

³⁰ Ibid

³¹ United Nations Framework Convention on Climate Change., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 12/06/2023)

³² Ibid, Preamble

³³ Ibid, Article 6 (a)

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The *Paris Agreement*³⁴ is aimed at strengthening the global response to the threat of climate change towards Sustainable Development. The Agreement affirms the importance of public awareness, public participation, public access to information and cooperation at all levels in combating climate change³⁵. These are fundamental components of procedural justice. The Agreement further recognizes the specific needs and special needs of developing countries which are most vulnerable to the adverse effects of climate change³⁶. It thus calls for equity and the promotion of the principle of Common but Differentiated Responsibilities and capabilities in light of different national circumstances in combating climate change³⁷. This is key towards promoting distributive justice in climate change matters.

The United Nations *2030 Agenda for Sustainable Development*³⁸ is a global commitment by member states of the United Nations to achieve Sustainable Development across the globe. It sets out 17 goals towards achieving the ideal of Sustainable Development³⁹. Sustainable Goals 13 is geared towards climate action through measures such as strengthening the resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; integrating climate change measures into national policies, strategies and planning; and Improving education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning⁴⁰. The *2030 Agenda for Sustainable Development* calls for partnership by all states towards attaining Sustainable

³⁴ United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/resource/parisagreement_publication.pdf (Accessed on 12/06/2023)

³⁵ Ibid, Preamble

³⁶ Ibid

³⁷ Ibid, Article 2 (2)

³⁸ United Nations., 'The 2030 Agenda for Sustainable Development.' Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 12/06/2023)

³⁹ Ibid

⁴⁰ UNDP., 'Sustainable Development Goals: Goal 13.' Available at https://www.undp.org/sustainable-development-goals?gclid=CjwKCAjwHJukBhBPEiwAniIcNWyEJw2ovpllJMb43W5y2_2kwXeZbt25GeRmoepAzh2yjARP3D5VhoCn-oQAvD_BwE (Accessed on 12/06/2023)

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Development⁴¹. The 2030 Agenda for Sustainable Development thus sets the global blueprint for combating climate change and achieving Climate Justice.

3.2 Regional Legal Framework

While Africa contributes negligibly to global green -house gas emissions at an average of two to three percent, it stands out disproportionately as the most vulnerable region in the world⁴². This highlights the distributive justice concerns inherent in the climate justice debate. Climate Justice is thus a fundamental concern in Africa. Various attempts have been made towards achieving this goal in Africa.

The Africa Union *Agenda 2063*⁴³ seeks to achieve Sustainable Development and transform Africa into a prosperous and peaceful continent representing a dynamic force in the international arena by the year 2063. It seeks to promote *inter alia* environmental sustainability and climate resilience in Africa by the year 2063. It seeks to promote environmentally sustainable and climate resilient economies and communities through sustainable natural resource management; biodiversity conservation; promoting renewable energy and climate resilience and natural disasters preparedness and prevention. Attaining the vision of Agenda 2063 is key in promoting climate justice in Africa.

Further, the *East African Community Climate Change Policy*⁴⁴ represents a regional attempt towards combating climate change and attaining climate justice at the East African level. The Policy aims at addressing the adverse impacts of climate change in the East African region⁴⁵. The Policy sets out

⁴¹ Ibid, Goal 17

⁴² United Nations Environment Programme., 'Responding to Climate Change.' Available at <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change> (Accessed on 12/06/2023)

⁴³ African Union., 'Agenda 2063: The Africa We Want.' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf (Accessed on 12/06/2023)

⁴⁴ East African Community., 'EAC Climate Change Policy' Available at http://repository.eac.int/bitstream/handle/11671/538/EAC%20Climate%20Change%20Policy_April%202021.pdf?sequence=1&isAllowed=y (Accessed on 12/06/2023)

⁴⁵ Ibid

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certain objectives that are crucial in achieving Climate Justice including promoting public awareness and socio-economic importance of climate change and promoting capacity building efforts through education, training, research, technology development and transfer⁴⁶. It calls for the collaboration of various stakeholders including the government, private sector, civil society and vulnerable communities and populations including the youth and women in achieving the ideal of Sustainable Development and Climate Justice in East Africa⁴⁷. The Policy is thus crucial in promoting climate justice in East Africa.

3.3 National Legal Framework

Various attempts have been made towards domesticating the concept of climate justice in Kenya. The *Constitution of Kenya, 2010* sets out national values and principles of governance that bind all persons in matters such as application and interpretation of the Constitution; enactment, application and interpretation of laws and implementation of public policy decisions⁴⁸. These values and principles include Sustainable Development and public participation which are key pillars of climate justice⁴⁹. The Constitution further enshrines the right of every person to a Clean and Healthy Environment which includes the right to have the environment protected for the benefit of the present and future generations⁵⁰. Promoting the right to a Clean and Healthy Environment is critical in attaining Climate Justice in Kenya. The Constitution also sets out certain obligations in respect of the environment. This includes the role of the state to encourage public participation in the management, protection and conservation of the environment⁵¹. Promoting this role in climate change matters is an important step in attaining Climate Justice in Kenya.

The *Climate Change Act*⁵² is an Act of Parliament that provides a regulatory framework for enhanced response to climate change and sets out mechanisms and measures to achieve low carbon climate development. Among the objects

⁴⁶ Ibid, Article 2.2

⁴⁷ Ibid, Article 2.4

⁴⁸ Constitution of Kenya, 2010., Article 10 (1)., Government Printer, Nairobi

⁴⁹ Ibid, Article 10 (2)

⁵⁰ Ibid, Article 42

⁵¹ Ibid, Article 69 (1) (d)

⁵² Climate Change Act., No. 11 of 2016, Government Printer, Nairobi

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and purpose of the Act is to facilitate capacity development for *public participation* in climate change responses through awareness creation, consultation, representation and access to information⁵³. The Act further seeks to mainstream the principle of *Sustainable Development* into the planning for and decision making on climate change response⁵⁴. Promoting the vision of the Climate Change Act is integral in attaining Climate Justice in Kenya.

Further, the *National Climate Change Policy* was developed to facilitate a coordinated, coherent and effective response to the local, national and global challenges and opportunities presented by climate change⁵⁵. It further seeks to enhance adaptive capacity and resilience to climate change, and promote low carbon development for the Sustainable Development of Kenya⁵⁶. The Policy sets out several measures towards achieving its aim which include facilitating widespread public awareness, participation, ownership and oversight of Kenya's climate change response efforts and action plans⁵⁷. The Policy further enshrines several principles that are crucial in the Climate Justice debate including *Sustainable Development; Equity and Social Inclusion and special needs and circumstances* of vulnerable people and communities⁵⁸.

4. The Role of the Legal Profession in Climate Justice in Kenya

Climate change continues to have adverse impacts in developing countries such as Kenya where populations are most vulnerable and least likely to adapt to it⁵⁹. The impacts of climate change as drought, food insecurity, biodiversity loss and extinction, water scarcity and rising sea levels cut across sectors and can potentially affect development⁶⁰. Climate change can thus result in social justice concerns such as unemployment, poverty, displacement of people, food

⁵³ Ibid, S 3 (2) (h)

⁵⁴ Ibid, S 3 (2) (k)

⁵⁵ Sessional Paper No. 5 of 2016., 'National Climate Change Framework Policy.' Available at <http://aiap.or.ke/wp-content/uploads/2018/10/Climate-Change-Framework-PolicyMay2017.pdf> (Accessed on 13/06/2023)

⁵⁶ Ibid

⁵⁷ Ibid, S 3.2 (v)

⁵⁸ Ibid, S 3.3

⁵⁹ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

⁶⁰ Ibid

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insecurity and health hazards⁶¹. From the perspective of the legal profession, climate change is a fundamental legal disruptor that threatens legal stability and coherence⁶². Responding to climate change requires involvement of all sectors of the society including the legal profession. Lawyers can respond to climate change and promote Climate Justice through the following ways.

4.1 Climate Change Litigation

Climate change litigation entails filing of lawsuits pertaining the causes and consequences of climate change⁶³. It involves cases before judicial and quasi-judicial bodies that involve material issues of climate change science, policy, or law. Through such law suits, lawyers are able to help courts and tribunals adjudicate upon pertinent issues in climate change such mitigation and adaptation measures as well as climate change-related loss and damage⁶⁴. Lawyers can thus shape the climate change agenda and influence the outcome and ambition of climate governance through litigation⁶⁵. Climate change litigation has consequently become a tool to enforce or enhance climate commitments by governments across the globe⁶⁶. Governments are thus able to be held accountable in respect of laws and policies on climate change through climate change litigation. Lawyers can contribute to Climate Justice in Kenya through climate change litigation.

4.2 Promoting Public Awareness and Education

One of the essential features of climate justice is public awareness, public participation and public access to information on climate matters. This has

⁶¹ Sultana. F., 'Critical Climate Justice' Op Cit

⁶² Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' Op Cit

⁶³ Setzer. J., 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance.' Available at https://www.researchgate.net/profile/Joana-Setzer/publication/331499727_Climate_change_litigation_A_review_of_research_on_courts_and_litigants_in_climate_governance/links/5e89690d92851c2f527f820d/Climate-change-litigation-A-review-of-research-on-courts-and-litigants-in-climate-governance.pdf (Accessed on 13/06/2023)

⁶⁴ Ibid

⁶⁵ Setzer. J & Higham. C., 'Global Trends in Climate Change Litigation: 2022 Snapshot' Available at <https://www.cccep.ac.uk/wp-content/uploads/2022/06/Global-trends-in-climate-change-litigation-2022-snapshot.pdf> (Accessed on 13/06/2023)

⁶⁶ Ibid

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been enunciated in various legal instruments on climate change and climate justice⁶⁷. Lawyers play an important role in the society of extending legal literacy and awareness to members of the public⁶⁸. The legal profession can therefore spearhead Climate Justice by promoting public awareness, access to information and education on climate issues through avenues such as legal aid clinics and forums. Through this, the public will be better informed and able to effectively participate in the climate change discourse towards attaining Climate Justice.

4.3 Climate Finance

Climate finance refers to local, national or transnational financing drawn from public, private and alternative sources of financing that seeks to support mitigation and adaptation actions that will address climate change⁶⁹. Climate finance is integral to climate change mitigation and adaptation since financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate⁷⁰. The success of low-carbon and climate-resilient development depends on the quantity and type of finance made available to support these efforts⁷¹. The private sector plays an important role in climate finance and has been shown to contribute more towards climate finance initiatives than the public sector⁷². The legal profession can thus contribute towards Climate Justice in Kenya by participating in climate finance initiatives. Such funding can be used to support mitigation and adaptation measures such as planting trees, restoring ecosystems, promoting food security, greening infrastructure and the move towards renewable energy which are essential in attaining Climate Justice.

⁶⁷ See for example the Preamble of the Paris Agreement and S 3 (2) (h) of the Climate Change Act No. 11 of 2016, Laws of Kenya

⁶⁸ Law Society of Kenya., 'Legal Awareness Week.' Available at <https://lsk.or.ke/public/legal-awareness-week/> (Accessed on 13/06/2023)

⁶⁹ United Nations Climate Change., 'Introduction to Climate Finance.' Available at <https://unfccc.int/topics/introduction-to-climate-finance> (Accessed on 13/06/2023)

⁷⁰ Ibid

⁷¹ Climate Policy Initiative., 'The Landscape of Climate Finance.' Available at <http://climatepolicyinitiative.org/wp-content/uploads/2011/10/The-Landscape-of-Climate-Finance-120120.pdf> (Accessed on 13/06/2023)

⁷² Ibid

4.4 Climate Change Laws and Policy Formulation

Lawyers can contribute towards attaining Climate Justice in Kenya by participating in the formulation of laws and policies on climate change in Kenya. Under the Climate Change Act, lawyers can serve in various bodies mandated in shaping the climate change agenda in Kenya such as the Climate Change Council and the Climate Change Directorate⁷³. Through such representation, lawyers can participate towards attaining Climate Justice through implementation of efficient programmes, policies and plans towards climate change mitigation and adaptation. Lawyers can also be involved in formulation of laws and policies on climate change through law reform and public participation forums. This will be integral in promoting Climate Justice in Kenya.

4.5 Greening the Legal Profession

Lawyers can contribute to the Sustainable Development and climate change agenda by adopting practices and procedures that lessen the impact that the legal profession has on the environment⁷⁴. Lawyers and law firms can adopt practical measures to reduce the environmental impact of their business and policies which mitigate their contribution to the climate crisis⁷⁵. Such measures include adopting the use of electronic correspondence; electronic filing of court documents; use of electronic bundles at hearings; encouraging the use of videoconferencing facilities for client interviews and virtual court sessions as an alternative to travel, where appropriate and selecting suppliers and service providers that are committed to the Sustainable Development agenda⁷⁶. Through such measures, lawyers can contribute to climate change mitigation and adaptation as essential pillars of Sustainable Development while simultaneously contributing to the attainment of Climate Justice.

⁷³ Climate Change Act, No.11 of 2016., Part II

⁷⁴ Muigua. K., 'Green Arbitration: Aligning Arbitration with Sustainable Development.' Available at <http://kmco.co.ke/wp-content/uploads/2023/04/Green-Arbitration-Aligning-Arbitration-with-Sustainable-Development-Kariuki-Muigua-April-2023.pdf> (Accessed on 13/06/2023)

⁷⁵ Cracknell. J., 'The Role Lawyers Can Play in Addressing the Climate Crisis.' Available at <https://www.wtwco.com/en-gb/insights/2022/02/the-role-lawyers-can-play-in-addressing-the-climate-crisis> (Accessed on 13/06/2023)

⁷⁶ Muigua. K., 'Green Arbitration: Aligning Arbitration with Sustainable Development.' Op Cit

5. Conclusion

Climate change is fundamental challenge in the 21st Century that raises justice concerns⁷⁷. Climate change further hinders the attainment of Sustainable Development⁷⁸. Responding to climate change requires involvement of all sectors of the society including the legal profession⁷⁹. Achieving Climate Justice is critical to the Sustainable Development agenda since it brings on board all human beings who are at the centre of concerns for Sustainable Development⁸⁰. The legal profession can contribute towards attainment of Climate Justice through climate change litigation; promoting public awareness and education; climate finance; participating in climate change laws and policy formulation and greening the legal profession. Promoting Climate Justice and redefining the role of lawyers therein are ideas whose time is now.

⁷⁷ Sultana. F., 'Critical Climate Justice' Op Cit

⁷⁸ Muigua.K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

⁷⁹ Monica. T & Bronwyn. L., 'Community Lawyering and Climate Justice: A New Frontier.' Op Cit

⁸⁰ Rio Declaration on Environment and Development., Op Cit

The Role of Climate Change in Environmental Conflicts

Abstract

The impacts of Climate Change have been felt across many dimensions of society, including the environment, economy, politics, and even society's social fabric. It has also brought about disputes and conflicts that have been related with Climate Change, both directly and indirectly, since it is considered as a conflict multiplier. These disputes and conflicts have been brought about by Climate Change. In this paper, the author analyses the disagreements that arise from the consequences of Climate Change and how such disagreements may be resolved via the implementation of efficient climate change mitigation strategies. The author contends that it is essential to address the climate change-related incentives that may lead to an increase in conflict in order to successfully mitigate the effects of Climate Change via strategies such as adaptation and the construction of resilience.

1. Introduction

Changes in rainfall patterns, droughts, changes in the flora, and a general lack of resources have all contributed to a number of violent wars. Conflicts involving pastoralists and these other bloody conflicts are clearly related. However, not every violent conflict is caused by climate change; often, the political, social, and economic backdrop play a significant role.¹ Since a major portion of the local population relies on rain-fed agriculture and pastoralism, the negative consequences of climate change on people's livelihoods may be severe. Additionally, when environmental changes are paired with other socioeconomic pressures like political marginalisation, communities may be more inclined to turn to violence to resolve conflicts or get access to resources.² This paper critically discusses the place of Climate Change in the rise and trends in environmental conflicts.

¹ Mobjörk, Malin. "Exploring the climate-conflict link: The case of East Africa." Stockholm International Peace Research Institute, SIPRI yearbook 2017: Armaments, disarmament and international security (2017): 287-299, at pp. 292-93.

² Ibid, p. 293; see also Scheffran, J.; Brzoska, M.; Kominek, J.; Link, P. M.; Schilling, J. Disentangling the Climate-Conflict Nexus: Empirical and Theoretical Assessment of Vulnerabilities and Pathways. Rev. Eur. Stud. 2012, 4, 1.

2. Causes of Climate Change: Natural and Human-Induced Factors

There are two broad categories that may be applied to the factors that contribute to Climate Change:- both naturally occurring and induced by human activity.³ Natural processes, such as ocean currents, volcanic eruptions, shifts in the earth's orbit around the sun, and fluctuations in solar radiation, have a significant impact on and may profoundly alter the climate of the world.⁴ Burning fossil fuels for power, vehicles, trains, aircraft and residences, as well as the flaring of petrol at oil fields and other activities, among other things, has been proved to be a major contributor to the production of man-made greenhouse gases, which are also implicated in the current change in climate. In addition, the way land is used and the rate of deforestation both contribute to Climate Change.⁵

Increased carbon emissions as a result of the intensive use of fossil fuels are one of the most prominent triggers of human-induced Climate Change. Other key triggers include the conversion of forested areas into agricultural land to fulfil the rising demand of consumers and the improper use of freshwater reservoirs. The issues posed by Climate Change have been made worse as a result of these variables.⁶

Although changes in average temperatures have been recorded at various times throughout history, it has been pointed out that vulnerable groups with less consumption, both at the level of countries and among social groups, suffer more than others. This is true both at the level of countries and among social groups.⁷

Over 75 percent of the world's greenhouse gas emissions and almost 90 percent of all carbon dioxide emissions are attributed to fossil fuels, which include

³ Onoja, U. S.; Dibua, U. M. E.; Enete, A. A. Climate Change: Causes, Effects and Mitigation Measures-a Review. *Global Journal of Pure and Applied Sciences* 2011, 17 (4), 469–479.

⁴ Ibid.

⁵ Ibid.

⁶ AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah*. <https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news> (accessed 2023-06-03).

⁷ Ibid.

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coal, oil, and gas. This makes fossil fuels the single greatest source of pollution that contributes to global warming.⁸ When greenhouse gases are emitted into the atmosphere, they create a blanket that covers the Earth and traps the heat of the sun. This contributes to increased temperatures throughout the world and a shifting environment. At this moment in time, the rate of global warming is accelerating at a rate that has never been seen before in human history. The gradual rise in temperature is causing noticeable shifts in weather patterns and upsetting the delicate equilibrium that normally exists in the natural world. This places a significant threat not just on humans but also on every other type of life that exists on our planet.⁹

3. Effects of Climate Change on Livelihoods

Climate change has become a worldwide concern throughout time as a result of the harm it does to the environment and human lives. Climate Change is a significant issue that has an impact on many facets of the environment and human existence.¹⁰ The objective of Sustainable Development and the eradication of poverty are intertwined with the battle against climate change.¹¹ One of the most important aspects of human growth is working towards a state of overall enhanced and maintained well-being for all people. The way in which Climate Change and its related stresses support or destabilize livelihood systems is a significant factor in human development. This is

⁸ United Nations, *Causes and Effects of Climate Change*. United Nations. <https://www.un.org/en/climatechange/science/causes-effects-climate-change> (accessed 2023-06-03).

⁹ Ibid.

¹⁰ Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016; Muigua, K., Kariuki, F., Wamukoya, D., *Natural Resources and Environmental Justice in Kenya*, Glenwood Publishers, Nairobi – 2015.

¹¹ United Nations, *Support Sustainable Development and Climate Action*. United Nations. <https://www.un.org/en/our-work/support-sustainable-development-and-climate-action> (accessed 2023-06-04); *Poverty-Environment Action for Sustainable Development Goals*. UNEP - UN Environment Programme.

<http://www.unep.org/regions/asia-and-pacific/regional-initiatives/poverty-environment-action-sustainable-development> (accessed 2023-06-04); *170 actions to combat climate change - act now!* <https://sites.ungeneva.org/170actions/climate/> (accessed 2023-06-04); *Carbon emissions anywhere threaten development everywhere* | UNCTAD. <https://unctad.org/news/carbon-emissions-anywhere-threaten-development-everywhere> (accessed 2023-06-04).

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especially true for the livelihood systems of individuals who are economically disadvantaged and highly vulnerable.¹²

Due to factors like poverty, location, and social discrimination, vulnerable groups are exposed to serious environmental risks; however, they lack the resources necessary to deal with and combat the negative effects of climate change, which exacerbates social injustices and structural injustices.¹³

It is possible to draw a connection between the changing environment and many forms of discrimination, including those on the levels of class, ethnicity, and the global community. This discrimination is not just a sort of emotional response; rather, it is a strategy that assures the replication of inequality in its background and facilitates the reproduction of inequality within the group.¹⁴ Women are more likely to be responsible for duties such as the production of food, the preparation of food, and the transportation of water, all of which may be directly influenced by climate-related occurrences such as droughts. As a result, women are more likely to be negatively impacted by Climate Change than males.¹⁵

There is a growing consensus that climate change constitutes a "threat multiplier" because of its involvement in aggravating the root causes of conflicts in its conventional forms. The most glaring example is the manner in which alterations in climate change affect competition for ever-decreasing supplies of resources. According to studies conducted on the so-called "heat-aggression relationship," there is a 10–20 percentage point increase in the

¹² UNDP, Climate Change. "Human Development: towards Building a Climate Resilient Nation." *Zimbabwe Human Development Report* (2017).

¹³ AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah*. <https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news> (accessed 2023-06-03).

¹⁴ AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah*. <https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news> (accessed 2023-06-03).

¹⁵ *Ibid.*

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likelihood of armed conflict connected with each 0.5-degree Celsius rise in the temperature of the surrounding environment.¹⁶

According to the findings of a research that was published in 2021, there are normally more occurrences of violence in regions that are next to communities of herders that travel periodically. Second, the research indicates that the likelihood of a dispute occurring on farmlands that are in close proximity to a herding community is increased by a factor of 35% whenever a usual and unfavourable decrease in rainfall is observed by the herding community. The researchers come to the conclusion that there is no influence on conflict when a group that does not herd animals has the same decrease in rainfall.¹⁷

4. Climate Change as a Catalyst for Environmental Conflicts

One of the most significant challenges that the world is now confronted with is climate change, which is caused by human activity. Vulnerable members of society, such as the elderly, children, and women, as well as immigrants, and nations with shaky economies, are particularly at risk from the effects of Climate Change.¹⁸

Even though it is generally agreed that there is only an indirect correlation between climate change and conflicts, some analysts in both industrialized and developing nations have made this connection anyhow.¹⁹ The connection between Climate change and conflict is made more complex by the consequences of Climate Change on issues such as poverty, mental health, food security, and migration.²⁰ As a consequence of this, the objectives of the

¹⁶ How is climate change driving conflict in Africa? - World | ReliefWeb. <https://reliefweb.int/report/world/how-climate-change-driving-conflict-africa> (accessed 2023-06-04).

¹⁷ Does climate change cause conflict? International Growth Centre. <https://www.theigc.org/blogs/does-climate-change-cause-conflict> (accessed 2023-06-04).

¹⁸ AA, D. S. with. "Human-induced climate change causes global environmental injustice." Daily Sabah. <https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news> (accessed 2023-06-03).

¹⁹ 'Does Climate Change Cause Conflict?' (IGC, 2 June 2021) <<https://www.theigc.org/blog/does-climate-change-cause-conflict/>> accessed 3 June 2023; see also Gleditsch, N. P. Whither the Weather? Climate Change and Conflict. *Journal of Peace Research*, 2012, 49, 3–9.

²⁰ Ibid.

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twenty-sixth session of the Conference of the Parties (COP 26), which took place in Glasgow from the 31st of October to the 13th of November 2021, were as follows: achieve global net zero by the middle of the century and keep warming below 1.5 degrees Celsius within reach; adapt to protect communities and natural habitats; mobilise finance; and work together to deliver,²¹ where countries were expected to, among other things, accelerate action to combat the climate crisis through collaboration between governments.²² In order to accomplish these goals, it is going to be necessary for the leadership of each country, as well as many other stakeholders, to make certain modifications. It is arguable that Climate Change brings with it a great number of conflicts and/or disputes that call for environmentally responsible strategies of resolving them.²³

There is no one single criterion that can be agreed upon for what constitutes a disagreement on Climate Change.²⁴ Some writers have made the observation that Climate Change is a "threat multiplier," meaning that it may raise human security concerns such as a lack of food and water while also contributing to (violent) conflict in nations that are particularly sensitive to the effects of climate change.²⁵ This is due to the fact that the negative implications of Climate Change, such as a lack of water, failed crops, food poverty, economic shocks, migration, and displacement, may heighten the likelihood of conflict

²¹ 'COP26 Goals' (UN Climate Change Conference (COP26) at the SEC - Glasgow 2021) <<https://ukcop26.org/cop26-goals/>> accessed 3 June 2023.

²² Ibid.

²³ See Vally Koubi, 'Climate Change and Conflict' (2019) 22 Annual Review of Political Science 343 <<https://www.annualreviews.org/doi/10.1146/annurev-polisci-050317-070830>> accessed 3 June 2023.

²⁴ C. Mark Baker, Cara Dowling, Dylan McKimmie, Tamlyn Mills, Kevin O'Gorman, Holly Stebbing, Martin Valasek, "What are climate change and sustainability disputes? Key arbitration examples (Part 1 contractual disputes)", in James Rogers, London; Cara Dowling, Vancouver (eds), International arbitration report, Norton Rose Fulbright - Issue 16 - June 2021, p. 40. < <https://www.nortonrosefulbright.com/-/media/files/nrf/nrfweb/publications/international-arbitration-report-issue-16.pdf?revision=40c8a703-6e1d-413c-8c7e-ac1201697383&revision=40c8a703-6e1d-413c-8c7e-ac1201697383>> accessed 3 June 2023.

²⁵ Froese, Rebecca, and Janpeter Schilling, "The Nexus of Climate Change, Land Use, and Conflicts." (2019).

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and violence.²⁶ Environmental conflicts and disputes can be broken down into two categories: first, conflicts over access to environmental resources as a source of livelihood and as a foundation for economic activity; and second, conflicts over what are known as the "side effects" of economic activity, such as the loss of biodiversity and pollution. Both of these categories can be broken down further into subcategories.²⁷

The public's level of worry over Climate Change has steadily increased over the course of the years, along with a growing awareness of the potential influence that climate may have on the outcomes of economic activity.²⁸ The word "climate" refers to measurements of climatic parameters such as temperature, rainfall, and water availability, in addition to climate indices that serve as proxy measures for these variables.²⁹ These climatic factors include temperature, precipitation, and water availability. Even if the weather does not directly cause conflict, it may change the conditions under which certain social interactions take place, which in turn might affect the likelihood that they will result in a violent exchange.³⁰

Recent years have seen the emergence of the concept "Climate Security" as a catch-all phrase for a wide variety of problems that seem to be linked to global environmental change. These problems include conflicts, vulnerabilities, and other types of insecurity.³¹

²⁶ 'Tackling the Intersecting Challenges of Climate Change, Fragility and Conflict' <<https://blogs.worldbank.org/dev4peace/tackling-intersecting-challenges-climate-change-fragility-and-conflict>> accessed 3 June 2023.

²⁷ Arild Vatn, *Environmental Governance: Institutions, Policies and Actions* (Paperback edition, Edward Elgar Publishing 2016) 2.

²⁸ Marshall Burke, Solomon M Hsiang and Edward Miguel, 'Climate and Conflict' (2015) 7 *Annual Review of Economics* 577, 578 <<https://www.annualreviews.org/doi/10.1146/annurev-economics-080614-115430>> accessed 3 June 2023.

²⁹ Marshall Burke, Solomon M Hsiang and Edward Miguel, 'Climate and Conflict' (2015) 7 *Annual Review of Economics* 577, 578 <<https://www.annualreviews.org/doi/10.1146/annurev-economics-080614-115430>> accessed 3 June 2023.

³⁰ *Ibid*, 579.

³¹ Dalby, S. *Climate Change and Environmental Conflicts*. In *Routledge handbook of environmental conflict and peacebuilding*; Routledge, 2018; pp 42–53.

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The manner in which Climate Security is framed is important because it directs the formulation, scope, and speed of climate solutions, in addition to determining who should benefit. After 2007, the concept of 'Climate Security' began to acquire traction within the context of four pre-existing frames: national (or state) security, international security, human security, and ecological security.³² In the field of peace and conflict studies, these frames are considered to be standard, with the first three being referred to as "vertical security frames" and the last frame being referred to as a "horizontal security frame." Whose safety is in jeopardy serves as the primary topic of interest in each of these frames.³³

It has been noticed that three consequences of Climate Change (natural catastrophes, rising sea levels, and growing scarcity of resources) are widely anticipated to lead to loss of livelihood, economic decline, and increased insecurity either directly or via forced migration. This is despite the fact that there is no conclusive evidence to support these assumptions. These variables, in turn, may contribute to political and economic instability, social disintegration, migration, and incorrect responses from governments. This is because these issues interact with weak governance, societal inequities, and a terrible neighbourhood. In the long run, this leads to a rise in both the incentive for inciting violence and the chances for mobilisation.³⁴

Several statistical studies of conflict in Africa have revealed that communal and social violence are more likely to occur during or immediately after rainy times. However, some of the studies have also showed that there is some increased risk after very dry periods. As a result, there are conflicting opinions on the scarcity scenario.³⁵

The consequences of Climate Change are not primary predictors of conflict as politics and a history of conflict are. Instead, politics and a history of conflict

³² Lamain, C. *Conflicting Securities: Contributions to a Critical Research Agenda on Climate Security*. *Globalizations* 2022, 19 (8), 1257–1272.

³³ *Ibid.*

³⁴ Theisen, O. M.; Gleditsch, N. P.; Buhaug, H. *Is Climate Change a Driver of Armed Conflict?* *Climatic change* 2013, 117, 613–625.

³⁵ *Ibid.*, p. 620.

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are primary predictors of conflict. However, they are seen as "threat multipliers" because of their ability to exacerbate preexisting patterns of conflict, such as those that occur between nomadic herders and farmers. Shocks to the environment, such as variations in precipitation and temperature, may make it more probable that conflicts and acts of violence will occur, as well as make them more severe when they do.³⁶

In addition, it has been observed that the implications of Climate Change on poverty, mental health, food security, and migration complicate the link between climate change and conflict. This has been highlighted both empirically and conceptually. Even though there is some evidence starting to surface, much more investigation is required in these areas. The function of climate adaptation in mitigating the negative consequences of Climate Change on conflict is another significant topic that should be investigated in the future. For instance, social protection and agricultural technology show a great deal of promise in terms of assisting nations in adapting to the effects of Climate Change and, possibly, in lessening conflicts that are caused by climate change.³⁷

5. Addressing Climate Change for Peace and Sustainability

The Intergovernmental Panel on Climate Change (IPCC) recommends that global CO₂ emissions should reach net zero by the year 2050 after a gradual decline over the following ten years to a level that is about half of what they were in 2010. According to the Intergovernmental Panel on Climate Change (IPCC), in order to limit the rise in global temperature to 1.5 degrees Celsius, all aspects of civilization will need to undergo transformations that are drastic, unprecedented, and urgently necessary.³⁸

The process of adapting to new conditions is one of the most important factors in lowering people's susceptibility to the effects of climate change. In ecological systems, adaptation refers to the process of autonomously adjusting

³⁶Does climate change cause conflict? International Growth Centre. <https://www.theigc.org/blogs/does-climate-change-cause-conflict> (accessed 2023-06-04).

³⁷ Ibid.

³⁸ McGregor D, Whitaker S and Sritharan M, 'Indigenous Environmental Justice and Sustainability' (2020) 43 Current Opinion in Environmental Sustainability 35, p.35.

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to new conditions via ecological and evolutionary processes. When it comes to human systems, adaptation may be anticipatory or reactive, gradual or radical, and all of these things simultaneously. The latter modifies the underlying characteristics of a social-ecological system in preparation for the effects that climate change is going to have. The capacity for adaptation is constrained by both rigid and malleable boundaries.³⁹

Understanding and assessing climate adaptation processes and measures to lower risks caused by human-induced climate change requires a recognition of the value of a variety of types of knowledge, including scientific knowledge, indigenous knowledge, and local knowledge. This is necessary in order to fulfil the requirement that the worth of these many forms of knowledge be acknowledged.⁴⁰

Goal 12.2 of the Sustainable Development Goals (SDG) specifies that all states shall achieve sustainable management and efficient use of natural resources by the year 2030. This is intended to ensure sustainable consumption and production patterns. The aim is to stop the world from deteriorating, which may be accomplished by practising sustainable production and consumption, practising responsible management of the planet's natural resources, and taking prompt action to counteract Climate Change. This will allow the world to meet the needs of both the current generation and the generations to come in the future.⁴¹

The Sustainable Development Goals (SDGs) offer the groundwork that is necessary to improve living conditions around the globe and to mitigate the

³⁹ IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem (eds.)]. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–33, doi:10.1017/9781009325844.001.

⁴⁰ Pörtner, Hans-Otto, et al. "IPCC, 2022: Summary for policymakers." (2022): 3-33.

⁴¹ United Nations, Preamble, Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1.

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potentially catastrophic effects of climate change brought on by human activity. The Sustainable Development Goal (SDG) 13 "Climate Action" encourages the integration of initiatives for limiting the effects of climate change into frameworks for economic growth. The Sustainable Development Goals (SDGs) 14 and 15, which focus, respectively, on life in the ocean and on life on land, call for the implementation of practices that are less harmful to the environment while extracting the natural resources of the planet.⁴²

As a step towards fulfilling socio-economic rights of communities and other associated rights as envisioned under Sustainable Development Goals, there is a need for rapid adoption of nature-based ways to mitigating climate change and conserving biodiversity. This is a need due to the fact that nature-based approaches have been shown to be effective in the past. Once they are put into place, the finance mechanisms that were recommended at COP 27 should be used effectively as a means of establishing communities and ecosystems that are more resilient. Efforts to achieve the Sustainable Development Goals will be given a significant boost as a result of this action.⁴³

Research has shown that oceans and seas are an essential component of any solution to the climate change problem. This is due to the fact that they store the carbon that is the primary cause of climate change and provide major benefits for climate adaptation. To protect the ocean, it is necessary to take action both on land and at sea. This involves decreasing the direct impacts that people have on the ocean, cleaning up polluted rivers, restoring polluted wetlands, and developing a circular economy in which potential pollutants are

⁴² United Nations, 'Sustainability' (United Nations) <<https://www.un.org/en/academic-impact/sustainability>> accessed 14 February 2023.

⁴³ Sachs, J.; Kroll, C.; Lafortune, G.; Fuller, G.; Woelm, F. Sustainable Development Report 2022; Cambridge University Press, 2022; UNEP, UN Environment Assembly concludes with 14 resolutions to curb pollution, protect and restore nature worldwide. UN Environment. <http://www.unep.org/news-and-stories/press-release/un-environment-assembly-concludes-14-resolutions-curb-pollution> (accessed 2023-06-04); Sarkki, S.; Pihlajamäki, M.; Rasmus, S.; Eronen, J. T. "Rights for Life" Scenario to Reach Biodiversity Targets and Social Equity for Indigenous Peoples and Local Communities. *Biological Conservation* 2023, 280, 109958. <https://doi.org/10.1016/j.biocon.2023.109958>.

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utilised for as long as is practically possible before being disposed of in an acceptable manner when they have reached the end of their useful life.⁴⁴

The pressing need to find solutions to environmental issues has resulted in increased push for more stringent legislative measures. It has been argued persuasively that environmental goals cannot be achieved solely by environmental policies or in protected areas. Rather, transformative change requires a fundamental, system-wide reorganization across technological, economic, and social factors, including paradigms, goals, and values.⁴⁵ However, in order for environmental sustainability to be achieved, it is essential that individuals who are currently on the periphery and in a precarious situation not be left behind by the necessary revolutionary changes.⁴⁶

Environmental problems such as Climate Change, the loss of biodiversity, water shortages, air and water pollution, and soil degradation, amongst others, are contributing factors in the rise of poverty and social inequality.⁴⁷ Environmental governance must explicitly involve a greater variety of environmental actors, organisations, and institutions and become more adaptive, responsive, and innovative in order to cope with pressures such as climate change, economic instability, and sociopolitical or ideological upheavals.⁴⁸ This is required in order for environmental governance to be able to deal with these stresses. There is a critical need for more collaboration between governmental and private-sector stakeholders in the decision-making and enforcement processes pertaining to the environment.

⁴⁴ 'Why Protecting the Ocean and Wetlands Can Help Fight the Climate Crisis' (UNEP, 11 November 2022) <<http://www.unep.org/news-and-stories/story/why-protecting-ocean-and-wetlands-can-help-fight-climate-crisis>> accessed 2 June 2023.

⁴⁵ Dalby, S. *Climate Change and Environmental Conflicts*. In *Routledge Handbook of Environmental Conflict and Peacebuilding*; Routledge, 2018.

⁴⁶ Ibid.

⁴⁷ Environment UN, 'Environmental Rule of Law' (UNEP - UN Environment Programme, 5 October 2017) <<http://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law-0>> accessed 2 June 2023.

⁴⁸ DeCaro, D. A., Chaffin, B. C., Schlager, E., Garmestani, A. S., & Ruhl, J. B., "Legal and Institutional Foundations of Adaptive Environmental Governance," *Ecology and Society: A Journal of Integrative Science for Resilience and Sustainability*, 22, no. 1 (2017): 1.

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Climate change now necessitates not only protecting and reconstructing the system, but also changing the system itself, as well as transforming landscapes, ecosystems, cities, and trading arrangements, so that they are both less vulnerable to obvious hazards and flexible enough to reinvent themselves when unexpected crises occur. Governance is important when it comes to adjusting to changing times, whether in terms of alterations in the environment or changes in the global economy. In the context of the conversation on climate security, this is the most important issue that has to be reinforced in policy discussions. Instead of focusing on local environmental circumstances and straightforward scarcity tales as a potential mechanism for conflict, this should be the primary area of attention.⁴⁹

6. Conclusion

Africa is classified as one of the continents highly vulnerable to climate change due to several reasons: high poverty level, high dependence on rain-fed agriculture, poor management of natural resources, capacity/technology limitations, weak infrastructure, and less efficient governance/institutional setup.⁵⁰ Arguably, Kenya's challenges as far as combating climate change is concerned are not any different from the ones identified above. Climate change impacts and the associated socio-economic losses on Kenya have been exacerbated by the country's high dependence on climate sensitive natural resources.⁵¹

It is crucial to act swiftly since a disproportionate number of people are impacted by Climate Change, including women, youth, coastal populations, local communities, indigenous populations, fishermen, the underprivileged, and the elderly. Indigenous peoples, local communities, and those affected by Climate Change are also not included in international attempts to counteract

⁴⁹ Dalby, S. *Climate Change and Environmental Conflicts*. In *Routledge Handbook of Environmental Conflict and Peacebuilding*; Routledge, 2018.

⁵⁰ Kimaro, Didas N., Alfred N. Gichu, Hezron Mogaka, Brian E. Isabirye, and Kifle Woldearegay. "Climate Change Mitigation and Adaptation in ECA/SADC/COMESA region: Opportunities and Challenges." <https://www.researchgate.net/publication/346628199_Climate_Change_Mitigation_and_Adaptation_in_ECASADCCOMESA_region_Opportunities_and_Challenges> accessed 4 June 2023.

⁵¹ GoK, I. N. D. C. "Kenya's Intended Nationally Determined Contribution." (2015).

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it. This is true despite the fact that local economies that depend on natural resources and food sovereignty are also threatened by the consequences of Climate Change. Additionally, they have the potential to pose a threat to the wellbeing of communities all over the globe, especially those who are vulnerable and powerless, including children and the elderly.⁵²

⁵² Muigua, *Securing Our Destiny through Effective Management of the Environment*, Glenwood Publishers Limited (2020), ISBN: 978-9966-046-06-1.

Greenwashing: A hindrance to Achieving Sustainability?

Abstract

This paper critically discusses the concept of greenwashing as a strategy used by the corporate world and other players to create the impression that they are compliant with Environmental, Social and Governance (ESG) while hiding the true level of compliance, through marketing. The author argues that it is necessary to ensure that all corporations and businesses, whose operations have the potential to impact the environment, are included and held accountable for any detrimental consequences on both human beings and the environment, through stricter enforcement of corporate governance and environmental legislation aimed at curbing violation of ESG rules and greenwashing in particular. These efforts are aimed at attaining sustainability in Kenya and Africa as a whole.

1. Introduction

A company's level of social responsibility may be measured by how well it strikes a balance between its economic success and its commitment to protecting the environment.¹ The concept of Corporate Social Responsibility (CSR) pertains to the equilibrium between a company's financial performance and its commitment to environmental preservation. This subject has garnered growing interest among academic researchers, particularly in the context of the Paris Climate Agreement of 2015.² Corporate social responsibility (CSR) refers to a discretionary conduct that goes beyond legal obligations. It is often used by firms as a strategic approach to address the diverse demands of many stakeholder groups, including institutional, public, and other stakeholders, in response to external pressures.³

¹ Zhang D, 'Are Firms Motivated to Greenwash by Financial Constraints? Evidence from Global Firms' Data' (2022) 33 *Journal of International Financial Management & Accounting* 459.

² Ibid.

³ Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 *Corporate Social Responsibility and Environmental Management* 1770.

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In light of the need for sustainable development, Corporate Environmental Responsibility has emerged as a vital ethical asset for organisations seeking to enhance company values and secure resources.⁴

The incorporation of environmental performance into corporate social responsibility (CSR) is a crucial aspect that is gaining significance in tandem with the global push for sustainable economic development.⁵ Organizations that demonstrate strong environmental performance have the potential to cultivate a favourable reputation among investors and therefore lower their costs of financing. Conversely, organizations that exhibit poor environmental performance are likely to face detrimental consequences, such as damage to their reputation.⁶ The fundamental process at play is that investors anticipate that polluting entities would incur substantial costs and liabilities associated with pollution, thereby diminishing their future competitiveness.⁷

Nevertheless, a legitimate worry arises over the phenomenon known as "greenwashing," wherein corporations may strategically disclose environmental performance data in a manner that deceives both the general public and potential investors.⁸

This paper critically discusses the concept of greenwashing as a strategy used by the corporate world to create the impression that they are compliant with Environmental, Social and Governance (ESG) while hiding the true level of compliance, through marketing, and makes recommendations on how to address the same.⁹

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Xia, F., Chen, J., Yang, X., Li, X. and Zhang, B., 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 Corporate Social Responsibility and Environmental Management 1770.

⁹ Yu EP, Van Luu B and Chen CH, 'Greenwashing in Environmental, Social and Governance Disclosures' (2020) 52 Research in International Business and Finance 101192.

2. Greenwashing: Meaning and Drivers

One of the conceptualizations of greenwashing pertains to the phenomenon whereby firms exhibit an appearance of transparency and disseminate substantial volumes of environmental, social, and governance (ESG) data, but demonstrate inadequate results in many dimensions of their ESG endeavours.¹⁰

The assessment of a firm's engagement in greenwashing involves evaluating its standing in relation to other firms by comparing the disparity between its ESG disclosure and performance ratings.¹¹ The primary motivation for organizations' decision to participate in greenwashing of their environmental performance is the anticipation of future investment and financing need. It has been observed that companies with elevated levels of debt are more inclined to partake in greenwashing practices.¹²

The phenomenon of greenwashing often arises from the strategic use of legal resources, such as green subsidies, by enterprises. The presence of legitimacy status ensures that corporations are open to external resources, which may lead enterprises with substandard environmental performance to use selective disclosure tactics.¹³ However, it is important to note that firms engage in greenwashing practices with the intention of conveying favourable messages. Companies may engage in the deceptive transmission of information by concealing unfavourable environmental data in order to preserve their reputation and project an environmentally responsible image, sometimes in response to pressure from investors.¹⁴ Furthermore, the environmental decisions made by firms may be influenced by the interests and risk

¹⁰ Zhang D, 'Are Firms Motivated to Greenwash by Financial Constraints? Evidence from Global Firms' Data' (2022) 33 *Journal of International Financial Management & Accounting* 459.

¹¹ *Ibid.*

¹² Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 *Corporate Social Responsibility and Environmental Management* 1770.

¹³ *Ibid.*

¹⁴ *Ibid.*

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preferences of corporate leaders, who hold managerial and decision-making positions inside these organisations.¹⁵

There is ongoing discourse on the potential influence of cultural variables on the propensity for greenwashing. The development of the current notion of corporate social responsibility (CSR) and the majority of studies on greenwashing have been focused on western cultures. However, there is an increasing interest in the social and environmental practices of corporations in transitional economies, leading to a fast expansion of relevant literature.¹⁶

3. Combating Greenwashing for Sustainability

In recent years, there has been a growing focus on climate change and pollution emissions due to their significant impact on both human well-being and the economic and financial sectors.¹⁷

The involvement of firms in greenwashing practices has the potential to negatively impact several stakeholders, such as investors, the general public, and competing enterprises. Greenwashing practices may result in a situation of information asymmetry, thereby causing detrimental effects on the financial interests of investors. The disclosure of previously concealed adverse environmental data by corporate executives has the potential to result in a significant decline in the value of a company's shares.¹⁸ Furthermore, engaging in greenwashing practices does not contribute to the enhancement of business environmental performance. It is plausible for corporations to conceal instances of pollution and even breaches of environmental legislation by engaging in symbolic compliance.¹⁹

¹⁵ Ibid.

¹⁶ Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 *Corporate Social Responsibility and Environmental Management* 1770.

¹⁷ Zhang D, 'Are Firms Motivated to Greenwash by Financial Constraints? Evidence from Global Firms' Data' (2022) 33 *Journal of International Financial Management & Accounting* 459.

¹⁸ Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 *Corporate Social Responsibility and Environmental Management* 1770.

¹⁹ Ibid.

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The absence of consequences for greenwashing corporations also ultimately hampers equitable competition within markets, particularly for companies who prioritize environmental management and proactively publish essential environmental information.²⁰ Consequently, the presence of greenwashing practices may have an impact on stakeholders' perceptions of the firm, the decision-making processes of managers, the work performance of staff, and the purchase choices of customers.²¹

It is the cultural aspect that has informed the current paper, with a focus on developing nations like Kenya. For instance, the Kenya Flower Council, a voluntary membership organisation run by a board, with its main office located in Nairobi, oversees the adherence of its members to a set of guidelines encompassing various aspects of horticultural practices, sustainability, social responsibility, hygiene, health and safety, capacity development, environmental preservation, and conservation. The adherence to the code of practice serves as the fundamental support for all actions undertaken.²² The code of practice has been evaluated by the Floricultural Sustainability Initiative to assess its compliance with recognised social and environmental sustainability criteria, making it one of the three global standards that have undergone independent benchmarking.²³

This does not mean that human rights violations and greenwashing have not been reported in Kenya and perhaps other African countries.²⁴ Western

²⁰ Ibid.

²¹ Ibid.

²² 'Council Strives to Ensure Flower Farmers Meet Defined Standards - Kenyan Woman' (4 February 2018) <<https://kw.awcfs.org/article/council-strives-to-ensure-flower-farmers-meet-defined-standards/>> accessed 23 August 2023; see also 'EU Trade Deal: Kenya Opens Its Market to European Goods - DW - 06/20/2023' (*dw.com*) <<https://www.dw.com/en/eu-trade-deal-kenya-opens-its-market-to-european-goods/a-65978273>> accessed 23 August 2023.

²³ Ibid; see also Buxton A and Vorley B, 'The Ethical Agent: Fresh Flowers in Kenya' [2012] International Institute for Environment and Development/Sustainable Food Lab.

²⁴ Arif-Fear L, 'The Dark Side of the Flower Sector: The Growing Exploitation of Women in Kenya' (*Anti-Slavery International*, 3 November 2022)

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countries have been increasingly calling on African companies and other international corporations with presence in developing countries and others to adhere to ESG requirements. For instance, on the 1st of June 2023, after a prolonged period of rigorous discussions, the European Parliament endorsed its formal stance on the Corporate Sustainability Due Diligence Directive (CSDDD).²⁵ The implementation of the Corporate Sustainability Due Diligence Directive (CSDDD) proposed by the European Commission would require corporations to create due diligence protocols in order to mitigate the negative consequences of their activities on human rights and the environment. This would include addressing such effects across their global value chains. The objective is to promote the development of enduring and accountable corporate conduct, as well as to include sustainability factors into the operational and governance practices of firms.²⁶

The CSDDD is a component of the European Green Deal which encompasses a series of policy measures implemented by the European Commission. Its primary objective is to align the climate, energy, transport, and taxation policies of the European Union in order to achieve a minimum reduction of 55% in net greenhouse gas emissions by 2030, relative to the levels recorded in 1990. Furthermore, the European Green Deal aims to attain climate-neutral by 2050.²⁷

Similarly, the proposal for a rule on deforestation-free supply chains was presented by the EU Commission in November 2021.²⁸ Cocoa was chosen, with

<<https://www.antislavery.org/flower-sector-exploitation-of-women-in-kenya/>> accessed 23 August 2023.

²⁵ Russell G, 'One Step Closer to Mandatory Human Rights and Environmental Due Diligence in the EU' (*Anti-Slavery International*, 20 June 2023) <<https://www.antislavery.org/one-step-closer-to-mandatory-human-rights-and-environmental-due-diligence-in-the-eu/>> accessed 23 August 2023.

²⁶ Union (EBU) EB, *Sustainability Rulebook: The Corporate Sustainability Due Diligence Directive (CSDDD)* (2023) <<https://www.ebu.ch/case-studies/open/legal-policy/the-future-of-eu-sustainability-regulation-ii-the-corporate-sustainability-due-diligence-directive-csddd>> accessed 23 August 2023.

²⁷ Ibid.

²⁸ Ghana <*Anand Chandrasekhar*> with reporting by Delali Adogla-Bessa in, 'West Africa Braces for Tough Sustainable Cocoa Rules in Europe' (*SWI swissinfo.ch*, 2

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beef, palm oil, soy, and coffee, as one of the five global commodities that needed more control. According to the survey, cocoa is alone accountable for 7.5% of deforestation worldwide that is attributed to the European Union.²⁹ It has been noted that Although governments require corporate environmental information disclosure, weak enforcement and low penalties can make it easy for companies to greenwash.³⁰ It is suggested that African countries could borrow a leaf from the proposed European CSDDD Rules' mode of enforcement which is:³¹

- a. **Administrative supervision and sanctions: Member States would designate an authority to supervise and impose administrative sanctions, including fines and compliance orders. At the European level, the Commission will set up a European Network of Supervisory Authorities that will bring together representatives of the national authorities to ensure a coordinated approach. Natural and legal persons would be entitled to submit "substantiated concerns" to any supervisory authority alleging that a company is failing to comply.**³²
- b. **Civil liability: Member States will ensure that victims have access to compensation for damages resulting from the companies' failure to comply with their due diligence obligations.**³³

August 2022) <<https://www.swissinfo.ch/eng/business/west-africa-braces-for-tough-sustainable-cocoa-rules-in-europe/47713236>> accessed 23 August 2023.

²⁹ Ibid; see also Ilgar O, 'SAP BrandVoice: The Sustainability Problems Percolating In The Coffee Supply Chain' (*Forbes*) <<https://www.forbes.com/sites/sap/2022/09/29/the-sustainability-problems-percolating-in-the-coffee-supply-chain/>> accessed 23 August 2023.

³⁰ Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 *Corporate Social Responsibility and Environmental Management* 1770.

³¹ Union (EBU) EB, *Sustainability Rulebook: The Corporate Sustainability Due Diligence Directive (CSDDD)* (2023) <<https://www.ebu.ch/case-studies/open/legal-policy/the-future-of-eu-sustainability-regulation-ii-the-corporate-sustainability-due-diligence-directive-csddd>> accessed 23 August 2023.

³² Ibid; see also 'Corporate Sustainability Due Diligence' (23 February 2022) <https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence_en> accessed 23 August 2023.

³³ Ibid; 'Corporate Sustainability Due Diligence' (23 February 2022) <https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence_en> accessed 23 August 2023.

- c. Financial incentives: **Implementation of the emission reduction plans will be embedded in the financial incentives of directors of EU companies by linking their variable remuneration to their contribution to fulfilling these plans.**³⁴

While these proposals may require additional legislation/regulations, they are not entirely unachievable with the current framework, especially in Kenya. Companies are subject to oversight from the public and social organisations in order to ensure their adherence to Corporate Social Responsibility (CSR) practices. Public and social organisations closely monitor the environmental practices of enterprises and often express dissatisfaction or impose penalties on companies that demonstrate environmental irresponsibility.³⁵ The presence of social oversight heightens the likelihood of greenwashing being exposed, resulting in a subsequent erosion of public confidence.³⁶ Hence, the oversight from the general public has the potential to impede the practice of greenwashing by corporations.³⁷ Moreover, in a geographical area characterized by elevated environmental requirements and a greater emphasis on corporate environmental disclosure, the influence of societal scrutiny will assume a more important role.³⁸

Directors, in fulfilment of their duty to enhance the flourishing of a company, are mandated by the Companies Act of 2015 in Kenya to duly consider the potential impacts of the company's operations on both the surrounding community and the ecological environment.³⁹ Furthermore, the legislation

³⁴ Ibid; see also 'Corporate Sustainability Due Diligence' (23 February 2022) <https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence_en> accessed 23 August 2023.

³⁵ Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 Corporate Social Responsibility and Environmental Management 1770.

³⁶ 'Corporate Sustainability Greenwash and the Risk to Social and Governance Standards' <<https://www.ibanet.org/corporate-sustainability-greenwash-risk-to-social-and-governance-standards>> accessed 23 August 2023; Laufer WS, 'Social Accountability and Corporate Greenwashing' (2003) 43 Journal of business ethics 253;

³⁷ Xia F and others, 'Financial Constraints and Corporate Greenwashing Strategies in China' (2023) 30 Corporate Social Responsibility and Environmental Management 1770.

³⁸ Ibid.

³⁹ Companies Act, No. 17 of 2015, s. 143 (1) (d), Government Printer, Nairobi.

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mandates that directors include environmental considerations into their reports and assess the impact of the firm's activities on the surrounding ecosystem.⁴⁰

Efforts must be collectively undertaken to ensure the implementation of effective reporting mechanisms, particularly in the realm of corporate and environmental legislation, in order to successfully attain sustainability objectives within the nation and effectively curb the practice of greenwashing. This can get support from the provisions of section 655 of the Companies Act⁴¹ which requires that unless the company is subject to the small companies regime, the directors shall include in their report a business review that complies with subsection (3), so far as relevant to the company.⁴² The purpose of the business review is to inform members of the company and assist them to assess how the directors have performed their duty under section 144.⁴³ In the case of a quoted company, the directors are required to specify in the business review (to the extent necessary for an understanding of the development, performance or position of the company) – (a) the main trends and factors likely to affect the future development, performance and position of the business of the company; (b) information about – (i) environmental matters (including the impact of the business of the company on the environment); (ii) the employees of the company; and (iii) social and community issues, including information on any policies of the company in relation to those matters and the effectiveness of those policies; and (c) information about persons with whom the company has contractual or other arrangements that are essential to the business of the company.⁴⁴

In addition to the foregoing, the Environmental Management and Co-Ordination Act, 1999⁴⁵ (EMCA) envisages environmental reporting and even spells out enforcement tools and offences to enhance compliance.⁴⁶ EMCA

⁴⁰ Ibid, s. 655 (4) (b).

⁴¹ Companies Act. No. 17 Of 2015, Laws of Kenya. Revised Edition 2021 [2015]

⁴² Ibid, s.655(1).

⁴³ Ibid, s.655(2).

⁴⁴ Ibid, s.655(4).

⁴⁵ Environmental Management and Co-ordination Act, No. 8 of 1999, Laws of Kenya, Revised Edition 2019 [1999].

⁴⁶ See SEC. 38 (C); Sec. 57; Part XIII, EMCA

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stipulates various environmental offences which including offences related to *inspection*, offences related to *Environmental Impact Assessment*, offences related to records and *standards and offences related to hazardous wastes* (emphasis added).⁴⁷ The Act also prescribes penalties for these offences.⁴⁸ Offences under EMCA relate to among other things, failing to submit to inspection⁴⁹, offences relating to Environmental Impact Assessment⁵⁰; offences relating to records⁵¹; offences relating to standards⁵²; offences relating to hazardous waste⁵³; offences relating to pollution⁵⁴; and offences relating to restoration orders⁵⁵.

To meet the obligations towards the environment, it is mandated by both Kenya's Constitution and the Environmental Management and Coordination Act (EMCA) that periodic environmental audits and monitoring activities be conducted.⁵⁶ According to EMCA, an environmental audit is a systematic, documented, regular, and unbiased evaluation of the effectiveness of an organization's environmental practices, management strategies, and equipment in the preservation and safeguarding of the environment.⁵⁷ Environmental audits and monitoring are used as subsequent measures to examine the extent to which ongoing operations align with the environmental impact assessment study report, addressing the pertinent problems associated with the particular project at hand.⁵⁸

This is a testimony that Kenya is not entirely devoid of the requisite legislation to curb greenwashing by the corporations operating in the country. All that is required is streamlining the operational efficiency of co-operation between

⁴⁷ EMCA, s. 137-146.

⁴⁸ Ibid.

⁴⁹ Sec. 137, EMCA.

⁵⁰ Sec. 138, EMCA.

⁵¹ Sec. 139, EMCA.

⁵² Sec. 140, EMCA.

⁵³ Sec. 141, EMCA.

⁵⁴ Sec. 142, EMCA.

⁵⁵ Sec. 143, EMCA.

⁵⁶ Constitution of Kenya, 2010, Article 69 (1) (f), Government Printer, Nairobi.

⁵⁷ EMCA, s. 2.

⁵⁸ *National Environment Management Authority (NEMA) - Environmental Audit (EA)*. https://www.nema.go.ke/index.php?option=com_content&view=article&id=155&Itemid=274 (accessed 2023-06-16).

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enforcement agencies and the goodwill of the political class. The political goodwill is important as the monitoring and enforcement task will not come without financial implications. While some of the enforcement costs may be recovered from the polluters, some of the costs may not.⁵⁹ Even as the companies market themselves as 'green' they must not be taken at their word; regulators must verify the information being fed to the public either through media or own audit reports.

4. Conclusion

There is an urgent need for enhanced implementation of these provisions, accompanied by the implementation of sustainability audits. This is necessary to ensure that all corporations and businesses, whose operations have the potential to impact the environment, are included and held accountable for any detrimental consequences on both human beings and the environment. These efforts are aimed at attaining sustainability in Kenya and Africa as a whole.

Greenwashing is clearly a hindrance to achieving true sustainability. We should curb or avoid it altogether.

⁵⁹ See Chapter Seven, Farmer A, *Handbook of Environmental Protection and Enforcement: Principles and Practice* (Earthscan 2012).

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Abstract

The paper critically appraises the role of litigation in realizing Environmental Justice in Kenya. It examines relevant case law on Environmental Justice and the jurisprudence that has emanated from courts on the same. The paper highlights and discusses the principles of Environmental Justice that have been upheld by courts through litigation. The paper further explores the prospects and challenges of litigation as a tool of realizing Environmental Justice and proposes the way forward.

1. Introduction

Environmental Justice means the right to have access to natural resources; not to suffer disproportionately from environmental policies, laws and regulations; and the right to environmental information, participation and involvement in decision-making¹. It has also been defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies². Environmental Justice is attained when every person enjoys the same degree of protection from environmental and health hazards and has access to the decision-making process to have a healthy environment³. Environmental Justice thus seeks to address distributive inequity, lack of recognition, disenfranchisement and exclusion in environmental matters⁴.

Environmental Justice raises several concerns regarding equality, equity and fairness in environmental matters⁵. These include intra and intergenerational equity in the environmental context, including the realization that degradation

¹ Ako. R., 'Resource Exploitation and Environmental Justice: the Nigerian Experience' Available at <https://www.elgaronline.com/display/edcoll/9781848446793/9781848446793.00011.xml> (Accessed on 24/07/2023)

² United States Environmental Protection Agency; 'Environmental Justice.' Available at <https://www.epa.gov/environmentaljustice> (Accessed on 24/07/2023)

³ Ibid

⁴ Schlosberg. D & Collins. L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' WIREs Clim Change 2014

⁵ Ibid

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of environmental conditions has been mostly led by industrialized countries, and its impacts more acutely experienced by developing countries which contributed the least to such degradation;⁶ Distributive environmental justice which is the notion that environmental benefits and burdens should be distributed fairly and in a way that does not contribute toward further marginalization of vulnerable groups, from both intra and intergenerational perspectives, within and among nations; corrective justice for environmental harm, including compensation mechanisms, access to justice and effective remedy, and legal empowerment;⁷ procedural fairness in environmental issues, requiring open, transparent and inclusive decision making, and access to information at national and international levels; the idea of justice for the environment, as something to be protected in its own right;⁸ and the consideration of sustainability as a condition for justice, an idea that presupposes that although justice is primarily a human-centric concept, it must be viewed in a context of ecological sustainability given the interdependence between man and nature⁹. Environmental Justice seeks to achieve the ideal of access, participation and procedural justice in environmental decision making¹⁰. Environmental Justice is a key pillar of Sustainable Development¹¹. It highlights the plight of vulnerable people and communities who bear the most burden when it comes to environmental damage and seeks to give them a voice through access to environmental information and participation in environmental decision making in order to ensure sustainable and equitable development¹².

⁶ United Nations Development Programme., 'Environmental Justice: Securing Our Right to a Clean, Heathy and Sustainable Environment.' Available at <https://www.undp.org/publications/environmental-justice-securing-our-right-clean-healthy-and-sustainable-environment> (Accessed on 24/07/2023)

⁷ Ibid

⁸ Ibid

⁹ United Nations Development Programme., 'Environmental Justice: Securing Our Right to a Clean, Heathy and Sustainable Environment.' Op Cit

¹⁰ Schlosberg. D & Collins. L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' Op Cit

¹¹ United States Environmental Protection Agency; 'Environmental Justice.' Op Cit

¹² Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

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The United Nations 2030 Agenda for Sustainable Development and its Sustainable Development Goals recognize the environment as an essential pillar of sustainability and sets out several measures towards its protection and conservation¹³. It further envisages both anthropocentric and ecocentric¹⁴ approaches towards Environmental Justice by seeking to achieve goals such as ensuring availability and sustainable management of water and sanitation for all; ensuring access to affordable, reliable, sustainable and modern energy for all; taking urgent action to combat climate change and its impacts; ensuring the conservation and sustainable use of the oceans, seas and marine resources; protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halting and reversing land degradation biodiversity loss and promoting access to justice¹⁵. The Sustainable Development Goals thus envisage attainment of human rights and environmental conservation which are key concerns in the Environmental Justice debate¹⁶.

Further, the *Rio Declaration on Environment and Development*¹⁷ succinctly captures the key elements of Environmental Justice. It stipulates as follows:

'Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to

¹³ 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 24/07/2023)

¹⁴ Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

¹⁵ Ibid

¹⁶ Menton. M et al., 'Environmental Justice and the SDGs: From Synergies to Gaps and Contradictions.' *Sustainability Science*, No. 15 of 2020

¹⁷ United Nations General Assembly., 'Report of the United Nations Conference on Environment and Development: Rio Declaration on Environment and Development.' A/CONF. 151/26 (Vol.1)

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judicial and administrative proceedings, including redress and remedy, shall be provided (emphasis added)^{18.}

The Declaration thus contains the critical components that are germane in promoting Environmental Justice which are access to information, public participation and access to justice in environmental matters¹⁹.

Environmental Justice has also been captured under the legal framework in Kenya. The Constitution of Kenya enshrines Sustainable Development as among the national values and principles of governance²⁰. Fostering Sustainable Development is one of the ways of achieving Environmental Justice²¹. The Constitution further sets out the right to a clean and healthy environment²². It has been argued that this right entails procedural elements such as access to information, public participation, and access to justice or effective remedies which are vital components in the Environmental Justice discourse²³. Further, the Constitution sets out several obligations of the state in respect of the environment including ensuring sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits; the need encourage public participation in the management, protection and conservation of the environment; establishing systems of environmental impact assessment, environmental audit and monitoring of the environment and eliminating processes and activities that are likely to endanger the environment²⁴.

It has been asserted that courts through litigation can play a fundamental role in safeguarding environmental rights in Kenya and fostering Environmental

¹⁸ Ibid, Principle 10

¹⁹ Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

²⁰ Constitution of Kenya, 2010., Article 10 (2) (d), Government Printer, Nairobi

²¹ United Nations Development Programme., 'Environmental Justice: Securing Our Right to a Clean, Healthy and Sustainable Environment.' Op Cit

²² Constitution of Kenya, 2010., Article 42

²³ Muigua. K., 'Recognising a Human Right to Safe, Healthy and Sustainable Environment.' Available at <http://kmco.co.ke/wp-content/uploads/2021/04/Recognising-a-Human-Right-to-Safe-Healthy-andSustainable-Environment-Kariuki-Muigua-1st-April-2021.pdf> (Accessed on 24/07/2023)

²⁴ Constitution of Kenya, 2010., Article 69

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Justice²⁵. The Constitution of Kenya also recognizes the role of litigation in enforcement of environmental rights. It allows a person alleging the denial, infringement or violation of the right to a clean and healthy environment to apply to a court for redress in addition to any other legal remedies that are available²⁶. The *Environmental Management and Co-ordination Act (EMCA)*²⁷ further upholds the role of litigation in fostering Environmental Justice. The Act stipulates that 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, 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 the Environment and Land Court for redress²⁸. The Act empowers the Environment and Land Court to make certain orders towards realizing Environmental Justice including an order to prevent, stop or discontinue any act or omission deleterious to the environment; an order 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 and an order of compensation²⁹. While exercising its jurisdiction to foster Environmental Justice, the Act also mandates the Environment and Land Court to be guided by the principles of Sustainable Development including the principle of public participation in the development of policies, plans and processes for the management of the environment; the principles of intergenerational and intragenerational equity; the polluter-pays principle; and the pre-cautionary principle³⁰. EMCA further establishes the National Environment Tribunal which is a key body in promoting Environmental Justice in Kenya³¹. The Tribunal is vested with jurisdiction to hear and determine appeals concerning certain matters including the grant or refusal of

²⁵ Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Available at <http://kmco.co.ke/wp-content/uploads/2019/01/The-Role-of-Courts-in-Safeguarding-Environmental-Rights-in-Kenya-A-Critical-Appraisal-Kariuki-Muigua-17th-January-2019-1.pdf> (Accessed on 24/07/2023)

²⁶ Ibid, Article 70

²⁷ Environmental Management and Co-ordination Act, No. 8 of 1999, Government Printer, Nairobi

²⁸ Ibid, S 3 (3)

²⁹ Ibid

³⁰ Ibid, S 3 (5)

³¹ Ibid, S 125

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grant of a licence or permit under EMCA; imposition of any condition, limitation or restriction on a licence; revocation, suspension or variation of a licence and appeals from the decisions of the Director-General, the Authority or Committees of the Authority or its agents³². EMCA empowers the National Environment Tribunal to make certain orders towards realizing Environmental Justice including confirming, setting aside or varying the order or decision in question and orders to enhance the principles of Sustainable Development³³.

In addition, the *Environment and Land Court Act* establishes the Environment and Land Court to hear and determine disputes relating to environmental planning and protection, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources among other matters³⁴. While exercising its jurisdiction, the Act mandates the Environment and Land Court to be guided by several tenets that are key in realizing Environmental Justice including the principles of Sustainable Development such as the principle of public participation; the polluter-pays principle and the pre-cautionary principle³⁵.

Litigation is thus key in realizing Environmental Justice in Kenya. Through litigation, the jurisdiction of courts and tribunals such as the Environment and Land Court and the National Environment Tribunal can be used to enhance Environmental Justice in Kenya. The paper critically appraises the role of litigation in realizing Environmental Justice in Kenya. It examines relevant case law on Environmental Justice and the jurisprudence that has emanated from courts on the same. The paper highlights and discusses the principles of Environmental Justice that have been upheld by courts through litigation. The discourse further covers the prospects and challenges of litigation as a tool of realizing Environmental Justice and proposes the way forward.

³² Ibid, S 129 (1) & (2)

³³ Ibid, S 129 (3)

³⁴ Environment and Land Court Act, No. 19 of 2011, S 13 (2) (a)

³⁵ Ibid, S 18 (a)

2. Case Law on Environmental Justice in Kenya

Courts in Kenya have on several occasions had to adjudicate upon matters concerning Environmental Justice as a result of litigation. In *Peter K. Waweru – vs- Republic*³⁶, the applicants and the interested parties were charged with the offence of discharging raw sewage into a public water source and the environment contrary to Section 118 (e) of the Public Health Act, Chapter 242, Laws of Kenya. The court had to consider several issues including whether the applicants were properly charged in the criminal proceedings and whether courts had a role in fostering Sustainable Development. The court reiterated the sacrosanct nature of the right to a clean environment and decided that the right is primary to all creatures including man, and is inherent from the act of creation, the recent restatement in the statutes and the Constitutions of the world notwithstanding³⁷. The Court further reiterated the position of Section 3 of EMCA which requires that courts take into account certain universal principles when determining environment cases³⁸. It also went further to state that apart from the EMCA it was of the view that the principles set out in section 3 do constitute part of international customary law and the courts ought to take cognisance of them in all the relevant situations³⁹. It therefore reiterated that courts had and still have a role in promoting Sustainable Development. In this case, the Court considered certain principles of Sustainable development including the precautionary principle; the polluter pays principle; and the public trust principle⁴⁰. The court thus decided that a development that threatens life is not sustainable and ought to be halted⁴¹.

The Court also stated that environmental crimes under the Water Act⁴², Public Health Act⁴³ and EMCA cover the entire range of liability including strict liability and absolute liability and ought to be severely punished because the challenge of the restoration of the environment has to be tackled from all sides

³⁶ Peter K. Waweru –vs- Republic, Miscellaneous Civil Application, 118 of 2004, (2006) eKLR

³⁷ Ibid

³⁸ Ibid

³⁹ Ibid

⁴⁰ Ibid

⁴¹ Ibid

⁴² Water Act, No. 8 of 2002 Laws of Kenya (Repealed)

⁴³ Public Health Act, Cap 242 Laws of Kenya

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and by every person⁴⁴. The decision is key in realizing Environmental Justice in Kenya by upholding the role of courts in promoting the Sustainable Development; recognizing the nexus between the right to life and the right to a clean environment and the need to punish environmental crimes.

Environmental Justice matters were also considered by the Environment and Land Court in the case of *Friends of Lake Turkana Trust vs Attorney General & 2 others*⁴⁵. The case emanated from a Memorandum of Understanding entered into by the Government of Kenya and Government of Ethiopia in the year 2006 for the purchase of 500 MW of electricity from Gibe III as well as an \$800 million grid connection between Ethiopia and Kenya. The petitioner argued that the Government of Kenya failed to conduct a full, proper and thorough Impact Assessment on the potential environmental effects of the construction and operation of Gibe III dam⁴⁶. The petitioner also contended that the project will have severe environmental impacts on Lake Turkana hence the communities will be adversely affected⁴⁷. The petitioner sought several orders including an order of mandamus compelling the Government of Kenya and the Kenya Power and Lighting Company Limited to make full and complete disclosures of each and every agreement or arrangement entered into or made with the Government of Ethiopia and an order of prohibition strictly enjoining and prohibiting the Government of Kenya and the Kenya Power and Lighting Company Limited from entering into further agreements and/or making further arrangements with the Government of Ethiopia in relation to the project⁴⁸.

The court partly allowed the petition and pronounced itself on several principles of Environmental Justice including access to information and public participation. The court decided that the state is a custodian of the environment and natural resources and is under certain duties and obligations including ensuring that there is public participation in the sustainable

⁴⁴ Ibid

⁴⁵ *Friends of Lake Turkana Trust vs Attorney General & 2 others.*, ELC Suit No. 825 of 2012, (2014) eKLR

⁴⁶ Ibid

⁴⁷ Ibid

⁴⁸ Ibid

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management, protection and conservation of the environment⁴⁹. The court further decided that access to environmental information is a prerequisite to effective public participation in decision-making and to monitoring governmental and private sector activities on the environment⁵⁰. It also determined that it is now an accepted principle in international law that such access to environmental information is necessary to meet the goals of Sustainable Development as envisaged by principle 10 of the Rio Declaration on Environment and Development, 1992⁵¹. The court thus directed the Respondents to make full and complete disclosure to the Petitioner of each and every agreement or arrangement entered into or made with the Government of Ethiopia (including its parastatals) relating to the proposed purchase of electricity from Ethiopia and/or the Gibe III project including, but not limited to, the Memorandum of Understanding signed in 2006 and to take the necessary steps and measures to ensure that the natural resources of Lake Turkana are sustainably managed, utilized and conserved in any engagement with, and in any agreements entered into or made with the Government of Ethiopia (including its parastatals) relating to the purchase of electricity⁵². The decision is important in fostering Environmental Justice in Kenya by upholding the principles of access to information and public participation.

Further, Environmental Justice principles were examined in the case of *KM & 9 others v Attorney General & 7 others*⁵³ (Owino-Uhuru case). The case involved pollution from a lead acid batteries recycling factory that produced toxic waste resulting in several concerns in the neighbouring Owino-Uhuru village including deaths, soil and water pollution. The Court found that the acts of pollution from the lead acid batteries recycling factory had resulted in violation of the Petitioner's rights to their personal life, the environment where they stayed and the water which they consumed⁵⁴. It decided that Petitioners suffered individually through inhalation/absorption of pollutants from factory and that further the environment where they lived (Owino-

⁴⁹ Ibid

⁵⁰ Ibid

⁵¹ Ibid

⁵² Ibid

⁵³ *KM & 9 others v Attorney General & 7 others*, Petition No. 1 of 2016 (2020) eKLR,

⁵⁴ Ibid

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Uhuru Settlement) was affected as there was evidence of soil and water pollution⁵⁵. On this basis, the court decided that the Petitioners were entitled to compensation as envisaged by Principle 13 of the Rio Declaration which imposes an obligation on the state to develop law regarding liability and compensation for victims of pollution⁵⁶. It proceeded to award the Petitioners damages in the sum of Kshs. 1.3 Billion. It also directed the Respondents to clean-up the soil, water and remove any wastes deposited within the settlement⁵⁷. The case is essential in the Environmental Justice debate in Kenya since it gives prominence to the concepts of access to justice and access to remedies including compensation in cases of environmental pollution⁵⁸. The decision of the Environment and Land Court as regards quantum has since been modified by the Court of Appeal in the case of *National Environment Management Authority -vs- Kelvin Musyoka & Others*⁵⁹. The Court of Appeal however reiterated the Environmental Justice principles enunciated by the Environment and Land Court and directed the National Environment Management Authority to identify the extent of contamination and pollution caused by the operations of Metal Refinery EPZ Ltd as the Owino-Uhuru Settlement, remove any contamination and pollution in the affected areas of Owino-Uhuru Settlement, restore the environment of Owino-Uhuru Settlement and its ecosystem and to periodically report every 3 months to the Environment and Land Court at Mombasa on the progress made in this regard, and for any consequent directions, until the satisfactory completion of the restoration⁶⁰.

The case of *Mohamed Ali Baadi and others -vs- Attorney General & 11 others*⁶¹ (LAPSSET projet case) also involved Environmental Justice issues in Kenya including public participation. The case involved the design and implementation of the Lamu Port-South Sudan-Ethiopia-Transport Corridor

⁵⁵ Ibid

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ Ibid

⁵⁹ *National Environment Management Authority -vs- Kelvin Musyoka & Others*⁵⁹, Mombasa Civil Appeal No. E004 of 2020.

⁶⁰ Ibid

⁶¹ *Mohamed Ali Baadi and others -vs- Attorney General & 11 Others*, Petition No. 22 of 2012 (2018) eKLR

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project ("the LAPSSET Project"). The Petitioners claimed that the LAPSSET Project will have far reaching environmental effects adverse to them and the marine ecosystem of the Lamu region in terms of the destruction of the mangrove forests, discharge of industrial effluents into the environment, and effects of the fish species and marine life⁶². The Petitioners contended that implementation of the LAPSSET project will violate statutory and constitutional principles and values among them Sustainable Development, transparency, public participation, accountability and their constitutional rights to earn a livelihood, a clean and healthy environment, cultural rights and the right to information⁶³. The court found that the public was not adequately involved in the project as required and that further the Petitioners' rights of access to information had been violated.

The Court in its decision considered the concept of Environmental Democracy and decided that it is a term that reflects increasing recognition that environmental issues must be addressed by all, or at-least a majority of those affected by their outcome, not just by the minority comprising the governments and leading private-sector actors⁶⁴. It determined that access to environmental information and justice for all those who choose to participate in such decision-making is integral to the concept of environmental democracy⁶⁵. The court observed that public participation is a fundamental principle of environmental governance as espoused by Principles 10 and 22 of the Rio Declaration on Environment and Development⁶⁶. In respect of access to information, the Court pronounced itself that the rights of citizens in relation to environmental matters to information, public participation, and access to justice are indispensable to foster Sustainable Development⁶⁷. It further decided that citizens must not only have access to information but must also be entitled to participate in decision-making and have access to justice in environmental matters⁶⁸.

⁶² Ibid

⁶³ Ibid

⁶⁴ Ibid

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Mohamed Ali Baadi and others -vs- Attorney General & 11 Others, Op Cit

⁶⁸ Ibid

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The court further reiterated the fundamental nature of the right to a clean and healthy environment and stated that courts have a solemn duty to enforce this right in the context of environmental harms⁶⁹. The court allowed the petition and delicately fashioned the reliefs to appropriately respond and remedy the specific violations of the law affecting the Petitioners as well as ensure the proper, lawful implementation of the Project. The court directed the project proponents of the LAPSSET Project to fashion an effective programme of public participation by the local community in Lamu County during the conceptualization and implementation of the LAPSSET Project and its various individual components that includes adequate notification, education and information, review and reaction and, finally, consultation, dialogue and interaction with the local population who will be affected by the Project. It also directed the project proponents to craft a demonstrably effective programme to disseminate information on the LAPSSET Project and, specifically those aspects affecting Lamu County, to the Petitioners⁷⁰. It also ordered the project proponents to fully comply with the mitigation measures they had identified in the Environmental and Social Impact Assessment (ESIA) Report as approved by the National Environment Management Authority (NEMA) in order to foster the right to a clean and healthy environment. The decision thus upholds the principles of public participation, access to information and environmental democracy that are vital in promoting environmental justice.

Environmental Justice principles were also enunciated in the case of *Mui Coal Basin Local Community & 15 others -vs- Permanent Secretary Ministry of Energy & 17 others*⁷¹. The case concerned coal exploration in the Mui Basin that covers parts of Mwingi East, Mwingi Central, Mutitu and Kitui Central sub-counties of Kitui County with the aim of establishing the existence of commercially viable coal deposits in the region⁷². The petitioners contended that there was contravention of articles 10 and 35 of the Constitution in the award of the tender to explore, exploit and develop the Mui Coal Basin Blocks since the process was conducted in a manner devoid of public participation as

⁶⁹ Ibid

⁷⁰ Ibid

⁷¹ *Mui Coal Basin Local Community & 15 others -vs- Permanent Secretary Ministry of Energy & 17 others*, Constitutional Petition No. 305 of 2012, (2015) eKLR

⁷² Ibid

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envisaged in the Constitution and that further, the Petitioners' right of access to information was infringed⁷³. They further argued that there was a threat to the right to a clean and healthy environment stipulated under article 42 of the Constitution and the right to health set out under article 43 of the Constitution from the effects of coal mining⁷⁴. The court upheld the principle of public participation and decided that it is paramount in environmental governance and ought to be taken into account in the implementation of the project⁷⁵. On the right to a clean and healthy environment, the court emphasized that there is need to balance, on the one hand, exploitation of natural resources so that they spur economic development and on the other hand, sustainable use and management of natural resources so that they do not generate unsustainable levels of pollution or waste or unjustified adverse effects on the health of humans⁷⁶. The court upheld the role of the precautionary principle towards this end. The court directed the Respondents to continue to engaging with the local community and provide reasonable opportunities for public participation during the process of preparing an Environmental Impact Assessment and the process of Resettlement as outlined in the Benefits Sharing Agreement⁷⁷.

Further, Environmental Justice matters were addressed by the National Environment Tribunal in its decision in *Save Lamu & 5 others -vs- National Environmental Management Authority (NEMA) & another*⁷⁸. The case concerned the intended setting up of a 1050 MW coal fired power plant in Lamu to be built, owned and operated by Amu Power Company Limited⁷⁹. Save Lamu, a community based organisation representing the interests and welfare of Lamu, challenged the project on several grounds among them being that there was insufficient scoping process that lacked proper public participation; that

⁷³ Ibid

⁷⁴ Ibid

⁷⁵ Ibid

⁷⁶ Ibid

⁷⁷ Mui Coal Basin Local Community & 15 others -vs- Permanent Secretary Ministry of Energy & 17 others, Op Cit

⁷⁸ Save Lamu & 5 others -vs- National Environmental Management Authority (NEMA) & Another, Tribunal Appeal No. NET 196 of 2016, (2019) eKLR*The matter has been appealed at the ELC.

⁷⁹ Ibid

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there would be adverse effects on the marine environment through the discharge of thermal effluent into the marine environment by using poor and outdated cooling system; that the intended project would result in climate change concerns thus inconsistent with Kenya's low carbon development commitment and that the project lacked sound mitigation measures⁸⁰. It sought to have the Environmental Impact Assessment (EIA) licence in respect of the project set aside and a fresh EIA study be conducted based on specific and current information involving all stakeholders⁸¹.

The Tribunal found that the EIA licence was granted in a manner devoid of public participation⁸². It determined that public participation in an EIA Study process is the oxygen by which the EIA study and the report are given life⁸³. The Tribunal further decided that access to information for the persons affected is important for meaningful participation by citizens and motivates them to participate in decision and policymaking processes in an informed manner as it seeks to take into account the community's and different stakeholders concerns⁸⁴. The Tribunal allowed the appeal and set aside the decision of NEMA to issue an EIA licence to Amu Power Company Limited⁸⁵. It further directed Amu Power Company Limited to undertake a fresh EIA study that complies with the law including the requirements of public participation and access to information⁸⁶. This decision promotes the principles of Environmental Justice including public participation and access to information.

Finally, Environmental Justice ideas were also upheld by the National Environment Tribunal in the case of *Greenbelt Movement & 4 others -vs- National Environmental Management Authority & another; Kenya National Highways*

⁸⁰ Ibid

⁸¹ Ibid

⁸² Ibid

⁸³ Ibid

⁸⁴ *Save Lamu & 5 others -vs- National Environmental Management Authority (NEMA) & Another*, Op Cit

⁸⁵ Ibid

⁸⁶ Ibid

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Authority (Interested Party).⁸⁷ The appellants challenged the EIA licence issued to China Road and Bridge Corporation for the construction of the proposed Nairobi Expressway on several grounds among them being that the EIA Study Report failed to include the cumulative impacts of the project, such as the effect of increasing the vehicular capacity in the city of Nairobi, the impact of the increased vehicle capacity on the greenhouse gas emissions, the impacts on the surrounding green spaces, and the role of these and other impacts on Kenya's climate change mitigation goals⁸⁸. They further contended that the process leading to the issuance of the EIA licence had failed to meet the threshold of public participation⁸⁹. They sought to have the EIA licence set aside. The Tribunal found that the project adhered to the requirements of public participation, however it determined that it required an analysis of the impacts on the climate since motor vehicles are known to be emitters of greenhouse gases⁹⁰. Despite not cancelling the EIA licence, the Tribunal made orders for the preservation of the environment and for Sustainable Development as empowered under section 129(3) (c) of EMCA and directed China Road and Bridge Corporation to carry out and complete a climate change analysis for the project⁹¹. The decision thus upholds the principle of Sustainable Development through climate change mitigation which are pertinent matters in Environmental Justice.

The foregoing discussion demonstrates that litigation has aided in realizing Environmental Justice in Kenya. Through litigation, courts have pronounced themselves and upheld the principles of Environmental Justice including public participation, access to information, access to justice, access to remedies, environmental democracy and Sustainable Development. Litigation could thus be a viable tool of realizing Environmental Justice in Kenya. However, the use of litigation in realizing Environmental Justice could also raise several concerns.

⁸⁷ *Greenbelt Movement & 4 others -vs- National Environmental Management Authority & another; Kenya National Highways Authority (Interested Party)*, Tribunal Appeal No. 19 of 2020, (2023) KENET (24) KLR

⁸⁸ *Ibid*

⁸⁹ *Ibid*

⁹⁰ *Ibid*

⁹¹ *Ibid*

3. Realizing Environmental Justice through Litigation: Prospects and Challenges

It has been pointed out that litigation has the potential of safeguarding environmental rights in Kenya⁹². Indeed, the Constitution of Kenya allows the use of litigation to enforce environmental rights. To this end, it provides that a person who alleges violation, infringement or denial of the right to a clean and healthy environment may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter⁹³. The role of litigation in realizing Environmental Justice is further enhanced by measures such as allowing every person to access to justice through public interest litigation and by assigning courts special roles in protecting environmental rights⁹⁴. Litigation initiatives such as public interest litigation can foster Environmental Justice in Kenya⁹⁵. This was affirmed in the case of *Joseph Leboo & 2 others -vs- Director Kenya Forest Services & another*⁹⁶ where the court held as follows:

'It can be seen that Section 3(4) above permits any person to institute suit relating to the protection of the environment without the necessity of demonstrating personal loss or injury. Litigation aimed at protecting the environment, cannot be shackled by the narrow application of the locus standi rule, both under the Constitution and statute, and indeed in principle. Any person, without the need of demonstrating personal injury, has the freedom and capacity to institute an action aimed at protecting the environment. The plaintiffs have filed this suit as representatives of the local community and also in their own capacity. The community, of course, has an interest in the preservation and sustainable use of forests. Their very livelihoods depend on the proper management of the forests. Even if they had not demonstrated such interest, that would not have been important, as any person who alleges a

⁹² Muigua. K., & Kariuki. F., 'Safeguarding Environmental Rights in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2018/08/A-Paper-on-Safeguarding-Environmental-Rights-in-Kenya.pdf> (Accessed on 25/07/2023)

⁹³ Constitution of Kenya, 2010, Article 70 (1)

⁹⁴ Ibid

⁹⁵ Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Op Cit

⁹⁶ *Joseph Leboo & 2 others -vs- Director Kenya Forest Services & another*, ELC No. 273 of 2013, (2013) eKLR

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violation of any law touching on the environment is free to commence litigation to ensure the protection of such environment. I am therefore not in agreement with any argument that purports to state that the plaintiffs have no locus standi in this suit (emphasis added).'

Litigation can thus aid in realizing Environmental Justice through practices such as public interest litigation. However, despite the viability of litigation in promoting Environmental Justice, several challenges may hinder its efficacy towards this end. It has been argued that litigation can hinder access to justice due to many unfavourable factors such high court filing fees, bureaucracy, complex legal procedures, illiteracy, distance from formal courts, backlog of cases in courts and lack of legal knowhow⁹⁷. In the context of environmental disputes, shortcomings of litigation such as high costs and delay in determination of disputes can result in Environmental Justice concerns such as the inability to access remedies and prolonged instances of pollution⁹⁸. There is need to address these concerns in order to enhance the viability of litigation as a tool of realizing Environmental Justice.

In order to foster Environmental Justice through litigation, there is need to enhance practices such as public interest litigation which have the ability to foster Environmental Justice⁹⁹. In addition, it is imperative to address the issue of costs especially in public interest litigation in order to enhance access to justice in environmental matters¹⁰⁰. Further, courts should promote

⁹⁷ Ojwang. J.B , "The Role of the Judiciary in Promoting Environmental Compliance and Sustainable Development," 1 *Kenya Law Review Journal* 19 (2007), pp. 19-29: 29

⁹⁸ Dilay. A et al., 'Environmental Justice in India: A Case Study of Environmental Impact Assessment, Community Engagement and Public Interest Litigation.' Available at https://www.researchgate.net/profile/Ariane-Dilay2/publication/332891421_Environmental_justice_in_India_a_case_study_of_environmental_impact_assessment_community_engagement_and_public_interest_litigation/links/5ee23be9a6fdcc73be703fcb/Environmental-justice-in-India-a-case-study-of-environmental-impact-assessment-community-engagement-and-public-interest-litigation.pdf (Accessed on 25/07/2023)

⁹⁹ Sang. B., 'Tending Towards Greater Eco-Protection in Kenya: Public Interest Environmental Litigation and its Prospects Within the New Constitutional Order.' *Journal of African Law*, Volume 57, No. 1 of 2013.

¹⁰⁰ United Nations Economic Commission for Europe., 'Access to Justice in Environmental Matters: Standing, Costs and Available Remedies.' Available at

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expeditious management of environmental disputes in order to foster Environmental Justice. Timely administrative and judicial procedures have a major importance in ensuring proper environmental protection¹⁰¹. Courts should also continue fostering Environmental Justice by rendering sound decisions which promote and protect environmental rights as well as enhance the realization Sustainable Development¹⁰². Through these measures, the role of litigation in realizing Environmental Justice in Kenya will be enhanced.

4. Conclusion

Environmental Justice is a fundamental concept in the Sustainable Development agenda¹⁰³. Environmental Justice seeks to achieve the ideal of access, participation and procedural justice in environmental decision making¹⁰⁴. It has been observed that litigation is key in realizing Environmental Justice in Kenya¹⁰⁵. Through litigation, the jurisdiction of courts and tribunals such as the Environment and Land Court and the National Environment Tribunal can be used to enhance Environmental Justice in Kenya. Consequently, through litigation judicial bodies have upheld Environmental Justice principles in Kenya such as public participation, access to information, access to justice, access to remedies, environmental democracy and Sustainable Development¹⁰⁶. However, concerns in litigation such high court filing fees, bureaucracy, complex legal procedures, illiteracy, distance from formal courts, backlog of cases in courts and lack of legal knowhow can

https://unece.org/DAM/env/pp/a.to.j/AnalyticalStudies/SEE_Access2Justice_Study_Final_lo gos.pdf (Accessed on 25/07/2023)

¹⁰¹ Ibid

¹⁰² Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Op Cit

¹⁰³ United Nations Development Programme., 'Environmental Justice: Securing Our Right to a Clean, Healthy and Sustainable Environment.' Op Cit

¹⁰⁴ Schlosberg. D & Collins. L., 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice.' Op Cit

¹⁰⁵ Muigua. K., 'The Role of Courts in Safeguarding Environmental Rights in Kenya: A Critical Appraisal.' Op Cit

¹⁰⁶ See for example the cases of KM & 9 others v Attorney General & 7 others (Owino-Uhuru case); Mohamed Ali Baadi and others -vs- Attorney General & 11 others (LAPSET projet case); Mui Coal Basin Local Community & 15 others -vs- Permanent Secretary Ministry of Energy & 17 others; and Save Lamu & 5 others -vs- National Environmental Management Authority (NEMA) & another

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hinder its viability in enhancing Environmental Justice¹⁰⁷. There is need to foster public interest litigation, address the issue of costs in litigation, facilitate expeditious management of environmental disputes and promote Sustainable Development¹⁰⁸. Through these measures, the viability of litigation in promoting Environmental Justice will be enhanced. Realizing Environmental Justice through litigation is attainable.

¹⁰⁷ Ojwang. J.B , “The Role of the Judiciary in Promoting Environmental Compliance and Sustainable

Development,” 1 Kenya Law Review Journal 19 (2007), pp. 19-29: 29

¹⁰⁸ United Nations Economic Commission for Europe., ‘Access to Justice in Environmental Matters: Standing, Costs and Available Remedies.’ Op Cit

COP 27 and Biodiversity: Towards an Integrated Approach to Climate Change Mitigation and Biodiversity Conservation

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Abstract

Climate change mitigation measures and biodiversity conservation have often been treated as separate. However, COP 27 for the first time, comprehensively created a platform for deliberations on tackling both as a step towards achieving sustainable development. This paper highlights the outcomes of COP 27 which took place in November 2022 in Egypt, dubbed "African COP". Notably, the main focus of this paper as far as COP 27 is concerned was the encouragement of adoption of nature-based solutions to climate change and biodiversity loss. The author argues that there is a need for climate change mitigation efforts and biodiversity protection and conservation measures to consider the nature-based approaches and also create an opportunity for collaborative approaches in these between communities and government agencies.

1. Introduction

The need for the UN Framework Convention on Climate Change (UNFCCC)¹ was informed by, *inter alia*: the understanding that, given the global nature of climate change, all nations must cooperate as widely as possible and take part in an effective and appropriate international response, in accordance with their respective capabilities, common but differentiating responsibilities, and social and economic circumstances; affirmation that in order to prevent negative effects on social and economic development, responses to climate change should be coordinated with it in an integrated manner, taking full account of developing countries' legitimate priority needs for the achievement of sustained economic growth and the eradication of poverty; and an understanding that in order for developing nations to advance towards achieving sustainable social and economic development, their energy consumption will need to increase while taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas

¹ UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly, 20 January 1994, A/RES/48/189.*

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emissions in general, including through the application of new technologies on terms which are affordable to them.²

The ultimate goal of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a threshold should be reached in a time period that will allow ecosystems to adjust to climate change naturally, guarantee that food supply is not jeopardized, and permit sustainable economic growth.³

The Convention's top decision-making body is the Conference of the Parties (COP). At the COP, which reviews the implementation of the Convention and any other legal instruments that the COP adopts, all States that are Parties to the Convention are represented. The COP also makes decisions regarding institutional and administrative arrangements that are necessary to support the Convention's effective implementation.⁴

The inaugural COP conference took place in Berlin, Germany, in March 1995. The COP meets annually, unless the Parties decide differently, and unless a Party proposes to host the session, it meets in Bonn, the secretariat's home city.⁵ The issues of climate change and biodiversity are closely related. The successful conservation, restoration, and management of biodiversity is essential to achieving the goals of the Paris Climate Agreement.⁶

² Ibid, Preamble.

³ Ibid, Article 2.

⁴ 'Conference of the Parties (COP) | UNFCCC'

<<https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop>> accessed 10 January 2023.

⁵ Ibid.

⁶ 'Biodiversity Day - COP27' (UNEP - UN Environment Programme)

<<http://www.unep.org/events/conference/biodiversity-day-cop27>> accessed 13 February 2023.

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The 27th Session of the Conference of the Parties of the UNFCCC (COP 27) took place in Sharm el-Sheikh, Egypt, held from November 6th to 20th November, 2022.⁷ With regard to a wide variety of climate change-related concerns, the Egyptian COP27 Presidency listed a number of subjects aimed at improving implementation and boosting ambition. Additionally, Egypt set aside a number of days that were specifically themed for in-depth debates, including those that took place during side events, panel discussions, round tables, and other interactive forms for consideration and dissemination to a larger audience. These included Finance Day, Agriculture and Adaptation Day, Water Day, Decarbonization Day, Science Day, Solution Day, Gender Day, Energy Day, Biodiversity Day, Youth and Future Generations Day, and ACE and Civil Society Day.⁸

Notably, adoption of nature-based approaches to climate change mitigation and biodiversity conservation took centre on this 'biodiversity day'. The term "nature-based solutions"(NbS) refers to a variety of methods used to solve social issues, such as habitat restoration, water resource management, disaster risk reduction, and green infrastructure. The foundation of nature-based solutions is the idea that when ecosystems are healthy and well-managed, they offer crucial advantages and services to people, such as lowering greenhouse gas emissions, securing safe water supplies, improving the quality of the air we breathe, or boosting food security.⁹

This paper's main focus is on the outcomes of the discussions surrounding biodiversity and what the same portend for the future in enhancing biodiversity conservation and climate change mitigation as a step towards achieving sustainable development.

⁷ 'Sharm El-Sheikh Climate Change Conference - November 2022 | UNFCCC' <<https://unfccc.int/cop27>> accessed 12 February 2023.

⁸ 'COP 27 | Climate-Diplomacy' <<https://climate-diplomacy.org/events/cop-27>> accessed 12 February 2023.

⁹ 'What Are Nature-Based Solutions and How Can They Help Us Address the Climate Crisis?' (World Wildlife Fund) <<https://www.worldwildlife.org/stories/what-are-nature-based-solutions-and-how-can-they-help-us-address-the-climate-crisis>> accessed 14 February 2023.

2. Biodiversity Protection and Conservation as a Tool for Achieving Sustainable Development

Environmental, social, and economic factors must all be balanced while pursuing sustainable development in order to protect natural resources (biodiversity, ecosystem services, and ecosystem function).¹⁰

The promise of providing humans with a means of subsistence in the present and the future while preserving the diversity of biological life contained in the planet's intricately woven natural eco-systems is captured by sustainable development on an idealistic level. The Sustainable Development Goals (SDGs), which were endorsed by the UN General Assembly in 2015, are a "collection of universal goals that tackle the pressing environmental, political, and economic issues facing our planet" (UNDP, 2020a).¹¹ The foundation for raising global standards of living and reducing the dangerous human-caused impacts of climate change is provided by the Sustainable Development Goals. SDG 13: Climate Action urges the incorporation of climate change mitigation strategies into development frameworks. More sustainable methods of exploiting the earth's natural resources are also urged by SDGs 14 and 15 on life below water and on land, respectively.¹²

Biodiversity is defined by the Convention on Biological Diversity as "the variability among living organisms from all sources, including, among others, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems." It is the diversity of life on earth at all scales, from genes to globally dispersed populations of the same species; from groups of species

¹⁰ Abdo, L., Kemp, A., Coupland, G., & Griffin, S., "Biodiversity offsets can be a valuable tool in achieving sustainable development: Developing a holistic model for biodiversity offsets that incorporates environmental, social and economic aspects of sustainable development." *Journal of Sustainable Development* 12, no. 5 (2019), 65.

¹¹ Cléménçon R "Is sustainable development bad for global biodiversity conservation?" *Global Sustainability* 4 (2021), 2.

¹² United Nations, 'Sustainability' (United Nations) <<https://www.un.org/en/academic-impact/sustainability>> accessed 14 February 2023.

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coexisting in a limited environment to global ecosystems.¹³ It is crucial to recognise the value of biodiversity in supplying vital ecosystem services and life support systems, such as water yield, water purification, waste breakdown, flood control, storm and coastal protection, sedimentation processes, nutrient cycling, carbon storage, and climatic regulation, as well as the costs of replacing these services.¹⁴

This thus makes biodiversity conservation a crucial part of the journey towards achieving sustainable development goals.

3. COP 27 and Biodiversity: Towards an Integrated Approach in Climate Change Mitigation and Biodiversity Conservation Measures.

As already pointed out, there was a biodiversity day set out during COP 27 on 16th November 2022, whose goal was to advance and institutionalize action towards valuing, conserving, restoring, and sustainably using biodiversity across terrestrial, freshwater, coastal, and marine ecosystems to lessen the effects of climate change and to use nature-based solutions to mitigate and adapt to climate change and build resilience for both people and nature.¹⁵ Notably, this was the first COP to dedicate a day to biodiversity.¹⁶

The goal of the biodiversity day was to draw attention to ecosystem- and nature-based solutions. It would also make it possible to talk about how climate change affects biodiversity and how to organise international efforts to address the problems of halting biodiversity loss and minimising the effects

¹³ United Nations, *1992 Convention on Biological Diversity*, 1760 UNTS 79, 31 ILM 818 (1992).

¹⁴ International Association for Impact Assessment, “Biodiversity in Impact Assessment”, *Special Publication Series No. 3*, July 2005
<<https://www.patagoniaalliance.org/wp-content/uploads/2014/01/BIODIVERSITY-IN-IMPACT-ASSESSMENT.pdf>> accessed 14 February 2023.

¹⁵ ‘Biodiversity Day - COP27’ (UNEP - UN Environment Programme)
<<http://www.unep.org/events/conference/biodiversity-day-cop27>> accessed 13 February 2023.

¹⁶ ‘COP27 Dispatch - November 16, 2022 | Newsletter | EESI’
<<https://www.eesi.org/newsletters/view/cop27-dispatch-november-16-2022>> accessed 14 February 2023.

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of pollution and climate change.¹⁷ Included in the discussions would be the effects of climate change on the oceans, endangered species, coral reefs, the sustainability of protected areas to provide ecosystem services to people, the effects of plastic waste on aquatic ecosystems and species, and ecosystem-based solutions and their relationship to climate change mitigation and adaptation.¹⁸

The Egyptian COP27 Presidency, the German Government, and the International Union for Conservation of Nature (IUCN) developed the ENACT (Enhancing Nature-based Solutions for an Accelerated Climate Transformation) initiative in recognition of the need for a more comprehensive global approach to NbS. This initiative's goal is to strengthen collaboration between already-existing NbS efforts and partnerships. Egypt and Germany are the co-chairs of ENACT, a voluntary alliance of state and non-state entities. The ENACT Secretariat, which will oversee the initiative's execution, will be housed at IUCN.¹⁹

As a beneficial outcome of ENACT, the secretariat will create an annual State of Nature-based Solutions report, which will be given to the COP Presidency prior to future UN Climate Change meetings. The study will offer the most thorough quantitative evaluation of the advancement made by state and non-state entities worldwide in putting NbS promises into practice.²⁰

The ENACT initiative aims to: enhance the protection from and resilience to climate impacts of at least 1 billion vulnerable people, including at least 500 million women and girls; secure up to 2.4 billion hectares of healthy natural and sustainable agricultural ecosystems, through protection of 45 million ha,

¹⁷ 'COP27 Official-16 Nov, Biodiversity Day' <<http://example.com/index.htm>> accessed 14 February 2023.

¹⁸ Ibid.

¹⁹ 'Egyptian COP27 Presidency, Germany and IUCN Announce ENACT Initiative for Nature-Based Solutions' (IUCN) <<https://www.iucn.org/press-release/202211/egyptian-cop27-presidency-germany-and-iucn-announce-enact-initiative-nature>> accessed 14 February 2023.

²⁰ Ibid; 'ENACT Initiative' (IUCN) <<https://www.iucn.org/our-work/topic/nature-based-solutions-climate/our-work/enact-initiative>> accessed 14 February 2023.

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sustainable management of 2 billion ha, and restoration of 350 million ha; and significantly increase global mitigation efforts through protecting, conserving and restoring carbon-rich terrestrial, freshwater and marine ecosystems.²¹

ENACT becomes important when you consider the connection between climate change and biodiversity loss. It has been observed that one of the primary causes of biodiversity loss is climate change, which also changes the ranges in which different species may survive and affects food webs as well as the intensity and frequency of threats like wildfires and droughts. Environmental dangers are made worse by ecosystem loss and degradation, which also diminishes ecosystems' capacity to absorb carbon from the atmosphere.²²

Consequently, it has been suggested that, when correctly used, Nature-based Solutions (NbS) can increase the resilience of ecosystems and the societies that depend on them. NbS can help communities adapt to climate hazards like sea level rise, more frequent and severe flooding, droughts, heatwaves, and wildfires while also providing significant biodiversity benefits in a way that protects and advances the rights and interests of historically marginalised and vulnerable groups.²³

It has been noted that the inclusion of the term NbS in the COP27 cover text was crucial because it gave Parties a policy lever to invest in scaling up NbS while also providing Parties with oversight to make sure that NbS adhere to

²¹ Ibid.

²² 'COP27 Official' <<http://example.com/index.htm>> accessed 14 February 2023.

²³ Ibid.

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the UNEA-5 definition²⁴, are not used for greenwashing²⁵, and are implemented sincerely. NbS must therefore promote biodiversity, protect human rights, be people-led, provide positive social effects locally, and be implemented in addition to, not in place of, significant reductions in greenhouse gas emissions.²⁶

The *Sharm el-Sheikh Implementation Plan*²⁷, in its preamble, underlines the crucial importance of protecting, conserving, restoring, and sustainably using nature and ecosystems for effective and sustainable climate action, as well as the urgent need to address the interconnected global crises of climate change and biodiversity loss in a comprehensive and synergetic manner.²⁸ In addition, the Plan stresses the significance of safeguarding, conserving, and restoring nature and ecosystems in order to meet the Paris Agreement temperature goal,

²⁴ The overall theme for UNEA-5 was “Strengthening Actions for Nature to Achieve the Sustainable Development Goals,” highlighting the pivotal role nature plays in our lives and in social, economic and environmental sustainable development. The UNEA-5 provided a platform for Member States to exchange sustainable development best practices. It sought to give nations a foundation to build on and catalyse impact on international environmental initiatives to save and restore the natural environment, which is essential to our economies and society.

See: ‘Fifth Session of the United Nations Environment Assembly | Environment Assembly’ <<https://www.unep.org/environmentassembly/unea5>> accessed 14 February 2023.

²⁵ See de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. and Soares, G.R.D.L., “Concepts and forms of greenwashing: A systematic review.” *Environmental Sciences Europe* 32, no. 1 (2020): 1-12.

²⁶ ‘The Agile Initiative | From Global to Local: Lessons on Scaling up Nature-Based Solutions from COP27’ (*The Agile Initiative*) <<https://www.agile-initiative.ox.ac.uk/news/from-global-to-local-lessons-on-scaling-up-nature-based-solutions-from-cop27>> accessed 14 February 2023; see also ‘Nature-Based Solutions Initiative | Nature-Based Solutions Included in COP27 Cover Decision Text’ (*Nature-based Solutions Initiative*) <<https://www.naturebasedsolutionsinitiative.org/news/nature-based-solutions-included-cop27-cover-decision-text/>> accessed 14 February 2023.

²⁷ UNFCCC, *Sharm el-Sheikh Implementation Plan*, Sharm el-Sheikh Climate Change Conference - November 2022 Proceedings, Decision -/CP.27 <https://unfccc.int/sites/default/files/resource/cop27_auv_2_cover%20decision.pdf> accessed 14 February 2023.

²⁸ *Ibid*, Preamble.

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including through the protection of biodiversity, forests, and other terrestrial and marine ecosystems that act as sinks and reservoirs for greenhouse gases.²⁹ The Plan also encourages Parties to take into account ecosystem-based strategies or solutions based on nature, as appropriate, for their mitigation and adaptation actions while providing sufficient social and environmental safeguards, taking into mind United Nations Environment Assembly resolution 5/5.³⁰

An important component of the Plan is the loss and damage fund, which many people see as the pinnacle of the United Nations Climate Conference (COP 27) and the result of years of pressure from poor nations that are susceptible to climate change. The fund intends to donate funding to the countries most at risk from and affected by the consequences of climate change.³¹ The term "loss and damage" refers to the inescapable negative effects of climate change, such as increased sea levels, protracted heat waves, desertification, acidification of the oceans, and catastrophic occurrences like bushfires, extinction of species, and crop failures.³² It has been observed that Climate justice has entered a new era with the creation of the Loss and Damage Finance Fund. The cornerstone of a long delayed new fund has been set by governments in order to provide crucial assistance to disadvantaged nations and communities who are already suffering the effects of the escalating climate disaster.³³

It is now hoped that the African continent for example, which contributes the least to climate change yet is the most vulnerable to its impacts, will benefit from this fund immensely and have an opportunity to use their domestic

²⁹ Ibid, Para. 15.

³⁰ Ibid, para. 48.

³¹ Ibid, paras 22-25; see also 'What You Need to Know about the COP27 Loss and Damage Fund' (UNEP, 29 November 2022) <<http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund>> accessed 14 February 2023.

³² 'What You Need to Know about the COP27 Loss and Damage Fund' (UNEP, 29 November 2022) <<http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund>> accessed 14 February 2023.

³³ Harris T, 'Africa: COP27 Loss and Damage Finance Fund a Down Payment On Climate Justice.' *Greenpeace International* (Amsterdam, 22 November 2022) <<https://allafrica.com/stories/202211220519.html>> accessed 14 February 2023.

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funds on other pressing socio-economic issues affecting their populace.³⁴ It is hoped that there will be goodwill in making this climate change funding mechanism a reality.

Kenya can take advantage of this fund when it becomes effective, to continue with the projects that were started and managed through the Adaptation Fund Programme in Kenya, implemented through National Environment Management Authority as the National Implementing Entity under Kyoto Protocol, and which proposed to develop and implement integrated adaptive mechanisms to increase community livelihood resilience to climate change as follows: Adoption of drought tolerant crops, and promotion of value chain approaches; Development of water harvesting assets/structures; Promotion of forestry and agro forestry ecosystem-based strategies to enhance food security and resilience to climate change as well as water and soil conservation; Promotion of pastoral ecosystem-based adaptations that will increase resilience through use of pasture conservation and emergency fodder bank, storage and supply of water to improve social life of the people in the district; Rehabilitation of mangrove ecosystem in the coastal area; Disaster risk reduction and preparedness through early warning system and flood control structures; and establishment of a knowledge management system for this programme, development of institution capacity, and raising awareness on Climate Change Adaptation.³⁵ Such funding can go a long way in not only enhancing climate change mitigation measures but also narrowing the gap between climate change mitigation measures and biodiversity conservation measures as the two should be treated as related even in their implementation.

³⁴ 'What You Need to Know about the COP27 Loss and Damage Fund' (UNEP, 29 November 2022) <<http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund>> accessed 14 February 2023; Zenda C, 'What Will the Loss and Damage Fund Mean for Africa's Most Vulnerable?' (FairPlanet) <<https://www.fairplanet.org/story/cop27-loss-and-damage-fund-for-africa/>> accessed 14 February 2023.

³⁵ 'National Environment Management Authority (NEMA) - Kenya Adaptation Fund Program' <https://www.nema.go.ke/index.php?option=com_content&view=article&id=262&Itemid=385> accessed 14 February 2023.

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The outcome of COP 27 may thus be considered to be a step in the right direction towards adoption of an integrated approach in climate change mitigation and biodiversity conservation measures. Including all stakeholders, including communities, women, youth and children, among others, in these measures is important not only because of the direct impact of climate change and biodiversity loss on their lives but also the fact that their daily activities have a direct impact on efforts towards reversing both. Especially with climate change issues and biodiversity-related decision-making processes, inclusive governance is necessary. The term "inclusive governance" refers to the process of allowing a broad spectrum of rights holders, knowledge holders, and stakeholders to participate in decision-making in order to capture differing values, strengthen capacity, and advance accountability, legitimacy, and just results.³⁶

This indeed rhymes well with the adoption of nature-based or ecosystem based approaches towards addressing climate change. Ecosystem-based adaptation frequently produces win-win results that safeguard vulnerable communities from extreme weather while also delivering a range of ecological advantages that are essential for human well-being, such clean water and food.³⁷ Ecosystem-based adaptation, which is basically a strategy for coping with change, can decrease greenhouse gas emissions caused by habitat loss and ecosystem degradation, which in turn helps to mitigate the effects of climate change.³⁸

³⁶ Visseren-Hamakers, I.J., Razzaque, J., McElwee, P., Turnhout, E., Kelemen, E., Rusch, G.M., Fernandez-Llamazares, A., Chan, I., Lim, M., Islar, M. and Gautam, A.P., 'Transformative Governance of Biodiversity: Insights for Sustainable Development' (2021) 53 *Current Opinion in Environmental Sustainability* 20 <<https://www.sciencedirect.com/science/article/pii/S1877343521000749>> accessed 14 February 2023.

³⁷ Environment UN, 'Ecosystem-Based Adaptation' (*UNEP - UN Environment Programme*, 4 June 2021) <<http://www.unep.org/explore-topics/climate-action/what-we-do/climate-adaptation/ecosystem-based-adaptation>> accessed 14 February 2023.

³⁸ *Ibid.*

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4. Conclusion

In order to solve some of our society's most important problems, such as threats to water security, an increase in the likelihood of catastrophes, or climate change, a range of measures or policies known as "nature-based solutions" are used. These solutions entail conserving biodiversity, managing ecosystems sustainably, and protecting and restoring ecosystems in ways that strengthen their resilience and capacity to solve those social concerns.³⁹

There is a need for accelerated adoption of nature-based approaches to climate change mitigation and biodiversity conservation as a step towards achieving socio-economic rights of communities and other related rights as envisaged under sustainable development goals. The proposed funding mechanisms under COP 27 should also be well utilised, once implemented, as a way of building resilient communities and ecosystems. This will go a long way in boosting efforts towards achievement of Sustainable Development Goals.

³⁹ 'What Are Nature-Based Solutions and How Can They Help Us Address the Climate Crisis?' (*World Wildlife Fund*) <<https://www.worldwildlife.org/stories/what-are-nature-based-solutions-and-how-can-they-help-us-address-the-climate-crisis>> accessed 14 February 2023.

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Abstract

Energy is a fundamental human right that is vital in the realization of the Sustainable Development agenda. However, the energy sector is facing several challenges including increasing energy demands due to population growth and the threat of climate change. As a result of these challenges, there is need for the world to transition to sustainable energy systems. The paper critically examines the progress made towards energy transition in Kenya. It argues that Kenya must expedite its journey towards energy transition in order to meet the growing energy demands and tackle environmental challenges including climate change. The paper discusses the challenges hindering the energy transition in Kenya and suggests recommendations towards accelerating energy transition in Kenya in order to achieve Sustainable Development.

1. Introduction

Energy is a fundamental human need that has been described as a basic factor necessary to sustain life.¹ It is a basic human need that has been equated to food, air and water.² The right to energy is so important that some authors have argued that ‘food and energy are the two essential resources to support the modern and civilized society of the mankind’.³ Access to a reliable and quality energy supply is vital to the economic development of any country⁴. It has been argued that energy has the potential to spur economic development and poverty eradication⁵. Enhancing access to energy is therefore crucial in fostering economic development.

¹ Goldthau. A & Sovacool. B., ‘The Uniqueness of the Energy Security, Justice and Governance Problem’ *Energy Policy*, 41 (2012) 232-240

² Ibid

³ Tomabechei K, ‘Energy Resources in the Future’ *Energies* 2010, 3, 686-695, 686

⁴ United Nations Conference on Trade and Development., ‘Commodities at a Glance: Special Issue on Access to Energy in Sub-Saharan Africa.’ Available at <https://unctad.org/publication/commodities-glance-special-issue-access-energy-sub-saharan-africa#:~:text=Access%20to%20energy%20is%20defined,Bhatia%20and%20Angelou%2C%202015>). (Accessed on 26/09/2023)

⁵ Muigua. K., ‘Access to Energy as a Constitutional Right in Kenya’, available at <http://kmco.co.ke/wp-content/uploads/2018/08/Access-to-Energy-as-a-Constitutional-Right-inKenya-NOVEMBER-2013.pdf> (Accessed on 26/09/2023)

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Energy plays a vital role in the Sustainable Development agenda. The United Nations 2030 Agenda for Sustainable Development Goal and its Sustainable Development Goal 7 seeks to 'ensure access to affordable, reliable, sustainable and modern energy for all'⁶. Energy drives industrialization, boosts productivity and economic growth, spurs human development, and is crucial to achieve almost all of the United Nations Sustainable Development Goals (SDGs)⁷. Energy services are a crucial input to the primary development challenge of providing adequate food, shelter, clothing, water, sanitation, medical care, schooling, and access to information which are vital components of the Sustainable Development agenda⁸. In addition, energy also fuels productive economic activities, including agriculture, commerce, manufacture, industry, and mining⁹. Conversely, lack of access to energy contributes to poverty and deprivation and can contribute to economic decline¹⁰. Energy has the potential to stimulate development by connecting the SDGs and unlocking sustainable economic growth¹¹. Realizing SDG 7 ensures access to affordable, reliable, and sustainable energy and is crucial in achieving many of the SDGs from poverty eradication via advancements in health, education, water supply, and industrialization to mitigating climate change¹². On this basis, it has been argued that the Sustainable Development agenda will not be achieved without the realization of the right of access to energy¹³.

⁶ 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 26/09/2023)

⁷ United Nations Conference on Trade and Development., 'Commodities at a Glance: Special Issue on Access to Energy in Sub-Saharan Africa.' Op Cit

⁸ Bradbrook. A., 'Access to Energy Services in a Human Rights Framework.' Available at https://www.un.org/esa/sustdev/sdissues/energy/op/parliamentarian_forum/bradbrook_hr.pdf (Accessed on 26/09/2023)

⁹ Ibid

¹⁰ Ibid

¹¹ Goldthau. A & Sovacool. B., 'The Uniqueness of the Energy Security, Justice and Governance Problem' Op Cit

¹² Muigua. K., 'Delivering Clean and Affordable Energy for All.' Available at <http://kmco.co.ke/wp-content/uploads/2021/05/Delivering-Clean-and-Affordable-Energy-for-All-Kariuki-Muigua-Ph.D-24th-April-2021-1.pdf> (Accessed on 26/09/2023)

¹³ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

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Ensuring access to cleaner and affordable energy sources is thus an important part of the journey towards achieving the SDGs.

Despite the importance of energy as a human right, the world continues to face challenges in the sector owing to numerous factors including the ever growing population, advanced technological developments and climate change.¹⁴ Reports have indicated that a significant number of the global population lack access to modern energy services with this problem being more compounded in Sub-Saharan Africa where majority of the population lack access to clean and affordable energy and depend on traditional fuels¹⁵. Access to energy represents one of Africa's greatest obstacles to social and economic development¹⁶. In addition, the energy sector is by far the main contributor to the global threat of climate change and accounts for approximately 73 percent of human caused greenhouse gases¹⁷.

As a result of global environmental challenges including climate change and scarce energy supplies, it has been argued that the world must transition to sustainable energy systems¹⁸. The paper critically examines the progress made towards energy transition in Kenya. It argues that Kenya must expedite its journey towards energy transition in order to meet the growing energy demands and tackle environmental challenges including climate change. The paper discusses the challenges hindering the energy transition in Kenya and suggests recommendations towards accelerating energy transition in Kenya in order to achieve Sustainable Development.

¹⁴ Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2020/10/Exploring-Alternative-Exploring-Alternative-Sources-of-Energy-in-Kenya-Kariuki-Muigua-PhD.pdf> (Accessed on 26/09/2023)

¹⁵ United Nations Conference on Trade and Development., 'Commodities at a Glance: Special Issue on Access to Energy in Sub-Saharan Africa.' Op Cit

¹⁶ Hafner. M., 'The Challenge of Energy Access in Africa.' Available at https://link.springer.com/chapter/10.1007/978-3-319-92219-5_1 (Accessed on 26/09/2023)

¹⁷ United Nations Development Programme., 'Goal 7: Affordable and Clean Energy.' Available at https://www.undp.org/sustainable-development-goals/affordable-and-cleanenergy?gclid=EAlalQobChMIxrfXsO3g_wIVDZhRCh1NqALvEAAAYAiAAEgJwTvd_BwE (Accessed on 26/09/2023)

¹⁸ Solomon. B., & Krishna. K., 'The Coming Sustainable Energy Transition: History, Strategies, and Outlook.' *Energy Policy* 39 (2011) 7422-7431

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2. Legal Framework on Energy Transition in Kenya

Energy plays an important role in Kenya and is one of the key drivers of socio-economic development¹⁹. This has been recognized under the *Vision 2030* development blueprint which identifies energy as one of the key factors in spearheading economic, social and political development in the country²⁰. Kenya considers access to competitively-priced, reliable, quality, safe and sustainable energy as an essential ingredient for the country's social - economic development²¹.

It has been argued that access to energy is a Constitutional right in Kenya²². Although the Constitution does not expressly provide for the right to access to energy, it recognizes energy as part of the natural resources in Kenya²³. To this extent, the Constitution provides that natural resources means the physical non-human factors and components, whether renewable or non-renewable, including inter alia rocks, minerals, fossil fuels and other sources of energy²⁴. The Constitution also enshrines the principle of Sustainable Development²⁵. Enhancing universal access to affordable, reliable and modern energy services including renewable sources of energy is an essential part of the Sustainable Development agenda²⁶.

The *Energy Act, 2019*²⁷ was enacted to consolidate the laws relating to energy, to provide for National and County Government functions in relation to

¹⁹ Republic of Kenya: Ministry of Energy., 'Kenya National Energy Efficiency and Conservation Strategy.' Available at <https://unepccc.org/wp-content/uploads/2020/09/kenya-national-energy-efficiency-and-conservation-strategy-2020-1.pdf> (Accessed on 27/09/2023)

²⁰ Republic of Kenya., 'Vision 2030.' Available at <https://nairobi.aics.gov.it/wp-content/uploads/2019/01/Kenya-Vision-2030.pdf> (Accessed on 27/09/2023)

²¹ Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' *Op Cit*

²² Muigua. K., 'Access to Energy as a Constitutional Right in Kenya', available at <http://kmco.co.ke/wp-content/uploads/2018/08/Access-to-Energy-as-a-Constitutional-Right-inKenya-NOVEMBER-2013.pdf> (Accessed on 27/09/2023)

²³ Constitution of Kenya, 2010., Article 260, Government Printer, Nairobi

²⁴ *Ibid*

²⁵ *Ibid*, Article 10 (2) (d)

²⁶ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' SDG 7

²⁷ Energy Act, No. 1 of 2019, Government Printer, Nairobi

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energy, to provide for the establishment, powers and functions of the energy sector entities; promotion of renewable energy; exploration, recovery and commercial utilization of geothermal energy; regulation of midstream and downstream petroleum and coal activities; regulation, production, supply and use of electricity and other energy forms; and for connected purposes.²⁸ The Act mandates the government to facilitate the provision of affordable energy services to all persons in Kenya²⁹. It also establishes national energy entities including the Energy and Petroleum Regulatory Authority, the Rural Electrification and Renewable Energy Corporation and the Nuclear Power and Energy Agency which are vital in enhancing energy access in Kenya³⁰. The Energy and Petroleum Regulatory Authority is mainly tasked with regulatory activities related to inter alia the generation, importation, exportation, distribution and supply of electric energy, petroleum and petroleum products, renewable energy and other forms of energy³¹. The Rural Electrification and Renewable Energy Corporation is tasked with overseeing the implementation of the rural electrification programme and promoting the use of renewable energy and technologies among other functions³². The Nuclear Power and Energy Agency is tasked with inter alia implementation of the nuclear energy programme and promoting the development of nuclear electricity generation in Kenya³³. The Energy Act also mandates the government to promote the development and use of renewable energy technologies in Kenya including but not limited to biomass, biodiesel, bioethanol, charcoal, fuelwood, solar, wind, tidal waves, hydropower, biogas and municipal waste³⁴. This is a vital step in accelerating energy transition in Kenya.

*Sessional Paper No. 4 on Energy*³⁵ seeks to promote equitable access to quality energy services at least cost while protecting the environment. It

²⁸ Ibid, Preamble

²⁹ Ibid, S 7 (1)

³⁰ Ibid, Part III

³¹ Ibid, S 10

³² Ibid, S 44 (1)

³³ Ibid, S 56 (1)

³⁴ Ibid, S 75 (1)

³⁵ Republic of Kenya., 'Sessional Paper No. 4 on Energy.' Available at <https://repository.kippra.or.ke/bitstream/handle/123456789/1371/SESSIONAL%20PAPER>

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acknowledges that the development objectives of the country are only feasible if quality energy services are made available in a sustainable, cost effective and affordable manner to all sectors of the economy ranging from manufacturing, services, mining, and agriculture to households³⁶. The Sessional paper identifies several measures that are critical in accelerating energy transition in Kenya including the development and adoption of renewable sources of energy, enhancing rural electrification, research and development, regional trade and cooperation and fostering energy conservation and efficiency³⁷.

Further, the *National Energy Policy*³⁸ recognizes energy as a critical component for the socio-economic development of Kenya. The policy seeks to achieve several objectives in the energy sector including improving access to affordable, competitive and reliable energy services, promoting energy efficiency and conservation and promoting diversification of energy supply sources in Kenya to ensure security of supply³⁹. It contains several proposals towards the use, development and conservation of energy sources in the country such as coal resources, renewable energy and electricity⁴⁰. The Policy also contains energy efficiency and conservation measures aimed at reducing energy consumption without sacrificing productivity or increasing costs⁴¹. Actualizing this Policy is therefore vital in accelerating energy transition in Kenya.

Kenya joined the *Sustainable Energy for All (SE4ALL)* Initiative in 2014 and developed its national SE4ALL Action Agenda and Investment Prospectus⁴². The national SE4ALL Action Agenda specifies the country's targets for

[%204%20ON%20ENERGY%202004.pdf?sequence=3&isAllowed=y](#) (Accessed on 27/09/2023)

³⁶ Ibid

³⁷ Ibid

³⁸Ministry of Energy., 'National Energy Policy.' Available at https://repository.kippra.or.ke/bitstream/handle/123456789/1947/BL4PdOqKtxFT_National%20Energy%20Policy%20October%20%202018.pdf?sequence=1&isAllowed=y (Accessed on 27/09/2023)

³⁹ Ibid

⁴⁰ Ibid

⁴¹ Ibid

⁴² Republic of Kenya: Ministry of Energy., 'Kenya National Energy Efficiency and Conservation Strategy.' Op Cit

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achieving universal access to modern energy access services, doubling the global rate of energy efficiency improvements, and doubling the share of renewable energy in the global energy mix by 2030⁴³. Kenya's SE4All seeks to achieve 100% universal access to modern energy services, increase the rate of energy efficiency and increase to 80% the share of renewable energy in Kenya's energy mix, by 2030⁴⁴.

Energy transition in Kenya is also a pertinent concern under the *Climate Change Act*⁴⁵. The Act seeks to combat climate change in Kenya by enhancing national responses to climate change and promoting low carbon climate development⁴⁶. The Act encourages the government to put in place measures for the elimination of climate change including reduction of greenhouse emissions and *use of renewable energy*(*Emphasis added*)⁴⁷. The Act recognizes the role of energy in combating climate change and urges the state to enhance energy conservation, efficiency and use of renewable energy in industrial, commercial, transport, domestic and other uses⁴⁸. Accelerating energy transition is therefore vital in confronting climate change in Kenya.

3. Energy Transition in Kenya: Progress and Challenges

Kenya has made some progress towards fostering energy transition. It has been observed that Kenya is among African countries that have made remarkable progress in providing modern energy services to its citizens⁴⁹. Kenya has been identified as a leader when it comes to expanding the use of renewable energy in Africa with 90% of its electricity being generated from renewable sources including geothermal power, hydropower and wind

⁴³ Ibid

⁴⁴ Republic of Kenya, Kenya Sustainable Energy for All (SE4All) Action Plan, January 2016 < https://www.seforall.org/sites/default/files/Kenya_AA_EN_Released.pdf> (Accessed on 27/09/2023)

⁴⁵ Climate Change Act, No. 11 of 2016, Government Printer, Nairobi

⁴⁶ Ibid

⁴⁷ Ibid, S 26 (1) (a)

⁴⁸ Ibid, S 13 (3) (j)

⁴⁹ International Energy Agency., 'Africa Energy Outlook 2019.' Available at https://iea.blob.core.windows.net/assets/2f7b6170-d616-4dd7-a7ca-a65a3a332fc1/Africa_Energy_Outlook_2019.pdf (Accessed on 27/09/2023)

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power⁵⁰. In addition, the government has set a target of meeting 100% of national energy demand from renewable sources and ensuring that all households in Kenya are connected to the electricity grid by 2030⁵¹. Further, Kenya has witnessed one of the fastest growth in electrification within Sub-Saharan Africa with estimates showing that approximately 75% of the population has access to electricity in Kenya⁵².

Kenya has also made significant strides in promoting the use of renewable sources of energy including solar, wind and geothermal power by attracting private investments for renewables projects⁵³. Kenya is considered the world's 8th largest geothermal power producer, has the continent's largest wind farm, a vibrant off grid energy market, and an aggressive last mile campaign to connect every citizen⁵⁴. Kenya has in the recent past commissioned the 310 MW Lake Turkana Wind Power plant and the 185 MW Olkaria Geothermal Power Plant, both among Africa's largest in their respective technologies⁵⁵. It is estimated that Kenya's Lake Turkana wind farm and its 365 turbines make for a generating capacity of more than 300MW, creating one of the most productive projects anywhere in the world⁵⁶. Wind power has been identified as a key contributor to the national grid⁵⁷. The country has also witnessed increased investments in solar energy⁵⁸. The government has initiated programs intended to electrify schools and health facilities in rural areas using solar systems⁵⁹. In addition, private players in the industry have developed customized solar solutions like solar home systems, solar lanterns, solar refrigerators and air conditioners that intend to meet the power needs of the

⁵⁰ Federal Ministry for Economic Cooperation and Development., 'Expanding the Energy Supply.' Available at <https://www.bmz.de/en/countries/kenya/core-area-climate-and-energy-just-transition-70194> (Accessed on 27/09/2023)

⁵¹ Ibid

⁵² International Energy Agency., 'Africa Energy Outlook 2019.' Op Cit

⁵³ ExpoGroup., 'Kenya Power and Energy Market Analysis 2024.' Available at https://www.expogr.com/kenyaenergy/market_info.php (Accessed on 27/09/2023)

⁵⁴ Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' Op Cit

⁵⁵ International Energy Agency., 'Africa Energy Outlook 2019.' Op Cit

⁵⁶ Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' Op Cit

⁵⁷ Ibid

⁵⁸ Energy and Petroleum Regulatory Authority., 'Solar Energy.' Available at <https://renewableenergy.go.ke/technologies/solar-energy/> (Accessed on 27/09/2023)

⁵⁹ Ibid

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rural population⁶⁰. In addition, it has been argued that nuclear energy can play an integral role in energy transition in Kenya⁶¹. It has been noted that many countries are reconsidering the role of nuclear energy in their energy mix, as a means to alleviate the concerns over climate change, security of energy supply and the price and price volatility of fossil fuels⁶². Proponents of use of nuclear energy argue that it has the potential to combat climate change by reducing pollution and cutting greenhouse gas emissions while also helping countries attain more energy independence⁶³. Kenya recently announced plans to kick off the construction of its first nuclear power plant in 2027 as the country seeks to further diversify its energy generation amid rising demand and push for zero-carbon energy⁶⁴. Actualizing this plan will be a key milestone in accelerating energy transition in Kenya.

Finally, there has been some notable progress towards promoting clean energy sources for purposes of cooking such as Liquefied Petroleum Gas (LPG)⁶⁵. However, despite the progress made in fostering energy transition in Kenya, there have been notable challenges hindering its realization. It has been observed that the country is still grappling with the challenge of unreliable, expensive and unsustainable energy use supporting a stagnating industrial and manufacturing base due to aging energy infrastructure that can no longer meet the modern day requirements as envisaged in the country's economic blueprint, the Kenya Vision 2030⁶⁶. Further, despite the strides made towards enhancing access to electricity in Kenya, there exists a wide disparity in electrification between urban and rural areas a majority of the rural population

⁶⁰ Ibid

⁶¹ Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' Op Cit

⁶² Ibid

⁶³ Ibid

⁶⁴ The East African., 'Kenya to Build Nuclear Power Plant from 2027.' Available at <https://www.theeastafrican.co.ke/tea/business/kenya-to-build-nuclear-power-plant-from-2027-4380566> (Accessed on 27/09/2023)

⁶⁵ Muigua. K., 'Adopting Green Energy for a Bright Tomorrow.' Available at <http://kmco.co.ke/wp-content/uploads/2023/06/Adopting-Green-Energy-for-a-Bright-Tomorrow.pdf> (Accessed on 27/09/2023)

⁶⁶ Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' Op Cit

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not having electricity connection⁶⁷. In addition, energy affordability remains a challenge in most sub-Saharan African Countries including Kenya due to the high cost of power relative to income making energy sources such as electricity out of the reach of most people⁶⁸. Kenya is also facing the challenge of growing population which places a huge burden on existing energy sources and also affects the achievement of clean and sustainable energy⁶⁹. In addition, it has been pointed out that Kenya's major sources of energy for the main economic production are oil, geothermal and hydro resources for electricity production where oil-based electricity generation is environmentally harmful, expensive and a burden to the national trade balance; the rivers for hydropower and their tributaries are found in arid and semi-arid areas with erratic rainfall leading to problems of supply security, and geothermal exploitation has cost and risk issues, amongst others⁷⁰.

The energy sector in Kenya therefore suffers from several challenges which hinder the quest towards energy transition in Kenya. These challenges include consistent power outages especially during dry seasons, high electricity tariffs which are exacerbated by high poverty and employment rates, energy retail sector monopoly, and cultural issues and biases that affect uptake of cleaner energy technologies, among others⁷¹. As a result, bio-energy sources such as charcoal, wood fuel and dung remain the most common source of energy in Kenya especially among the rural population in Kenya⁷². However, these

⁶⁷ Moner-Girona, M et al, 'Decentralized Rural Electrification in Kenya: Speeding Up Universal Energy Access' *Energy for Sustainable Development*, Volume 52, October 2019, p 128-146.

⁶⁸ Ibid

⁶⁹ Muigua, K., 'Delivering Clean and Affordable Energy for All.' Op Cit

⁷⁰ Ibid

⁷¹ Avila, N., Carvallo, J. P., Shaw, B., & Kammen, D. M., "The energy challenge in sub-Saharan Africa: A guide for advocates and policy makers." *Generating Energy for Sustainable and Equitable Development, Part 1* (2017): 1-79

⁷² Muchiri, L., 'Gender and Equity in Bioenergy Access and Delivery in Kenya' Practical Action East Africa, 2008.' available at <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahU>

[KEwiy2P29z6PnAhUEiFwKHQlyCLOQFjAAegQIBRAB&url=http%3A%2F%2Fwww.cas.ed.ac.uk%2F_d](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiy2P29z6PnAhUEiFwKHQlyCLOQFjAAegQIBRAB&url=http%3A%2F%2Fwww.cas.ed.ac.uk%2F_d)

[ata%2Fassets%2Fword_doc%2F0007%2F24793%2FGender_and_Equity_in_Bio_energy_A](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiy2P29z6PnAhUEiFwKHQlyCLOQFjAAegQIBRAB&url=http%3A%2F%2Fwww.cas.ed.ac.uk%2F_d)

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sources of energy contribute to the threat of climate change by causing environmental challenges such as air and soil pollution and environmental degradation through deforestation⁷³. There is need to address these challenges in order to accelerate the energy transition in Kenya.

4. Way Forward

In order to accelerate energy transition in Kenya, there is need for continuous adoption and investments in renewable sources of energy such as wind, solar, hydropower, geothermal and tidal energy that are prevalent in the country⁷⁴. The economic, societal and environmental benefits of renewable sources of energy are numerous. Renewable sources of energy are available in abundance, cheaper and are a healthier option for people and the planet⁷⁵. Generating renewable energy [creates far lower emissions](#) than burning fossil fuels⁷⁶. Transitioning from fossil fuels, which currently account for the lion's share of global greenhouse gas emissions, to renewable energy is key to addressing the climate crisis in Kenya and across the globe⁷⁷. It is thus imperative for the government and other players in the energy sector to upscale investments in renewable energy in order to accelerate the energy transition in Kenya.

It is also vital for Kenya to foster energy justice by addressing the concerns that are prevalent in the sector including access to energy and costs of energy in order to actualize its journey towards energy transition⁷⁸. The energy sector in Kenya is clouded with several challenges including disparities in access to

ccess_and_Deliv ery_in_Kenya_final.doc&usg=AOvVaw2AKp1mvTSC9tafkIKJ-36
(Accessed on 27/09/2023)

⁷³ Ibid

⁷⁴ Muigua. K., 'Adopting Green Energy for a Bright Tomorrow.' Op Cit

⁷⁵United Nations., 'Climate Action.' Available at <https://www.un.org/en/climatechange/howcommunities-are-embracing-renewable-energy> (Accessed on 28/09/2023)

⁷⁶United Nations., 'What is Renewable Energy?.' Available at <https://www.un.org/en/climatechange/what-is-renewable-energy> (Accessed on 28/09/2023)

⁷⁷ Ibid

⁷⁸ Muigua. K., 'Towards Energy Justice in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2020/02/Towards-Energy-Justice-in-Kenya-00000005.pdf> (Accessed on 28/09/2023)

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energy between rural and urban areas and high costs of energy⁷⁹. These challenges hinder the journey towards energy transition in Kenya since they result in a significant percentage of the population especially the poor in rural areas to resort to bio-energy sources such as charcoal and wood fuel⁸⁰. However, these sources of energy have negative environmental impacts and contribute to the threat of climate change⁸¹. The government should address these justice concerns by putting in place measures to enhance access to clean energy sources of energy such as reducing the cost of Liquefied Petroleum Gas (LPG) and enhancing the affordability of electricity by making connection charges and billing costs more affordable for the benefit of all Kenyans especially those in rural areas⁸². Such initiatives will encourage more people to adopt clean sources of energy and accelerate energy transition in Kenya.

It is also vital to enhance energy efficiency and reliability in Kenya in order to actualize the energy transition in Kenya⁸³. The energy sector in Kenya is crippled with unreliable electricity supply that often results in frequent power cuts which last for days in some areas⁸⁴. Such a situation forces most people to resort to alternative sources of energy including bioenergy and generators that are powered by oil products resulting in environmental concerns⁸⁵. Providing access to electricity is essential, but access has to bring with it a reliable supply of electricity if households, businesses and public services are to reap the full benefits⁸⁶. A lack of reliable electricity supply disrupts daily lives and activities, lowers trust and use of the grid, increases costs for consumers and utilities and may result in the use alternative sources of energy with significant environmental impacts⁸⁷. It is therefore imperative to ensure reliability and

⁷⁹ Ibid

⁸⁰ Muchiri. L., 'Gender and Equity in Bioenergy Access and Delivery in Kenya' Practical Action East Africa, 2008.' Op Cit

⁸¹ Ibid

⁸² Muigua. K., 'Towards Energy Justice in Kenya.' Op Cit

⁸³ Muigua. K., 'Delivering Clean and Affordable Energy for All.' Op Cit

⁸⁴ Mutiso. R., & Taneja. J., 'The Seven Major Threats to Kenya's Power Sector.' Available at <https://energyforgrowth.org/article/the-seven-major-threats-to-kenyas-power-sector/> (Accessed on 28/09/2023)

⁸⁵ Ibid

⁸⁶ International Energy Agency., 'Africa Energy Outlook 2019.' Op Cit

⁸⁷ Ibid

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efficiency in the energy sector in Kenya in order to accelerate the energy transition.

Further, there is need for Kenya to integrate energy planning with the national economic, social and environmental policies in a manner that ensures inclusivity and participation of all people⁸⁸. Integrated energy planning has the potential to foster development of energy supply and demand balances and ensure sustainable environmental conservation⁸⁹. Public participation plays an important role in the energy sector in Kenya⁹⁰. It has been pointed out that some of the energy providers do not readily provide information on such matters as tariffs, pollution, real costs and other cost and affordability-related issues thus hindering effective decision making for most people on the available sources of energy⁹¹. Further, while undertaking energy projects, some of the stakeholders have violated the constitutional principle of public participation⁹². Public participation has the ability to foster efficient decision making in the energy sector by ensuring that the views of all stakeholders are taken into account therefore promoting inclusivity and non-discrimination⁹³. In addition, it is essential to mainstream gender issues in the energy sector by ensuring involvement of all persons especially women. In the African set up, production and use of biomass fuels is the responsibility of women and children⁹⁴. However, due to diminishing biomass energy supplies, women and children in some parts of the country are spending increasing amounts of time fetching firewood and other biomass fuels leaving little time for other productive activities for women; and limited study-time particularly for the girl child⁹⁵. Therefore, it is important to mainstream gender issues in policy formulation and in energy planning, production and use, and undertake public education and awareness creation on clean sources of energy in order to address this challenge and accelerate energy transition in Kenya⁹⁶.

⁸⁸ Republic of Kenya., 'Sessional Paper No. 4 on Energy.' Op Cit

⁸⁹ Ibid

⁹⁰ Muigua. K., 'Towards Energy Justice in Kenya.' Op Cit

⁹¹ Muigua. K., 'Access to Energy as a Constitutional Right in Kenya' Op Cit

⁹² Ibid

⁹³ Ibid

⁹⁴ Republic of Kenya., 'Sessional Paper No. 4 on Energy.' Op Cit

⁹⁵ Ibid

⁹⁶ Ibid

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Finally, there is need for continuous research and development in the energy sector in order to accelerate energy transition in Kenya⁹⁷. Research and development plays a critical role in the development, conversion, transportation and use of energy⁹⁸. Through research and development, it is possible to identify the challenges and concerns in the energy sector and develop solutions to address such challenges⁹⁹. Research is also vital in developing new sources of energy and enhancing the efficiency of existing sources¹⁰⁰. It is therefore important for Kenya to enhance research and development in the energy sector in order to accelerate its energy transition.

5. Conclusion

Energy is a fundamental human need that plays a vital role in socio-economic development and the Sustainable Development agenda¹⁰¹. Concerns in the energy sector including increase in population and climate change necessitate transition in the energy sector.¹⁰² Kenya has made progress towards energy transition including embracing renewable sources of energy¹⁰³. However, there are still problems relating to access, costs, efficiency and reliability of energy in Kenya¹⁰⁴. It is therefore imperative to accelerate energy transition in Kenya by adopting and investing in renewable sources of energy, enhancing access to energy, ensuring affordability of energy, fostering energy reliability and efficiency, embracing public participation and mainstreaming gender concerns in the energy sector and promoting research and development¹⁰⁵. Accelerating energy transition in Kenya is an imperative whose time is now.

⁹⁷ International Energy Agency., 'Africa Energy Outlook 2019.' Op Cit

⁹⁸ Republic of Kenya., 'Sessional Paper No. 4 on Energy.' Op Cit

⁹⁹ International Energy Agency., 'Africa Energy Outlook 2019.' Op Cit

¹⁰⁰ Ibid

¹⁰¹ Goldthau. A & Sovacool. B., 'The Uniqueness of the Energy Security, Justice and Governance Problem' Op Cit

¹⁰² Muigua. K., 'Exploring Alternative Sources of Energy in Kenya.' Op Cit

¹⁰³ Ibid

¹⁰⁴ Muigua. K., 'Towards Energy Justice in Kenya.' Op Cit

¹⁰⁵ Republic of Kenya., 'Sessional Paper No. 4 on Energy.' Op Cit

Embracing Sustainable Mining in Africa

Abstract

The paper critically explores the idea of sustainable mining in Africa. It argues a case for embracing sustainable mining in order to achieve Sustainable Development in Africa given the abundance of mineral resources in the continent. The paper discusses the concept of sustainable mining and the progress made towards its realization in Africa. The paper further examines some of the challenges hindering sustainability in the mining sector in Africa. It then suggests recommendations towards embracing sustainable mining in Africa.

1. Introduction

Mining refers to the act, process or industry of extracting minerals from the earth¹. It has also been defined as an economic activity that consists of extraction of potentially useable and non-renewable mineral resources (excluding petroleum, natural gas and water) from land and sea without involving agriculture, forestry and fisheries². The *Mining Act*³ of Kenya defines minerals as geological substances whether in solid, liquid or gaseous form occurring naturally in or on the earth, in or under water, in mine waste or tailing but does not include petroleum, hydrocarbon gases or groundwater. Mining is an important industry that contributes significantly to the global economy. Minerals are critical to the social, political and economic activity of any country⁴. They are core raw materials for the manufacturing sector, high technology industries, resource industries and the construction industry⁵. It has been observed that minerals and mineral products are the backbone of most industries in the world and some form of mining or quarrying is carried out in nearly every country⁶. Mining therefore has important economic,

¹ United Nations Environment Programme., 'Mining.' Available at <https://leap.unep.org/knowledge/glossary/mining> (Accessed on 28/09/2023)

² Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

³ Mining Act, No. 12 of 2016, Laws of Kenya, S 4

⁴ Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

⁵ Ibid

⁶ International Labour Organization., 'Mining (Coal; other Mining) Sector.' Available at <https://www.ilo.org/global/industries-and-sectors/mining/lang--en/index.htm> (Accessed on 28/09/2023)

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environmental, labour and social effects⁷. It ensures availability of minerals that are needed to construct roads and hospitals, to build automobiles and houses, to make computers and satellites, to generate electricity, and to provide the many other goods and services that consumers enjoy⁸. It is also a major source of employment in many countries⁹.

However, despite its importance as an economic activity, mining and subsequent processing of strategic elements can be harmful to the environment¹⁰. Further, it has been observed that the rates of death, injury and disease among the world's mineworkers remain high, and mining remains the most hazardous occupation when the number of people exposed to risk is taken into account¹¹. These challenges have led to the emergence of the concept of sustainable mining.

The paper critically explores the idea of sustainable mining in Africa. It argues a case for embracing sustainable mining in order to achieve Sustainable Development in Africa given the abundance of mineral resources in the continent. The paper discusses the concept of sustainable mining and the progress made towards its realization in Africa. The paper further examines some of the challenges hindering sustainability in the mining sector in Africa. It then suggests recommendations towards embracing sustainable mining in Africa.

2. Conceptualizing Sustainable Mining

Mining ensures the availability of vital raw materials and resources that drive societies forward and ignite economic growth and technological

⁷ Ibid

⁸ National Academies Press., 'Evolutionary and Revolutionary Technologies for Mining.' Available at <https://nap.nationalacademies.org/read/10318/chapter/4> (Accessed on 28/09/2023)

⁹ Ibid

¹⁰ Massachusetts Institute of Technology., 'The Future of Strategic Natural Resources.' Available at <https://web.mit.edu/12.000/www/m2016/finalwebsite/solutions/mining.html> (Accessed on 28/09/2023)

¹¹ International Labour Organization., 'Mining (Coal; other Mining) Sector.' Op Cit

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advancement¹². However, the critical need to mine must be balanced with a holistic environmental and social responsibility¹³. Sustainable mining entails optimizing environmental performance and social impact of mining activities¹⁴. Sustainable mining also entails ensuring sound labour practices including good safety standards and paying workers a fair wage¹⁵. It also focuses on investing in the tools, equipment and training needed to safeguard workers as much as possible¹⁶.

It has been pointed out that community engagement is at the heart of mining sustainability¹⁷. The employment opportunities and economic activities generated by mining processes are beneficial to social sustainability and community well-being¹⁸. Sustainable mining operations therefore consider social investment, focus on the economic and social returns in the community and on building community resilience.¹⁹ Further, in order to foster community engagement, sustainable mining entails obtaining the consent of local communities at all stages in the lifecycle of a mine from mineral right application to the closure and rehabilitation of the mining sites²⁰. The concept of Free, Prior, and Informed Consent (FPIC) is therefore vital in the sustainable

¹² Pan African Resources., 'Sustainable Mining.' Available at <https://www.panafricanresources.com/sustainable-mining/#:~:text=Sustainable%20mining%20refers%20to%20the,generations%20can%20also%20be%20met> (Accessed on 02/10/2023)

¹³ Ibid

¹⁴ Ibid

¹⁵ Sammour. J., 'What Exactly is Ethical Mining?' Available at <https://www.daintylondon.com/blogs/news/what-is-ethical-mining/#:~:text=Whether%20mining%20metals%2C%20diamonds%20or,its%20workers%20a%20fair%20wage> (Accessed on 02/10/2023)

¹⁶ Ibid

¹⁷ Well Planning Group., 'At The Heart of Mining Sustainability is Community Engagement.' Available at <https://www.wallplanning.com.au/at-the-heart-of-mining-sustainability-is-community-engagement/#:~:text=You'll%20likely%20have%20heard,%3A%20Social%2C%20Environmental%2C%20Economic> (Accessed on 02/10/2023)

¹⁸ Ibid

¹⁹ Ibid

²⁰ Mathiba. G., 'The Incorporation of the FPIC Principle in South African Policy on Mining-Induced Displacements.' *International Journal on Minority and Group Rights.*, 2023 (1-23)

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mining agenda²¹. The global call for application of Free, Prior, and Informed Consent (FPIC) in mining is generally meant to address the abuse of the rights of indigenous peoples worldwide including: indigenous land rights, recognition of and respect for culture, the right to economic participation, to a livelihood and to a clean environment, among others²².

Various strategies have been embraced to foster sustainable mining. It has been pointed out that Corporate Social Responsibility (CSR) is an integral component of sustainable mining due to the nature of activities undertaken by mining companies²³. CSR in relation to mining entails a set of voluntary actions to mitigate the negative environmental and social impact of mining or to improve the social and economic well-being of populations living close to where mining companies operate²⁴. It ensures the inclusion of social interests, environmental protection and a relationship with local community groups in the company strategies adopted by mining corporations²⁵. Mining companies can therefore foster sustainable mining by embracing CSR practices including investments in public services and infrastructure, contributions to local agriculture and other economic activities, as well as payments to support the cultural or political activities of communities in mining areas²⁶. Sustainable mining can also be realized through several approaches including reducing, reusing and rethinking mining waste, promoting water conservation, lowering carbon emissions by transitioning to renewable energy, ensuring the long term well-being of local communities, restoring land to its natural state and combatting illegal mining and its impact on communities and the environment²⁷.

²¹ Muigua. K., 'Maximising the Right to Free, Prior, and Informed Consent for Enhanced Environmental Justice in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2019/03/Maximising-the-Right-to-FPIC-in-Kenya-Kariuki-Muigua-29th-March-2019.pdf> (Accessed on 02/10/2023)

²² Ibid

²³ Majer. M., 'The Practice of Mining Companies in Building Relationships with Local Communities in the Context of CSR Formula.' *Journal of Sustainable Mining*, 12 (3): 38-47

²⁴ Bezzola. S et al., 'CSR and Local Conflicts in African Mining Communities.' *World Development*, Volume 158, 2022

²⁵ Ibid

²⁶ Ibid

²⁷ Pan African Resources., 'Sustainable Mining.' Op Cit

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It has been argued that sustainable mining can foster the attainment of the Sustainable Development Goals (SDGs) envisioned by the United Nations²⁸. Sustainable mining can enhance realization of most of the SDGs including ending extreme poverty; ensuring healthy lives and promoting well-being for all people; ensuring inclusive and equitable quality education and promoting lifelong learning opportunities; promoting sustained, inclusive and sustainable economic growth; fostering inclusive and sustainable industrialization and enhancing innovation; and promoting sustainable consumption and production patterns²⁹. The *United Nations Global Compact Strategy 2021-23* aims to accelerate and scale the global collective impact of business and deliver the SDGs through accountable companies and ecosystems that enable change³⁰. It encapsulates principles that are integral in achieving this aim which focus on human rights, labour, environment and anti-corruption³¹. Mining companies can embrace this strategy in order to promote sustainable mining.

3. Sustainable Mining in Africa

Africa is a continent that is richly endowed with a variety of mineral resources, with potential for economic growth and development³². The continent is home to approximately 30% of the world's mineral reserves³³. The Democratic Republic of the Congo (DRC), for example, produces over 70% of the world's

²⁸ Ibid

²⁹ Ibid

³⁰ United Nations Global Compact., 'UN Global Compact Strategy 2021-2023.' Available at https://ungc-communications-assets.s3.amazonaws.com/docs/about_the_gc/UN-GLOBAL-COMPACT-STRATEGY-2021-2023.pdf (Accessed on 02/10/2023)

³¹ Ibid

³² United Nations Economic Commission for Africa., 'Africa Mining Vision Guidelines.' Available at <https://www.uneca.org/african-mining-vision-guidelines#:~:text=The%20overall%20goal%20of%20the,and%20socio%2Deconomic%20development%E2%80%9D> (Accessed on 03/10/2023)

³³ White & Case., 'Don't Let a Crisis Go to Waste: Financing Mining & Metals Projects in Africa in 2023.' Available at <https://www.whitecase.com/insight-our-thinking/africa-focus-summer-2023-financing-mining-metals-projects#:~:text=Africa%20holds%20a%20remarkable%2030,sector's%20global%20revenue%20in%202022.> (Accessed on 03/10/2023)

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cobalt³⁴. DRC and Zambia together supply nearly 10% of global copper³⁵. Botswana and South Africa produce a significant amount of diamond while Ghana and South Africa are significantly endowed with gold deposits³⁶. Africa is therefore classified as a major producer of many [key mineral commodities](#) in the world, with bountiful reserves of vital metals and minerals including gold, diamond, cobalt, bauxite, iron ore, coal, and copper available across the continent³⁷. Some of the major mining countries in Africa are DRC, South Africa, Namibia, and Zimbabwe³⁸. Kenya is also richly endowed with industrial minerals including soda ash, fluorspar, diatomite and gemstones³⁹. Further, it has been argued that Africa has an opportunity to emerge as a production hub for 'rare earths' with significant deposits being available in the continent especially in eastern and southern countries including South Africa, Madagascar, Malawi, Kenya, Namibia, Mozambique, Tanzania, Zambia and Burundi⁴⁰. Rare earths have been described as the catalysts of industrial societies in the 21st century since they are vital to key products from hi-tech items including smartphones and monitors to energy conversion systems such as wind turbines, photovoltaic panels and electrical machinery and even military equipment including lasers and radar⁴¹. Sustainable mining is therefore a pertinent concern in Africa in order to ensure that the abundant

³⁴ United Nations., 'African Countries Urged to Prioritize Green Value Chains for Minerals.' Available at <https://www.un.org/africarenewal/magazine/february-2023/african-countries-urged-prioritize-green-value-chains-minerals#:~:text=Africa%20is%20home%20to%20many,platinum%20metals%2C%20lithium%20and%20more> (Accessed on 03/10/2023)

³⁵ Ibid

³⁶ Statista., 'Mining Industry in Africa - Statistics & Facts.' Available at <https://www.statista.com/topics/7205/mining-industry-in-africa/> (Accessed on 03/10/2023)

³⁷ Ibid

³⁸ Ibid

³⁹ Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

⁴⁰ Italian Institute for International Political Studies., 'The Scramble for Africa's Rare Earths: China is not Alone.' Available at <https://www.ispionline.it/en/publication/scramble-africas-rare-earth-china-not-alone-30725> (Accessed on 03/10/2023)

⁴¹ Ibid

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mineral resources in the continent are able to trigger social and economic development⁴².

The *Africa Mining Vision*⁴³ seeks to achieve transparent, equitable and optimal exploitation of mineral resources in Africa in order to underpin broad-based sustainable growth and socio-economic development. It recognizes the need for a sustainable and well-governed mining sector in Africa that effectively garners and deploys resource rents and that is safe, healthy, gender and ethnically inclusive, environmentally friendly, socially responsible and appreciated by surrounding communities⁴⁴. The Vision identifies the challenges that riddle the mining industry in Africa including environmental, social and cultural concerns and proposes several solutions to address these challenges⁴⁵. The Vision not only seeks to guide the mining industry in Africa, but it also aims at ensuring sustainable utilization of natural resources in Africa in order to ensure that the continent's natural resources are used to transform the social and economic development path of the continent⁴⁶. Further, the Vision seeks to ensure the adoption of an integrated approach in the governance of Africa's mineral resources and the involvement of all stakeholders in the governance process⁴⁷.

The Africa Mining Vision explores how development can be achieved through the creation of local value, driven by the strategic use of mineral resources in Africa⁴⁸. It charts a path for generating and realizing various types of linkages arising from the mining sector through measures such as industrial development and technical upgrading⁴⁹. Further, the Africa Mining Vision recognizes the contribution of Artisanal and Small-Scale mining (ASM) to local

⁴² Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

⁴³ Africa Union., 'Africa Mining Vision.' Available at https://au.int/sites/default/files/documents/30995-doc-africa_mining_vision_english_1.pdf (Accessed on 03/10/2023)

⁴⁴ Ibid

⁴⁵ Ibid

⁴⁶ Ibid

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Ibid

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economic development, and fosters women's rights and gender justice⁵⁰. The Vision also establishes a progressive fiscal regime that can curb the financial misuse of the continent's resources through tax evasion and avoidance and illicit financial flows from the mineral sector⁵¹. The Africa Mining Vision also upholds the principle of Free, Prior and Informed Consent (FPIC) for mining-affected communities, and stipulates measures to address the social and environmental impacts of mining⁵². The Africa Mining Vision identifies opportunities that can accelerate benefits from the mining industry in Africa including the use of resource rents, upscaling physical infrastructure, downstream value addition, upstream value addition and technology and product development⁵³.

The Africa Mining Vision is very integral in enhancing sustainable mining in Africa. It acknowledges that effective management of the mineral resources in the continent is critical to transform the sector in a sustainable manner⁵⁴. Realizing the ideal of the Africa Mining Vision is essential in promoting sustainable mining in Africa.

*Agenda 2063*⁵⁵ also embraces the concept of sustainable mining and calls for the implementation of the Africa Mining Vision in order to realize this ideal in Africa. Agenda 2063 represents a shared strategic framework for inclusive growth and sustainable development and a global strategy to optimize the use of Africa's resources for the benefit of all Africans⁵⁶. It stipulates the importance of African and international initiatives for better governance in the mining sector and the extractive industry⁵⁷. According to Agenda 2063, Africa's natural resources need to be governed effectively to foster

⁵⁰ Ibid

⁵¹ Ibid

⁵² Ibid

⁵³ Africa Union., 'Africa Mining Vision.' Op Cit

⁵⁴ United Nations Economic Commission for Africa., 'Africa Mining Vision Guidelines.' Op Cit

⁵⁵ Africa Union., 'Agenda 2063: The Africa we Want.' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf (Accessed on 03/10/2023)

⁵⁶ Ibid

⁵⁷ Ibid

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transparency and counter illicit resource outflows and unacceptable exploitation of Africa's natural resources⁵⁸. In this regard, Agenda 2063 calls upon the African Union (AU) member states to fully implement the Africa Mining Vision⁵⁹. Actualizing Agenda 2063 can therefore fast track the implementation of the Africa Mining Vision and realization of sustainable mining in Africa.

The *Mining Act*⁶⁰ of Kenya also embraces the aspect of sustainable mining. The Act enshrines sustainable development as one of the guiding principles in developing the mining sector in Kenya⁶¹. It also advocates for the development of the mining sector in Kenya in a manner which promotes compliance with international conventions and national policies relating to the sustainable development of the mineral resources and ensures that mining operations take into account local and community values⁶². It further calls upon mining entities to promote sustainable use of land through restoration of abandoned mines and quarries⁶³. The Mining Act therefore embraces the concept of sustainable mining by enshrining measures to ensure the protection of the environment, community development, safety of prospecting and mining operations and health and safety of persons undertaking those operations among others⁶⁴.

Sustainable mining is thus vital in Africa. There has been increased demand on the mining industry to adopt more environmentally and socially responsible practices in Africa⁶⁵. It has been pointed out that with shareholders and lenders demanding greenhouse gas emissions and pollution reduction, plus improvements in worker and community welfare, there is a growing belief that it is in the mining industry's best interests to adopt more responsible

⁵⁸ Ibid

⁵⁹ Ibid

⁶⁰ Mining Act, No. 12 of 2016, Laws of Kenya, S 20 (1) (o)

⁶¹ Ibid, S 5

⁶² Ibid

⁶³ Ibid, S 179 (a)

⁶⁴ Ibid, S 42

⁶⁵ Ford. N., 'Can African Mining ever be Sustainable?' Available at <https://african.business/2022/04/energy-resources/can-african-mining-ever-be-sustainable> (Accessed on 03/10/2023)

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practices to increase productivity and avoid adverse publicity⁶⁶. As a result of these concerns, private and public sector led mining activities across Africa have begun to prioritize sustainable techniques to promote environmental sustainability, social responsibility, and good business practices⁶⁷. In turn, the sustainable mining industry has become an increasingly attractive investment opportunity for global players seeking to enhance their returns on investment while spearheading climate protection and resilience⁶⁸. Sustainable mining can unlock economic and social development in Africa while fostering environmental conservation and confronting the threat of climate change⁶⁹.

However, several problems hinder the realization of the ideal of sustainable mining in Africa. It has been pointed out that growth in Africa's mineral-rich countries is slipping, and inequality and economic fragility are on the rise⁷⁰. Further, many African countries are under pressure to enter into unfair mining deals and contracts with foreign companies, and to hand out tax incentives to such companies a situation that ends up hurting them in the long term⁷¹. Despite boasting vast mineral wealth, the mining industry in Africa has spawned gloomy tales of the natural resource curse phenomenon⁷². In Africa, mineral resources are extracted mainly for processing and use outside the continent, and mineral sectors have remained an enclave and disconnected from broader economies⁷³. It has been shown that public debt and fiscal stress is rising in several mineral-rich African countries such as Nigeria, Zambia,

⁶⁶ Ibid

⁶⁷ Africa Business., 'African Sustainable Mining Piques Interest of Global Players.' Available at <https://african.business/2023/09/apo-newsfeed/african-sustainable-mining-piques-interest-of-global-players#:~:text=While%20clean%20energy%20mines%20are,large%20scale%20projects%20in%20South> (Accessed on 03/10/2023)

⁶⁸ Ibid

⁶⁹ Ibid

⁷⁰ Oxfam., 'From Aspiration to Reality: Unpacking the Africa Mining Vision.' Available at <https://www-cdn.oxfam.org/s3fs-public/bp-africa-mining-vision-090317-en.pdf> (Accessed on 03/10/2023)

⁷¹ Ibid

⁷² Ibid

⁷³ Ibid

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Angola and Mozambique⁷⁴. Further, Angola, Democratic Republic of the Congo (DRC) and Nigeria are good examples of African countries well-endowed in natural resources that suffer widespread poverty⁷⁵. There has also been prevalence of conflicts linked to natural resources in countries such as DRC⁷⁶.

From the foregoing, it is evident that Africa is yet to harness the full potential of its mineral endowments for sustainable and inclusive development. The continent is richly endowed with a variety of mineral resources, with potential for economic growth and development but performance so far has not been consistent with expectations⁷⁷. There is need to embrace sustainable mining in Africa in order to unlock growth and prosperity in Africa.

4. Way Forward

Several measures are required in order to embrace sustainable mining in Africa. There is need to actualize the Africa Mining Vision. The Vision is integral in transforming the mining sector in Africa and promoting sustainable mining⁷⁸. African countries should therefore accelerate the implementation of the African Mining Vision in order to realize sustainable mining in Africa⁷⁹. Some of the measures that are required in order to implement the Vision include aligning mineral sector laws, policies and institutions with the African Mining Vision, raising awareness about the Vision among stakeholders in the mining sector and ensuring that companies operating in Africa's mineral sector institute policies that comply with the provisions of the Vision on aspects such as human rights, corporate accountability, gender justice, social and environmental impacts⁸⁰.

⁷⁴ Henri. A., 'Natural Resources Curse: A Reality in Africa.' *Resources Policy*, Volume 63, 2019

⁷⁵ Ibid

⁷⁶ Ibid

⁷⁷ United Nations Economic Commission for Africa., 'Africa Mining Vision Guidelines.' Op Cit

⁷⁸ World Bank., 'Africa Mining Vision and Country Mining Visions.' Available at https://www.worldbank.org/content/dam/Worldbank/Event/Africa/Ethiopia%20Extractive%20Industries%20Forum%202014/9_AMV.pdf (Accessed on 04/10/2023)

⁷⁹ Ibid

⁸⁰ Oxfam., 'From Aspiration to Reality: Unpacking the Africa Mining Vision.' Op Cit

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In addition, there is need to adopt sound labour practices in the mining sector in order to realize sustainable mining⁸¹. Challenges such as death, injury and disease among the world's mineworkers remain high, and mining remains the most hazardous occupation when the number of people exposed to risk is taken into account⁸². These challenges hinder the realization of sustainable mining. Therefore in order to achieve sustainable mining, there is need to foster sound labour practices including good safety standards and paying workers a fair wage⁸³. Further, there is need to invest in the tools, equipment and training needed to safeguard workers in the mining sector as much as possible⁸⁴.

It is also imperative for mining companies to embrace community participation and engagement while undertaking mining activities⁸⁵. Public participation is one of the fundamental principles of governance that is recognized worldwide and has been enshrined under the Constitution of Kenya⁸⁶. Public participation is believed to be important in bridging the gap between the government, civil society, private sector and the general public, building a common understanding about the local situation, priorities and programmes as it encourages openness, accountability and transparency, and is thus at the heart of inclusive decision-making⁸⁷. Further, public participation can improve the quality of decision-making in the mining sector by providing decision-makers with additional, unique information on local conditions⁸⁸. Public participation and community engagement can be realized in the mining

⁸¹ International Labour Organization., 'Mining (Coal; other Mining) Sector.' Op Cit

⁸² Ibid

⁸³ Sammour. J., 'What Exactly is Ethical Mining?.' Op Cit

⁸⁴ Ibid

⁸⁵ Muigua. K., 'Maximising the Right to Free, Prior, and Informed Consent for Enhanced Environmental Justice in Kenya.' Op Cit

⁸⁶ Constitution of Kenya, 2010., Article 10 (2) (a), Government Printer, Nairobi

⁸⁷ Muigua. K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2018/08/TOWARDSMEANINGFUL-PUBLICPARTICIPATION-IN-NATURAL-RESOURCEMANAGEMENT-IN-KENYA.pdf> (Accessed on 04/10/2023)

⁸⁸ Cerezo. L, & Garcia. G., 'Lay Knowledge and Public Participation in Technological and Environmental Policy.' Available at <https://scholar.lib.vt.edu/ejournals/SPT/v2n1/pdf/CEREZO.PDF> (Accessed on 04/10/2023)

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sector through FPIC⁸⁹. The global call for application of FPIC in mining is generally meant to address the abuse of the rights of indigenous peoples worldwide including: indigenous land rights, recognition of and respect for culture, the right to economic participation, to a livelihood and to a clean environment, among others⁹⁰. It is therefore vital to foster community engagement by obtaining the consent of local communities at all stages in the lifecycle of a mine from mineral right application to the closure and rehabilitation of the mining sites⁹¹.

Sustainable mining can also be realized in Africa through the adoption of CSR by mining companies⁹². The mining sector has been described as one of the most controversial [industries](#) in the sense that, at the same time that it is beneficial to society, it can also be a threat to it⁹³. It is therefore vital for mining companies to establish and maintain a good relationship with indigenous, local, and societal groups in order to avoid losing their Social License to Operate (SLO)⁹⁴. Mining companies should therefore embrace CSR through the inclusion of social interests, environmental protection and a relationship with local community groups in the company strategies⁹⁵. Mining companies can therefore foster sustainable mining by embracing CSR practices including investments in public services and infrastructure, contributions to local agriculture and other economic activities, as well as payments to support the cultural or political activities of communities in mining areas⁹⁶.

Finally, it is very important to for mining companies to embrace the ideal of Sustainable Development. Sustainable Development has been defined as

⁸⁹ Muigua. K., 'Maximising the Right to Free, Prior, and Informed Consent for Enhanced Environmental Justice in Kenya.' Op Cit

⁹⁰ Ibid

⁹¹ Mathiba. G., 'The Incorporation of the FPIC Principle in South African Policy on Mining-Induced Displacements.' Op Cit

⁹² Majer. M., 'The Practice of Mining Companies in Building Relationships with Local Communities in the Context of CSR Formula.' Op Cit

⁹³ Yousefian. M et al., 'Corporate Social Responsibility and Economic Growth in the Mining Industry.' *The Extractive Industry and Society*, Volume 13, 2023

⁹⁴ Ibid

⁹⁵ Majer. M., 'The Practice of Mining Companies in Building Relationships with Local Communities in the Context of CSR Formula.' Op Cit

⁹⁶ Ibid

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development that meets the needs of the present without compromising the ability of future generations to meet their own needs⁹⁷. It combines elements such as environmental protection, economic development and social concerns⁹⁸. It has been pointed out that since the mining industry's operations have the potential to impact a wide range of environmental and socioeconomic entities, it is imperative for them to embrace Sustainable Development by ensuring improved environmental performance and addressing the needs of stakeholders and community groups from the onset throughout the lifetime of the mining process⁹⁹. Sustainable Development can be realized in the mining sector through several approaches including reducing, reusing and rethinking mining waste, promoting water conservation, lowering carbon emissions by transitioning to renewable energy, ensuring the long term well-being of local communities, restoring land to its natural state and combatting illegal mining and its impact and communities and the environment¹⁰⁰.

The foregoing measures are integral in embracing sustainable mining in Africa.

5. Conclusion

Mining is an important industry that contributes significantly to the global economy. However, despite its importance as an economic activity, mining and subsequent processing of strategic elements can result in environmental, social and economic concerns¹⁰¹. Sustainable mining has therefore emerged as an ideal that seeks to optimize environmental performance and social impact of mining activities¹⁰². The *Africa Mining Vision*¹⁰³ seeks to achieve the ideal of sustainable mining in Africa. However, problems in the mining sector in

⁹⁷ World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

⁹⁸ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1

⁹⁹ Hilson, G., & Murck. B., 'Sustainable Development in the Mining Industry: Clarifying the Corporate Perspective.' *Resources Policy*, Volume 26, Issue 4

¹⁰⁰ Pan African Resources., 'Sustainable Mining.' Op Cit

¹⁰¹ Massachusetts Institute of Technology., 'The Future of Strategic Natural Resources.' Op Cit

¹⁰² Pan African Resources., 'Sustainable Mining.' Op Cit

¹⁰³ Africa Union., 'Africa Mining Vision.' Op Cit

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Africa and slow implementation of the African Mining Vision have hindered realization of sustainable mining in Africa¹⁰⁴. Sustainable mining can be embraced in Africa by actualizing the Africa Mining Vision, adopting sound labour practices, embracing community participation and engagement, adoption of CSR activities and fostering Sustainable Development¹⁰⁵. Embracing sustainable mining in Africa is an ideal worth pursuing.

¹⁰⁴ Oxfam., 'From Aspiration to Reality: Unpacking the Africa Mining Vision.' Op Cit

¹⁰⁵ Ibid

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Abstract

Article 19 of the Constitution of Kenya 2010 provides that Bill of Rights is an integral part of Kenya's democratic state and is the framework for social, economic and cultural policies. It further states that the purpose of recognising and protecting human rights and fundamental freedoms is to preserve the dignity of individuals and communities and to promote social justice and the realisation of the potential of all human beings. The Constitution also outlines the principles of national security as including the protection against internal and external threats to Kenya's territorial integrity and sovereignty, its people, their rights, freedoms, property, peace, stability and prosperity, and other national interests. In addition to these, the Constitution provides for and envisages the enjoyment of the right to clean and healthy environment and other environmental rights therein, realisation of sustainable development and outlines national values and principles of governance which are geared towards protection of the human rights of all persons, environmental protection and the creation of a peaceful society. This paper argues that it is possible, in the application of some of the environmental conflict management mechanisms, to achieve undesired results that violate or fail to protect the rights of the target groups in a given conflict. The author offers insight on how the conflicts may be addressed in a way that upholds the various rights of groups in a conflict. The paper argues for adoption of a rights-based approach to environmental protection and conflict management.

1. Introduction

International concerns with human rights have expanded considerably in the past several decades.¹ Universal human rights are often expressed and guaranteed by law, in the forms of treaties, customary international law, general principles and other sources of international law, with the international human rights law laying down obligations of Governments to

¹ D Shelton, *Human Rights. Health & Environmental Protection: Linkages in Law & Practice*; 2002 < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf> Accessed 10 August 2020, p. 3.

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act in certain ways or to refrain from certain acts, in order to promote and protect human rights and fundamental freedoms of individuals or groups.² In the same breadth, over the years, the environment has secured a special place in the international law discourse. This has been evidenced by various legal instruments that are meant to provide directions and guidelines to the key players and the states in coming up with domestic environmental protection and conservation laws.³ The debate is however informed by two major approaches namely, anthropocentric and ecocentric approaches. While the ecocentric approach is mainly concerned with the moral concern for nature in its own right as deserving protection and conservation, the anthropocentric approach, places humans as the central concern in environmental conservation and protection while the environment is considered secondary.⁴ Thus, ecocentrism is nature-centered, while anthropocentrism is human-centered. International legal instruments on environmental conservation and protection are divided between the two approaches, with some adopting the ecocentrism while others are based on anthropocentrism.⁵

² 'OHCHR | What Are Human Rights'

<<https://www.ohchr.org/en/issues/pages/whatarehumanrights.aspx>> accessed 10 August 2020.

³ Ibid.

⁴ Helen Kopnina and others, 'Anthropocentrism: More than Just a Misunderstood Problem' (2018) 31 *Journal of Agricultural and Environmental Ethics* 109.

⁵ Vito De Lucia, 'The Ecosystem Approach between Anthropocentrism and Ecocentrism' (2015); Louis Kotzé and Duncan French, 'The Anthropocentric Ontology of International Environmental Law and the Sustainable Development Goals: Towards an Ecocentric Rule of Law in the Anthropocene' (2018) 7 *Global Journal of Comparative Law* 5; Vito De Lucia, 'Competing Narratives and Complex Genealogies: The Ecosystem Approach in International Environmental Law' (2015) 27 *Journal of Environmental Law* 91; Marie-Catherine Petersmann, 'Narcissus' Reflection in the Lake: Untold Narratives in Environmental Law Beyond the Anthropocentric Frame' (2018) 30 *Journal of Environmental Law* 235; Mohamed El-Kamel Bakari, 'Mapping the "Anthropocentric-Ecocentric" Dualism in the History of American Presidency: The Good, the Bad, and the Ambivalent' [2017] *Consilience* 1; Abadir Ibrahim, 'A Human Rights Approach to Environmental Protection: The Case of Ethiopia' (2009) 1 *Contemporary Legal Institutions*; Louis J Kotzé, 'Human Rights and the Environment in the Anthropocene': [2014] *The Anthropocene Review* <<https://journals.sagepub.com/doi/10.1177/2053019614547741>> accessed 11 August 2020.

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A dual rights-based approach, where the intrinsic value of humans and nature co-exist in an interconnected manner can pool the benefits of both approaches. Both approaches are important and all that is needed is to strike a balance.⁶ Notably, while the sustainable development agenda debates accommodate both approaches, they lean more towards the anthropocentrism. The *2030 Agenda on Sustainable Development Goals*⁷ (SDGs) define sustainable development broadly to cover issues such as poverty, inequality, gender equality, health, education, governance, climate change and environmental protection.⁸ The SDGs rest on three core elements of sustainability which include:⁹ Economic: An economically sustainable system that must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances which damage agricultural or industrial production; Environmental: An environmentally sustainable system which must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources; and Social: A socially sustainable system which must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation.¹⁰

⁶ See generally, K. Muigua, *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi, 2016.

⁷ D Shelton, *Human Rights, Health & Environmental Protection: Linkages in Law & Practice*; 2002 < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf> Accessed 10 August 2020, p. 3.

⁸ See United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1, Resolution adopted by the General Assembly on 25 September 2015.

⁹ Jonathan M Harris, 'Basic Principles of Sustainable Development' [2000] Dimensions of Sustainable Development 21, Global Development and Environment Institute, Tufts University, Working Paper 00-04, June 2000 < http://www.buyteknet.info/files/data/ambides_lect/Harris_PrinSD.pdf> Accessed 10 August 2020, pp.5-6.

¹⁰ *Ibid*, p.6.

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Environmental resources access, use and control are central to meeting human needs.¹¹ That is why environmental conflicts emerge, both nationally and internationally, when one group of persons feel that their rights in this respect are threatened. This is because historically, as the United Nations has observed, environmental resources have often been an indicator of the wealth of those being in a position to utilize them.¹²

Various mechanisms are therefore employed in managing these conflicts and while some sufficiently address the human rights issues that emerge, others may not necessarily achieve as much. This paper critically evaluates the various approaches to environmental conflicts management with a view to recommend the most suitable ones in ensuring that human rights, which mainly inform the anthropocentric approach, are secured. The paper vouches for a rights-based approach to environmental issues and the related conflicts as a way of securing human rights while managing environmental conflicts.

2. Linking Human Rights and the Environment

Human rights may be defined as universal, inalienable rights inherent to all human beings, which they are entitled to without discrimination.¹³ The *Universal Declaration of Human Rights of 1948*¹⁴ (UDHR) set the stage for the

¹¹ 'Our Planet, Our Health' <<http://ciesin.org/docs/001-232/chpt1.html>> accessed 11 August 2020; Jean-Louis Martin, Virginie Maris and Daniel S Simberloff, 'The Need to Respect Nature and Its Limits Challenges Society and Conservation Science' (2016) 113 *Proceedings of the National Academy of Sciences* 6105; Steven C Rockefeller, 'Principles of Environmental Conservation and Sustainable Development: Summary and Survey' [1996] unpublished paper prepared for the Earth Charter Project; 'Global Conservation: Balancing Nature and Human Needs' <<https://www.macfound.org/press/publications/global-conservation-balancing-nature-and-human-needs/>> accessed 11 August 2020.

¹² Daniel Schwartz and Ashbindu Singh, *Environmental Conditions, Resources, and Conflicts: An Introductory Overview and Data Collection* (United Nations Environment Programme 1999) <<https://na.unep.net/siouxfalls/publications/Conflicts.pdf>> Accessed 10 August 2020.

¹³ 'OHCHR | What Are Human Rights' <<https://www.ohchr.org/en/issues/pages/whatarehumanrights.aspx>> accessed 10 August 2020.

¹⁴ UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III).

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recognition, protection and promotion of human rights the world over. UDHR places an obligation on all states to employ progressive measures to ensure recognition of human rights provided therein. Notably, the Declaration recognises the need for mobilization of resources by States so as to ensure realization of these rights. Art. 22 thereof provides that everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

The UDHR created a basis for the formulation of *International Covenant on Civil and Political Rights*, (ICCPR) 1966¹⁵ and *International Covenant on Economic, Social and Cultural Rights* (ICESCR) 1966.¹⁶ ICCPR provides under Article 47 thereof that nothing in that Covenant should be interpreted as impairing the inherent right of all peoples to enjoy and utilize fully and freely their natural wealth and resources. Further, ICESCR, under Article 1.2, provides that all peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence.

Principle 1 of the *Stockholm Declaration*¹⁷ is however credited as the first international legal instrument which expressly formed a foundation for linking human rights, health, and environmental protection, declaring that: Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-

¹⁵ UN General Assembly, *International Covenant on Civil and Political Rights*, 16 December 1966, United Nations, Treaty Series, vol. 999, p. 171.

¹⁶ *International Covenant on Economic, Social and Cultural Rights*; adopted 16 Dec. 1966, 993 U.N.T.S. 3, G.A. Res. 2200 (XXI), U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6316 (1966) (entered into force 3 Jan. 1976).

¹⁷ UN General Assembly, *United Nations Conference on the Human Environment*, 15 December 1972, A/RES/2994.

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being.¹⁸ However, while the language of Article 1 of both the *Stockholm Declaration* and the *Rio Declaration*¹⁹ seem to connote a human rights approach to the environmental conservation, during the conferences, various proposals for a direct and thus unambiguous reference to an environmental human right were rejected²⁰. It is arguable that the conferences created an oxymoronic circumstance, in denying what would only be in the nature of 'the right to adequate conditions of life in an environment of a quality that permits a life of dignity and well-being'.²¹

Draft Principles on Human Rights and the Environment of 1994,²² (1994 Draft Principles) is an international instrument that comprehensively addresses the linkage between human rights and the environment. The *1994 Draft Principles* provide for the interdependence between human rights, peace, environment and development. Principle 1 thereof declares that human rights, an ecologically sound environment, sustainable development and peace are interdependent and indivisible.

In the first human rights-based approach to environmental protection, environmental protection is seen as a pre-condition to the enjoyment of internationally-guaranteed human rights, especially the rights to life and health, making it an essential instrument in the effort to secure the effective

¹⁸ D Shelton, *Human Rights. Health & Environmental Protection: Linkages in Law & Practice*; 2002 < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf > Accessed 10 August 2020, p. 3.

¹⁹ Rio Declaration on Environment and Development, A/CONF.151/26, vol. I, 1992.

²⁰ Handl, G., 'Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 1972 and the Rio Declaration on Environment and Development, 1992' (United Nations Audiovisual Library of International Law, 2012).

²¹ 1972 Stockholm Declaration Principle 1. It reads in full: "Man has the fundamental right to freedom, equality and adequate conditions of life in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations".

²² Draft Principles On Human Rights and The Environment, E/CN.4/Sub.2/1994/9, Annex I (1994).

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universal enjoyment of human rights.²³ Indeed, some domestic statutes and constitutions, such as the Constitution of Kenya 2010, have expressly recognised the right to a clean and healthy environment as a justiciable right.²⁴ The place of a clean and healthy environment in realisation of other human rights was well captured in the following words:

*Human rights cannot be secured in a degraded or polluted environment. The fundamental right to life is threatened by soil degradation and deforestation and by exposures to toxic chemicals, hazardous wastes and contaminated drinking water. Environmental conditions clearly help to determine the extent to which people enjoy their basic rights to life, health, adequate food and housing, and traditional livelihood and culture. It is time to recognize that those who pollute or destroy the natural environment are not just committing a crime against nature, but are violating human rights as well.*²⁵

The second rights-based approach to environmental protection views environmental protection not as an essential element of human rights, but instead it views certain human rights as essential elements to achieving environmental protection, which has as a principal aim the protection of human health, as illustrated by the Rio Declaration on Environment and Development.²⁶

The third approach views the links as indivisible and inseparable and thus posits the right to a safe and healthy environment as an independent substantive human right.²⁷

²³ D Shelton, *Human Rights. Health & Environmental Protection: Linkages in Law & Practice*; 2002 < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf> Accessed 10 August 2020, p. 3.

²⁴ Constitution of Kenya 2010, Art. 42.

²⁵ D Shelton, *Human Rights. Health & Environmental Protection: Linkages in Law & Practice*; 2002 < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf> Accessed 10 August 2020, p. 4.

²⁶ *Ibid*, p. 4; Alan Boyle, 'Human Rights and the Environment: Where Next?' (2012) 23 *European Journal of International Law* 613.

²⁷ *Ibid*, p.4; Bridget Lewis, 'Environmental Rights or a Right to the Environment: Exploring the Nexus between Human Rights and Environmental Protection' (2012) 8 *Macquarie J. Int'l & Comp. Env'tl. L.* 36.

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Recognition of the relationship between abuse of human rights of various vulnerable communities and related damage to their environment is found in the concept of environmental justice. Environmental justice theory recognizes how discrimination and marginalization involves expropriating resources from vulnerable groups and exposing these communities to the ecological harms that result from use of those resources. Environmental justice is based on the human right to a healthy and safe environment, a fair share to natural resources, the right not to suffer disproportionately from environmental policies, regulations or laws, and reasonable access to environmental information, alongside fair opportunities to participate in environmental decision-making.²⁸

Thus, environmental protection should and has in the recent years been treated as a human rights issue because a human rights perspective directly addresses environmental impacts on the life, health, private life, and property of individual humans, thereby serving to secure higher standards of environmental quality, based on the obligation of states to take measures to control pollution affecting health and private life.²⁹

There is, thus, a direct co-relation between the environment and the right to life³⁰, human dignity³¹, right to reasonable standards of sanitation³², the right to food³³, and, the right to clean and safe water in adequate quantities.³⁴

The linkage of human rights and the environment is the entire basis upon which the sustainable development debate rests.³⁵ Sustainable development

²⁸ Scottish Executive Social Research, *Sustainable Development: A Review of International Literature*, (Scottish Executive Social Research, 2006) < <http://www.gov.scot/resource/doc/123822/0029776.pdf> > Accessed 10 August 2020, p.8.

²⁹ Boyle, A., 'Human Rights and the Environment: Where Next?' *The European Journal of International Law*, Vol.23, No. 3, 2012.

³⁰ See Constitution of Kenya 2010, Art. 26.

³¹ *Ibid*, Art. 28.

³² *Ibid*, Art. 43(b).

³³ *Ibid*, Art. 43(c).

³⁴ *Ibid*, Art. 43(d).

³⁵ Alan Boyle, 'Human Rights and the Environment: Where Next?' (2012) 23 *European Journal of International Law* 613; Dias, Ayesha. "Human rights, environment and development: With special emphasis on corporate accountability." *Human Development*

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has been defined as a combination of elements, such as environmental protection, economic development, and most importantly social issues.³⁶ Human rights are inextricable from sustainable development, since human beings are at the centre of concerns for sustainable development.³⁷

The human rights-based approaches to environmental issues provide a powerful framework of analysis and basis for action to understand and guide development, as they draw attention to the common root causes of social and ecological injustice.³⁸ Human rights standards and principles then guide development to more sustainable outcomes by recognizing the links between ecological and social marginalization, stressing that all rights are embedded in complex ecological systems, and emphasizing provision for need over wealth accumulation.³⁹ Internationally, there are two major approaches to human rights and the environment, which are the greening of already existing human rights and the introduction of a third generation of human rights.⁴⁰ While this

Report (2000); Geiser, Hans. Sustainable development from a human rights perspective and the challenges it represents for the Caribbean SIDS (a discussion paper). ECLAC, 2010; 'Human Rights Council (HRC) ∴ Sustainable Development Knowledge Platform' <<https://sustainabledevelopment.un.org/index.php?page=view&type=30022&nr=225&menu=3170>> accessed 11 August 2020; 'Human Rights and Development' (Icelandic Human Rights Centre) <<http://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/human-rights-in-relation-to-other-topics/human-rights-and-development>> accessed 11 August 2020; 'Human Rights and the Environment' (Icelandic Human Rights Centre) <<http://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/human-rights-in-relation-to-other-topics/human-rights-and-the-environment>> accessed 11 August 2020.

³⁶ Salustiano del Campo Momoh Tomoko Hamada ,Giancarlo Barbiroli,Saskia Sassen, Eleonora Barbieri-Masini, Paul Nchoji Nkwi, Owen Sichone, Abubakar (eds), *Social And Economic Development – Volume VIII* (EOLSS Publications 2010).

³⁷ 1992 *Rio Declaration*, Principle 1, which reads in full: "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."

³⁸ Aled Dilwyn Fisher, 'A Human Rights-Based Approach to the Environment and Climate Change' [2014] Practitioner Guide for The Global Initiative for Economic, Social and Cultural Rights, March 2014.

³⁹ Ibid.

⁴⁰ Alan Boyle, 'Human Rights and the Environment: Where Next?' (2012) 23 *European Journal of International Law* 613; Boyle, Alan. "Human rights or environmental rights? A reassessment." *Fordham Environmental Law Review* (2007): 471-511; West, Thomas Ernest Riversdale Barker. "Human and nonhuman rights approaches to

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paper does not delve into this debate and the debate is still ongoing on the proper place of human environmental rights⁴¹, what is not deniable is the fact that there is an important link between human rights and the protection and conservation of the environment.

3. Environmental and Natural Resources Conflicts: Overview of Conflict Management Mechanisms

It is worth pointing out that there exist various mechanisms which may be used in dealing with certain types of conflicts. For instance, Article 33 of the *Charter of the United Nations* provides that the parties to any dispute should, first of all seek a solution by *negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice* (emphasis added).⁴²

Conflict may be defined as a struggle over values or claims to status and resources, in which the aim of the conflicting parties is not only the desired values but also neutralize, injure or eliminate their rivals.⁴³ There are many factors that determine the emergence, persistence, and even management of conflicts ranging from internal to relational and contextual factors.⁴⁴

Social conflicts, like all other kinds of conflicts, are inevitable in human interactions and if left unmanaged, they tend to degenerate into disputes that ruin the relations between persons or communities and yield undesired costs.⁴⁵ Conflict is also regarded as undesirable in many societies since, in its

environmental protection." PhD diss., University of Nottingham, 2017; Horn, Laura S. "Reframing human rights in sustainable development." *Journal of the Australasian Law Teachers Association* (2013): 1-15.

⁴¹ Alan Boyle, 'Human Rights and the Environment: Where Next?' (2012) 23 *European Journal of International Law* 613.

⁴² United Nations, *Charter of the United Nations*, 24 October 1945, 1 UNTS XVI.

⁴³ Mengesha, Abebe Demewoz, Samson Seid Yesuf, and Tessema Gebre, "Indigenous Conflict Resolution Mechanisms among the Kembata Society." *American Journal of Educational Research*, 2015, Vol. 3, No. 2, pp. 225-242 at pp. 225-226.

⁴⁴ L Kriesberg, *Factors Shaping the Course of Intractable Conflict. Beyond Intractability* (Electronic source [200705 04] 2003).

⁴⁵ Adan, Mohamud, and Ruto Pkalya. "Conflict Management in Kenya-Towards Policy and Strategy Formulation." (2006); Muigua, Kariuki. "Managing Environmental

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violent form, it claims the lives of many people, destroy property, and diverts human as well as financial resources away from development.⁴⁶

Natural resource conflicts may be defined as social conflicts (violent or non-violent) that primarily revolve around how individuals, households, communities and states control or gain access to resources within specific economic and political frameworks.⁴⁷ They are the contests that exist as a result of the various competing interests over access to and use of natural resources such as land, water, minerals and forests. Natural resource conflicts mainly have to do with the interaction between the use of and access to natural resources and factors of human development factors such as population growth and socio-economic advancement.⁴⁸ Natural resource conflicts are sensitive considering that they arise from the need for people to satisfy their basic needs.⁴⁹

Conflict management may be defined as the practice of identifying and handling conflicts in a sensible, fair and efficient manner that prevents them from escalating out of control and becoming violent.⁵⁰ Conflict management is seen as a multidisciplinary field of research and action that addresses how

Conflicts through Participatory Mechanisms for Sustainable Development in Kenya." (2018).

⁴⁶ Mengesha, Abebe Demewoz, Samson Seid Yesuf, and Tessema Gebre, "Indigenous Conflict Resolution Mechanisms among the Kembata Society." *American Journal of Educational Research*, 2015, Vol. 3, No. 2, pp. 225-242 at p.227.

⁴⁷ Mikkel Funder, Signe Marie Cold-Ravnkilde and Ida Peters Ginsborg, *Addressing Climate Change and Conflict in Development Cooperation: Experiences from Natural Resource Management* (DIIS Report 2012) <
https://www.researchgate.net/profile/Mikkel_Funder/publication/259324612_Addressig_Climate_Change_and_Conflict_in_Development_Cooperation_Experiences_from_Natural_Resource_Management/links/0046352b01b1a81862000000/Addressing-Climate-Change-and-Conflict-in-Development-Cooperation-Experiences-from-Natural-Resource-Management.pdf> Accessed 10 August 2020, p. 17.

⁴⁸ Toepfer, K., "Forward", in Schwartz, D. & Singh, A., *Environmental conditions, resources and conflicts: An introductory overview and data collection* (UNEP, New York, 1999). p.4

⁴⁹ Alfonso Peter Castro and Antonia Engel, *Negotiation and Mediation Techniques for Natural Resource Management. Case Studies and Lessons Learned* (Food & Agriculture Org 2007) (e-book).

⁵⁰ Ibid.

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people can make better decisions collaboratively.⁵¹ Thus, the roots of conflict are addressed by building upon shared interests and finding points of agreement.⁵²

The conflicts under review in this paper are those associated with environmental and natural resources. The environment-conflict nexus is a subset of “environmental security” – a field of inquiry that seeks to determine whether or not traditional notions of security (which emphasize countering military threats with military power) should be adapted to include threats posed by population growth and diminishing quantity and quality of environmental goods and services.⁵³

Majority of cases of resource conflicts, often revolve around the following: conflict over resource ownership; conflict over resource access; conflict over decision making associated with resource management; and conflict over distribution of resource revenues as well as other benefits and burdens.⁵⁴

The structure of relations between parties to the conflict and the way parties interpret the same may affect the course of the conflict and its management.⁵⁵

⁵¹ Anderson, J., et al, ‘Addressing Natural Resource Conflicts through Community Forestry: Setting the Stage,’ <<http://www.fao.org/docrep/005/ac697e/ac697e13.htm#TopOfPage> > Accessed 10 August 2020.

⁵² Ibid.

⁵³ Daniel Schwartz and Ashbindu Singh, *Environmental Conditions, Resources, and Conflicts: An Introductory Overview and Data Collection* (United Nations Environment Programme 1999) <<https://na.unep.net/siouxfalls/publications/Conflicts.pdf>> Accessed 10 August 2020, p.6.

⁵⁴ The United Nations Department of Political Affairs and United Nations Environment Programme, *Natural Resources and Conflict: A Guide for Mediation Practitioners*, (2015, UN DPA and UNEP), p. 11.

⁵⁵ ‘The Structure of International Conflict Management: An Analysis of the Effects of Interactability and Mediation - Jacob Bercovitch, Patrick M. Regan; *The International Journal for Peace Studies*’ <https://www.gmu.edu/programs/ficar/ijps/vol4_1/bercovitch.htm> accessed 11 August 2020; Swanström, Niklas LP, and Mikael S. Weissmann. "Conflict, conflict prevention, conflict management and beyond: A conceptual exploration. Concept paper." *Central Asia-Caucasus Institute and Silk Road Studies Program, Johns Hopkins University-SAIS and Uppsala University* (2005).

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The relation factors include differences in sizes (group conflicts), economic endowment (resources), coerciveness between the parties, and cultural patterns of conduct.⁵⁶ They also include the nature and degree of integration between adversaries in economic, social, and cultural domains.⁵⁷ Thus, if any of the mechanisms used to address these conflicts is to be considered successful, it must deal with one or more of these factors.⁵⁸

Conflicts ought to be managed effectively and a number of mechanisms are used in achieving this, each with its own distinct merits and demerits. This section offers an overview of the various mechanisms used in management of environmental conflicts. Notably, conflict management mechanisms mostly used take either the form of conflict settlement or conflict resolution.⁵⁹ Conflict settlement deals with all the strategies that are oriented towards producing an outcome in the form of an agreement among the conflict parties that might enable them to end an armed conflict, without necessarily addressing the underlying conflict causes.⁶⁰ Settlement is an agreement over the issues(s) of the conflict which often involves a compromise.⁶¹ Parties have to come to accommodations which they are forced to live with due to the anarchical

⁵⁶ Muigua, Kariuki. "Managing natural resource conflicts in Kenya through negotiation and mediation." (2016); Alao, Abiodun. *Natural resources and conflict in Africa: the tragedy of endowment*. Vol. 29. University Rochester Press, 2007; Bavinck, Maarten, Lorenzo Pellegrini, and Erik Mostert, eds. *Conflicts over natural resources in the Global South: conceptual approaches*. CRC Press, 2014.

⁵⁷ Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi, 2016.

⁵⁸ Bercovitch, Jacob. "Conflict and conflict management in organizations: A framework for analysis." *Hong Kong Journal of Public Administration* 5, no. 2 (1983): 104-123; Jin Lim and AsscProfDr Rashad Yazdanifard, 'The Difference of Conflict Management Styles and Conflict Resolution in Workplace' (2012) 1 *Business & Entrepreneurship Journal* 141.

⁵⁹ Bloomfield, David. "Towards complementarity in conflict management: Resolution and settlement in Northern Ireland." *Journal of Peace Research* 32, no. 2 (1995): 151-164.

⁶⁰ Alfonso Peter Castro and Antonia Engel, *Negotiation and Mediation Techniques for Natural Resource Management. Case Studies and Lessons Learned* (Food & Agriculture Org 2007) (e-book).

⁶¹ Bloomfield, D., "Towards Complementarity in Conflict Management: Resolution and Settlement in Northern Ireland", *Journal of Peace Research*, Vol. 32, No. 2(May, 1995), p.152; Mwangi Makumi, 'Conflict in Africa: Theory Processes and Institutions of Management' [2006] Nairobi: Centre for Conflict Research 115.

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nature of society and the role of power in the relationship. Basically, power is the defining factor for both the process and the outcome.⁶² As such, settlement mechanisms may not necessarily address the human rights issues relevant to the emergence and management of the conflict.

On the other hand, conflict resolution deals with process-oriented activities that aim to address and resolve the deep-rooted and underlying causes of a conflict.⁶³ Conflict resolution mechanisms include negotiation, mediation and problem solving facilitation.⁶⁴ This is in recognition of the fact that the view of what is just and what is unjust are not universally shared, and as such, divergent views of justice often cause social conflicts.⁶⁵ This is attributed to the fact that frequently, the parties involved in conflicts are convinced that their own view is the solely valid one.⁶⁶ It is, thus, suggested that since there is no access to an objective truth about justice, conflicts may be reconciled by the judgement of an authority accepted by all parties or by a negotiated agreement between the parties: agreements are just when the parties are equally free in their decision and equally informed about all relevant facts and possible outcomes.⁶⁷ A resolution approach to management of environmental

⁶² Baylis, C., and Carroll, R., "Power Issues in Mediation", *ADR Bulletin*, Vol. 1, No.8 [2005], Art.1, p.135.

⁶³ 'Negotiation and Mediation Techniques for Natural Resource Management' <<http://www.fao.org/3/a0032e/a0032e03.htm>> accessed 11 August 2020.

⁶⁴ Udezo, Benson OS. "Concepts and methods of conflict resolution and Peace-Building: Imperatives for religious leaders in Nigeria." *Journal of Religion and Human Relations* 1, no. 2 (2009); Fisher, Ron. "Sources of conflict and methods of conflict resolution." *International Peace and Conflict Resolution, School of International Service, The American University* (2000).

⁶⁵ corissajoy, 'Principles of Justice and Fairness' (*Beyond Intractability*, 29 June 2016) <https://www.beyondintractability.org/essay/principles_of_justice> accessed 11 August 2020; Scott D Campbell, 'Sustainable Development and Social Justice: Conflicting Urgencies and the Search for Common Ground in Urban and Regional Planning' (2013) 1 Michigan Journal of Sustainability <<http://hdl.handle.net/2027/spo.12333712.0001.007>>.

⁶⁶ 'Learning to See Things from Another's Perspective, Opinion News & Top Stories - The Straits Times' <<https://www.straitstimes.com/opinion/learning-to-see-things-from-anothers-perspective>> accessed 11 August 2020.

⁶⁷ Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi, 2016.

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conflicts is therefore more desirable since it gives the groups involved a chance to participate in environmental decision-making as well as expressing their ideas, thus creating an opportunity to address their needs and rights.⁶⁸

The institutional framework in Kenya on environmental management and conflict management includes: the Environment and Land Court⁶⁹, the National Environmental Management Authority,⁷⁰ National Environmental Complaints Committee⁷¹, National Environment Tribunal and other various informal community based resource governance bodies.⁷² The existing legal mechanism for managing natural resource conflicts as enshrined in the environmental law statutes include the courts of law both under civil and criminal law,⁷³ statutory tribunals set up under various laws (such as the Land Adjudication Boards)⁷⁴ and customary law systems of conflict management.⁷⁵

4. Human Rights Protection in Environmental and Natural Resources Conflicts: Prospects and Challenges

Some authors rightly pointed out over 25 years ago that ‘political and strategic impact of surging populations, spreading disease, deforestation and soil erosion, water depletion, air pollution, and possibly, rising sea levels – developments that will prompt mass migration and, in turn, incite group

⁶⁸ ‘Environmental Conflicts’ (ACCORD) <<https://www.accord.org.za/ajcr-issues/environmental-conflicts/>> accessed 11 August 2020; ‘Negotiation and Mediation Techniques for Natural Resource Management’ <<http://www.fao.org/3/a0032e/a0032e04.htm>> accessed 11 August 2020.

⁶⁹ Established under the Constitution of Kenya 2010 and *Environment and Land Court Act*, 2011.

⁷⁰ Established under S.7 of the EMCA (Cap 8 of 1999).

⁷¹ Environment Management and Co-ordination Act, Act. No. 8 of 1999; Environmental Management and Co-ordination (Amendment) Act, 2015 (No. 5 of 2015).

⁷² Some communities like the Meru, Maasai, Giriama, etc, have councils of elders who sit and resolve small scale disputes that erupt within their respective communities.

⁷³ Environment Management and Co-ordination Act, Act. No. 8 of 1999, Part XIII Ss. 137-146

⁷⁴ Established under Land Adjudication Act, Cap. 284, Laws of Kenya.

⁷⁵ Mbote, P.K., ‘Towards greater Access to Justice in Environmental Disputes in Kenya: Opportunities for Intervention,’ IELRC Working 2005-1. <<http://www.ielrc.org/content/w0501.pdf>> Accessed 10 August 2020.

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conflicts – will be the core foreign-policy challenge in the twenty-first century'.⁷⁶ Predictably, all these issues and more have continued to inform the international debates on development and environmental conservation and protection. Nothing captures this better than the *United Nations 2030 Agenda on Sustainable Development*⁷⁷ which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by the year 2030.⁷⁸ The *2030 Agenda for Sustainable Development*⁷⁹ is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom and was formulated in recognition that eradicating poverty in all its forms and dimensions, including extreme poverty, which is seen as the greatest global challenge and an indispensable requirement for sustainable development.⁸⁰

The participants resolved, between 2015 and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. They resolved also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities.⁸¹ Notably, in order to build peaceful,

⁷⁶ Daniel Schwartz and Ashbindu Singh, *Environmental Conditions, Resources, and Conflicts: An Introductory Overview and Data Collection* (United Nations Environment Programme 1999) <<https://na.unep.net/siouxfalls/publications/Conflicts.pdf>> Accessed 10 August 2020.

⁷⁷ *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution adopted by the General Assembly on 25 September 2015, [without reference to a Main Committee (A/70/L.1)], Seventieth session, Agenda items 15 and 116, 21 October 2015.

⁷⁸ United Nations Development Programme, 'Sustainable Development Goals (SDGs),' <<http://www.undp.org/content/undp/en/home/mdgoverview/post-2015-development-agenda.html>> Accessed 10 August 2020.

⁷⁹ *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution adopted by the General Assembly on 25 September 2015, [without reference to a Main Committee (A/70/L.1)], Seventieth session, Agenda items 15 and 116, 21 October 2015.

⁸⁰ *Ibid*, Preamble.

⁸¹ *Ibid*, Agenda No. 3.

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just and inclusive societies, management of environmental and natural resource-based conflicts is paramount. However, for the world states to also ensure that they protect human rights and promote gender equality and the empowerment of women and girls, the conflict management mechanisms employed must be used in a way that does not result in a conflict between the two goals.

This section highlights some of the challenges that are likely to arise in select environmental and natural resource-based conflict management mechanisms used internationally and nationally as far as securing human rights is concerned.

a. Human Rights and Environmental Litigation

National legal systems governing natural resource management are mostly based on legislation and policy statements that are administered through regulatory and judicial institutions, where adjudication and arbitration are the main strategies for addressing conflicts, with decision-making vested in judges and officials who possess the authority to impose a settlement on disputants.⁸² Further, decisions are more likely to be based on national legal norms applied in a standardized or rigid manner, with all-or-nothing outcomes. Thus, contesting parties often have very limited control over the process and outcomes of conflict management.⁸³ The judicial systems mostly employ the conflict settlement approach, with all its associated advantages and disadvantages.⁸⁴ Litigation does not afford the affected parties a reasonable and fair opportunity to participate in finding a lasting solution because, apart from the coercive nature of the process, litigation is also subject to other procedural technicalities which may affect its effectiveness.⁸⁵

⁸² Alfonso Peter Castro and Antonia Engel, *Negotiation and Mediation Techniques for Natural Resource Management. Case Studies and Lessons Learned* (Food & Agriculture Org 2007) (e-book).

⁸³ Ibid.

⁸⁴ See Muigua, K., *Settling Disputes through Arbitration in Kenya*, 3rd Ed., Glenwood Publishers, Nairobi – 2017; Abdualla Mohamed Hamza, Miomir Todorovic and Knez Mihaljeva Street, 'Peaceful Settlement of Disputes' 7 G.J.C.M.P., Vol.6(1):11-17.

⁸⁵ Ojwang, J.B., "The Role of the Judiciary in Promoting Environmental Compliance and Sustainable Development," 1 *Kenya Law Review Journal* 19 (2007), pp. 19-29, p. 29.

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While it is true that the Constitution of Kenya vests the courts with the authority to uphold and enforce the Bill of Rights,⁸⁶ some environmental conflicts require active participation in decision-making with full disclosure of the relevant information. However, the nature of the representative leadership in the country may not always allow this to happen. Political leaders may purport to speak and make decisions on behalf of a certain group, with minimal or no participation and access to information by the group in question and the same may unfortunately be treated as a reflection of the group's position on the issues in question.⁸⁷ As such, some of their rights and/or needs may not be adequately protected or realised. It is also possible that power relations and lack of access to courts may come in the way of accessing justice for a marginalised or a disadvantaged group of persons.⁸⁸ It is thus arguable that the court may not always deliver what the particular group needs or deserves. Thus while such approaches as litigation or arbitration may be the most appropriate in some reliefs such as: a declaration of rights; an injunction; a conservatory order; a declaration of invalidity of any law that denies, violates, infringes, or threatens a right or fundamental freedom in the Bill of Rights and is not justified under Article 24; an order for compensation; and/or an order of judicial review,⁸⁹ they may fail to address the deep rooted causes of a conflict.⁹⁰ Procedural rights are limited by technicalities thus denying the group of persons in question an opportunity to actively and meaningfully participate in decision-making processes.⁹¹

⁸⁶ Constitution of Kenya, Article 23; See also Article 70.

⁸⁷ Jacobsen, Dag Ingar. "Are the relations between politicians and administrators at the local level determined by the degree of central government regulations?." In *ECPR, Joint Sessions Workshops*, no. 21. 2001; Kanyinga, Karuti. "Kenya: Democracy and political participation." (2014).

⁸⁸ Magdalena Sepulveda Carmona and Kate Donald, 'Access to Justice for Persons Living in Poverty: A Human Rights Approach' (Social Science Research Network 2014) SSRN Scholarly Paper ID 2437808 <<https://papers.ssrn.com/abstract=2437808>> accessed 11 August 2020; 'Law and Justice Foundation - Access to Justice and Legal Needs. Stage 1: Public Consultations' <<http://www.lawfoundation.net.au/report/consultations>> accessed 11 August 2020.

⁸⁹ See Constitution of Kenya 2010, Article 23 (3).

⁹⁰ Mwangi Makumi, 'Conflict in Africa: Theory Processes and Institutions of Management' [2006] Nairobi: Centre for Conflict Research 115.

⁹¹ Benjamin Richardson and Jona Razzaque, 'Public Participation in Environmental Decision Making'; OITA US EPA, 'Public Participation Guide: Introduction to Public

b. Alternative Dispute Resolution Mechanisms and Human Rights in Environmental Matters

The phrase Alternative Dispute Resolution (ADR) refers to all those decision-making processes other than litigation including but not limited to negotiation, enquiry, mediation, conciliation, expert determination, arbitration and others.⁹² However, while arbitration is considered as part of ADR mechanisms, due to its coercive nature and great similarity to litigation, for purposes of this discussion, arbitration is grouped together with litigation. As such, the use of the term ADR in this paper should be construed to refer to mediation, conciliation, negotiation and traditional/community based dispute management mechanisms.

ADR methods have been associated with the advantages of being cost effective, expeditious, informal and participatory.⁹³ As a result, parties retain a degree of control and relationships can be preserved. Conflict management mechanisms such as mediation encourages “win-win” situations, parties find their own solutions, they pursue interests rather than strict legal rights, are informal, flexible and attempts to bring all parties on board.⁹⁴ ADR mechanisms allow public participation in enhancing access to justice as they

Participation’ (US EPA, 24 February 2014) <<https://www.epa.gov/international-cooperation/public-participation-guide-introduction-public-participation>> accessed 11 August 2020; Canberra corporateName=Commonwealth Parliament; address=Parliament House, ‘Citizens’ Engagement in Policymaking and the Design of Public Services’ <https://www.aph.gov.au/about_parliament/parliamentary_departments/parliamentary_library/pubs/rp/rp1112/12rp01> accessed 11 August 2020; NU CEPAL, ‘International Human Rights Standards Applicable to Access to Information, Public Participation and Access to Justice. Executive Summary (Preliminary Version)’.

⁹² Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi, 2016.

⁹³ Ibid; Muigua, K., *Alternative Dispute Resolution and Access to Justice in Kenya*, Glenwood Publishers, Nairobi, 2015; Muigua, K., *Resolving Conflicts through Mediation in Kenya*, Glenwood Publishers, Nairobi, 2013.

⁹⁴ Fenn, P., “Introduction to Civil and Commercial Mediation”, in Chartered Institute of Arbitrators, *Workbook on Mediation*, (CI Arb, London, 2002), p.10.

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bring in an element of efficiency, effectiveness, flexibility, cost-effectiveness, autonomy, speed and voluntariness in conflict management.⁹⁵

Traditional Dispute Resolution Mechanisms (TDRMs) include informal mediation, negotiation, problem-solving workshop, council of elders, consensus approaches among others.⁹⁶ It has been observed that where traditional community leadership is strong and legitimate it has positive impacts in promoting local people's priorities in natural resource management.⁹⁷ The traditional and customary systems for managing conflict are associated with: encouraging participation by community members, and respect local values and customs; are more accessible because of their low cost, their flexibility in scheduling and procedures, and their use of the local language; they encourage decision-making based on collaboration, with consensus emerging from wide-ranging discussions, often fostering local reconciliation; they contribute to processes of community empowerment; informal and even formal leaders may serve as conciliators, mediators, negotiators or arbitrators; and finally, long-held public legitimacy provides a sense of local ownership of both the process and its outcomes.⁹⁸

ADR and TDRM processes are therefore more likely to afford communities or disgruntled groups procedural rights, and in effect, help in achievement of environmental justice and environmental democracy.⁹⁹ They would provide a

⁹⁵ Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi, 2016.

⁹⁶ Muigua, Kariuki. "Institutionalising Traditional Dispute Resolution Mechanisms and other Community Justice Systems." *Alternative Dispute Resolution* (2017): 1-80; Dahal, Dev Raj, and Chandra Dev Bhatta. "The relevance of local conflict resolution mechanisms for systemic conflict transformation in Nepal." *Berghof Foundation for Peace Support* (2008).

⁹⁷ Shackleton, S., et al, 'Devolution And Community-Based Natural Resource Management: Creating Space for Local People to participate and Benefit?' *Overseas Development Institute Natural Resource Perspectives*, No. 76, March 2002, p.4.

⁹⁸ Alfonso Peter Castro and Antonia Engel, *Negotiation and Mediation Techniques for Natural Resource Management. Case Studies and Lessons Learned* (Food & Agriculture Org 2007) (e-book).

⁹⁹ Ilaria Beretta, 'Some Highlights on the Concept of Environmental Justice and Its Use' [2012] e-cadernos CES <<http://journals.openedition.org/eces/1135>> accessed 11 August 2020; Alma L Lowry, 'Achieving Justice through Public Participation:

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viable platform for access to justice which is essential as it affords the means by which the public challenge application of and implementation of environmental laws and policies.¹⁰⁰

While ADR and TDR mechanisms may suffer from the unenforceability of their outcomes and potential gender bias,¹⁰¹ they may provide a good platform for the realisation of procedural rights and the ability to recognise and address deep rooted causes of conflicts while coercive mechanisms such as litigation may come in handy in realisation of substantive rights.¹⁰²

5. Securing Human Rights in Environmental and Natural Resources Conflict Management

While there are other regulatory approaches to achieving environmental protection and addressing or avoiding environmental conflicts that are not rights-based such as economic incentives and disincentives, criminal law, and

Measuring the Effectiveness of New York's Enhanced Public Participation Plan for Environmental Justice Communities'; 'Environmental Democracy? Does Anyone Really Care?' (*E-International Relations*, 26 October 2012) <<https://www.e-ir.info/2012/10/26/environmental-democracy-does-anyone-really-care/>> accessed 11 August 2020.

¹⁰⁰ Alfonso Peter Castro and Antonia Engel, *Negotiation and Mediation Techniques for Natural Resource Management. Case Studies and Lessons Learned* (Food & Agriculture Org 2007) (e-book).

¹⁰¹ Muigua, Kariuki. "Institutionalising Traditional Dispute Resolution Mechanisms and other Community Justice Systems." *Alternative Dispute Resolution* (2017): 1-80; Deborah R Hensler, 'Does Alternative Dispute Resolution Facilitate Prejudice and Bias? We Still Don't Know' <<https://core.ac.uk/reader/147643940>> accessed 11 August 2020; Todd B Carver and Albert A Vondra, 'Alternative Dispute Resolution: Why It Doesn't Work and Why It Does' [1994] *Harvard Business Review* <<https://hbr.org/1994/05/alternative-dispute-resolution-why-it-doesnt-work-and-why-it-does>> accessed 11 August 2020; Lorna McGregor, 'Alternative Dispute Resolution and Human Rights: Developing a Rights-Based Approach through the ECHR' (2015) 26 *European Journal of International Law* 607.

¹⁰² Tom Tyler and Rebecca Hollander-Blumoff, 'Procedural Justice and the Rule of Law: Fostering Legitimacy in Alternative Dispute Resolution' [2011] *Faculty Scholarship Series* <https://digitalcommons.law.yale.edu/fss_papers/4992>.

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private liability regimes¹⁰³, a human rights based approach is arguably the most effective one that ensures that conflicts and all or most of their root causes are effectively addressed thus limiting any chances of reemergence of these conflicts.¹⁰⁴ While the emphasis on responsibilities rather than rights may still have its place in environmental protection and management of environmental conflicts, recognising the rights of conflicting groups and upholding them could be more effective.¹⁰⁵ The two approaches should therefore be used but with a rights-based one getting significant recognition. For instance, the Constitution of Kenya 2010 provides for environmental rights which include the right to clean and healthy environment for every person¹⁰⁶ but also spells out the duty of every person to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.¹⁰⁷

Where conflict cannot be contained in a functional way, it can erupt in violence, war, and destruction, loss of life, displacements, long-term injuries, psychological effects as a result of trauma suffered especially in case of violent conflicts, and deep fear, distrust, depression, and sense of hopelessness.¹⁰⁸ All these raise significant but diverse human rights issues. However, while failure to address conflicts is likely to give rise to the listed adverse effects on human life, use of the inappropriate mechanism(s) to deal with the conflicts may address the problem for one group of persons while plunging the other one

¹⁰³ D Shelton, *Human Rights, Health & Environmental Protection: Linkages in Law & Practice*; 2002 < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf > Accessed 10 August 2020, p. 4.

¹⁰⁴ 'What Is HRBAP? | Human Rights-Based Approach to Programming' (UNICEF) <https://www.unicef.org/policyanalysis/rights/index_62012.html> accessed 11 August 2020; 'A Human Rights Approach to Conflict Resolution' (*Ethics & International Affairs*, 9 September 2019) <<https://www.ethicsandinternationalaffairs.org/2019/a-human-rights-approach-to-conflict-resolution/>> accessed 11 August 2020.

¹⁰⁵ 'A Human Rights Approach to Conflict Resolution' (*Ethics & International Affairs*, 9 September 2019) <<https://www.ethicsandinternationalaffairs.org/2019/a-human-rights-approach-to-conflict-resolution/>> accessed 11 August 2020.

¹⁰⁶ Constitution of Kenya 2010, Article 42.

¹⁰⁷ Constitution of Kenya 2010, Article 69 (2).

¹⁰⁸ See K Annan, G Machel and B Mkapa, 'Back from the Brink: The 2008 Mediation Process and Reforms in Kenya' [2014] Nairobi: African Union Commission.

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into deeper problems.¹⁰⁹ Scholars have argued that deep-rooted conflicts are caused by the absence of the fundamental needs of security, identity, respect, safety, and control which many find non-negotiable.¹¹⁰

It has also been argued that deep-rooted conflicts are caused by the absence of the fundamental needs of security, identity, respect, safety, and control which many find non-negotiable.¹¹¹ The clash of interests can take many forms. It could be over resources such as land, food, territory, water, energy sources, and natural resources.¹¹² Conflict could also be associated with power and control of the resources.¹¹³ Conflicts could also be over identity,¹¹⁴ namely cultural, social and political identities to which people feel tied. Conflicts over status may arise, relating to whether people feel treated with respect and dignity and whether their traditions and social position are respected.¹¹⁵ Conflicts could be caused by differences of values, particularly those embodied in systems of government, religion, or ideology.¹¹⁶ Further, conflicts have been associated with the changing norms, values, and world views about property rights within formerly subsistence-based (or pastoralist) communities.¹¹⁷ These types of conflicts may be deep seated and the formal

¹⁰⁹ Blondel, Alice. "Climate change fuelling resource-based conflicts in the Asia-Pacific." *Asia-Pacific Human Development Report Background Papers Series 12* (2012).

¹¹⁰ Burton, J., *Conflict: Human Needs Theory* (New York: St. Martin's Press), 1990; Kelman, H., *International Behavior: A Social Psychological Analysis* (New York: Holt, Rinehart and Winston), 1965.

¹¹¹ Ibid.

¹¹² Buckles, D. & Rusnak, D., 'Conflict and collaboration in natural resource management,' (International Development Research Centre, 2005), p. 2.

¹¹³ Ibid, p. 2.

¹¹⁴ See Rothman, J., *Resolving Identity-Based Conflict: In Nations, Organizations, and Communities*. (San Francisco: Jossey-Bass Publishers, 1997).

¹¹⁵ EAIM, 'Peace and Stability Are Prelude to Economic Development and Prosperity,' <http://www.togoruba.org/togoruba1964/mainTogorubamap/mainMap/headingMap/English/2006/Art.sFeb-2006/1802EAIM06-06EA.html> Accessed 10 August 2020.

¹¹⁶ Adamu, A & Ben, A., 'Migration and Violent Conflict in Divided Societies: Non-Boko Haram violence against Christians in the Middle Belt region of Nigeria,' *Nigeria Conflict Security Analysis Network (NCSAN) Working Paper No. 1*, (World Watch Research, Abuja, Nigeria, March 2015).

¹¹⁷ Armitage, D., 'Adaptive Capacity and Community-Based Natural Resource Management,' *Environmental Management*, Vol. 35, No. 6, pp. 703–715, p. 710.

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approaches to conflict management such as courts may not necessarily address all the issues arising.¹¹⁸ They require participatory approaches that take into account the concerns and rights of the target groups. Empowering these communities through such means as ensuring that they have access to all the information required in decision making and negotiating with them on what trade-offs may be necessary can potentially achieve environmental protection while at the same time ensuring that the human rights of these groups are protected.¹¹⁹ This is because, conflicts do not occur in vacuum and to a large extent, they are dependent on the context.¹²⁰ As such, the needs of target groups differ and must be treated as such.

The 1992 *Conference of Rio de Janeiro on Environment and Development* formulates a link between human rights and environmental protection largely in procedural terms, declaring in Principle 10 that access to information, public participation and access to effective judicial and administrative proceedings, including redress and remedy, should be guaranteed because environmental issues are best handled with the participation of all concerned citizens, at the relevant level.¹²¹

¹¹⁸ Philip Onguny and Taylor Gillies, 'Land Conflict in Kenya: A Comprehensive Overview of Literature' [2019] *Les Cahiers d'Afrique de l'Est / The East African Review* <<http://journals.openedition.org/eastafrica/879>> accessed 11 August 2020; Muigua, Kariuki. "Conflict Management Mechanisms for Effective Environmental Governance in Kenya." (2018); Young, Laura A., and Korir Sing'Oei. *Land, livelihoods and identities: Inter-community conflicts in East Africa*. Minority Rights Group International, 2011; N Rass, 'Policies and Strategies to Address the Vulnerability of Pastoralists in Sub-Saharan Africa'; PY Le Meur and others, 'Conflict over Access to Land & Water Resources within Sub-Saharan Dry Lands: Underlying Factors, Conflict Dynamics and Settlement Processes' [2006] Final report, GRET, Paris.

¹¹⁹ Machingura, Fortunate, and Seven Lally. "The Sustainable Development Goals and their trade-offs." *London: ODI* (2017); Balbo, Marcello, and Giulia Guadagnoli. "United Nations Trust Fund for Human Security Projects implemented by UN-Habitat in Afghanistan, Cambodia and Sri Lanka."

¹²⁰ T Belay, 'Conflicts, Conflict Resolution Practices and Impacts of the War in South Sudan' (2015) 2 *International Journal of School and Cognitive Psychology* 5 013.

¹²¹ D Shelton, *Human Rights. Health & Environmental Protection: Linkages in Law & Practice; 2002* < https://www.who.int/hhr/Series_1%20%20Sheltonpaper_rev1.pdf> Accessed 10 August 2020, p. 4.

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The Sustainable Development Goals (SDGs) acknowledge that sustainable development cannot be realized without peace and security; and peace and security will be at risk without sustainable development.¹²² The SDGs recognize the need to build peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights, on effective rule of law and good governance at all levels and on transparent, effective and accountable institutions.¹²³

A human rights-based approach to environmental protection is therefore capable of not only addressing the conflict but also ensures that all other relevant rights in such scenarios are observed and upheld.¹²⁴ The choice of mechanism to be used is thus equally important.

Considering that conflicts between biodiversity conservation and other human activities are intensifying as a result of growing pressure on natural resources and associated demands by some for greater conservation,¹²⁵ approaches to reducing conflicts are increasingly focusing on engaging stakeholders in processes that are perceived as fair, that is, independent and where stakeholders have influence, and which in turn can generate trust between stakeholders.¹²⁶ Increased trust through fair participatory processes makes conflict resolution more likely.¹²⁷ Participatory approaches are defined as institutional settings where stakeholders of different types are brought

¹²² United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1, para. 35.

¹²³ Ibid.

¹²⁴ Campese, Jessica. *Rights-based approaches: Exploring issues and opportunities for conservation*. CIFOR, 2009 <
http://www.cifor.org/publications/pdf_files/Books/BSunderland0901.pdf>
Accessed 11 August 2020.

¹²⁵ Young, J.C., et al, 'The role of trust in the resolution of conservation conflicts,' *Biological Conservation*, Vol. 195, March 2016, pp. 196–202.

¹²⁶ Ibid.

¹²⁷ Ibid.

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together to participate more or less directly, and more or less formally, in some stage of the decision-making process.¹²⁸

There is a need for taking local communities into confidence and having confidence in them; engaging with their ideas, experiences, values, and capabilities and working with them, not on their behalf, to achieve resource-conservation objectives and community benefits.¹²⁹ In such approaches, environmental protection is achieved while at the same time, the communities' rights are protected.¹³⁰

It is recommended that conflict resolution mechanisms such as negotiation and mediation should be utilised more in management of environmental and natural resource-based conflicts as they can afford the parties an opportunity to negotiate and reach a compromise agreement, where all sides get satisfactory outcome.¹³¹ This is particularly important in ensuring that there will be no future flare-up of conflict due to unaddressed underlying issues.¹³² It is arguable that resolution mechanisms have better chances of achieving parties' satisfaction and protecting their rights when compared to settlement mechanisms.¹³³ Settlement mechanisms may first be used to quell any violence after which resolution mechanisms should be employed to address the deep rooted issues which mostly touch on human rights on such issues as dignity,

¹²⁸ Hove, SVD, 'Between consensus and compromise: acknowledging the negotiation dimension in participatory approaches,' *Land Use Policy*, Vol. 23, Issue 1, January 2006, pp. 10-17.

¹²⁹ Young, J.C., et al, 'The role of trust in the resolution of conservation conflicts,' *Biological Conservation*, Vol. 195, March 2016, pp. 196-202.

¹³⁰ Ibid.

¹³¹ Warner, M., 'Conflict Management in Community-Based Natural Resource Projects: Experiences from Fiji and Papua New Guinea,' *Working Paper No. 135*, (Overseas Development Institute, April, 2000), p. 16.

¹³² Mwangi Makumi, 'Conflict in Africa: Theory Processes and Institutions of Management' [2006] Nairobi: Centre for Conflict Research 115.

¹³³ Muigua, K., *Resolving Conflicts through Mediation in Kenya*, Glenwood Publishers, Nairobi, 2013.

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culture and participation among others, since conflict management processes are not mutually exclusive and one can lead to the other.¹³⁴

Notably, the 2010 Constitution of Kenya created an opportunity for exploring the use of ADR mechanisms and TDRMs in managing natural resource conflicts.¹³⁵ ADR and Traditional dispute resolution mechanisms, especially negotiation and mediation, should be utilised in addressing the complex issues in environmental conflicts that may not be resolved through the formal methods such as courts.¹³⁶ This is because some mechanisms such as mediation and negotiation can potentially bring about inclusiveness and public participation of all members of the community in decision-making. They are relevant in enjoyment of procedural rights in environmental matters.

6. Conclusion

Human rights fall under substantive and procedural rights. Environmental law is one of the branches of law where procedural rights play a vital role in addressing environmental concerns. This paper has argued that while the formal approaches to environmental protection are important in securing substantive environmental rights, they may not be as effective in achieving procedural rights. It is for this reason that stakeholders should consider and promote active utilisation of other informal approaches such as ADR and TDR in ensuring that all the rights of communities are protected. There is a need to strike a balance between conservation measures and access to resources by communities, through employing approaches that help in understanding the needs of the particular people and responding appropriately and consequently building trust within communities, and between communities

¹³⁴ Chidhakwa, Z., 'Managing conflict around contested natural resources: a case study of Rusitu Valley area, Chimanimani, Zimbabwe,' *Natural Resource Conflict Management Case Studies: An Analysis of Power, Participation and Protected Areas*, (Southern Alliance for Indigenous Resources).

¹³⁵ Constitution of Kenya 2010, Art. 60; 67; 159(2) (c).

¹³⁶ Muigua, Kariuki, and Kariuki Francis. "alternative Dispute resolution, access to Justice and Development in Kenya." *Strathmore LJ* 1 (2015): 1; Sandford, R. A. "Environmental dispute resolution: mediation, an effective alternative to litigation?." PhD diss., University of Tasmania, 1990.

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and the national government.¹³⁷ In addition, for conflict management to be successful there is a need to employ participatory approaches so that the major issues can be identified, analysed and properly addressed.¹³⁸

A bottom-top approach to natural resource management, including conflict management, creates an opportunity to involve the local people who may have insiders' grasp of the issues at hand.¹³⁹ While conflicts cannot be avoided, there is a need to effectively manage them so as to ensure harmony amongst people and to prevent violence and the potential loss of lives and property. Management of natural resource conflicts also ensures security in terms of a guarantee of continued access to and use of the environmental resources necessary for to survival from generation to generation. Human rights are an integral part of any democracy and should therefore not be sacrificed; the place of human rights in Environmental and Natural resources Conflict management in Kenya is thus central and should remain so.

¹³⁷ Office for ECOSOC Support and Coordination United Nations. *Achieving sustainable development and promoting development cooperation: dialogues at the Economic and Social Council*. UN, 2008; Muigua, Kariuki. "Managing natural resource conflicts in Kenya through negotiation and mediation." (2016).

¹³⁸ Chidhakwa, Z., 'Managing conflict around contested natural resources: a case study of Rusitu Valley area, Chimanimani, Zimbabwe,' *Natural Resource Conflict Management Case Studies: An Analysis of Power, Participation and Protected Areas*, (Southern Alliance for Indigenous Resources).

¹³⁹ Muigua, Kariuki. "Conflict Management Mechanisms for Effective Environmental Governance in Kenya." (2018); 'Negotiation and Mediation Techniques for Natural Resource Management' <<http://www.fao.org/3/a0032e/a0032e04.htm>> accessed 11 August 2020; Hartter, Joel, and Sadie J. Ryan. "Top-down or bottom-up?: Decentralization, natural resource management, and usufruct rights in the forests and wetlands of western Uganda." *Land Use Policy* 27, no. 3 (2010): 815-826; Mark Reed and Julian sidoli del ceno, 'Mediation and Conservation Conflicts: From Top-down to Bottom-Up' (2015).

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Abstract

The paper critically reflects upon development and sustainability. It argues a case for countries to look beyond the Paris Agreement and embrace Sustainable Development in order to effectively confront climate change. It examines some of the current concerns in development and sustainability. It further suggests approaches towards embracing Sustainable Development as an ideal.

1. Introduction

Climate change has been described as an undesirable phenomenon that affects realization of the Sustainable Development agenda across the world by affecting the sustainability of the planet's ecosystems, the stability of the global economy and the future of humankind¹. The impacts of climate change including intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are being witnessed across the world². Climate change has therefore been referred to as the most pressing global challenge that affects both developed and developing countries in their efforts towards the realization of the Sustainable Development agenda³. The United Nations 2030 agenda for Sustainable Development recognizes that climate change is one of the greatest challenges of our time and its adverse impacts undermine the ability of all countries to achieve Sustainable Development⁴. It urges all countries to take urgent action to combat climate change and its impacts in order to achieve Sustainable Development⁵.

¹ Climate Change., 'Meaning, Definition, Causes, Examples and Consequences.' Available at <https://youmatter.world/en/definition/climate-change-meaning-definition-causes-and-consequences/> (Accessed on 06/10/2023)

² United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 06/10/2023)

³ Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Glenwood Publishers Limited, 2021

⁴ 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 06/10/2023)

⁵ Ibid, Sustainable Development Goal, 13

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The *Paris Agreement*⁶ was adopted to strengthen the global response to the threat of climate change, in the context of Sustainable Development and efforts to eradicate poverty⁷. It seeks to achieve this goal through measures such as holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change⁸; increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production⁹; and making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development¹⁰.

The Paris Agreement has been hailed for strengthening the global response to the threat of climate change¹¹. It builds upon the *United Nations Framework Convention on Climate Change (UNFCCC)* and for the first time brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so¹². As such, the Paris Agreement charts a new course in the global climate effort. The Paris Agreement has had notable successes including encouraging countries to set carbon neutrality goals, embrace net zero targets and adopt a collaborative approach towards combating climate change¹³.

⁶ United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (Accessed on 06/10/2023)

⁷ Ibid, Article 2 (1)

⁸ Ibid

⁹ Ibid

¹⁰ Ibid

¹¹ United Nations Climate Change., 'Key Aspects of the Paris Agreement.' Available at <https://unfccc.int/most-requested/key-aspects-of-the-paris-agreement> (Accessed on 06/10/2023)

¹² Ibid

¹³ Nahm. J., 'Failures and Successes of the Paris Agreement.' Available at <https://ace-usa.org/blog/research/research-foreignpolicy/failures-and-successes-of-the-paris-agreement/#:~:text=The%20Paris%20Agreement%20achieved%20notable,reabsorbed%20without%20significant%20environmental%20impact.> (Accessed on 06/10/2023)

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However, it has been argued that most solutions to combating climate change such as those envisaged in the Paris Agreement usually focus on restricting emissions of greenhouse gases such as carbon dioxide¹⁴. It has been pointed out that such policies intended to tackle climate change through restrictions on greenhouse gases are almost certainly not sustainable since they bear significant costs and have minimal impact on the climate and will most certainly bring about poverty, making it more difficult for the poor to adapt to climate change¹⁵. Consequently, it has been argued that confronting climate change through global regulation of greenhouse gas emissions alone will not be sufficient or could be counterproductive¹⁶. Sustainable Development has therefore been idealized as the best response to climate change.

The paper critically reflects upon development and sustainability. It argues a case for countries to look beyond the Paris Agreement and embrace Sustainable Development in order to effectively confront climate change. It examines some of the current concerns in development and sustainability. It further suggests approaches towards embracing Sustainable Development as an ideal.

2. Reflections on Development and Sustainability

Development is perceived as a multidimensional process involving the reorganization and reorientation of entire economic and social systems¹⁷. It entails various facets including economic development that focuses on improvement in the provision of goods and services in a society and human development which focuses on the improvement of the well-being of individuals and their relationships with the society in areas such as health, education, entitlements, capabilities, empowerment among others¹⁸. Sustainability on the other hand is a long-term goal for the world to meet the needs of economic growth with the least amount of impact on the

¹⁴ Climate Change and Sustainability, Available at <https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=13823&printable=1> (Accessed on 06/10/2023)

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Todaro, M. P., & Smith, S. C., 'Classic Theories of Development: A Comparative Analysis.' *Economic Development*, (2004) 113-148.

¹⁸ Ibid

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environment¹⁹. It refers to the ability of societies to exist and develop with without depleting natural resources²⁰. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations²¹. The intersection between development and sustainability has led to the emergence of the concept of Sustainable Development.

Sustainable Development is development which considers the long term perspectives of the socio-economic system, to ensure that improvements occurring in the short term will not be detrimental to the future status or development potential of the system²². It has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs²³. It combines elements such as environmental protection, economic development and social concerns²⁴. Sustainable Development has been embraced as the global blueprint for development as envisaged under the United Nations 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) which seek to strike a balance between social, economic and environmental sustainability²⁵.

The SDGs form the framework for improving the lives of populations around the world and mitigating the hazardous effects of climate change²⁶. It has been observed that Sustainable Development attempts to reduce the development impact created on the environment and promotes ways in which society can

¹⁹ Scoones. I., 'Sustainability.' *Development in Practice* 17.4-5 (2007): 589-596.

²⁰ Ibid

²¹ United States Environmental Protection Agency., 'Sustainability.' Available at <https://www.epa.gov/sustainability/learn-about-sustainability> (Accessed on 06/10/2023)

²² Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

²³ World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

²⁴ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1

²⁵ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Op Cit

²⁶ United Nations., 'Sustainability.' Available at <https://www.un.org/en/academic-impact/sustainability> (Accessed on 06/10/2023)

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adapt to the challenges that climate change presents²⁷. Sustainable Development policies can help to remedy impacts associated with climate change²⁸.

Countries are increasingly embracing a positive approach towards development and sustainability by embracing Sustainable Development as part of their national development agendas²⁹. In Kenya, Sustainable Development has been enshrined as one of the national values and principles of governance³⁰. This approach has allowed countries to pursue development and sustainability as related agendas contributing to the attainment of Sustainable Development and confronting global challenges including climate change³¹. Development and sustainability is now being increasingly witnessed in several sectors of global economies including agriculture, infrastructure development, transport, tourism, manufacturing and financial services³².

Sustainable agricultural practices including crop rotation, planting cover crops, reduction or elimination of tillage, integrated pest management, integrating livestock and crops, sustainable water use, irrigation and agroforestry are now forming the backbone of the agricultural sector in many countries³³. Development in the manufacturing sectors is also embracing sustainability through reusing and recycling strategies, waste management methods, software tools, pollution prevention methods, efficient industry practices, and business development models aimed at yielding products

²⁷ Ibid

²⁸ Ibid

²⁹ The Organization for Economic Cooperation and Development., 'Sustainable Development Strategies What are They and How Can Development Co-operation Agencies Support Them?' Available at <https://www.oecd.org/dac/environment-development/1899857.pdf> (Accessed on 06/10/2023)

³⁰ Constitution of Kenya, 2010., Article 10 (2) (d)

³¹ United Nations., 'Sustainability.' Op Cit

³² Neumayer. E., 'Human Development and Sustainability.' Available at https://web.archive.org/web/20171206022258id_/https://core.ac.uk/download/pdf/6248638.pdf (Accessed on 06/10/2023)

³³ Union of Concerned Scientists., 'What Is Sustainable Agriculture?.' Available at <https://www.ucsusa.org/resources/what-sustainable-agriculture> (Accessed on 06/10/2023)

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through eco-friendly approaches³⁴. The transport sector is also embracing sustainability through the use of low and zero emission, energy efficient, affordable modes of transport, including electric and alternative fuel vehicles, as well as domestic fuels³⁵. Development in the tourism sector is also embracing sustainability through green tourism and eco-tourism approaches³⁶. Further, the financial sector in most countries is adopting sustainability practices through the use of green products such as green bonds³⁷. Countries are also enhancing investments in clean and green sources of energy as part of their development agenda which is a vital initiative in enhancing sustainability³⁸.

Development and sustainability can therefore be pursued together under the Sustainable Development agenda. This approach has the ability to help countries combat climate change. It has been observed that some synergies already exist between climate change policies and the sustainable development agenda in most countries, such as energy efficiency, renewable energy, transport and sustainable land-use policies³⁹. As a result, it has been observed that successfully limiting global climate change to 'safe' levels in the long-term is likely to require connecting climate change policies to Sustainable Development strategies in both developing and developed countries⁴⁰. Since the feasibility of stabilising greenhouse gas concentrations as a response to

³⁴ Narayanan. G., & Gunasekera. J., 'Introduction to Sustainable Manufacturing Processes.' Sustainable Manufacturing Processes, 2023

³⁵ Office of the Energy Efficiency & Renewable Energy., 'Sustainable Transportation and Fuels.' Available at <https://www.energy.gov/eere/sustainable-transportation-and-fuels#:~:text=Sustainable%20transportation%20refers%20to%20low,as%20well%20as%20domestic%20fuels.> (Accessed on 06/10/2023)

³⁶ Muigua. K., 'Fostering Sustainable Tourism in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2023/08/Fostering-Sustainable-Tourism-in-Kenya.pdf> (Accessed on 06/10/2023)

³⁷ Lala. O., & Stone. D., 'The Role of Central and Commercial Banks in Promoting Sustainable Finance in Africa.' Available at <https://www.mfw4a.org/blog/role-central-and-commercial-banks-promoting-sustainable-finance-africa> (Accessed on 06/10/2023)

³⁸ Muigua. K., 'Adopting Green Energy for a Bright Tomorrow.' Available at <http://kmco.co.ke/wp-content/uploads/2023/06/Adopting-Green-Energy-for-a-Bright-Tomorrow.pdf> (Accessed on 06/10/2023)

³⁹ Beg. N., 'Linkages between Climate Change and Sustainable Development.' *Climate Policy Review*, 2002

⁴⁰ Ibid

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climate change is dependent on general socio-economic development paths, it is imperative to put climate policy responses in the larger context of development and sustainability rather than viewing climate change as an add-on to those broader policies⁴¹. It is thus evident that climate policies may impact development priorities in both positive and negative ways, depending on the strategies, instruments, and contexts and that development policies such as those on agriculture, energy, forestry, tourism, transportation, manufacturing and population, could be relevant to climate change⁴². For example, small-scale rural renewable energy projects or local forestry projects offer climate change mitigating options with poverty benefits⁴³.

The Paris Agreement recognizes the relationship between climate change and the concepts of development and sustainability. The Agreement upholds the intrinsic relationship that climate change actions, responses and impacts have with equitable access to Sustainable Development and eradication of poverty⁴⁴. The Agreement further seeks to strengthen the global response to the threat of climate change, in the context of Sustainable Development and efforts to eradicate poverty⁴⁵. The Agreement also envisages designing climate change responses within the broader context of development and sustainability and calls upon countries to pursue mitigation and adaptation actions while fostering Sustainable Development and environmental integrity⁴⁶. It also encapsulates the role of Sustainable Development in reducing the risk of loss and damage associated with climate change⁴⁷.

Climate change can therefore be confronted within the broader context of development and sustainability. According to the UNFCCC, pursuing climate action and Sustainable Development in an integrated and coherent way offers the strongest approach to enable countries to achieve their objectives

⁴¹ Swart. R., Robinson. J., & Cohen. S., 'Climate Change and Sustainable Development: Expanding the Options.' *Climate Policy* 3S1 (2003) S19-S40

⁴² Banuri. T., & Opschoor. H., 'Climate Change and Sustainable Development.' DESA Working Paper No. 56, ST/ESA/2007/DWP/56

⁴³ Ibid

⁴⁴ Paris Agreement., Preamble

⁴⁵ Ibid, Article 2 (1)

⁴⁶ Ibid, Article 6 (1)

⁴⁷ Ibid, Article 8 (1)

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efficiently and quickly under the Paris Agreement and the 2030 Agenda for Sustainable Development⁴⁸. Further, the outcome of the Rio+ 20/Earth Summit 2012 envisages the role of development and sustainability in combating climate change⁴⁹. The outcome of the Rio+ 20 urges countries to pursue development and sustainability by ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations⁵⁰. It also envisages combating climate change within the framework of development and sustainability⁵¹. To this end, it urges countries to pursue development and sustainability through measures such as sustainable agriculture, including crops, livestock, forestry, fisheries and aquaculture, that improves food security, eradicates hunger and is economically viable, while conserving land, water, plant and animal genetic resources, biodiversity and ecosystems and enhancing resilience to climate change and natural disasters⁵². It also envisages development and sustainability through various approaches including enhancing energy efficiency, promoting the blue economy, conservation of forests and good land management practices as part of the global efforts to combat climate change⁵³.

Development and sustainability can therefore be pursued together under the concept of Sustainable Development. This approach offers the strongest approach to enable countries to achieve their objectives efficiently and quickly under the Paris Agreement and the 2030 Agenda for Sustainable Development compared to pursuing the reduction of greenhouse gas emissions as a sole objective⁵⁴. However, there is need to address the problems hindering the achievement of development and sustainability. These problems include poverty, unemployment, war and instability, governance problems,

⁴⁸ United Nations Climate Change., 'Action on Climate and SDGs.' Available at <https://unfccc.int/topics/cooperative-activities-and-sdgs/action-on-climate-and-sdgs> (Accessed on 06/10/2023)

⁴⁹ United Nations., 'United Nations Conference on Sustainable Development (Rio + 20)' A/CONF.216/L.1

⁵⁰ Ibid

⁵¹ Ibid

⁵² Ibid

⁵³ Ibid

⁵⁴ United Nations Climate Change., 'Action on Climate and SDGs.' Op Cit

population increase and poor governance and depletion of natural resources⁵⁵. Solving these problems will enable countries realize development and sustainability while meeting the ambitions put forward under the Paris Agreement and the 2030 Agenda for Sustainable Development⁵⁶.

3. Conclusion

Development and sustainability are vital components of the Sustainable Development agenda⁵⁷. It is imperative for countries to pursue development and sustainability in order to realize the aspirations of the Paris Agreement and the 2030 Agenda for Sustainable Development⁵⁸. This can be achieved by striking a balance between the various facets of development and sustainability including economic sustainability, resource sustainability, social sustainability, energy sustainability and environmental sustainability⁵⁹. Countries should therefore undertake initiatives to foster development by eliminating poverty, promoting food security, enhancing the quality of education, promoting access to health services, water, energy and decent employment while building resilient industry and infrastructure⁶⁰. This should be done within the confines of sustainability through embracing sustainable practices in various sectors including agriculture, manufacturing, energy, tourism and transport⁶¹. It is also vital for countries to embrace sound governance and sustainable management of natural resources including land, forests, water and wetlands, wildlife and biodiversity, minerals, fisheries and the blue economy as part of their development agenda⁶².

⁵⁵ Beg. N., 'Linkages between Climate Change and Sustainable Development.' Op Cit

⁵⁶ Ibid

⁵⁷ Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' Op Cit

⁵⁸ United Nations Climate Change., 'Action on Climate and SDGs.' Op Cit

⁵⁹ Dincer. I., & Ozturk. M., 'Energy, Environment, and Sustainable Development.' *Geothermal Energy Systems*, 2021

⁶⁰ United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Op Cit

⁶¹ The Organization for Economic Cooperation and Development., 'Sustainable Development Strategies What are They and How Can Development Co-operation Agencies Support Them?' Op Cit

⁶² Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

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Through the foregoing approaches, development and sustainability will be realized. It has been correctly opined that since the feasibility of stabilising greenhouse gas concentrations as a response to climate change is dependent on general socio-economic development paths, it is imperative to put climate policy responses in the larger context of development and sustainability rather than viewing climate change as an add-on to those broader policies⁶³. It is therefore necessary for countries to look beyond the Paris Agreement and pursue development and sustainability.

⁶³ Swart. R., Robinson. J., & Cohen. S., 'Climate Change and Sustainable Development: Expanding the Options.' Op Cit

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Africa Union., 'Africa Mining Vision.' Available at https://au.int/sites/default/files/documents/30995-doc-africa_mining_vision_english_1.pdf

Africa Union., 'Agenda 2063: The Africa we Want.' Available at https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf

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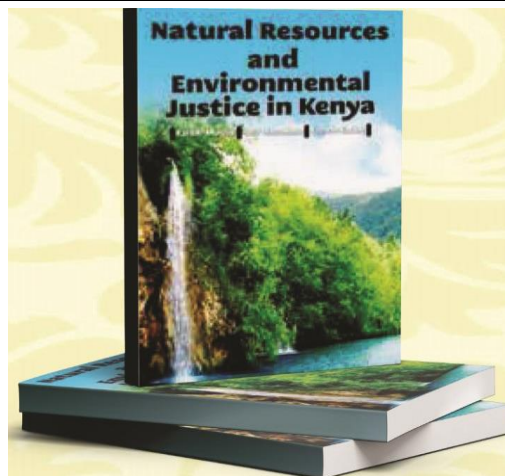
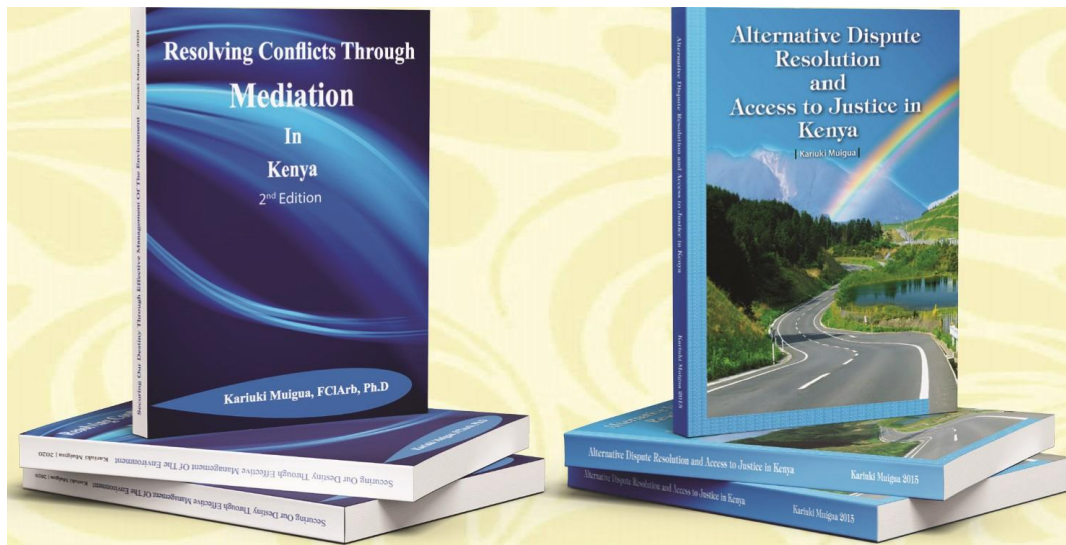
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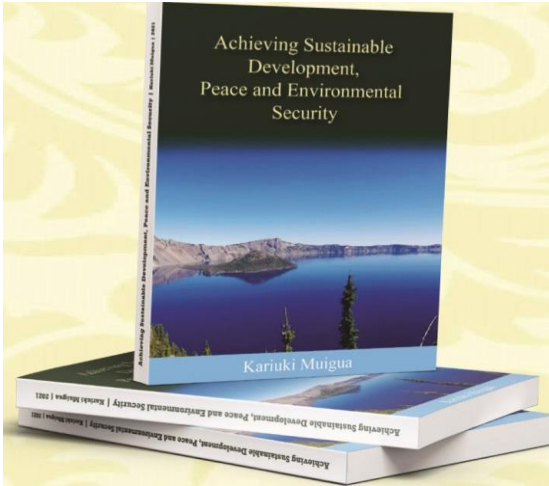
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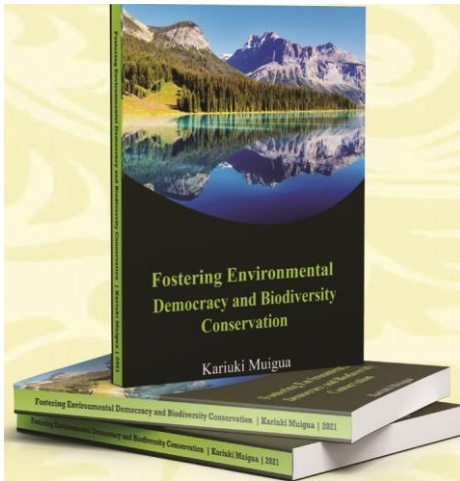
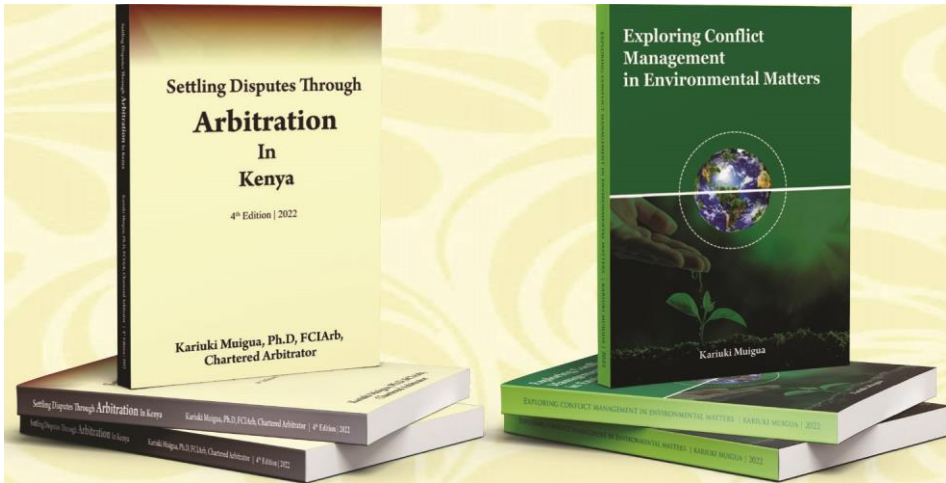
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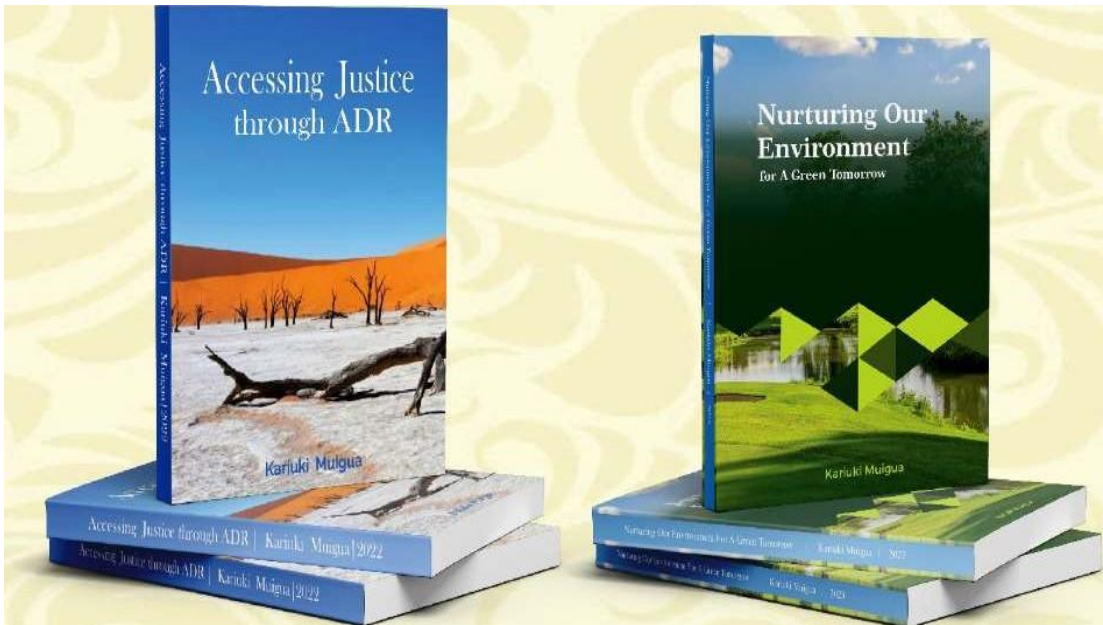
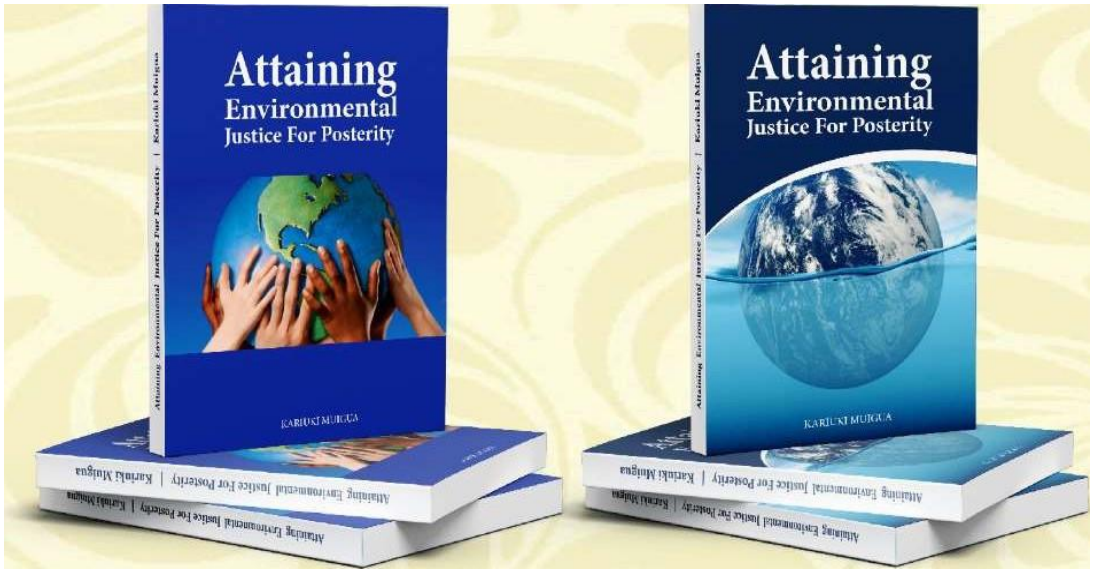
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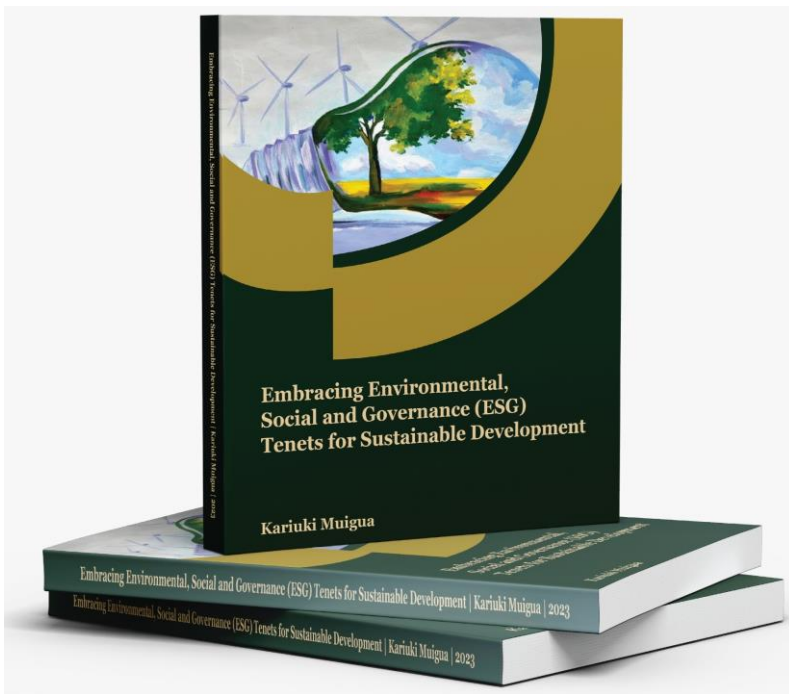
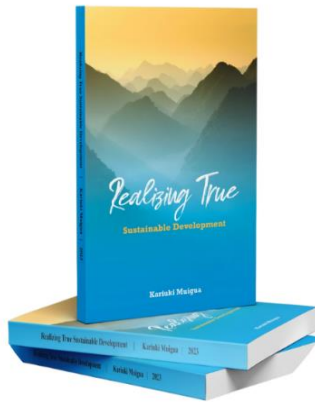
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Combating Climate Change for Sustainability is a book that offers a sound discussion on the main causes and manifestations of climate change. It also discusses the main institutions and approaches designed for combating climate change for sustainability.

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Author's Bio-data

Hon. Dr. Kariuki Muigua a holder a Doctor of Philosophy (Ph.D.) degree in law from the University of Nairobi attained in 2011. He also holds a Master of Laws (LL.M) degree attained in 2005 and Bachelor of Laws (LL.B) degree awarded in 1988 both from the University of Nairobi.

He is a senior law Lecturer at the University of Nairobi Faculty of Law and the Centre for Advanced Studies in Environmental Law and Policy (CASELAP). He also teaches at the Wangari Maathai Institute for Peace and Environmental Studies.

He is a Member of the Permanent Court of Arbitration (PCA) nominated by the Republic of Kenya and a Member of the National Environment Tribunal. He is a distinguished law scholar, Environmental Consultant, an accredited mediator and a Chartered arbitrator. He has widespread training and experience in both international and national commercial arbitration and mediation. He has received numerous awards and honours due to his exemplary work in academia and Alternative Dispute Resolution.

Chambers and Partners Global Guide 2023 ranked him in Band 1 of Dispute Resolution (Arbitrators), the ranking which recognizes the Top 6 Arbitrators in Kenya noting that he is "highly recommended as a leading lawyer". He was awarded the Outstanding Mentor Award by his mentees in recognition of his guidance, care and support. He was recognized and awarded for his role as the Chartered Institute of Arbitrators (CI Arb) Africa Trustee from 2019 to 2022 by CI Arb Kenya Branch at the CI Arb Kenya Branch ADR Excellence Awards 2022. His book, *Settling Disputes through Arbitration in Kenya, 4th Edition*; Glenwood publishers 2022, was awarded the Publication of the Year Award 2022 by CI Arb Kenya Branch at the CI Arb Kenya Branch ADR Excellence Awards 2022. He is the winner of ADR Practitioner of the Year Award at the AfAA Awards 2022. He is also the winner of the African Arbitrator of the Year 2022 award at the 3rd African Arbitration Awards held at Kigali Rwanda beating other competitors from Egypt, Mauritius, Ethiopia, Nigeria and Kenya. In 2022, Chambers and Partners ranked him in Band 1 of Dispute Resolution (Arbitrators) noting that "He has been involved in several ground-breaking arbitrations," "has an astute understanding of arbitration" and "is respected for litigation." He was awarded the Inaugural CI Arb (Kenya Branch) ADR Lifetime Achievement Award 2021 as well as the ADR Publication of the Year Award 2021 by the Chartered Institute of Arbitrators (Kenya Branch). He also received the ADR Practitioner of the Year Award 2021 by the Law Society of Kenya, Nairobi Branch at the Nairobi Legal Awards. He is a recipient of the 8th C.B. Madan Prize of 2020 for commitment and outstanding scholarly contribution to constitutionalism and the rule of law in Kenya.

Hon. Dr. Muigua has on various occasions been appointed by leading arbitral institutions including the Chartered Institute of Arbitrators (CI Arb-Kenya), the Nairobi Centre for International Arbitration (NCIA), the International Chamber of Commerce (ICC) and the London Court of International Arbitration (LCIA) among other institutions, as both a sole arbitrator and a member of an arbitral tribunal in arbitrations involving commercial disputes.

He is a Fellow of Chartered Institute of Arbitrators (CI Arb)-Kenya chapter. He is a member of the International Bar Association (IBA), the International Commission of Jurists, Human Rights Institute of the International Bar Association, the London Court of International Arbitration (LCIA), Chartered Institute of Arbitrators (UK) and Kenya Branch., Member of Commonwealth Lawyers Association and fellow of the Institute of Certified Public Secretaries of Kenya. He served as the Branch Chairman of CI Arb-Kenya from 2012 to 2015. He was elected (unopposed) to the Chartered Institute of Arbitrators (CI Arb) Board of Trustees as the Regional Trustee for Africa, for the term beginning 1st January 2019 for a term of four years until 31st December 2022.

Dr. Muigua also serves as the Editor in Chief of two leading peer reviewed journals in East Africa, the *Alternative Dispute Resolution Journal* and the *Journal of Conflict Management and Sustainable Development*. The two journals have been hailed as leading publications in the fields of ADR, Conflict Management and Sustainable Development. The *Alternative Dispute Resolution Journal* was awarded the Arbitration Publication of the Year Award 2020 at the Africa Arbitration Awards.

He is an Advocate of the High Court of Kenya of over 30 years standing and practicing at Kariuki Muigua & Co. Advocates, a firm that specialises in environmental and commercial law litigation and Alternative Dispute Resolution. The firm is also listed as a leading Kenyan commercial law firm in the distinguished Martindale Hubbell Directory.

He has authored the following books: *Alternative Dispute Resolution and Access to Justice in Kenya*, (Glenwood Publishers, Nairobi, 2015); *Resolving Conflicts through Mediation in Kenya*, (Glenwood Publishers, Nairobi, 2013); *Natural Resources and Environmental Justice in Kenya*, (Glenwood Publishers, Nairobi, 2015); *Nurturing Our Environment for Sustainable Development*, (Glenwood Publishers, Nairobi, 2016); *Settling Disputes through Arbitration in Kenya* (Glenwood Publishers, Nairobi) 1st Edition (2012); 2nd Edition (2012); 3rd Edition (2017); and 4th Edition (2022).

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