

UNIVERSITY OF NAIROBI
DEPARTMENT OF DIPLOMACY AND INTERNATIONAL STUDIES

MASTER OF ARTS IN INTERNATIONAL STUDIES

**MITIGATING THE EFFECTS OF CLIMATE CHANGE IN KENYA: AN
ASSESSMENT OF THE PARIS AGREEMENT**

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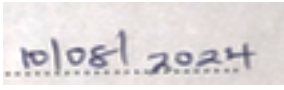
**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
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2024

DECLARATION

I, undersigned affirm that this submission is my original work with no submissions made for academic credit to any other university.


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DEDICATION

I dedicate this work to the people who have been my strongest supporters throughout my academic journey. I wish to thank my mother from the bottom of my heart, for not only nurturing my love for learning but also showed me the importance of persistence in chasing my dreams. Your unwavering belief in my abilities has always been a great source of motivation for me.

To my siblings, I wish to extend my heartfelt gratitude for your unwavering support and consistent presence. Whether it entails lending a compassionate ear or offering a well-timed distraction, you have consistently demonstrated your commitment to being there for me. Your sense of humor and companionship have been invaluable sources of strength, particularly during the most challenging times. I sincerely appreciate how you helped to keep me in check.

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Lastly, my dearest appreciation to my daughter for being a source of immense motivation and delightful distraction. Your curiosity and sense of wonder serve as a perpetual reminder of the initial reason for undertaking this research journey. It is my aspiration that this pursuit will encourage you to fearlessly pursue your own aspirations.

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ABSTRACT

The study largely focuses in analyzing the mitigating climate change effects in Kenya, an assessment of Paris Agreement. It examined the performance of Paris Agreement in mitigating the impacts brought upon by changes in climate, the opportunities as well as the challenges facing the implementation of Paris Agreement along with its prospects for climate mitigating change. The study also set out two hypotheses, firstly, the opportunities and Prospects Kenya has Paris agreement on mitigation of climate change and secondly, challenges that Kenya is facing regarding mitigating the impacts of changes in the climate as outlined in the Paris agreement. Both primary as well as secondary data were used in the study. In regards to primary data, a total of two hundred questionnaires were distributed for data collection, and one hundred and twenty one were filled and returned back. The data have been analysed on excel sheet and presented in form tables and bar graphs. Content analysis has used to interpret the data collected from the respondents. The study also used secondary data to analyse the information in the Paris agreement, data from other researches and journals.

The study has established that while Kenya's primary focus is on adaptability and fostering resilience, it is imperative to also incorporate mitigation measures into the country's climate response. Kenya possesses considerable potential for mitigation owing to its immense land area, woodlands, and farming systems, and oceanic resources. Moreover, Kenya boasts unparalleled potential for renewable energy, particularly solar energy, which can be harnessed for its own developmental needs. By fully capitalizing on this mitigation potential, Kenya can draw in a sizable amount of funding to support efforts aimed at resilience-building and adaptation. The enormous supply of unexplored clean renewable energy in Kenya provides a distinct advantage for low-emission development and potentially enables the utilization and commercialization of carbon dioxide removal technology. Additionally, Kenya is in a good position to supply the increasing need for clean energy around the world, including for cutting-edge technologies like green hydrogen, that is anticipated to replace fossil fuels in the future as costs fall down and technology progresses. In a short amount of time, Kenya may go from being a food-insecure nation to a net food exporter through the application of climate-smart sustainable water and land-use practices, agricultural methods, and ecosystem management.

The study further found that despite the challenges Kenya is facing climate change mitigation actions are frequently depicted as hindrances to economic growth or diversions from more pressing development objectives. Nevertheless, it is important to recognize that embracing proactive measures towards achieving clean, low-emission growth can actually serve as a strategic advantage for the continent. Such actions can foster the development of essential skills, technologies, and industries that will be crucial in the future. Consequently, they can contribute to the creation of employment opportunities, enhance global competitiveness, and facilitate sustainable growth and industrialization. Finally, the study recommends that mitigation measures should be implemented in accordance to Paris agreement, national policies as well as international targets. Climate change council and county climate change units should help coordinate initiatives on local technology transfers, climate finance and community driven capacity building.

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List of Abbreviations and Acronyms

CCD	Climate Change Directorate
CCCF	County Climate Change Fund
CCFU	County Climate Fund Units
COP	Conference of Parties
GCF	Green Climate Fund
GEF	Global Environmental Facility
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
NAP	National Adaptation Plan
NCAP	National Climate Action Plan
NDC	Nationally Determined Contributions
NEMA	National Environmental Management Authority
NT	National Treasury
PA	Paris Agreement
PFM	Public Finance Management Act
SDG	Sustainable Development Goals
UN	United Nations
UNFCCC	United Nations Framework for Convention on Climate Change
UNEP	United Nations Environmental Programme

Chapter One

Introduction

1.1 Introduction and Background of the Study

At the end of the twenty-first Conference of the Parties (COP) in Paris at the end of 2015, 195 member nations ratified the Paris Agreement, which reignited enthusiasm in cooperative global climate change actions and policy as well as several new approaches in global climate policy debates.¹ The Paris Agreement uses a variety of cooperation frameworks and processes to achieve climate diminution, adaptation, and financing. These mechanisms notably address the requirements of developing nation Parties and confer distinct legal rights and obligations upon Parties.²

Millions of people worldwide, particularly in some of the most disadvantaged populations, are being impacted by climate change, which is making the effects of many natural disasters more severe all over the world.³ The main target the Paris Agreement is to enhance UNFCCC implementation, whose ultimate goal is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system within a time period sufficient to allow ecosystems to naturally adapt to climate change, to ensure that food production is not threatened, and to enable economic development to proceed," as mentioned in Article two of the treaty.⁴

¹ "UNFCCC. (2015). Paris Agreement. <https://doi.org/FCCC/CP/2015/L.9>"

² "UN Habitat 2016: World Cities Report 2016: Urbanization and development. Emerging Futures. Nairobi: UN Habitat."

³ "Izuchukwu A., Asomah J.K., and Onoh U.C (2024) Assessing the Impact of Global Agreements on Combating Climate Change and Advancing Sustainable Development and Global Climate Change, *IIARD International Journal of Geography & Environmental Management*."

⁴ "IPCC (2021). History of the IPCC. Retrieved from <https://www.ipcc.ch/about/history>"

An important global agreement, i.e, the Paris Agreement aims to mitigate climate change and boost efforts and financial commitments towards a future with reduced carbon emissions. The primary objective of the Paris Agreement is to continue efforts to keep global temperature rise during this century well below 2°C over pre-industrial levels and to restrict temperature rise to 1.5°C. By creating sufficient funding, a new technological innovations framework, as well as an improved framework for capacity-building, the agreement further seeks to increase countries' ability to combat the impacts of climate change. This is especially important in order to support action taken by developing nations and nations with the greatest vulnerability in accordance with their own goals.⁵

One of the most important aspects of the intergovernmental negotiations under the UNFCCC process has been climate change mitigation. Changes in climate poses a double threat to the African continent because it both halts and reverses previous developmental progress. Africa is particularly susceptible to the effects of climate change, according to the Intergovernmental Panel on Climate Change (IPCC). Effects on food production, human health, desertification, and coastal areas are of particular concern to Africa.⁶ This mechanism promotes gradual increases in ambition by giving nations the chance to step up their efforts and set higher goals. For the purpose of fulfilling pledged NDCs and advancing the Paris Agreement's temperature goals, Kenya has put national climate mitigation ambitions into place.⁷

⁵“United Nations Framework Convention on Climate Change (UNFCCC) ‘What is the Paris Agreement’. Available: <https://unfccc.int/process-and-meetings/the-parisagreement/what-is-the-paris-agreement>”

⁶ “Tosun, J. and Peters, B. G., 2020, The politics of climate change: Domestic and international responses to a global challenge. *International Political Science*, 42, pp. 3–15.”

⁷ “Bang, G., Hovi, J., and Skodvin, T., 2016, The Paris Agreement: Short-term and long-term effectiveness. *Politics and Governance*, 4(3). doi:10.17645/pag.v4i3.640.”

1.2 Statement of the Research Problem

Climate change is a worldwide development issue, which necessitates a coordinated collective action. The issues associated with climate change include insufficient or no rainfall, extreme drought, inadequate food supplies, urban displacement, starvation, violence, flooding, damage of infrastructure, air pollution, water scarcity, and adverse health consequences in many regions of the world. Kenya's development objectives are under threat due to the frequency and severity of droughts and floods that have grown in recent decades.⁸ Due to the complexity of the process, global, national, as well as local planning and coordination are required over the long term. Limiting and reducing emissions of greenhouse gases while simultaneously boosting climate change resilience are goals of effective climate policy. The effectiveness of climate measures, however, is in jeopardy in Kenya because there has not been a significant backlash against them recently.⁹

By defining global goals for mitigation, adaptation, and financing, the Paris Agreement (PA) presents a significant chance to organize and fortify the international response to climate change. It lays out a number of procedures to accomplish these objectives, ranging from the involvement of non-state players in international climate change initiatives to the “pledge and review” of nationally defined contributions. The successful implementation of NDCs that meet their targets is critical to the success of the historic Paris Agreement. To ensure that Climate Change programs and projects are implemented successfully. The inclusion of climate-smart

⁸“Orindi, V (May 2018) Taking stock since the Paris climate agreement. *Joto Afrika, Issue 23*”

⁹ “Aldy, J. E., Pizer, W. A., and Akimoto, K., 2016, Comparing emissions mitigation efforts across countries. *Climate Policy*, [17](#), pp. 501–515.”

actions that promote low-carbon climate resilience and green economy/growth development ensures that investments are climate-proofed against climate-related shocks.

Kenya's commitment to addressing climate change is demonstrated by the "Climate Change Act (Number 11 of 2016)." In order to include adaptation and mitigation methods into the operations of the National and County Governments, the Act mandates that the government develop a 5-year National Climate Change Action Plans (NCCAP). The 2010 Kenyan Constitution establishes the institutional as well as legal foundation for taking action on climate change. Kenya is utilizing energy efficiency, climate wise agriculture, geothermal energy, reforestation, and drought management to implement these policies and objectives.¹⁰ To address climate change, a strong regulatory framework is being gradually developed at the federal local levels. Climate changes possesses significant threats to humanity's well-being, resulting in deaths, infrastructural damage, diminished agriculture and livestock output, and lost livelihoods. This study intent to evaluate the mitigating impacts of the changes in climate to Paris Agreement since the country ratified the agreement. Kenya's economy and people's livelihoods are at danger because of the effects brought upon by changes in of climate.

1.3 Study Objectives

The primary goal of this study is to identify how the Paris Agreement impacts Kenya's endeavors to mitigate the impacts of climate change. Specifically, the main goals of the research is:-

1.3.1 To assess the Paris Agreement in order to thoroughly investigate the climate change mitigating impacts.

1.3.2 To analyze the extent to which Kenya has implemented the Paris Agreement on climate change.

¹⁰ "Parliament of Kenya, Climate Change Act (2016)."

1.3.3 To assess the opportunities, challenges, and prospects for implementing the Paris Agreement of Climate Change in Kenya.

1.4 Research Questions

The following inquiries regarding research were addressed:

1.4.1 What are the challenges that affects mitigation of Climate Change to Paris agreement treaty?

1.4.2 What is the extent to which Kenya has implemented the Paris Agreement on climate change mitigation?

1.4.3 What are the opportunities and prospects related to execution of the Paris Agreement on Climate Change in Kenya?

1.5 Study Hypotheses

The study hypotheses were:-.

1.5.1 Kenya has opportunities and prospects related to mitigating the effects brought upon by changes in climate to Paris Agreement.

1.5.2 Challenges that have made Kenya fail in mitigating the effects to climate change to Paris Agreement.

1.6 Study Justification and Significance

This research is justified from both an academic and a policy standpoint.

1.6.1 Academic Justification

The research bridges the current gap in the Paris Climate Agreement's implementation. The role of academia in assessing the implementation of the Paris Climate Agreement in Kenya is critical. Academia can provide comprehensive research and analysis on various aspects of the agreement's implementation, such as greenhouse gas emission reduction strategies, adaptation measures, and financing mechanisms. Academia can also assess the effectiveness of existing policies and identify gaps that must be filled. Furthermore, academia can raise education and public awareness of

climate change as well as the Paris Agreement, which can help build support for action among the public as well as the policymakers.

Academia can bring together various stakeholders, such as governmental agencies, organizations from the civil society, local communities, and business leaders, through interdisciplinary collaborations, to develop innovative solutions and strategies for implementing the Paris Agreement in Kenya. Overall, academia can play an important role in assessing Kenya's progress toward meeting its climate goals and making evidence-based recommendations for improving the nation's climate policies and practices, thereby contributing to global attempts to tackle urgent issue of changes in climate. The outcomes of this study bridges the existing gap on climate change execution of the Paris agreement.

1.6.2 Policy Justification

When evaluating the Paris Climate Agreement's implementation, policymakers are essential. Policymakers are in charge of ensuring that the nation meets its commitments according to the Agreement. This involves establishing goals to lower greenhouse gas emissions, developing policies and strategies to meet those targets, and tracking progress toward those targets. Policymakers will help secure funding and technical assistance from international organizations and developed countries to assist the nation's climate change policies as well as projects. In addition, policymakers ensure that the country contributes to worldwide initiatives to address climate change while also taking into account the country's unique socioeconomic and environmental conditions. They also educate the public about adaptation planning, implementation, and monitoring so that they can improve their resilience and adaptability to climatic shocks. The study's findings serves as a solid foundation for policymakers' policy formulation, planning, and implementation.

1.7 Literature Review

This section of the study examines the literature related to the study. The section reviews the theoretical/conceptual literature and theoretical/conceptual framework. The section of the study analyze the existing literature on the research topic, revealing scholarly debates on the subject. The literature review looked at scholarly articles, journals, and other sources.

1.7.1 Theoretical Literature

The Rational Choice Theory and Regime Theory are two theories that discuss climate change governance and mitigation. The Rational Choice Theory has the potential to provide fresh insight into the governance of climate change as well as the Paris Agreement. Individuals as well as the states, according to this theory, weigh the advantages and the costs of different endeavors before making a decision. If states feel that the Paris Agreement would benefit them, they are more inclined to join in the framework of climate change governance. For example, if the economic benefits of lowering the emissions of greenhouse gases outweigh the costs, a state may join the Paris Agreement. This could include advantages such as improved public health, less reliance on energy, and job creation in green industries.¹¹

On the other hand, a state may opt out of the Paris Agreement if it believes the costs are too high, as in the case of developing countries that must prioritize economic growth. As a result, the Rational Choice Theory suggests that the Paris Agreement and governance in climate change will be most effective when they are viewed as beneficial by a broad range of states. This necessitates measures to guarantee that the advantages of participation outweigh the costs, which

¹¹ “Aldy J., B. Pizer, and K. Akimoto (2016). Comparing Emission Mitigation Effort. Climate Policy.”

could include technological and financial assistance to developing nations as well as collaboration between advanced and developing states.¹²

Proponents of Rational Choice Theory argue that when discussing the climate change governance and the Paris Agreement, it is critical to consider the costs and benefits of climate policy decisions. They believe that countries should take a logistical strategy to responding to climate change, focusing on maximizing their own self-interest. Some of the key arguments advanced by supporters of Rational Choice Theory include: 1. Resource allocation - the need to allocate resources effectively to combat the changes in climate as well as ensure that the costs of mitigation and adaptation are distributed fairly. 2. Incentives - the use of market-based incentives to encourage private sector investments in green energy and other environmentally friendly technologies. 3. Political feasibility - the importance of climate policies being politically feasible and gaining broad public support in order to be effective; 4. International cooperation - The significance of global collaboration and the imperative to guarantee that the nations that primarily cause changes in the climate bear the financial burden of mitigating it.¹³

Proponents argue that by taking a rational approach, countries can ensure that climate policy decisions are effective and efficient, and that they are able to meet their climate goals while minimizing the cost burdens on their economies. Critics argue that this theory has limitations in understanding complex social and environmental systems. They argue that climate change and its consequences are not reducible to calculations of individual or state self-interest. Furthermore, critics argue that this theory fails to adequately tackle justice as well as equity issues, which are critical to addressing the global challenges of changes in climate. Finally, they argue that Rational

¹² “Smith, Ralph C. *Uncertainty quantification: theory, implementation, and applications*. Vol. 12. Siam, 2013”

¹³ “Shiraev, Eric B., and Vladislav M. Zubok. *International Relations*. Oxford University Press, 2015”

Choice Theory ignores the role of institutions, norms, and discourses in shaping decision-making procedures pertaining to the governance of climate change.¹⁴

Regime theory is a very useful explanatory approach to understanding international agreements. The term "regime theory" refers to how states and international organizations achieve global cooperation and coordination. Regime theory, in relation to climate change, refers to governments' and international organizations' efforts to develop and implement global GHG emission reduction agreements. To begin, a regime is a collection of guidelines or percepts designed to address a specific economic or political issue. It encompasses the roles of both nation states and international organizations such as the UN. They are crucial players in the international arena, and their cooperation is critical to achieving international cooperation.¹⁵ The regime theory of climate change states that international climate talks are governed by a set of rules, customs, and institutions, which shape the state behavior, non-governmental entities, and other stakeholders. The Paris Agreement, signed in 2015, is an example of such a regime, strives to lower emissions of greenhouse gases in an effort to slow down global warming.¹⁶

Climate change regime theory proponents argue that for the issue to be solved successfully, international cooperation is necessary. They support international agreements like the Paris Agreement and the Kyoto Protocol that establish objectives and targets for lowering greenhouse gas emissions worldwide. Proponents believe that global cooperation can reduce overall GHG emissions, and that countries that fail to meet the established targets should face consequences. Proponents of the regime theory also argue that the agreement represents a huge breakthrough in

¹⁴ "Walt, Stephen M. "International Relations: One World, Many Theories." *Foreign Policy*, no. 110 (1998): 29-46. doi: 10.2307/1149275."

¹⁵ "Zhang L and Bai E (2023), The Regime Complexes for Global Climate Governance, *Sustainability Journal*"

¹⁶ "<https://dcollection.snu.ac.kr/common/orgView/000000175645>"

international partnerships on climate change, as it brings nearly all countries together to address a global issue. They contend that the agreement's emphasis on voluntary pledges, transparency, and accountability is a pragmatic approach that provides flexibility and ensures broad participation.¹⁷ Moreover, they see the Paris Agreement as an chance to speed up the shift towards a low-carbon economy, spur innovation and investment, and foster a new era of global environmental governance.¹⁷

Critics of the regime theory in regards to climate change regime theory contend that international agreements are ineffective at reducing GHG emissions and instead impede economic growth and development. They believe that countries should be free to make their own decisions about reducing greenhouse gas emissions, and that any international agreements should be voluntary rather than mandatory. Opponents also argue that large polluters, such as China and India, should be required to lower GHG emissions in order to match the efforts of developed countries. On the other hand, they are skeptical of the effectiveness of international climate regimes, which they regard as bureaucratic and ineffective. They argue that the Paris Agreement is too weak because it is based on nonbinding commitments and lack enforcement mechanisms. They argue that the financial expenses of mitigating climate changes are excessive, and that efforts to reduce emissions would harm economic growth and competitiveness.¹⁸

Furthermore, some critics claim that climate regimes are motivated by political agendas rather than scientific evidence, and that they disregard the interests of developing countries that have not yet industrialized. Overall, regime theory provides an insightful structure for comprehending the international partnerships required to combats global environmental issues like

¹⁷ “Olsen, K. H. 2007. The Clean Development Mechanism’s Contribution to Sustainable Development: A Review of the Literature. *Climatic Change*. 84 (1). pp. 59–73.”

¹⁸ “Bodansky D. (2016) The Paris Climate Change Agreement: A New Hope? // *American Journal of International Law*. No. 110 (2). P. 288–319.”

climate changes. The Paris Agreement is an example of a successful regime formation that emphasizes the importance of key actors, institutions, and norms in achieving effective global environmental governance.¹⁹

1.7.1 Conceptual Literature

In describing long-term variations in weather and temperature trends, we usually use the phrase “Climate change”. Changes in the sun's activity or large-scale volcanic eruptions might cause such changes. But from the 1800s, human activity, mainly the burning of fossil fuels like coal, oil, and gas has been the main cause of climate change. According to climate experts, almost all of the recent 200 years' worth of global warming can be attributed to human activity. Human activities such as those mentioned above emit greenhouse gases, which are warming the world faster than at any time in the last two thousand years. As a result of climate change, there are currently more extreme droughts, water shortages, wildfires, increasing sea levels, floods, melting polar ice, devastating storms, and fewer species.²⁰

Climate change is the modification of climatic patterns caused primarily by emissions of greenhouse gases. Release of greenhouse gases into the atmosphere has been the main contributors of global warming because they retain heat in the atmosphere. The main sources of the pollutants are natural systems and human activity. Natural systems include things like mud volcanoes, forests, permafrost, earthquakes, oceans, and volcanoes.²¹ On the other side, human activities are mostly linked to the generation of energy, industrial processes, forestry, and changes in land use. Climate variables that have altered recently include temperature, precipitation, ocean acidification,

¹⁹ “UNFCCC. 2019. *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its second session*, held in Madrid from 2 to 15 December 2019. Madrid”

²⁰ “Christiansen, L., Bois von Kursk, O., & Haselip, J. A. (2018). UN Environment Emissions Gap Report 2018.”

²¹ “UNFCCC, 2015, *Paris Agreement* (Paris, France: United Nations Framework Convention on Climate Change).”

sea level rise, and extreme weather. A major, pervasive, and possibly permanent threat to individuals, the environment, public health, infrastructures and the world economy is climate change. Countries are already feeling the effects of climate change, as increased frequency of droughts, floods, and erratic weather patterns severely damage natural resources, food security, and agriculture.²²

Scientists along with government reviewers concur in a number of UN publications that keeping the rise in global temperature to 1.5°C will help prevent the worst effects of climate change and preserve a livable environment. However, current projections indicate that temperatures will rise by 2.8°C by the end of the century. Global emissions of climate change impact all people, albeit some are more severely affected than others.²³ Approximately half of the world's greenhouse gases released in 2020 came from China, the US, India, the EU, Indonesia, Russia, and Brazil. Numerous strategies to combat climate change have the possibility to improve people's lives, protect the environment, and yield economic gains. Indicators of progress are also provided by international accords and frameworks, such as the Paris Agreement, the SDGs, and the UN Framework Convention on Climate Change.²⁴

1.7.2 Empirical Literature

1.7.2.1 The Performance of the Paris Agreement in Mitigating the Effects of Climate Change

In order to fight climate change, all people on the planet have signed the Paris Climate Agreement. It was negotiated within the context of the United Nations context Convention on Climate Change

²² “Cabot, C. (2017). Climate change, security risks and conflict reduction in Africa. Berlin & Heidelberg, Germany: Springer.”

²³ “Dimitrov, R. S. (2016). The Paris agreement on climate change: Behind closed doors. *Global Environmental Politics*, 16(3), 1-11.”

²⁴ “Bang, G., Hovi, J., & Skodvin, T. (2016). The Paris Agreement: Short-term and long-term effectiveness. *Politics and Governance*, 4(3), 209-218.”

and is the product of a two-decade worldwide effort. Despite legal equality among nations in UN climate discussions, there are substantial differences between them in terms of GHG emissions, development requirements, and climate change susceptibility. Through an agreement and review structure, the Paris Agreement's main objective is to minimize greenhouse gas emissions. Each party agrees to declare its "nationally determined contribution," or NDC.²⁵ Each NDC includes a pledge to minimize emissions by a certain amount by a certain date, typically 2030. The Agreement also demands the nations to regularly report on their progress and establishes accounting rules for tracking national emissions.²⁵

The extent to which various nations have implemented the Paris Agreement has been the subject of debate. Some argue that nations have not gone far enough to achieve the goals of the agreement. According to a United Nations report, for example, countries' emission reduction commitments under the agreement are insufficient to maintain the global temperature rise below two degrees Celsius. Others contend that significant advancement has been made in implementing the agreement. The European Union, for example, has committed to lowering the emissions of greenhouse gasses by at least 40% from 1990 levels by 2030. China, the biggest emitter of greenhouse gases globally, has enhanced its capacity to decrease emissions through investments in renewable energy sources. However, implementing the Paris Agreement is fraught with difficulties. One of the most challenging issues is providing funding for underdeveloped nations to adjust to the impacts of climate change. Developed nations have pledged to offer \$100 billion in regards to climate finance per year by 2020, but this target has yet to be met.²⁶

²⁵“Parry, I., B. Shang, P. Wingender, N. Vernon, and T. Narasimhan (2016). Climate Mitigation in China: Which Policies Are Most Effective? IMF Working Paper 16/148”

²⁶ “OECD (2016). Better Policies for Sustainable Development. A New Framework for Policy Coherence. Paris: OECD”.

The Agreement addresses a wide range of other aspects of worldwide response to the climate threat. It contains regulations to strengthen adaptation efforts, as well as rules and strategies for international cooperation, such as allowing countries that exceed their NDCs to sell excess reductions to other nations to support them in achieving their pledges. It was critical for developing countries to pledge NDCs. Currently, over half of the world's greenhouse gas emissions originate from these nations, and their emissions are drastically increasing more than those of wealthy nations. They arrive at the task, however, with wildly disparate levels of economic development, public institution strength, and technical capability. The Agreement reaffirms richer countries' obligation to offer financial and technological support to developing nations to support their efforts in reducing the emissions and adaptation projects in order to help them meet their goals.²⁷

Proponents argue that the Paris Agreement has sparked a global response to climate changes. Many countries have addressed the use of renewable energy, greenhouse gas emissions reductions, and the adoption of environmentally friendly practices. The European Union (EU), for instance, has put in place a variety of laws and policies to encourage energy efficiency and renewable energy, with the objective of achieving net-zero emissions by 2050. The Paris Agreement includes a mechanism for evaluating and improving global climate commitments on a regular basis. Some nations have demonstrated greater ambition by establishing more aggressive emission reduction goals.²⁸

As part of its attempts to tackle climate change, the UK, for example, has set a legally-binding target of achieving net-zero emissions levels 2050, which is more ambitious than previous

²⁷ “UNFCCC. (2015). Paris Agreement. <https://doi.org/FCCC/CP/2015/L.9>. [Google Scholar]”

²⁸ “Chen, S., & Dietrich Brauch, M. (2021). Comparison between the IPCC reporting framework and country practice.”

commitments. The agreement promotes international cooperation through various techniques, for instance, financial support, capacity building, and technology transfer to emerging nations. Various nations have provided financial and technical support to developing countries in order to aid in achieving their climate goals. The Green Climate Fund, for example, created to support developing nations in their efforts to mitigate climate change.²⁹

Critics contend that the Paris Agreement's main objective of keeping global warming to below two degrees Celsius over pre-industrial levels is unlikely to be achieved with the present commitments made by countries under the agreement. They believe that in order to address the severity of the ecological crisis, more ambitious and practical strategies are required. The Paris Agreement has no mechanism in place to enforce its voluntary obligations. The agreement's effectiveness may be jeopardized if some countries only partially or slowly implement their commitments. Because of this lack of enforcement, the agreement's accountability and ability to achieve its goals has been called into question. The Biden administration reaffirmed its dedication to the agreement after the Trump administration publicly violated it. Furthermore, some countries, particularly those with smaller or less developed economies, may lack the resources to actively participate in and implement the agreement's rules.³⁰

1.7.2.2 International Perspective of the Extent to Which States have Implemented Paris Agreement

The 2015 Paris Agreement changed the world's climate regime to a more inclusive system of climate governance that is applicable to all nations according to their unique capacities and shared but distinct obligations. Kenya argues that for developing nations to successfully implement the

²⁹ “IPCC (2018), Global Warming of 1.5°C: *Special Report, Geneva, Switzerland* (<https://www.ipcc.ch/sr15/>).”

³⁰ “Parkes, B., Sultan, B., & Ciais, P. (2018). The impact of future climate change and potential adaptation methods on maize yields in west africa. *Climatic Change*, 151(2), 205–217”

Paris Agreement, transparency in the assistance given is essential. Following the implementation of the Paris Agreement, national, regional, as well as local governments will become the main stakeholders in implementing the Paris goals through local climate action, replacing the previous emphasis on international negotiations.³¹

The international community has agreed to this goal for purposes of combating changes in climate. Nations have decided on the actions they have chosen to take to accomplish this goal at the national level, and they share this information via their Nationally Determined Contributions (NDCs).³² Parties to the Paris Agreement and the UN's Framework Convention on Climate Change (UNFCCC) acknowledge that adaptation is a global issue requiring action at many levels, including local, subnational, national, regional, and worldwide. Parties to the Paris Agreement must present Nationally Determined Contributions (NDCs), which describe the steps each country will take to cut back on greenhouse gas emissions and strengthen their ability to withstand the effects of climate change.³³

Many countries have implemented domestic climate legislation to facilitate the implementation of these NDCs. NDCs are important climate policy documents that communicate countries' objectives and commitments to reduce emissions and adjust to the effects of climate change within the parameters of the UNFCCC Paris Agreement.³⁴ The Paris Agreement recognizes that each country has unique needs and circumstances and gives countries more freedom to choose how to determine their mitigation goals via the nationally determined contributions (NDCs). Although this bottom-up strategy allows nations to meet their obligations through a variety of

³¹ “National Climate Change Action Plan (NCCAP), *Adaptation Technical Analysis Report, 2015*”

³² “Dagnet, Y., & Cogswell, N. (2019). Setting a common time frame for nationally determined contributions.”

³³ “Maizland, L. (2021). *Global climate agreements: Successes and failures* (p. 25). Council on Foreign Relations.”

³⁴ “UNFCCC. *Nationally Determined Contributions Registry* | UNFCCC. <https://unfccc.int/NDCREG> (UNFCCC, 2022).”

interventions, recent UNFCCC reports have noted that countries continue to be far from achieving the global goal of net-zero emission levels by 2050 set forth in the Paris Agreement.³⁵

The UNFCCC encourages Parties to submit their NDCs, which set goals for minimizing emissions of greenhouse gasses (GHG) across sectors and within national borders. This will help to strengthen the implementation of these commitments. African nations have participated in negotiations regarding climate changes on a global scale and have all ratified the 2015 Paris Agreement.³⁶ They have already submitted their NDCs and are carrying out national climate action. The Paris Agreement is especially important from an African perspective due to the continent's high risk of climate change, and its enormous possibility for renewable energy. Africa is among the continents most susceptible to the effects of climate change.³⁷

Africa accounts for seven out of the ten nations in the world that are most vulnerable to climate change. They include Nigeria, Sierra Leone, South Sudan, Ethiopia, Chad, Eritrea, and the Central African Republic. According to Agenda 2063, Africa must collaborate, be self-sufficient, finance its own climate-smart, inclusive, and people-driven development, and speak with a unified voice in international forums. This philosophy is shared by the Africa Climate Change Strategy.³⁸ This plan outlines the key components of a well-coordinated and efficient response towards

³⁵ “Meinshausen, M. et al. Realization of Paris Agreement pledges may limit warming just below 2 °C. *Nature* **604**, 304–309 (2022).”

³⁶ “Riahi, K. et al. Cost and attainability of meeting stringent climate targets without overshoot. *Nat. Clim. Chang.* **11**, 1063–1069 (2021).”

³⁷ “Den Elzen, M. G. J. et al. Updated nationally determined contributions collectively raise ambition levels but need strengthening further to keep Paris goals within reach. *Mitig. Adapt. Strateg. Glob. Chang.* **27**, 1–29 (2022).”

³⁸ “United Nations Environment Programme. *Emissions Gap Report 2021*. <https://www.unep.org/resources/emissions-gap-report-2021> (United Nations Environment Programme, 2021).”

climate change on the African continent, strengthening adaptive capacity and capitalizing on the continent's enormous mitigation potential.³⁹

The National Adaptation Plans (NAPs) that were institutionalized at the Cancun climate conference in 2010, were created to assist nations in planning for integration of adaptation to climate change into national development policies. Under the Global Climate Action Agenda, countries, cities, regions, companies, as well as members of civil society are working together to achieve coordinated climate change action in promotion of the Paris Agreement outside of official intergovernmental negotiations.⁴⁰ Beginning in 2020, all countries submitted NDCs or NCAPs. Every new NDC aims to show a higher degree of ambition than the one before it. All nations have agreed to create their own climate targets as part of their NDCs in order to meet this goal. In addition, they will create corresponding long-term strategies (LTSs) and submit reports on their emissions and activities as part of an Enhanced Transparency Framework (ETF).⁴¹

1.7.2.3 Opportunities, Challenges and Prospects of the implementation of Paris Agreement to Climate Change.

The general objective and long-term temperature goals set forth in Article 2 of the Paris Agreement, which are to keep the increase in the global average temperature well below 2°C above pre-industrial levels as well as pursue attempts to keep temperature rise to 1.5 degrees Celsius, are largely dependent on the Parties' implementation of the Paris Convention Mitigation. The Paris

³⁹ “Roelfsema, M. et al. Taking stock of national climate policies to evaluate implementation of the Paris Agreement. *Nat. Commun.* **11**, 1–12 (2020).”

⁴⁰ “Edelenbosch, O. Y. et al. *Mitigating Greenhouse Gas Emissions in Hard-to-abate Sectors*. PBL Netherlands Environmental Assessment Agency, The Hague (2022).”

⁴¹ “Kim, D., Park, T.J. Analysis, evaluation and implications of Rhode Island’s “2021 Act on Climate” for response to climate change. *Climatic Change* **177**, 31 (2024).”

Agreement requires each Party to submit NDCs, which represent its maximum potential for mitigation, in a gradual and ever more ambitious manner. Other Sustainable Development Goals (SDGs) are impacted by lower greenhouse gas emissions. Understanding these effects might assist increase the viability of climate change mitigation initiatives by maximizing co-benefits and controlling the risks associated with potential trade-offs across SDGs, especially given the immense difficulty of reaching the goals of the Paris Agreement and the SDGs.⁴²

The Paris Agreement's implementation presents both opportunities and challenges in addressing climate changes. The Paris Agreement's implementation has the capability to boost economic growth and create new job opportunities. As the economy shifts to an environmentally friendly economy, investment in renewable energy, energy efficiency, and long-term infrastructure is encouraged. This shift has the potential to boost innovation, competitiveness, and job creation in the clean energy sector.⁴³

Climate change mitigation can have significant health benefits. Reduced greenhouse gas emissions can lead to better air quality and fewer respiratory diseases. Climate change action can also improve food security, access to clean water, and overall well-being, especially in vulnerable communities. Clean technology development and deployment are encouraged by the Paris Agreement. Increased R&D investment can drive innovation and accelerate the advancement of renewable energy, energy storage, and other environmentally friendly solutions. This facilitates technological advances and promotes a shift toward a more sustainable and resilient future.⁴⁴

⁴² “UNFCCC (2018a). Climate Action Now: Policymakers' Guide 2018”

⁴³ “Bodle, R., Donat, L., and Duwe, M., 2016. The Paris Agreement: Analysis, Assessment and Outlook. *Carbon & Climate Law Review*, 10 (1), 5–22.”

⁴⁴ “UNFCCC (2021). Nationally Determined Contributions under the Paris Agreement: Secretariat Synthesis Report”

Maintaining political will and increasing ambition are two major challenges. Countries must align their policies and actions to the long-term objectives of the Paris Agreement. Strong leadership, collaboration, and a commitment to bold emissions-cutting measures are required. Overcoming political barriers and competing priorities can be difficult. Implementing the Paris Agreement will necessitate significant financial resources to aid in climate action, particularly in developing nations.⁴⁵

Mobilizing and directing investments toward climate-resilient and low-carbon projects is critical. To achieve the goals of the agreement, it will be difficult to attract public and private funding on the scale required. Overcoming the need to adapt to the impacts of climate change is a significant challenge, particularly for less privileged communities and nations. Ample financial support, technical capability, and knowledge sharing are needed to promote resilience and meet the needs of those who are most impacted. The process of creating effective adaptation strategies is still difficult.⁴⁶

The Paris Agreement has united countries under a common strategy to combat climate change. It has encouraged greater communication, cooperation, and knowledge exchange between nations. The prospects for continued international cooperation are promising, with the ability to share best practices, transfer technology, and increase the ability to speed up climate action. The Paris Agreement includes a procedure for nations to periodically strengthen their climate commitments.⁴⁷ The Paris Agreement has raised general awareness of changes in climate as well as the impacts that might occur. It has gained support from the general public and involved many

⁴⁵“Jernnäs, M., 2023. Governing through the nationally determined contribution (NDC): five functions to steer states’ climate conduct. *Environmental Politics*, 1–22. 2 April 2023.”

⁴⁶ “IPCC (2021). History of the IPCC. Retrieved from <https://www.ipcc.ch/about/history/>”

⁴⁷ “Geden, O. (2016). The Paris Agreement and the Inherent Inconsistency of Climate Policymaking. *Wiley Interdisciplinary Reviews: Climate Change*, 7(6), 790-797.”

parties, including businesses, civil society, and youth movements. This increased awareness and engagement opens the door to the possibility of sustained public pressure and widespread action to encourage the adoption of additional climate measures.⁴⁸

1.8 Theoretical Framework

Regime Theory examines the role of international institutions and norms in shaping state behavior. It can help us understand how the Paris Climate Agreement establishes a collection of norms and rules that guide state behavior toward reducing emissions of the greenhouse gasses when applied to the Paris Climate Agreement. Regime theorists prioritize mitigation over adaptation because climate change is an international issue. This strand is reflected in the climate regime, though there are discussions about increasing adaptation cooperation. This is because mitigation interests are mutual. Regime theory, in fact, reflects liberal institutionalism's values, which see the role of international institutions in world politics. Regime Theory can also help us understand how the Paris Agreement fits into the larger international system of climate governance, as well as how it interacts with other international institutions and norms.⁴⁹

Regime theory is an effective tool for explaining international treaties. It includes national governments as well as international organizations, for instance, the UN. They are the primary players in the international arena, and international cooperation requires their cooperation. International environmental treaties are also required to understand the trajectory of climate change. To mitigate the worst of the climate impacts, there must be a concerted effort to limit global temperature changes throughout the current century. As a result, this is contingent on

⁴⁸ “Shirayev, Eric B., and Vladislav M. Zubok. *International Relations*. Oxford University Press, 2015.”

⁴⁹“Unger et al. (2017). Achieving the Sustainable Development Goal for the Oceans. *IASS Policy Brief*, 2017, 1. <https://doi.org/10.2312/iass.2017.004>”

humanity's ability to minimize greenhouse gases emission rapidly and sustainably over the next several decades. Rational Choice Theory is a framework that assumes people make rational decisions based on cost-benefit calculations.⁵⁰ A country, for example, might weigh the expenses of lowering emissions against the advantages of avoiding the negative impacts of climate change. However, it is crucial to note that Rational Choice Theory is only one point of view, and that other factors may influence a nation's decision to join the Paris Agreement.⁵¹ Changes in human conduct are necessary to address the major challenge of climate change. While most people focus on adjustments in the governmental and industrial levels, changes at the level of individuals, households, and communities are far more important than most people realize.⁵²

The well-known “rational choice model,” which maintains that people behave in a way that maximizes the anticipated advantages of their own decisions, served as the foundation for the Paris Agreement. People choose the course of action or behavior that yields the most net benefit at the lowest net cost after balancing the predicted advantages and expenses. An attitude toward a behavior is formed by multiplying behavioral beliefs by the assessment of a behavioral outcome, and a subjective norm about a conduct is formed by multiplying normative beliefs by the desire to fit in with others. These factors come together to form a behavioral intention and, eventually, behavior. The model's central premise, that individuals have perfect information on which to base their cost-benefit analyses, has been widely criticized. Given both future uncertainty and the current cost of information, this assumption is frequently incorrect.

⁵⁰ “Tosun, J., & Lang, A. (2017). Policy integration: mapping the different concepts. *Policy Studies*, 38(6), 553-570.”

⁵¹ “Bulkeley, H. (2016). *Accomplishing Climate Governance*. New York: Cambridge University Press.”

⁵² “Dauvergne, P. (2016). *The environmentalism of the rich*. Cambridge, MA: The MIT Press.”

1.9 Research Design Methodology

This section describes the research methods in detail. It specifies the methods for data collection, analysis, and presentation. The following sections are listed: research design, data collection, data analysis, and data presentation methods.

1.9.1 Research Design

A research design is a strategy and structure of the research process. The road map and milestones provided by design help to keep the study on track. In this study, the Case study technique was employed. A case study attempts to describe a unit detail in context and holistically. Case studies are an important tool in social science research because they allow researchers to gain a thorough understanding of a particular phenomenon or situation. Researchers can identify patterns, relationships, and causal factors that may be missed in larger studies by thoroughly investigating a specific case. Case studies also provide a significant source of data, which can be used to develop and test theories, as well as to inform policy and practice. Overall, case studies are a valuable tool for social scientists to investigate complex social phenomena and generate new insights and knowledge.⁵³

1.9.2 Target Population

The target population included all organizations and institutions which took part in Kenya's implementation of the Paris Climate Agreement. Environmental envoys, the Ministry of Foreign Affairs, the Ministry of Water, the Ministry of Environment, the Kenya Climate Change Working Group, the National Environmental Management Authority, the UNFCCC, the Kenya Forest

⁵³ “D. K. Kombo (2016). Writing Proposals and Theses: An Introduction. Paulines Publication Africa, Nairobi.”

Service, the Water Resources Authority, the Kenya Water Towers Authority, policymakers, environmental advocates, and other key stakeholders were in attendance.⁵⁴

1.9.3 Sampling Technique and Sampling Size

The study adopted purposive sampling method for the study. Purposive sampling was adopted because it was used for both quantitative and qualitative data. Using this strategy, the researcher can use cases that include the necessary information to support the study's objectives.

The Yamane statistical formula was implied to determine the appropriate sample size from the target population. This is presented below

$$n = \frac{N}{1 + N(e)^2}$$

n = the sample size
N = the population of the study
e = the margin error in the calculation
1 = a unit or constant

From the formula; 250 respondents engaged in the study as calculated below

$$n = \frac{250}{1 + 250(0.05)^2}$$
$$n = \frac{250}{1 + 250(0.0025)}$$
$$n = \frac{250}{1 + 0.35}$$
$$n = \frac{250}{1.63}$$
$$n = 153.4$$

The sample size of this study was **153** respondents

1.9.5 Data Collection

This study utilised both secondary and primary data. Primary data come directly from respondents. Semi structured questionnaires and interview schedules will be used for primary data collection. The use of primary data collection is critical in research because it allows researchers to collect data that is specific to their research question and objectives. By collecting primary data, the

⁵⁴ “Mugenda O.M. and Mugenda A.G (2003). Quantitative and qualitative approaches to research. ACT Press, Nairobi, Kenya.”

researcher ensures that the data is relevant to their research question and has not been influenced by any biases or errors that may have occurred during the collection process. Overall, the use of primary data collection is critical in research because it allows. The researcher distributed online and offline questionnaires to the respondents which they were filled at the convenient and send back their response after 10 days. The questionnaires were both close-ended and open-ended questions which were based on the objectives and different aspects of the study⁵⁵

Secondary data was gathered through published articles, published interviews, books, journals, databases, and periodicals. Secondary data is information gathered by someone else for a different purpose but that researchers can use in their own research. Secondary data was valuable resource for this study because it saves time and money that would otherwise be spent on gathering new data. It can also provide a more comprehensive view of a research question by combining data from various sources.

1.9.6 Data Analysis and Presentation

Data analysis is the process of examining what was collected in a survey and drawing conclusions and inferences. It entails scrutinizing the information gathered and drawing conclusions. The majority of the data will be analyzed using the content analysis method. The process of methodically classifying and counting text units to condense a lot of information into a brief overview of some of its qualities is known as content analysis. In content analysis, the content of thousands of pages could be translated to create a few common themes. The data analyzed by content analysis will be presented normatively and in some instance by use of pie charts, histograms and tables.

⁵⁵ “Mugenda, O.M., and A.G. Mugenda (2003). Quantitative and Qualitative Approaches to Research. Act Press, Nairobi, Kenya.”

Following consent from participants, the recording of the interviews was done electronically and verbally transcribed. The interview questions were presented as an audio-reading, complete with transcription, re-familiarization with the collected data, phased coding procedures, and finally the introduction of the analyzed narrative.

1.9.7 Ethical Consideration

This study will adhere to the anonymity's ethical principles, informed consent, and confidentiality. By not collecting information about participants, including their true identities, anonymity will be promoted. For full participation in the study, research participants were required to provide informed consents. The identities of the respondents or their organizations kept private. The willingness and objectivity of the respondents improved these measures.

1.10 Chapter Outline

This research is organized into five chapters. The first chapter was an introduction to the study, which included the study's background, problem statement, objectives, research questions, hypothesis, literature review, justification for the study, theoretical framework, research design and methodology, and research design and methodology. The second chapter examined the overall status of the Paris Climate Agreement.

The third chapter looked at how far Kenya has gotten in terms of implementing the Paris Agreement on Climate Change, while the fourth looked at the opportunities, challenges, and prospects for Kenya's implementation of the Paris Agreement on Climate Change. Finally, data will be presented, analyzed, and discussed in chapter five.

Chapter Two

The Performance of the Paris Agreement in Mitigating the Effects of Climate Change

2.1 Introduction

Throughout the history of climate change, the Paris Agreement has come to be recognized as one of the most important international treaties. The Paris Agreement creates a mechanism to make its provisions easier to implement and encourage compliance with them. Under the guidelines of the United Nations Framework Convention on Climate Change, it was negotiated over the course of 20 years of international endeavor. Climate change mitigation measures are defined as any anthropogenic (human-caused) intervention that reduces the sources of Greenhouse Gas emissions (abatement) or increases their sinks (sequestration). As a result, the chapter will go over what the Paris Agreement is all about, the rationale for the agreement, what it seeks to address, and how it intends to achieve the goals. The performance of the Paris Agreement in minimizing the impacts of changes in climate in terms of successes or milestones achieved, challenges, opportunities and prospects, what is being done to deal with challenges, and finally the Paris Agreement's Opportunities and Prospects.

2.2 The Paris Agreement and its Rationale for Climate Change

Since more than a decade ago, climate change has remained to be the core of political conflicts as people, groups, and governments attempt to reconcile environmental preservation with economic demands. One of the first agreements to recognize climate change as a worldwide issue was the Kyoto Protocol of 2005, which implemented the UN Framework Convention on Climate Change. By bringing the world community to work together to address a common issue, it laid the groundwork for the Paris Agreement by establishing objections to reduce greenhouse gas

emissions, lessen climate change impacts, as well as limit their emissions.⁵⁶ The Paris Agreement presents a major chance to coordinate and fortify the worldwide response to the matter by setting international goals for climate change adaptation, mitigation, and financing. It sets a wide range of instruments to achieve these aims, including the engagement of non-state participants in global efforts to combat climate change and the "pledge and review" of nationally defined contributions.⁵⁷

The Paris Agreement, which is also known as the Paris Climate Agreement, is a component of the United Nations Framework Convention on Climate Change. It is an international treaty with the aim of "keeping the increase in global average temperature to well below 2°C above pre-industrial levels, and to pursue efforts to keep the temperature increase to 1.5°C above pre-industrial levels." It was adopted by 196 Parties in the year 2015, on December 12, at 21st Conference of Parties in Paris and has been in effect from 2016. The historic agreement contains 29 articles that address a variety of new global possibilities and challenges for climate research and services, including adaptation, mitigation, damage and loss, finance, technological advancement and transfer, capacity development, transparency of action and support, and global stocktake.⁵⁸

The accord calls for increased resource mobilization to support developing nations in creating low-carbon, climate-resilient economies, as well as measures to keep nations responsible for their pledges. The Agreement highlights the importance of country-led national pathways to climate-resilient development and reduced GHG emissions in achieving both climate and broader

⁵⁶ "Leinawever, J. and Thomson, T., 2021. The Elusive governance of climate Change: Nationally determined contributions as commitments and Negotiating positions. *Global Environmental*"

⁵⁷ www.unfccc.int/key-aspects-of-the-paris-agreement

⁵⁸ "IPCC 5th Assessment Report Climate Report 2020"

sustainable development goals.⁵⁹ There was balance in opinion over the performance of Paris agreement in mitigating climate change. Half of the respondents felt that states have met the set goals in minimizing climate change in the world. The other half felt that the Paris agreement has fulfilled its mandate of mitigating of climate change. For instance, one of the respondent's responses on the performance of Paris agreement in mitigating the effects of climate changes said,

“The Paris Agreement (PA) sets out to strengthen the global response to climate change, setting targets for mitigation, adaptation, and finance, and establishing mechanisms through which to achieve these targets. First, transparency is widely considered a precondition for the PA to be institutionally effective. However, a lack of clear reporting standards and comparable information renders the PA's transparency provisions ineffective. Second, environmental effectiveness relies on national ambition, of which there is currently too little.”

Another respondent said,

“To a larger extent, Paris Agreement lays the foundations for meaningful action on slowing atmospheric accumulation of greenhouse gas (GHG) emissions. The centerpiece of the Agreement is mitigation commitments or pledges made by 190 parties, as specified in their “nationally determined contributions” (NDCs). The commitments are consistent with containing projected warming to approximately 3°C rather than the 1.5°–2.0°C goal of the Agreement (IPCC 2022), are partially dependent (for some developing countries) on external finance, and are not legally binding”

Paris Agreement's main goal is to reduce greenhouse gas emissions through a pledge and review system. Each party agrees to declare a climate action strategy, known as its "Nationally Determined Contributions,". They emphasized that this goal is linked to the requirement that all countries work together to ensure they minimize the Greenhouse Gas (GHG) emissions to zero by the second half of the 21st-century. A number of crucial conditions are outlined in the Paris Agreement for national mitigation initiatives. Both developed and developing nations must make significant climate change pledges in accordance with the Paris Agreement. 97% of the world's

⁵⁹ “IPCC Working Report (2022)”

emissions are attributed to countries that have made commitments to their NCDCs to address climate change.⁶⁰

The Paris Agreement's overarching goal is to “strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty.” In order to accomplish this, it will: (i) work to keep the rise in the average global temperature well below 2°C over pre-industrial levels and to limit it to 1.5°C; (ii) improve adaptation to the negative impacts of climate change; and (iii) align finance flows with a path toward reduced emissions of greenhouse gases and "climate-resilient development”. Respondents stated that

“Countries that possess fewer national constraints enhance the ambition of their targets once they implement adequate policies to achieve their initial objectives. Conversely, countries with more significant constraints frequently establish targets that have minimal influence on national policies or entirely disregard the plea to enhance their ambition.”

The agreement is carried out with equity and the idea of shared but separate roles and commensurate capacities in mind. Parties are required to make and communicate so-called Nationally Determined Contributions in order to achieve the aforementioned goals. Additionally, in order to fulfill the objectives of such NDCs, Parties consent to adopt domestic mitigating measures. The agreement lays out a detailed administration mechanism for the Parties' NDCs. There are requirements regarding the transparency and clarity of those NDCs, as well as the obligations to communicate these NDCs every 5 years.⁶¹

Countries that successfully implement the targets outlined in their nationally determined contributions (NDCs), meet emissions reduction targets for 2020, and gradually increase the ambition of their mitigation actions. All countries are required to successfully implement the targets

⁶⁰ “Rosa Luxemburg Stiftung (2019). COP24: No Solution to the Crisis.”

⁶¹ “United Nations Treaty Collections (2016)”

outlined in their NDCs; meet emissions reduction targets for 2030; and gradually increase the ambition of their mitigation actions. To accomplish this, all countries that have ratified the agreement have established their personal reduction targets, that is, the “Nationally Determined Contributions (NDCs).” Every five years, climate protection efforts are to be revised and strengthened, with goals reflecting each country's highest level of ambition. Many have praised the Paris Agreement as an effective model for international climate change governance. The agreement is expected to serve as a legal framework for global and long-term climate action, paving the way for intense domestic climate legislation.⁶² These differing views on the role of the NDC gained more attention during the first global stocktake in 2023. One of the respondent argued that:

“While the submission of Nationally Determined Contributions (NDCs) to the Paris Agreement is legally binding, the design and implementation of the climate actions outlined in these contributions are primarily the responsibility of individual states. To effectively promote climate action and support the independent efforts of different countries, it is vital to have a thorough understanding of each country's resources and provide the necessary institutional support. This can be accomplished by conducting a comprehensive analysis of each country's capabilities and motivations, utilizing the existing classification system, and considering their individual commitment as outlined in their NDCs report.”

Under the Paris Agreement, all nations promise to make sizable NDCs (national determined contributions) to the global efforts to fight climate change. Every five years, the effectiveness with which the goal and objectives are being achieved are evaluated. With the aid of the assessment's findings, the Parties are able to increase their level of commitment for climate action. In addition to the PA, the Convention also pursues adaptation through the process of developing and executing National Adaptation Plan (NAPs).⁶³

⁶² “UNFCCC. (2015). Paris Agreement. <https://doi.org/FCCC/CP/2015/L.9>”

“The success of the Paris Agreement, international and national objectives must align. Increasing target ambitions without corresponding policies undermines the credibility of the agreement and widens the gap between global aspirations and national efforts. Countries need to adopt policies and mitigation plans that facilitate target achievement and contribute to the agreement's overall success.”

The National Adaptation Plan process, the only multilaterally agreed, comprehensive adaptation procedure of its kind, integrates national development planning processes and strategies with a medium- to long-term strategy to lessen susceptibility to the negative consequences of changes in climate. Parties can identify their medium- as well as long-term adaptation needs and develop and implement strategies and programs to address those needs by using the National Adaptation Plan process for creating and implementing National Adaptation Plans.⁶⁴

2.3 The Performance of the Paris Agreement in Mitigating the Effects of Climate Change

Global efforts to combat climate change are centered on debates over who should be accountable for reductions in carbon emissions; however, the importance of developing nations and its potential impacts has been widely acknowledged. The United Nations Framework Convention on Climate Change serves as the foundation of the global architecture for climate change mitigation and adaptation. However, one notable shortcoming is that the UNFCCC lacks any provisions to bind parties to specific measures to minimize emissions of the actions Greenhouse Gases.⁶⁵ The lack of binding provisions reflects country differences in terms of what should be done, by whom, and at what cost to ensure the reduction of the gas emissions. It is also clear that the socioeconomic development imperatives of developing economies are particularly jeopardized, because they have the greatest incentive to cooperate with global governance due to how susceptible they are to

⁶⁴ “Nathaniel Mason, Jodie Keane, Mark Miller, Prachi Agarwal, Yunnan Chen and Archie Gilmour’ “The prospects for development in a climate changed world - ODI Emerging analysis” (2023)”

⁶⁵ “Climate Analytics and New Climate Institute. Climate Action Tracker. Available online: <https://climateactiontracker.org/countries/kenya/> (accessed on 10 August 2023).”

climate change's repercussions, but the least capacity to emit greenhouse gases due to the nature of their economies.⁶⁶

Through the establishment of global goals for mitigation, adaptation, and financing, the PA presents a significant chance to organize and fortify the international response to climate change. The “pledge and review” of nationally defined contributions to the involvement of non-state players in international endeavors to combat climate change are only a few of the many procedures it sets to accomplish these goals. The potential benefits of active international climate policy are typically evaluated in terms of optimal long-term mitigation objectives based on full compliance by participating countries. The respondents

The success of the Agreement is contingent on the parties’ candor in reporting the accomplishments of their respective Nationally Determined Committees. The parties must create, coordinate, and uphold a series of Nationally Determined Committees in accordance with their domestic mitigation targets in order for the Paris Agreement's objectives to be successfully accomplished. Climate finance has also been critical in ensuring the equity and transparency of the Agreement. The potential requirement for climate finance for mitigation and adaptation activities as determined by developing country Nationally Determined Committees.⁶⁷

A number of factors, including increased access to funding and technology, institutional frameworks, policies, laws, and strategies, political commitment, and well-aligned multilevel governance, all support efficient climate action. Efficient climate action is aided by well-defined objectives, collaboration among many policy areas, and inclusive governance mechanisms. If

⁶⁶ “Zeina Moneer, “COPs in the MENA region. Green Washing or Changing Scenario?” *Mediterranean Yearbook (2023)*”

⁶⁷ “UNEP. “Adaptation Gap Report 2022, www.unep.org/resources/adaptation-gap-report-2022”

scaled up and widely implemented, regulatory and economic techniques can support deep emissions reductions and climate resilience thus diverse knowledge benefits climate resilient development. Though, depending on national conditions and within the framework of global collaboration, effective governance offers general recommendations on establishing goals and priorities as well as integrating climate action through policy domains and levels. It prioritizes inclusiveness, transparency, and equitable decision-making, increases access to financing and technology, and enhances regulatory certainty in addition to monitoring and assessment.⁶⁸ This has not been the case, however. For example, one of the respondents asserted that,

“Despite the diplomatic success of 195 member-states (MS) agreeing on such a consequential and legally binding text, the efficacy of the PA remains under intense scrutiny. For example, with the initial rounds of pledges severely lacking in ambition and global emissions continuing to rise many are skeptical about the viability of a 'pledge and review' mechanism.”

The Paris Agreement, the Kyoto Protocol, and the United Nations Framework Convention on Climate Change all promote higher national ambition. The acceleration of efforts to address climate change at multiple levels of governance is being driven by international climate treaties, growing public awareness, and rising national ambitions for climate action. Global energy and carbon intensity have decreased thanks in part to mitigation policies; several nations have reduced their greenhouse gas emissions for more than ten years. A growing number of low- or zero-emission options are now available for energy, buildings, transportation, and industry. Low-emission technologies are also becoming more and more affordable. Many advantages have

⁶⁸ “UNCTAD. “COP27 debrief: Milestones for climate resilient development in Sharm el-Sheikh, UNCTAD, 2023”

resulted from the development of adaptation planning and implementation; efficient adaptation strategies have the ability to lower climate risks and promote sustainable development.⁶⁹

Laws and policies pertaining to mitigation have steadily increased in number. Climate governance facilitates the process of mitigation by offering structures for the interaction of various actors and a foundation for the formulation and execution of policies. The nearly universally embraced Paris Agreement under the United Nations Framework Convention on Climate Change has resulted in increased transparency of climate action and support, as well as the development of national and subnational policies and target-setting, particularly with regard to mitigation. Numerous economic and regulatory tools have already been effectively implemented.⁷⁰

For example, policies that have improved energy efficiency, decreased rates of deforestation, and sped up the deployment of technology have prevented, and in some cases reduced or eliminated, emissions in a number of countries. Many mitigation strategies are technically feasible, are getting more and more affordable, and are generally supported by the public. These strategies include solar and wind energy, electrification of urban systems, urban green infrastructure, energy efficiency, demand-side management, improved forest and crop/grassland management, and decreased food waste and loss.⁷¹ As revealed by a respondent;

“Understanding the factors behind climate change mitigation is crucial for enhancing climate governance. This involves implementing global climate policies, assessing the feasibility of the objectives set in the Paris Agreement, and identifying opportunities for progress within individual nations.”

⁶⁹ “Njeru Abraham Kirea and Wasiaya Onyango Christopher, “The Current Global Climate And Political Crises Or Relevant Counterpoints In Kenya”, *International Academic Journal of Arts and Humanities* Volume 1, Issue 3, pp. 331-349”

⁷⁰ “Nicholas Stern and Joseph E Stiglitz, “Climate Change And Growth”, *Industrial and Corporate Change*, Volume 32, Issue 2, April 2023, Pages 277–303”

⁷¹ “Nurlan S. Orazalin, Collins G. Ntim and John K. Malagila, (2023) Board Sustainability Committees, Climate Change Initiatives, Carbon Performance, and Market Value, *British Journal of Management*.”

2.3.1 Achievements of the Paris Agreement in Mitigating the Effects of Climate Change

Climate change mitigation has been a key component of the United Nations Framework Convention on Climate Change process on intergovernmental negotiations. Negotiations on various items dealing with various aspects of mitigation under the Convention, the Kyoto Protocol, and the Paris Agreement are currently underway under the United Nations Framework Convention on Climate Change negotiating bodies.⁷² The Paris Agreement seeks to achieve climate mitigation, adaptation, and finance through a series of cooperative frameworks and mechanisms, each of which establishes different legal rights and obligations for Parties and expressly addresses the needs of developing country Parties, particularly the most vulnerable.⁷³

The Paris Agreement has been a significant success because it encouraged countries such as Japan, China, and the EU to set carbon neutrality goals and embrace net zero targets. Net zero means that each country commits to reducing emissions to near-zero levels, with any remaining emissions reabsorbed without causing significant environmental harm. This progress has resulted in significant emission reductions and climate change mitigation efforts. Other countries are encouraged to pursue similar objectives in order to promote global sustainability.⁷⁴ A respondent in the IPCC 6th review in 2023 stated that:

“Aligning a range of technological initiatives and climate finance within a coherent framework would be a noteworthy achievement. Such alignment has the potential to greatly enhance collective effectiveness and impact in tackling the challenges associated with climate change mitigation.”

⁷² “Klinsky, S et.al. (2016). Editorial: “Why equity is fundamental in climate change policy research. *Global Environmental Change*, 44, 170–173”.

⁷³ “Debasanta Baldya and Sommath Mukherjee. “Climate Change and Its Importance for Assessment of Environmental Sustainability” (2022)”

⁷⁴ “Baiardi D, Morana C (2021), Climate change awareness: empirical evidence for the European Union”.

The Agreement also provides signatory countries with financial and technological assistance to help them effectively implement their climate action plans. Due to their greater resources and capabilities, developed countries are expected to take the lead in providing financial assistance. This support framework is tailored to each country's specific requirements, encouraging both developed and developing countries to take action. The Paris Agreement includes an Enhanced Transparency Framework, in which countries report on their climate-related actions and progress.⁷⁵

Overall, the Paris Agreement is a comprehensive and effective piece of legislation that encourages countries to do their part to combat the effects of climate change. The Paris Agreement shifted the focus of climate action away from incremental increases in adaptation and mitigation actions and toward long-term economic and social transformation.⁷⁶ It was evident that states have made significant milestones in mitigating the climate change. For instance, one respondent posited that,

“Since 2015, developed nations have increased the amount of international climate finance they give to developing nations to help them meet their commitments under the Paris Agreement. The policy agenda has shifted to include the objective of harmonizing financial flows with environmental goals.”

To achieve the temperature and adaptation goals of the Paris Agreement, alignment is probably one of the most crucial components of the agreement. The incorporation of climate change action into national economic policies has helped to maintain political will at all levels,

⁷⁵ “Soergel, B. et al. A sustainable development pathway for climate action within the UN 2030 Agenda. *Nat. Clim. Change* **11**, 656–664 (2021).”

⁷⁶ “Markkanen S & Anger-Kraavi A Social impacts of climate change mitigation policies and their implications for inequality”

given that climate action requires inclusive stakeholder engagement from a wide range of actors, including national, subnational, municipal, public, private, and civil society.⁷⁷

2.4 Challenges to the Implementation of the Paris Agreement

The Paris Agreement strengthens multilateralism based on rules and marks a turning point in global climate governance. Climate change impacts are likely to be substantial irrespective of the Paris Agreement's goals are achieved and global warming is kept to an average rise of 1.5°C above pre-industrial levels. Global warming above an average of 1.5°C still seems to be far more likely right now given the current "emissions gap" and anticipated emission trends. This is important because the risks associated with climate change are going to increase exponentially with every tenth of a degree increase in temperature.⁷⁸

Enforceability is the remains an issue with many international agreements, Paris Agreement calls for the monitoring and reporting of carbon emissions, it is powerless to compel a nation to cut emissions. The Agreements comes second to legislative actions or decisions made by heads of state in most cases relating to reducing carbon emissions. A signatory country does not carry out its obligations under the Paris Agreement, other countries may use soft power (sanctions or diplomatic pressure) to compel compliance. Major Powers like the U.S. and China are less susceptible to this kind of peer pressure, despite the fact that they currently produce the most emissions.⁷⁹

⁷⁷ “Bauer A, Mendrad K (2019) Standing up for the Paris Agreement: do global climate targets influence individuals’ greenhouse gas emissions?” *Environmental Science Policy* 99:72–79”

⁷⁸ “Djoundourian S.S (2021), Response of the Arab world to climate change challenges and the Paris agreement”

⁷⁹ “UNEP (2020) Emissions gap report 2020. Nairobi”

Secondly, the development and implementation of sustainable measures of the Paris Agreement are significantly hampered by a lack of adequate funding. Supporting developing nations financially has been used as a stand-in for differentiating emissions control commitments. At the Copenhagen conference in 2009, developed nations pledged to support mitigation and adaptation measures in developing nations with \$100 billion in funding by 2020, to come from both public and private sources.⁸⁰ According to a report released by the Organization for Economic Co-operation and Development, developed nations and multilateral banks committed \$62 billion in climate finance from private and public sources in 2014, with the aim of reaching \$100 billion annually by 2022. The \$62 billion represents a significant increase over the \$52 committed in 2013. The Organization for Economic Co-operation and Development (2020) report observe that many developing nations have serious flaw and grossly exaggerates actual flows.⁸¹ These challenges were highlighted by majority of the respondents. For example, one responded highlighted that,

“Future climate negotiations should benefit from a more integrated, holistic perspective, and more nuanced balancing of ambition and implementation. More needs to be done to protect human rights, increase loss and damage funding, go beyond technological solutions, and address gender-differentiated consequences of climate change. Additionally, Paris agreement needs to be reviewed to evaluate the governance and institutional frameworks governing climate finance, including the role of international financial institutions, national governments, and civil society organizations in mobilising and disbursing funds.”

Accounting for climate finance has been a source of contention throughout the climate regime. The Paris Agreement is ambiguous on this point because it only emphasizes the need for developing countries to provide climate finance to less developed countries. Prediction of implementation of some NDC components on the basis of adequate support, via conditionality.

⁸⁰ “Emma Perot, Technology Transfer, Climate Change And The Developing Countries: The Difficulties Posed By green patents, *Journal of Intellectual Property Law & Practice*, Volume 18, Issue 5, May 2023, Pages 397–406”

⁸¹ “Organization for Economic Co-operation and Development Climate Finance Report (2021)”

Notably, the Agreement makes no mention of how financial aid for developing nations will be distributed on a short- or medium-term basis. To implement the Paris Agreement, developing nations would face significant obstacles if there was no predictable and reliable climate finance in terms of resource allocation. It is significant to note that, primarily due to a lack of funding, the least developed and developing countries are already having difficulty developing their National Adaptation Plans (NAPs). Climate-vulnerable nations will suffer significant consequences from the effects of climate change in the absence of adequate resources allocated for the implementation of NAPs and NDCs.⁸²

Respondents raised the issue of transparency, accountability, and governance are integral to the effective management and utilization of climate finance. It was evident that there is no transparency in climate financing by developed nations to developing countries. For instance, a respondent said,

“The absence of accountability mechanisms can lead to challenges such as the financing of existing developmental aid as climate finance, imbalance in funds targeting climate change mitigation and adaptation, and the support of profit-seeking investments over needs-based financing”

Another respondent said,

“The Paris Agreement also emphasizes the importance of transparency and accountability in reporting on climate action and financing progress towards achieving targets. Parties are required to regularly report on their emissions and progress in implementing their NDCs, and to participate in a global stocktake every five years to assess collective progress towards the agreement's goals.”

Climate change experts have argued that the Paris Agreement is not entirely a legally binding document (on which provisions are legally binding and which are not), and as a result, the parties have limited liability for failing to uphold their obligations. In order to ensure climate-

⁸² “UNFCCC, https://unfccc.int/files/na/application/pdf/presentation_fao_workshop.pdf”

resilient development, the developed countries may not provide sufficient funding to implement mitigation and adaptation activities. This would make it extremely difficult for developing nations to engage in domestic climate change mitigation and adaptation efforts. The Agreement's compliance is not adequately addressed to ensure effective and efficient implementation, and this is the final point. To achieve the objective of keeping temperature rise to 1.5 degrees, its non-punitive nature will be a significant limiting factor. By consensus, the parties should also decide on a framework that will be completely legally binding and include enforcement tools for both pre-2020 and post-2020 climate action.⁸³

2.5 Opportunities and Prospects of Paris Agreement

The Paris Agreement has provided opportunities and prospects to both developed and developing countries at various levels. There are numerous opportunities for sectoral adaptation to mitigate climate change, many of which can be integrated into existing investment or development priorities and processes. Good practices in a wide range of sectors, addressing a wide range of issues, are well documented and available to help guide climate change action.

2.5.1 Opportunities of Paris Agreement

Climate change has a greater impact on the world's most vulnerable communities and social groups, whether in developed or developing countries, and exacerbates existing inequalities. For example, in poverty and due to existing roles, responsibilities, and cultural norms, women frequently face greater risks and burdens from the effects of climate change. Climate resilient development is facilitated by governments at all levels collaborating with communities, civil society, educational bodies, scientific and other institutions, media, investors, and business

⁸³“Zihua, Gu; Voigt, Christina; Werksman, Jacob, “Facilitating Implementation and Promoting Compliance with the Paris Agreement under Article 15: Conceptual Challenges and Pragmatic Choices” (2019)”

s; and by forming partnerships with traditionally marginalized groups such as women, youth, indigenous peoples and local communities, as well as ethnic and other minority groups.⁸⁴

The engagement and support of all levels of government and all relevant stakeholders is critical to the success of mitigation and adaptation actions, as well as efforts to address loss and damage. Working collaboratively, effective adaptation actions reduces climate risks that are documented for specific contexts, sectors, and regions and cut across systems, while focusing on integrated, multi-sectoral solutions that address social inequities and differentiate responses based on climate risk.⁸⁵

Development cooperation activities in developing countries give people access to renewable energy, which helps alleviate poverty and achieve the Sustainable Development Goals. The Paris Agreement encourages countries to take the first steps toward sustainable development as soon as possible. International cooperation can aid in the sharing of experiences in realizing opportunities and overcoming barriers and challenges to the implementation of climate change mitigation and adaptation plans (including National Action Plans in developing countries), as well as the promotion of learning from best practices in various contexts.⁸⁶

Climate impacts and responses are robustly assessed by the IPCC and other international scientific bodies. Such activities can assist in redirecting financial flows toward climate-resilient development and transformational adaptation. International cooperation also aids disaster recovery, including both short-term humanitarian response and long-term recovery, in which

⁸⁴ “Bhaskar Balakrishnan, “Climate Change, Paris Agreement and Global Action: A Way Forward” *Science Diplomacy Review* (2019)”

⁸⁵ “Yasuko Kameyama, Climate Change Policy: Can New Actors Affect Japan’s Policy-Making in the Paris Agreement Era?” *Social Science Japan Journal*, Volume 24, Issue 1, Winter (2021), Pages 67–84”.

⁸⁶ “Yang, P., Mi, Z., Yao, Y.-F., Cao, Y.-F., Coffman, D., & Liu, L.-C. (2021). Solely economic mitigation strategy suggests upward revision of nationally determined contributions. *One Earth*, 4(8), 1150–1162.”

communities are assisted in rebuilding better in order to increase resilience to the effects of climate change after disasters. International cooperation plays an important role in assisting with capacity-building in order to prepare and implement adaptation plans as well as recover from climate-related losses and damages. International initiatives, including non-state actors working on adaptation, can help to accelerate and support systemic changes.⁸⁷

Climate change adaptation and mitigation efforts rely heavily on funding, but access and availability are almost always limited. Financial flows can be matched with climate-resilient development to meet needs in a variety of contexts. Furthermore, by rapidly increasing funding arrangements for adaptation and mitigation from new and expanded sources, climate change can be prevented, minimized, and addressed. Based on an assessment of mitigation efforts as a whole, it is clear that additional resources for adaptation must be allocated quickly in order to keep up with demand for both total funding and rate of progress. As climate finance flows increase, the amount and efficiency of mitigation funding must be continuously monitored.⁸⁸

The goals and requirements of climate-resilient development must get a larger share of both private and public financial flows than maladaptive patterns that make people more exposed to and vulnerable to the dangers associated with climate change. This is because, while public funding for mitigation must be increased from current levels, the scope and depth of action required to address the growing risks posed by climate change is also considered.⁸⁹ While the Paris

⁸⁷ “Marina Ermolina, Anna Matveevskaya & Mikhail Baranuk, Climate Change and the UN 2030 Agenda for Sustainable Development”, *Springer Geography Book Series* (2021)”.
⁸⁸

⁸⁹ “Kashif Abbass, Muhammad Zeeshan Qasim, Huaming Song, Muntasir Murshed, Haider Mahmood & Ijaz Younis,, A review of the global climate change impacts, adaptation, and sustainable mitigation measures” “*Environmental Science and Pollution Research* (2022)”

agreement has a made progress in mobilizing global action and raising awareness, challenges remain in their implementation and funding. The respondents had a contrary opinion and stated,

“Sustained political will, financial support, and enhanced international cooperation are essential for achieving the goals of these global agreement. Additionally, inclusive stakeholder engagement and innovative solutions are critical for driving climate action and sustainable development at the local, and national.”

Collaboration in climate technology research, development, and demonstration is critical for both the large-scale deployment of mature climate technologies and the development of emerging technologies. International cooperation can enhance the learning from successful climate technology programs, particularly in developing nations. The ultimate goal is to increase access to both new and old technologies while reducing prices.⁹⁰ Adoption and implementation of cleaner technologies, as well as increased innovation and new technology development, are required to bring about the systemic changes required to meet the 1.5 °C temperature target. Appropriate enabling frameworks and international collaboration enable greater access to these technologies. Encouraging international collaboration on technology development, transfer, and innovation among nations or regions, including academia and research institutions, the private sector, governments, and other relevant parties, is critical for fostering knowledge exchange, claiming ownership of technologies, and propelling innovation.⁹¹

2.5.2 Prospects of Paris Agreement

Climate protection necessitates global efforts and actions by all countries. To that end, in addition to nationally determined contributions, the Paris Agreement includes special cooperation

⁹⁰ “[Sirisha Indukuri](#), International Climate Change Agreements: Setting a Global Agenda and Calling for Action, (2022)”

⁹¹ “IPCC.,The evidence is clear: the time for action is now. We can halve emissions by 2030.,The Intergovernmental Panel on Climate Change (2022)”

mechanisms. These mechanisms allow nations to trade the impacts of climate-change mitigation projects and apply them to their respective climate targets. With customized strategies addressing various settings and the effects of response measures, more consideration of equality can facilitate greater ambition in mitigation.⁹² As reflected in the Paris Agreement, there are numerous ways to take equity into account when mitigating climate change. These include allocating carbon space in an equitable manner, boosting capacity and options for change, minimizing expenses while promoting development, the necessity of supporting developing nations with regard to finances, technology, and capacity-building, involving stakeholders in decision-making, preventing damage and loss to the most vulnerable, and enabling just transit. The Paris Agreement goals must be achieved in conjunction with the equitable distribution and scope of action, not in opposition to them.⁹³

Global job growth might surpass global job losses by a factor of 3.5. Integrated policy packages can strengthen the capacity to address justice, equity, and gender equality. Another efficient technique to include equity concepts into policies at all levels is to adopt and execute just transition principles through collaborative and participatory decision-making procedures. Thus, one way to address equity in mitigation is through just transitions. Considering the extent of the changes, every nation may have both opportunities and challenges.⁹⁴ The shift to low-emission development will have an impact on distribution within as well as between nations. These repercussions include changes in work and income. While certain employment may disappear, low-emission development can, with some country- and sector-specific variances, open doors for

⁹² “Singh, D. V. (2020). The impact of climate change on a particular region or country. *Innovative Research Thoughts*, 6(5), 177–187.”

⁹³ “UNFCCC, *Communication of long-term strategies, UNFCCC Sites and platforms(2020)*”

⁹⁴ “Mumtaz, M. (2018). The National Climate Change Policy of Pakistan: An Evaluation of Its Impact on Institutional Change,” *Earth Systems and Environment*. *Earth System and Environment*, 2(3), 525-535”

just transitions, which enhance skills and generate more long-term jobs in sophisticated industries.⁹⁵ Strengthening implementation mechanisms and enhancing global governance on climate change is another key factor in mitigating climate change. A respondent agreed and stated that,

“Efforts need be intensified to strengthen the implementation mechanisms of global agreements, with a focus on translating commitments into tangible actions. Support the continuation and improvement of multilateral mechanisms, such as the Green Climate Fund, to ensure effective coordination and support for climate action as well as develop integrated policies that address both environmental and unemployment challenges for a comprehensive and sustainable approach.”

Another prospective way of the agreement's success has been through operationalized equity in mitigation, with Parties providing clearer information on fairness in their Nationally Determined Committees. Every country has described how their Nationally Determined Committees are both fair and ambitious. Currently, such data is needed for second Nationally Determined Committees, but the great majority of nations (98%) have already done so voluntarily. Many nations define fairness in terms of world emissions shares, which can be any number of benchmarks, including a modest absolute share of total global emissions, per capita emissions, global averages, GDP, and so on. Nonetheless, in the framework of a just approach to effort sharing, a more constrained set of equity principles have been invoked due to the diverse national situations. These values include the obligation to advance sustainable development, equity between and among generations, preventative measures against harm, prudence, and shared but distinct roles and capacities.⁹⁶

⁹⁵ “White, D. R., Assessment of the Current State of Carbon Capture for Climate Change Mitigation, University of Barcelona (2023)”

⁹⁶ “UNEP. “What you need to know about the COP27 Loss and Damage Fund” (2023)”

Well-informed strategies encourage beneficial synergies, such economic diversification, while simultaneously reducing the negative consequences of reaction measures. One tactic for reducing the adverse effects of reaction measures and promoting beneficial synergies is economic diversity. Options for achieving that goal include greening supply chains, expanding into related and unconnected product categories, green industrialization, and the involvement of industries like shipping and aviation.⁹⁷

Collectively, plans and commitments for mitigation and adaptation are becoming more ambitious, but there is still a gap in implementation, with plans being implemented inadequately, unevenly, and incrementally. Various governments are showcasing a variety of adaptation and mitigation plans, strategies, and objectives that are customized to meet local and national adaptation needs. National Action Plans reflect extensive mitigation and adaptation action that goes well beyond what has been officially communicated. Although there has been progress in integrating risks associated with climate change into decision-making throughout the adaptation and mitigation cycle, more effort is needed to properly implement National Effort Plans and processes over time in order to make long-term adjustments that fairly lower risks.⁹⁸

National adaptation plans (National Action Plans) are a critical component of the Paris Agreement. Partner countries are focusing on sustainable agricultural commodities and implementing approaches such as climate-smart agriculture along with food systems via multilateral and bilateral channels. In accordance with their development cooperation policy, they specifically target the most less privileged populations, taking into account local needs, knowledge, and experiences. In addition to reducing climate risks and improving climate resilience

⁹⁷ “Usman, Z. As Financial Pledges Trickle In, Did COP27 Meet Its Goal of Implementation? Carnegie endowment for International Peace (2021)”

⁹⁸ “Townend, R., What are the key issues at COP27?, Chatham House” (2022)”

in the short term, developing countries must plan and implement long-term adaptation measures. However, each phase of the planning cycle for mitigation and adaptation offers a chance to assess the situation, acknowledge the work of developing nations, and acquire fresh perspectives on how international collaboration may boost and expedite adaptation efforts.⁹⁹ Respondents agreed with the opinion and stated that

“These strategies assisted in building climate-resilient infrastructure, developing early warning systems for extreme weather events, and implementing sustainable land use planning to protect natural resources.”

Transport and mobility that is environmentally friendly is key aspect of the success of climate mitigation. The transportation ministry accounts for roughly a quarter of all global carbon emissions, and current projections indicate that this figure will rise even further due to economic growth as well as increased population.¹⁰⁰ Strong international commitment has been critical in capitalizing on opportunities and hastening the global transition to net-zero emissions in the transportation sector, which includes rail, road, shipping, and aviation infrastructure. Many countries, including Japan, China, and the Netherlands, have much to offer in this field, including expertise in building Electric Vehicle charging infrastructure networks, digitalization, smart mobility, zero-emission zones, and smart, active mobility policy.¹⁰¹

⁹⁹ “Rannard, G. and Stallard, E. “COP27: What have global leaders done on climate change in 2022?” BBC News (2022)”

¹⁰⁰ “Grubb, M. (2004). Technology Innovation and Climate Change Policy: an overview of issues and options. Keio Economic Studies, 41(2), 103–132.”

¹⁰¹ “Tanaka, K., Boucher, O., Ciais, P., Johansson, D. J. A., & Morfeldt, J. (2021). Cost-effective implementation of the Paris Agreement using flexible greenhouse gas metrics. Science Advances, 7(22)”

2.6 Conclusion

In conclusion, the Paris Agreement ushers in a new era of international climate diplomacy, signaling a significant departure from the Kyoto Protocol's approach of quantified legally binding targets for industrialized countries only. The Paris Agreement established a new framework for mitigating climate change and decarbonizing the economy through voluntary action on the part of state as well as the non-state participants. By solidifying a home logic of international climate politics, the Paris Agreement is more in line with the reality and shifting geopolitical context of climate politics. The likelihood of successful international agreements is determined by the amounts and distributions of costs and benefits over time, between nations, and within nations. Additionally, it acknowledges the significance of international cooperation and support for adaptation, particularly with regard to taking developing nations' needs into account.

Along with providing opportunities and prospects for the agreement's signatories, the Parties also consented on a global adaptation objective of enhancing adaptive capacity, improving resilience, and mitigating susceptibility to climate change. This goal will ensure adequate adaptation response in the context of the previously mentioned temperature goal and contribute to sustainable development. Robust institutional frameworks and sound governance are essential to the Paris Agreement's success. The success and efficacy of policies depend heavily on legislators' capacity to create and carry out action plans that address development and climate change in a way that is integrated, coordinated, and thorough across sectors, regions, and constituencies. This holds true for climate policy in general, as well as action in most sectors.

Chapter Three

The Paris Agreement and Climate Change Mitigation in Kenya

3.1 Introduction

Kenya has ratified the Paris Agreement, the Kyoto Protocol, and the UN Framework Convention on Climate Change. Over the past five years, a lot of work has been done to incorporate climate change concerns in the nation's plans, strategies, policies, projects, and programs. These documents include the Climate Change Act of 2016, the National Climate Change Response Strategy, 2010, the National Climate Change Framework Policy, the Green Economy Strategy and Implementation Plan the National Policy on Climate Finance, and Vision 2030. They offer a framework for regulations to better address climate change, in addition to strategies and tactics for achieving low-carbon, climate-resilient development. This chapter will discuss the performance of Paris agreement in tracking climate change in Kenya. Furthermore, the section will discuss the overall climate change in Kenya and its effects as well as strategies used in tracking climate change mitigation in Kenya.

3.2 Climate Change in Kenya

Kenya is a growing nation with an economy which is heavily reliant on natural resources, hence making the it highly vulnerable to climate variabilities and changes. Despite significant progress to date, the realization of sustainable development in Kenya is jeopardized by changes in climate and its consequences. More signs of climate change have lately been observed in the nation, including rising temperatures and altered rainfall patterns. There have also been widespread effects of climate change, including a rise in the frequency and severity of extreme weather events like

droughts and flooding.¹⁰² The built, economic, environmental, and physical systems of Kenya are seriously threatened by these climate change manifestations, which are crucial to the long-term growth and prosperity of the nation. The effects of climate change on the environment, the economy, and society are extensive. Kenya's sustainable development could be seriously hampered by the negative effects of climate change in key priority areas.¹⁰³ As disclosed by a respondent:

We've been adversely affected by Climate change and variability especially pastoral communities' livelihoods and small scale farmers in Kenya and has lead to food insecurity, death of livestock and floods.”

Kenya has made a strong commitment to implementing the Paris Agreement and has made significant strides toward meeting its climate change goals. Despite the obstacles, the country has shown a lot of promise in its efforts to implement the Paris Agreement. To aid in the implementation of the Paris Agreement, the country has established favorable policy and institutional frameworks, as well as a number of policies. Among them are the Climate Change Act, the National Climate Change Action Plan, and the establishment of a Climate Change Directorate within the Ministry of Environment, Forestry and Climate Change. Climate change is harmful to the nation's economic growth and jeopardizes the Vision 2030's objectives of building a successful, competitive, and high-standard of living nation. The nation is firmly committed to minimizing greenhouse gas emissions and promoting climate resilience, and has launched a number of initiatives to that end.¹⁰⁴

¹⁰² “Nying’uro, P., Kimutai, J., Mwangi, K. & Khaemba, W. Climate change impacts in Kenya: What climate change means for a country and its people (2024).”

¹⁰³ “Government of Kenya, National Climate Change Framework Policy-Sessional Paper No. 3, (2016)”

¹⁰⁴ “Omambia A.N., Shemsanga C., Li Y., Combating Climate Change in Kenya: Efforts, Challenges and Opportunities, Report and Opinion pp 65-76 (2019)”

With ongoing international efforts and support, Kenya has advanced significantly in mitigating the effects of climate change and building a more sustainable future. Kenya's key economic sectors are particularly at risk to the effects brought upon by climate change, which jeopardizes the country's recent and impressive development gains. Building climate resilience necessitates the ability of Kenyan ecosystems, governance systems, and societies to function competently in the face of climate change.¹⁰⁵ Adaptive capacity is critical to enhancing the socioeconomic characteristics of individuals, households, as well as the industry because it involves behavioral, resource, and technology adjustments and is a prerequisite for the creation and the implementation of effective modification techniques. Thus, the creation and application of systems that initiate and strengthen climate change resistance and adaptive ability are crucial to Kenya's sustainable development. Devolved governments offer a chance to diversify and execute suitable climate change solutions to enhance resilience, as each level of government carries out specific tasks while pursuing collaboration with the other level of government.¹⁰⁶

The mainstreaming of climate-smart actions promotes low-carbon climate resilience and green economy/growth development, ensuring that investments are climate-proofed against climate-related shocks. Green programs and projects are informed by the National Climate Change Plan's (NCCAP) sector priority adaptation and mitigation actions.¹⁰⁷ Furthermore, mainstreaming ensures that development in various socioeconomic sectors has no negative impact on the environment. There are several environmental, climate action, and forestry challenges that have been identified as urgent and requiring focused responses, including land degradation, biodiversity

¹⁰⁵ "Mulwa, F., Li, Z. & Fangninou, F. F. Water scarcity in Kenya: Current status, challenges and future solutions. *Open Access Lib. J.* 8, 1–15 (2021)."

¹⁰⁶ "Ministry of Environment and Forestry (2021), National Climate Change Action Plan 2018-2022, Second Implementation Status Report for the FY 2019-2022"

¹⁰⁷ "Ongoma, V. & Onyango, O. A. A review of the future of tourism in coastal Kenya: The challenges and opportunities posed by climate change. *J. Earth Sci. Clim. Change* 5, 1–4 (2014)."

loss, pollution, climate change, depletion of natural resources, and sustainable waste management.¹⁰⁸

Climate change endangers the sustainability of food production among Kenyan farmers who rely on rain fed agriculture. Farmers have attempted to implement various adaptation strategies in order to mitigate the negative effects of climate change. With the changing climate, more unpredictable rainfall patterns and a greater chance of extreme events, diversification is being presented in discourses and policies as the cornerstone of climate resilient homes, communities, and systems.¹⁰⁹

Kenya sheds light on the factors that influence environmental efficacy in non-industrialized countries in general. In Kenya, climate change is having a significant impact. Droughts and deadly floods have recently ravaged the country. Climate change has had a significant impact on agriculture, as has the increased use of agricultural chemicals. Kenya's growing population, combined with dwindling rainfall and shrinking land parcels, has resulted in the use of contemporary commercial agricultural production techniques to ensure food security, which has also considerably accelerated climate change and environmental damage.¹¹⁰

Through techniques like mixed cropping, which lowers the risk of crop failure, pests, and disease while also diversifying the food supply, as well as higher vegetation diversity in the form of crops and trees, that boosts carbon-dioxide conversion to organic form and thereby reduces global warming, indigenous farming systems are thought to be more diverse, versatile,

¹⁰⁸ “Government of Kenya, National Climate Change Framework Policy-Sessional Paper No. 3, (2016)

¹⁰⁹ “Fegher M., Developing Communication Strategies on Climate Change in Kenya”, *Marist International University College (2023)*”

¹¹⁰ “Wamboi J.F., Drivers and Effects Of Climate Change on Human Security in Kenya, *African Journal on Emerging Issues (2023)*”

environmentally friendly, and productive than highly commercialized agricultural practices. The nation is experiencing greater socioeconomic losses and the effects of variations in climate as a result of its reliance on climate-sensitive natural resources. The primary climatic risks in Kenya are floods and droughts, which are projected to cost the economy 3% of the nation's GDP. In contrast, the country emits very little greenhouse gas (GHG) overall, with 75% of its emissions coming from the forestry, agricultural, and land-use change sectors.⁸¹ Kenya's Vision 2030, which aims to make the nation a newly industrialized middle-income nation by 2030, is anticipated to increase due to emissions from the energy industry.¹¹¹

3.2.1 The Extent to which Kenya has implemented the Paris Agreement to Climate Change

The 2015 Paris Agreement changed the global climate regime to a more inclusive system of climate governance that applies to all nations according to their unique capacities and shared but distinct obligations. Kenya thinks that for developing countries to successfully implement the Paris Agreement, transparency in the assistance given is essential. The focus of action switches from international discussions to national, regional, and local governments when the Paris Agreement comes into effect. These governments are responsible for converting the Paris goals into local climate action.¹¹²

A wide range of actors, both state and non-state are increasingly shaping opportunities for climate action. Kenya has shown regional leadership in combating climate change and promoting climate-resilient growth. The world needs to transition to a low-carbon society and achieve zero

¹¹¹ “Kweyu M., Asokan S.M, Ndesanjo R.B., Obando J.A & Tumbo H.M., Climate Governance in Eastern Africa: The Challenges and Prospects of Climate Change Adaptation Policies”, African Adaptation Initiative Project. (2021). <https://africaadaptationinitiative.org/>.”

¹¹² “Kogo, B. K., Kumar, L. & Koech, R. Climate change and variability in Kenya: A review of impacts on agriculture and food security. *Environ. Dev. Sustainability* 23, 23–43 (2021)”

global greenhouse gas emissions by the mid-century in order to prevent catastrophic climate change.¹¹³

Following the adoption of its 2010 Constitution, Kenya began an ambitious devolution process, and its climate change policy and devolution process together make up Kenya's unique multi-level climate governance framework. Kenya is among the first African nations to enact comprehensive laws and policies to guide national as well as sub-national responses to climate change.¹¹⁴ Although the nation has an amazing climate architecture, the challenges of mainstreaming climate change response and rigidly sectorial budgetary systems make it difficult to combine county and national activities. The nation has set up complex tiers of commissions, committees, and councils to help with different parts of vertical and horizontal coordination for adaptations, mitigation, and green growth. However, insufficient capacity at the local as well as county levels, parties vying for control in the face of devolution, and unclear mandates hinder implementation, limiting the amount of international climate financing and aid that can be absorbed.¹¹⁵

Kenya has a strong climate change policy framework in place, as well as an advanced domestic institutional system. This is a significant structural change that will necessitate the collaboration of all sectors of society and government levels. Coordination and coherence of these efforts within a multi-level governance system are critical for advancing climate action in an effective, efficient, and ambitious manner. Kenyan policymakers recognize that combating climate

¹¹³ “Kairo J, Mbatha A, Murithi MM and Mungai F (2021) Total Ecosystem Carbon Stocks of Mangroves in Lamu, Kenya; and Their Potential Contributions to the Climate Change Agenda in the Country. *Front. For. Glob. Change* 4:709227”

¹¹⁴ “Kalkidan A. Mulatu, Sylvia S. Nyawira, Martin Herold, Sarah Carter & Louis Verchot (2024) Nationally determined contributions to the 2015 Paris Agreement goals: transparency in communications from developing country Parties, *Climate Policy*, 24:2”

¹¹⁵ “Northrop, E, Dagnet, Y, Höhne, N, Thwaites, J, & Mogelgaard, K. (2018). *Achieving the ambition of Paris: Designing the global Stocktake*. World Resources Institute (WRI).”

change will necessitate coordinated action across multiple government levels, sectors, and with non-governmental stakeholders.¹¹⁶ New organizational structures and forms of collaboration are emerging at the national and subnational levels to promote low-emission development and increase climate resilience. New institutional frameworks were established by the Climate Change Act of 2016 to oversee climate change at the federal and local levels. It created a National Climate Change Council to implement the Paris Agreement's Nationally Determined Contributions, led by the President.¹¹⁷

Launched in the year 2008, the nation's long-term development plan, Vision 2030, aims to make the nation prosperous and globally competitive while offering all its residents a good standard of living. By 2030, Kenya aspires to be a middle-income, industrialized nation. Three pillars, that is, economic, social, and political support Vision 2030. Achieving Vision 2030 will require climate-proofing the nation's socioeconomic development and setting it on a low-emission path, as stated in the National Climate Change Response Strategy. A wide range of stakeholders have contributed to the creation of the climate change architecture, which is based on the constitution, National Climate Change Response Strategy, as well as the Vision 2030.¹¹⁸

The National Climate Change Action Plan (NCCAP, 2023–2027) of the nation is viewed as a model for other African nations due to its commitment to integrating climate change into the operations and procedures of all government departments, ministries, and agencies. The NCCAP lists priority locations and low-emission development options rather than establishing a target for

¹¹⁶ “Medina et.al (2022), Towards a Common Vision of Climate Security in Kenya; CGIAR Focus Climate Security: Rome, Italy, 2022.”

¹¹⁷ Republic of Kenya (2020) Kenya’s Updated Nationally Determined Contributions.

¹¹⁸ “Njuguna L, Biesbroek R, Crane TA, Tamás P, Dewulf A (2022) Designing fit-for-context climate change adaptation tracking: towards a framework for analyzing the institutional structures of knowledge production and use. *Clim Risk Manag* 35:100401.”

lowering GHG emissions. It also offers suggestions on how to improve Kenya's climate governance system, such as creating a law, an independent, cohesive climate change policy, and institutional framework reform.¹¹⁹

3.4 Tracking Climate Change Mitigation Strategies in Kenya

Kenya actively participates in international efforts to address climate change, a global issue that requires a global solution. For the worldwide response to climate change, the United Nations Framework Convention on Climate Change provides the framework. Governments as well as the development partners continue to invest in adaptations of climate change as its impacts continue to impede development progress. Many countries have undertaken efforts to increase adaptation responses at varying scales. These include "national climate change policies and plans, sectoral strategies, sub-national planning systems, and local initiatives" through institutional mainstreaming and program/project-based interventions. A country's national policies and strategies have a large influence on the evolution of the mechanisms, vehicles, forms, and functions that attract investments and financing from the climate.¹²⁰

Kenya's economy is heavily reliant on natural resources. This compromises the government's Vision 2030 objective of becoming a highly developed, globally competitive nation with a high quality of living and renders it exceedingly vulnerable to variations in climate. To tackle the issue of climate change, the economy must be transformed by incorporating climate change into development policies and initiatives in several industries.¹²¹ As a result, greenhouse

¹¹⁹ "Ageyo, Joe, and Idah Gatwiri Muchunku. 2020. "Beyond the Right of Access: A Critique of the Legalist Approach to Dissemination of Climate Change Information in Kenya" Sustainability 12, no. 6: 2530."

¹²⁰ "Karani I, Kariuki N., Osman F., Tracking Adaptation and Measuring Development in Kenya", LTS Africa-Climate Change Group (2014)"

¹²¹ "Naeku J. M (2020), Climate Change Governance: An Analysis Of The Climate Change Legal Regime In Kenya, *Environmental Law Review*"

gas emissions will decrease, make it less vulnerable to climate shocks, and help to alleviate poverty. It is imperative that steps be taken to minimize and adapt to climate change on a national level. One of the most disturbing issues the world is currently confronting is climate change. Massive risks and unpredictability, coupled with its global character and impact across generations, make it imperative that global cooperation be taken.¹²²

According to Climate Action Tracker, Kenya's climate aims and policies are evaluated as “Almost sufficient”. Kenya's policies and unconditional target contribute to the country's fair share of maintaining a 1.5°C warming limit. Kenya's aim, which is supported by the international community, should be strengthened as it is now only consistent with warming of 4°C or more. The significant difference between the two rankings is indicative of Kenya's status as a nation with substantial development needs and minimal historical accountability, but with enormous domestic mitigation potential that might be fully fulfilled with help from abroad. Based on the potential for emissions reduction from prioritized mitigation activities, sectors are projected to surpass their existing climate targets, meaning there is considerable room for the government to increase its climate ambition. According to Climate Action Tracker, Kenya's policies and activities are 1.5°C compatible when compared to its fair contribution. On the other hand, there is a good chance that mitigating measures will surpass Kenya's fair share with help from abroad.¹²³

Climate governance establishes mechanisms for institutional interests to be articulated, coordinated, and negotiated via formal and informal mechanisms for sustainable development. Domestication of policies in counties began in Kenya following devolution in 2013. In Kenya, devolution is seen as an opportunity to deepen democracy while also increasing service delivery

¹²² “Ouma S, Johnson L, Bigger P (2018) Rethinking the financialization of ‘nature’. *Environment and Planning A: Economy and Space* 50(3): 500–511.”

¹²³ “Climate Action Tracker (2023), <https://climateactiontracker.org/countries/kenya/policies-action>”.

to the periphery by allowing devolved units to engage in problem identification, policy formulation, planning and resource allocation, implementation, and policy evaluation.¹²⁴ Kenya's contribution to the Paris Agreement is currently represented by the country's Nationally Determined Contribution (NDC), which details Kenya's planned climate change action through 2030. The NDC was created through an inter-ministerial process that incorporated the 2013-2017 National Climate Change Action Plan (NCCAP). Kenya's NDC contains both adaptation and mitigation measures, and it is underlined that the country's ability to implement effective adaptation measures depends on support for the implementation of these synergistic mitigation initiatives.¹²⁵

The Kenyan population has become more susceptible due to climate crisis, as evidenced by rising temperatures, low rainfall, unpredictable weather patterns, and an increase in the occurrence of natural disasters. Unpredictable precipitation patterns present a challenge for rural agricultural practitioners because they reduce agricultural yields and make people more vulnerable to food insecurity. Climate-related challenges exacerbate pre-existing sociopolitical conflicts, particularly in areas where resources are already scarce. Furthermore, in the context of Kenya, the climate catastrophe intersects with pre-existing sociopolitical difficulties.¹²⁶ Competition for diminishing resources, especially at the arid and semi-arid regions, increases the likelihood of ethnic tensions and conflicts escalating. Communities are compelled to engage in competition to obtain scarce resources such as water and grazing land, putting strain ¹²⁷on the delicate framework of social cohesion. Moreover, the displacement of population due to climate-related events like

¹²⁴ “Kenya Climate Change Knowledge Portal Website. Available online: www.kcckp.go.ke”

¹²⁵ “Kireia A.N., and Wasiaya O.C., “The Current Global Climate and Political Crises or Relevant Counterpoints in Kenya”, *International Academic Journal of Arts and Humanities Volume 1, Issue 3, pp. 331-349*”

¹²⁶“Afokpe PMK, Phiri AT, Lamore AA, Toure HMA, Traore R, Kipkogei O. 2022. Progress in climate change adaptation and mitigation actions in sub-Saharan Africa farming systems. *Cah. Agric.* 31: 4.”

¹²⁷ “Shisanya C & Khayesi M. (2017). How is climate change perceived in relation to other Socioeconomic and environmental threats in Nairobi, Kenya?. *Climatic Change Journal*, 85(3-4), 271-284

floods and droughts puts more strain on an already overworked political and governance structure, affecting patterns of internal migration and possibly igniting conflicts over the distribution of resources.¹²⁸

The convergence of climatic and political challenges has placed Kenya in a critical position. Political unpredictability coupled with climate-related vulnerabilities leads to heightened social unrest and a worsening of resource-related conflicts. A comprehensive approach that integrates political evolution and changes with climate mitigation methods is needed to properly address these concerns. To build a resilient and politically stable Kenya, it is imperative to enhance local government structures, encourage widespread political participation, and foster transparency and accountability. The nation's dedication to cooperative, multilateral efforts is demonstrated by its participation in international climate debates and the ratification of international treaties like the Paris Agreement. Kenya raises its global profile by advocating for ambitious climate goals and seeking financial support for adaptation and mitigation projects, emphasizing the interconnectedness of climate concerns across borders.¹²⁹

3.4.1 The National Climate Change Action Plan

Kenya is serious about climate change, as evidenced by the passage of the Climate Change Act (Act No. 11 of 2016). The government is required by this Act to develop five-year National Climate Change Action Plans (NCCAP) to guide the mainstreaming of adaptation and mitigation actions into National and County Government sector functions. Kenya's National Climate Change A five-year strategy known as the Response Strategy will assist the nation adapt to climate change

¹²⁸ “Chaudhry S (2021), Political Economy of Forest Degradation and climate Change in Kenya, Institute of Diplomacy and International Studies, University of Nairobi”

¹²⁹ “Meissy J.M, Climate change governance: An analysis of the climate change legal regime in Kenya”, *Environmental Law Review*, 22(3), 170-183, (2020).”

and minimize greenhouse gas emissions.¹³⁰ By creating procedures and policies for achieving low-carbon, climate-resilient development that puts adaptation first, NCCRS 2023–2027 seeks to further Kenya's development objectives. The Kenyan government's mandate to manage and protect the environment, use natural resources sustainably, mitigate the effects of climate change, and adapt to its patterns with the goal of ensuring an environment that is sustainable and healthy for current and future generations in Kenya is firmly anchored in the Strategy for 2023–2027.¹³¹

The National Climate Change Response Strategy 2023-2027 aims to achieve five key outcomes: The National Climate Change Response Strategy 2023–2027 seeks to accomplish five major goals: "Climate Change Adaptation and Mitigation; Agroforestry and Commercial Forestry Development; Climate Change, Climate Change, and Forestry Governance and Coordination; Conservation, Protection, Restoration, and Management of Environment and Forest Ecosystems; and Resource Mobilization and Partnerships.¹³² In order to direct plan execution during the anticipated term, pertinent activities have been identified and strategic goals and strategies have been defined for each of these result areas. A regular assessment of the resources available will be necessary to maintain a balance between progressively accomplishing the primary priorities for each year and the resources available, even if reaching the planned targets will need proper resource allocation, both human and financial.¹³³

Executive Order No. 1 of 2023, which changed Kenya's mandate, and the Bottom-up Economic Transformation Agenda, which is the country's development agenda, provide guidance

¹³⁰ “National Climate Change Action Plan III 2023-2027. www.ncdpartnership.org”

¹³¹ “Awiti A.O and Ndiwa A.M. (2024), Evaluating the Integration of Agroecological Principles into Kenya's Legal and Policy Framework, International Institute of Tropical Agriculture.”

¹³² “National Climate Change Action Plan III 2023-2027. www.ncdpartnership.org”

¹³³ “Ministry of Environment, Climate Change and Forestry (2023), Strategic Plan 2023-2027, https://www.environment.go.ke/wp-content/uploads/2023/07/Strategic_Plan_25TH_JULY.pdf”

for the National Climate Change Change Plan 2023–2027. The plan takes into account input from many public institutions and other stakeholders, as well as lessons acquired to influence the planning phase 2023–27. It also tackles the problems that were recognized during the National Climate Change Response Strategy 2018–2022 mid-term assessment.¹³⁴ Kenya's program and project implementation will also be guided by the National Climate Change Response Strategy. Along with the numerous initiatives and policies designed for accomplishing the objectives, the Strategic Plan also considers the nation's profound dedication to environmental sustainability and conservation.¹³⁵

The nation still faces serious problems related to the environment and climate. The Kenyan government, however, is still dedicated to tackling these problems and advancing sustainable development by paying attention to and supporting the National Development Agenda through the Ministry of Environment, Climate Change, and Forests.¹³⁶ The Strategic Plan demonstrates the country's strong dedication to tackling the issues at hand through a three-pronged approach in which Profit, People, and Planet are at the center of the country's interventions. Furthermore, the Plan describes the country's actions and priorities to be taken over the next five years to assist in achieving our goals and mandate. To achieve the objectives outlined in this Strategic Plan, the Ministry has taken a people-centered technique to program, plan, and policy implementation.¹³⁷

In order to guarantee that the entire community is involved in carrying out the extensive mandate and any associated government priority programs that the Ministries may be given, the nation makes use of increased public participation, cooperative efforts with partners, and the

¹³⁴ “Kenya National Climate Change Adaptation Plan (2015-2030). www.kccap.info/index”

¹³⁵ “<https://www.opengovpartnership.org/documents/kenya-action-plan-2023-2027-december/>”

¹³⁶ “GOK. (2010). National Climate Change Response Strategy.”

¹³⁷ “GOK (2023) National Framework for Climate Services (NFCS) Kenya”

bottom-up approach of the BETA (Bottom-up Economic Transformation Agenda) for service delivery. Adaptation and mitigation of climate change, agroforestry and commercial forestry development, climate change adaptation and mitigation, conservation, protection, restoration, and management of environment and forest ecosystems, and resource mobilization and partnerships are the five main outcome areas that the nation is concentrating on pursuing based on this analysis.¹³⁸

3.4.2 National Climate Change Finance Policy

Kenya's attempts to mitigate climate change are greatly aided by climate funding. By 2020, the Paris Agreement intends to generate \$100 billion annually to help developing nations with their adaptation and mitigation efforts. It is anticipated that both the public and commercial sectors will contribute a sizable amount of money to climate-related initiatives. Kenya needs to put in place the appropriate institutional and financial frameworks to guarantee that resources are allocated effectively toward the country's development and climate change priorities in order to take advantage of these opportunities. Enhancing the nation's capacity to raise, oversee, and monitor sufficient and reliable funding for climate change adaptation is the aim of this National Policy on Climate Finance. This policy creates a framework for strengthening the institutional capacity and national financial systems that allow us to transparently and responsibly access, allocate, absorb, manage, track, and report on climate funding. Kenya's policy is the initial phase of a concerted endeavor to locate, entice, and employ climate finance to advance national sustainable development objectives and combat climate change.¹³⁹

¹³⁸ “Ministry of Environment, Climate Change and Forestry (2023), Strategic Plan 2023-2027, https://www.environment.go.ke/wp-content/uploads/2023/07/Strategic_Plan_25TH_JULY.pdf”

¹³⁹ “The National Treasury and Economic Planning, “National Green Fiscal Incentives Policy Framework”, Government of Kenya (2023)”

Climate financing is critical to Kenya's achievement of the Sustainable Development Goals (SDGs), the 2015 Paris Agreement, and the 2063 African Union Agenda. Climate financing is still essential for accelerating mitigation and adaptation efforts in underdeveloped nations like Kenya, where the effects of climate change are more severe. Kenya is one of Africa's most vulnerable nations, with widespread, interconnected, and well-documented effects of climate change. Africa has low but rising levels of greenhouse gas emissions, despite producing only 5% of the world's emissions.¹⁴⁰ Climate change adaptation is becoming increasingly difficult, particularly for developing countries. Today's development choices have a long-term impact on people's and governments' adaptive capacity. However, due to a lack of knowledge and understanding on how to effectively design and integrate adaptation solutions, many development strategies, plans, and projects currently fail to take climate change into account. Incorporating adaptation in development cooperation offers a significant chance to increase investments in climate-resilient development.¹⁴¹

Kenya has a sophisticated climate financing policy framework that is supported by the Climate Change Act of 2016, the National Climate Finance Policy of 2018, and the National Climate Change Action Plan 2023-2028. There is a clear political commitment to supporting climate action and raising the necessary funding, as seen by the policies' progressive implementation and the regulatory framework that supports them. The National Climate Change Action Plan set several objectives for the years 2023–2026 to quicken the progress. Kenya's climate finance policy is therefore progressive, but it will also require constant learning and improvement in addition to strict adherence to established targets. Above all, more cooperation

¹⁴⁰ “Parliament of Kenya (2023), Climate Change Amendment Act-2023”

¹⁴¹ “Odhengo P., Atela J., Steele P., Orindi .V and Fiona Imbali F., Climate Finance in Kenya: Review and Future Outlook”

between the different government departments overseeing these regulations would help ensure the best possible results for climate financing.¹⁴²

Kenya hopes to improve its access to climate funding through a number of channels by implementing the National Policy on Climate funding. By strengthening Kenya's ability to adapt to climate change and bolstering low-carbon sustainable development, climate finance can assist Kenya in realizing its Vision 2030 objectives. The policy describes Kenya's responsibilities under the Paris Agreement, including the Nationally Determined Contribution (NDC), as well as how the National Treasury, other government ministries and agencies, and county governments will carry out the Climate Change Act of 2016.¹⁴³ According to the UNFCCC Standing Committee on Finance's (SCF) suggested operational definition, reports define climate finance as any funding that expressly focuses on low-carbon or climate-resilient development. Climate finance, thus, includes public loans and grants from multilateral and bilateral organizations, private sector investment, and domestic budgetary allotments.¹⁴⁴

The government can create carbon finances through pricing carbon, promoting the production and sale of carbon credits, and instituting an emissions trading system, for instance, a domestic cap and trade system, but that is unlikely to happen anytime soon. The Policy lays out the institutional, legal, and reporting frameworks for managing and gaining access to climate finance in line with the framework and institutional structures created by the Climate Change Act of 2016. The Policy lists several calculated measures that can boost financial flows and promote the mobilization of climate money. A national climate finance platform, or Climate Change Fund,

¹⁴² “The National Treasury and Planning (2018).,Climate Change Indicator Development Guidebook”.

¹⁴³ “Climate Investment Funds (2024), Transformational Climate Finance: Kenya’s County Climate Change Funds.”

¹⁴⁴ “The National Treasury (2017), The Kenya National Green Climate Fund (GCF) Strategy. Nairobi, Kenya: Government Press.”

has been established as part of these interventions to help mobilize, coordinate, and monitor climate finance in Kenya, encompassing both local and foreign resources. As a result, accountability and openness will rise.¹⁴⁵

Building capacity for the appropriate stakeholders, including county governments, is encouraged by the policy. In addition, it calls for improved fiduciary standards and management, the implementation of social and environmental safeguards that promote participation in climate finance investments as well as benefit sharing, and the creation of the necessary laws and regulations. The National Treasury is responsible for leading and facilitating the implementation of the policy, working with partners to mobilize sufficient resources and create the necessary laws and regulations.¹⁴⁶

The Policy is evaluated every three years to determine its applicability and effectiveness in addressing national and international climate finance challenges. moreover, a continuous evaluation and monitoring mechanism is also being established. Kenya has already laid a solid foundation for low-carbon, climate-resilient growth through a number of fundamental documents and legislation.¹⁴⁷ Kenya has access to a variety of climate finance mechanisms and funding channels. These windows include multilateral funds such as the Green Climate Fund (GCF), the Global Environment Facility (GEF), and Adaptation Funds, as well as those outside the UNFCCC framework, such as a slew of bilateral funds. Domestic climate finance comes from two sources: private investments and national budget allocations.¹⁴⁸

¹⁴⁵ “Omedi M., (2018), Enhanced transparency learning from implementation, facilitating negotiations. Coding Tracking & Reporting on Climate Finance in Kenya.”

¹⁴⁶ “The National Treasury (2016). National Policy on Climate Finance.”

¹⁴⁷ “Government of Kenya (2016b), National Policy on Climate Finance, The National Treasury Bulletin”

¹⁴⁸ “Government of Kenya (2017). Green Bond Kenya Programme 2017/2018. Government Press, Nairobi Kenya”

As part of the Public Finance Management Act of 2012, Kenya is creating a National Climate Fund featuring an independent secretariat that will be overseen by the National Treasury. Based on its accomplishments thus far, Kenya has a great chance to use its international connections and networks as well as the political will that results to create a more resilient climate finance structure. This goal necessitates learning from history and applying that knowledge to identify opportunities for the country to build an innovative and adaptive climate finance mechanism. The National Policy on Climate Finance seeks to improve the nation's access to climate finance by putting several carefully considered plans and initiatives into practice through public-private partnerships.¹⁴⁹

The National Treasury (NT) and other specialized agencies integrating climate finance establishes a suitable institutional framework for handling funds for climate change. The management and requirements for climate finance at the world, national, and sub-national levels heavily rely on the functions of the National Treasury. One significant step toward facilitating and integrating climate finance management is the creation of the Climate Finance Unit in the Northern Territory.¹⁵⁰ For example, financial management systems play a crucial role in guaranteeing the accountability and transparency of climate money that are obtained through different channels. In addition, the National Treasury keeps up-to-date procedures for organizing, distributing, and monitoring climate money. Despite the National Treasury's primary strategic advantages, fostering relationships with other state agencies that handle technical and policy matters as well as non-state

¹⁴⁹ “UNDP (2014). Development of Climate Change Budget Codes for the National Treasury. Nairobi, Kenya: UNDP”

¹⁵⁰ “Kenya National Climate Change Adaptation Plan (2015-2030). www.kccap.info/index”

organizations helps to create a more integrated and well-coordinated climate finance management system.¹⁵¹

Since devolution of climate funds guarantees that resources are allocated where they are most needed, it continues to be a primary goal for Kenyan climate financing. The county governments provide a great way to build institutional links in order to transfer cash from the federal to the local levels. County Climate Change monies (CCCFs) have been created, but there is still work to be done to connect these monies to the federal system. It is mandated that counties develop County Climate Finance Units (CCFUs) housed in county treasury offices across all 47 counties. The units must be strengthened with sufficient financial and technical resources and strong connections to national systems, e.g., through liaison offices. Counties' capability has already been strengthened by the National Treasury Climate Finance Unit (NCFU), and this can be further increased.¹⁵²

3.4.4 Performance of Climate Change Act (2016) for Climate Governance

Kenya has one of the most progressive legal environments for climate change in Africa, having passed strong laws and policies that direct both local and national efforts. It is hoped that having a thorough legislative framework would enable the nation to handle climate change challenges in a more organized way. Kenya needs carefully thought out institutional, policy, and legal frameworks that offer a regulatory architecture that incorporates the essential elements of climate change governance.¹⁵³ Maintaining adherence to the constitutional framework for public

¹⁵¹“Republic of Kenya (2016a). The Climate Change Act, 2016. Available at: <http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/ClimateChangeActNo11of2016.pdf>”

¹⁵² “Institute for Law and Environmental Governance(ILEG): www.ilegkenya.org”

¹⁵³ “Okoli P and Etisang A. (2024), In serachof a Sustaianable Future: A Comparative Assessment of Climate Change Regimes in Nigeria and Kenya, Review of European, Comparative and International Environmental Law”

administration is essential, especially with regard to the decentralized form of government. With one central government and 47 county administrations, the Constitution created a new framework for public administration. These two tiers of government, albeit different, are linked and need to cooperate in order to fulfill their separate and simultaneous duties. The national government formulates policies about climate change.¹⁵⁴

Kenya's main framework for regulating climate change is established by the Climate Change Act, which was signed into law in May 2016. The nation is among the select few in the world with direct authority over climate change. In addition to fulfilling the objective of low carbon, climate resilient development, Kenya's climate change response must respect the constitutional governance framework and its dedication to sustainable development. Climate change remains a long-term problem for Kenya's national development. Consequently, in order to direct national, county, and local level responses to the effects of climate change, a cogent and coordinated regulatory framework is needed. A substandard outcome for Kenya has resulted from redundancy and overlap in the implementation of institutional mandates caused by a lack of internal coherence in laws and policies. The primary objectives of the bill are to increase accountability for climate action and to encourage climate action at the county level. The law's ability to enable people to hold governmental and private organizations responsible for obstructing efforts to lessen the impacts of climate change is one of its innovative characteristics.¹⁵⁵

The creation of the Kenya Climate Change Knowledge Portal (KCCKP) and the establishment of the Climate Change Directorate (CCD), National Climate Change Council, and the National Climate Change Registry and National Climate Change Fund have been among the

¹⁵⁴ “World Bank (n.a.). Kenya. Available at: <https://climateknowledgeportal.worldbank.org/country/kenya/vulnerability>”

¹⁵⁵ “GoK (2016), Climate Change Act, Parliament of Kenya

main initiatives under the National Climate Change Act (2016) framework. The Climate Change Fund was established by the act as a national mechanism to finance priority climate actions and interventions. It is incorporated into the National Treasury, and official regulations are still in the works.¹⁵⁶ Finally, it will provide direct financial assistance to organizations, county governments, and communities in order for them to develop and implement specific climate change projects. To improve knowledge management and better coordinate national climate actions, the CCD created and operates the Kenya Climate Change Knowledge Portal (KCCCKP). The goal was to provide supporting information on a variety of topics, such as policy, reporting, and verification. The goal also is to help close information gaps in order to facilitate sectoral and county-level action and planning.¹⁵⁷

The Climate Change Directorate, like the Kenya Climate Change Knowledge Portal, established the National Climate Change Registry. The registry will help government and non-government actors better understand specific climate change initiatives and actions, as well as the resulting mitigation and/or adaptation impacts in Kenya, and will assist Climate Change Directorate in meeting domestic and international climate change reporting requirements. The National Climate Change Resource Centre was established by the act to serve as the national repository for general climate change information. The centre provides facilities and training rooms to support webinars, teleconferencing, capacity building and workshops, and other innovation/knowledge exchanges, in addition to physical and digital resources. As a result of the Climate Change Act, counties' resilience, relationships with the national government, and social cohesion within communities have all improved. The act's creation and implementation is

¹⁵⁶ “Kenya National Climate Change Adaptation Plan (2015-2030). www.kccap.info/index”

¹⁵⁷ “Mallowah S, and Oyier C (2023), The Environment and Climate Change Law Review, The Law Reviews, Nairobi-Kenya”

exemplary because it is based on a solid multi-level governance structure, has high-level political support, is innovative, and emphasizes citizen participation.¹⁵⁸

The National Drought Management Authority, through the Adaptation Consortium, implements the County Climate Change Fund (CCCF) mechanism (part of the county-level action described above in the KCCKP and NCCF). It makes climate finance more accessible to counties and incorporates climate change considerations into planning and implementation. The Adaptation Consortium is an innovation cluster as well as a forum for dialogue and sharing of community adaptation to climate change experiences. County Climate Change Fund focuses on addressing community climate change priorities, strengthening resilience, and promoting long-term economic growth. Five counties, Isiolo, Garissa, Kitui, Makueni, and Wajir, have successfully piloted the CCCF mechanism. Its expansion is one of the National Climate Change Action Plan's priorities for 2018-2022. Taking advantage of the success of County Climate Change Fund mechanism is now being implemented in Vihiga, Nandi, Bomet, Kisii, Kakamega, Kisumu, Narok, Siaya, Taita Taveta, Tharaka Nithi, Embu, Machakos, Kilifi, and Kwale as part of the pilot.¹⁵⁹

The eventual climate change regulatory framework must adhere to the gender equality requirements stipulated in the 2010 Constitution. Adopting a gender mainstreaming approach entails assessing the implications for women and men of any planned climate change action, including legislation, policies, or programs, in any area and at all levels of government, in order to achieve gender equality. It is also critical that policy and law consider youth when planning and implementing climate change responses, because youth are a bridge between present and future generations and play an important role in socioeconomic development. As a result, overarching

¹⁵⁸ “Mallowah S, and Oyier C (2023), The Environment and Climate Change Law Review, The Law Reviews, Nairobi-Kenya”

¹⁵⁹ “GoK (2023), Africa Climate Summit Sectorial Report”.

climate change legislation and sectoral law amendments must carve out specific roles and opportunities for youth to participate in climate change governance decision-making and pursue opportunities that arise as a result of climate change actions.¹⁶⁰

3.4.5 Kenya Carbon Markets and Climate Change

Carbon markets are a critical component of the international climate change regime's successful implementation. International carbon markets are critical for reducing global GHG emissions at a low cost. The global number of emissions trading systems is increasing. Mechanisms established by the Paris Agreement assist countries and regions in linking emissions trading systems and outcomes over time. Carbon markets are now regarded as global institutions with the potential to mitigate anthropogenic climate change.¹⁶¹ According to UNFCCC research, carbon markets with international offsets has risen from developed countries' desire to reduce the cost of meeting legally binding emission reduction targets under the United Nations Kyoto Protocol. Carbon markets have also been lauded for their potential to allow powerful actors, such as financiers, to create new cycles of investment, profits, and growth, potentially leading to the formation of a political coalition of financiers and environmentalists.¹⁶²

Carbon markets have evolved into a potent policy tool for mobilizing both public and private capital for green growth, including activities critical to Africa's growth, such as sustainable agriculture and renewable energy generation. In Nairobi, Africa's first verifiable carbon market was launched, with the forward trade of over two million carbon futures credits. Kenya is increasingly relying on global carbon markets to improve its climate governance. Despite Kenya's

¹⁶⁰ “Landholm D., Bravo F., Palmegiani I., Streck C., Omuko-Jung L., Martinez de la Hoz,G., Mikolajczyk S., Unlocking Nature Based Solutions Through Carbon Markets in Kenya, *Climate Focus - Technical Report 2023*”

¹⁶¹ Nweke-Eze, C (2024), Exploring UNFCCC’s Market-based Climate Interventions in Kenya’s Large-scale Renewable Energy Market Athens Journal of Sciences

¹⁶² “Ngila, F., Carbon Trading Offers Rich Rewards for Africa, *New Africa Magazine pp 12* (2023).”

low participation in global carbon markets, these policies and laws have the potential to deepen and revitalize the country's carbon markets. Although Kenya is ahead of many African countries in terms of its participation in carbon markets, the country's potential to mitigate climate change is significant, and if realized, it could position itself strongly in these markets. The implementation of the Paris Agreement 2015 Climate Accord will determine the future of carbon markets by helping emission reductions and technology transfer, as well as to encourage investment in low-carbon technologies and services.¹⁶³

Kenya has paved the way for carbon trading with the Climate Change Amendment Act 2023. Carbon credits are becoming increasingly important in the decarbonization efforts of impact organizations, businesses, and governments. The lack of legal characterization and regulatory status of carbon credits in most jurisdictions around the world remains a challenge. In its updated Nationally Determined Contribution, 2023, Kenya committed to developing domestic legislation and institutional frameworks to govern her participation in the carbon market and non-market mechanisms. The Ministry of Environment, Climate Change, and Forestry has created the Climate Change Amendment Act 2023 which has already been passed in parliament and assented into law, the law aims to incorporate carbon markets into the current Climate Change Act, 2016. The law seeks to promote and institutionalize an Environmental, Social, and Governance (ESG) corporate culture for both public and private entities doing business in Kenya.¹⁶⁴

Kenya's and Africa's strengths in the Paris agreement are concentrated in several key sectors capable of boosting social and economic development. The agreement calls for increased funding for developing countries' adaptation and climate mitigation needs, such as agriculture,

¹⁶³ “Were A, Creating An Enabling Environment for Voluntary Carbon Markets in Kenya, FSD Kenya Study (2022).”

¹⁶⁴ “OECD, Pricing Greenhouse Gas Emissions: Key Findings for Kenya”, *OECD Report 2022*.”

food production, and clean energy. The Climate Change Amendment Act 2023 is a positive step towards the creation, participation, and regulation of carbon markets in Kenya, with numerous investors trading in international carbon markets already participating in various sectors of commerce. It makes a significant contribution to Kenya's international obligations under Africa's Agenda 2063, the Paris Climate Change Agreement, and the United Nations Sustainable Development Agenda 2030.¹⁶⁵

¹⁶⁵ “Parliament of Kenya, Climate Change Amendment Act 2023, www.parliament.go.ke/files”.

Chapter Four

Mitigating the Effects Of Climate Change In Kenya: An Assessment Of Paris Agreement

4.1 Introduction

This section examines the mitigating effects of climate change in Kenya by evaluating the Paris Agreement. The focus is on the evaluation of the outcomes in relation to the study's three objectives. This chapter offers a thorough examination and assessment of the data collected, presented in a logical sequence from objective one to objective three. It presents the findings and conclusions of the study.

4.2 Mitigating the Effects of Climate Change and Evaluating Paris Agreement

An international framework known as the Paris Agreement (PA) was created to address climate change holistically. Its main goal is to keep global warming well below 2 degrees Celsius, with 1.5 degrees Celsius above pre-industrial levels being the ultimate target. In addition to this crucial mitigation goal, the agreement also establishes a global objective for adaptation. This goal aims to increase resilience, lessen vulnerability to the effects of climate change, and improve global adaptive capacity. By doing so, the agreement supports the quest for sustainable development objectives and ensures an effective response to both adaptation as well as the mitigation challenges. The urgency of addressing climate change underscores the necessity of robust policies that foster economic growth while simultaneously tackling the climate crisis.¹⁶⁶

Measures to mitigate climate change encompass any human intervention aimed at minimizing greenhouse gas (GHG) emissions (abatement) or enhancing GHG sinks (sequestration). Unaddressed climate change will have profound implications. For example, the

¹⁶⁶ “UNFCCC (2016), The Paris Agreement, : Phoenix Design Aid, Denmark.”

projected increase in many regions' frequency of floods and droughts poses a significant risk. By 2080, approximately 20% of the global population is likely to be affected by heightened flood hazards. Sea levels are expected to rise by 0.2m to 0.6m, or potentially even more, by 2100. Moreover, tropical and extra-tropical cyclones will intensify, posing an augmented threat. The consequences also extend to heightened flooding, fisheries, degradation of freshwater, and other resources, impacting millions of the populations. Agriculture will suffer severe repercussions, potentially leading to widespread malnutrition. Additionally, the rise in infectious disease vectors will be a worrisome outcome of climate change.¹⁶⁷

The UNFCCC postulate that mitigation assessment as a national-level analysis that identifies technologies and practices to mitigate climate change. Climate change has the potential to exacerbate existing inequalities, especially in economically disadvantaged countries with limited financial, institutional, technological, and knowledge resources for adaptation. Developing countries facing challenges such as increased flooding or drought, but heavily reliant on climate-sensitive sectors, will be particularly affected. The impact of climate change will disproportionately affect the most vulnerable populations and exacerbate disparities in health, access to food, clean water, and other resources.¹⁶⁸ Kenya aims to make a substantial contribution to mitigation efforts under the 2015 Agreement. In keeping with its sustainable development goals, the nation pledges to cut the release of greenhouse gases by 30% by 2030, as opposed to the scenario of 143 MtCO₂eq. However, achieving this target is contingent upon international support

¹⁶⁷ Fawzy S., Osman A.I., Doran J., and Rooney D.W., (2020), Strategies for Mitigation of Climate Change: A Review, *Environmental Chemistry Letters* <https://doi.org/10.1007/s10311-020-01059-w>

¹⁶⁸ "Wright, S.J., Sietsma, A., Korswagen, S. et al. How do countries frame climate change? A global comparison of adaptation and mitigation in UNFCCC National Communications. *Reg Environ Change* 23, 129 (2023). <https://doi.org/10.1007/s10113-023-02113-3>"

in the form of financial assistance, investment, transfer and development of technologies, and capacity building.¹⁶⁹

Addressing the issues of completeness and comparability that arise during the analysis of submitted NDCs is crucial in order to identify and tackle gaps and challenges related to mitigation needs. One effective approach to achieve this is through the development of standardized methodologies, which can minimize uncertainty in reported data and establish a unified approach for identifying and tracking mitigation financing across all African countries. These countries are actively engaged in the development and diversification of their economies, with a key aim of improving energy access to meet the demands of their growing populations and urbanization. To effectively address the challenges and gaps in identifying capacity building needs, it is necessary to strengthen country readiness through activities such as costing climate actions, formulating bankable projects, and implementing robust monitoring and evaluation systems to track project progress. Capacity building is essential in order to enhance the ability to access and deliver finance, utilizing comprehensive and systematic financial solutions that are currently lacking.¹⁷⁰

The goal of the study was to identify the climate change mitigation impacts. Sustainable economic development requires an understanding of the consequences of global climate governance. The distribution of policy and the economic effects of climate change varies by location. The aim of this study is to evaluate whether the implementation of stringent climate legislation can result in positive economic growth and inequality. Results show that even while climate regulations might impede economic growth, in the long run, the advantages of preventing harm might exceed the

¹⁶⁹“Mushitsi P, Nay Min San N.M.,and Nsabimana A.S (2023), Climate Change in Kenya: Understanding Major Threats and Government Policies for Resilience, *International Journal of Environment and Climate Change*, Volume 13, Issue 11, Page 3741-3754.”

¹⁷⁰“UNHabitat (2022), The urban content of the NDCs: Global Review.”

costs of putting them into place. Additionally, research demonstrates that pursuing the 1.5°C goal may temporarily hinder the economic catch-up of poorer countries compared to aiming for a 2°C target. However, in the long term, it can contribute to reducing global inequality.

4.4.1 The Aim Nationally Determined Contributions (NDCs) in Reducing Greenhouse Gas Emissions

The objective of this study was to examine the mitigation greenhouse gas emissions through nationally determined contributions. It comprehensively presents information on potential measures, associated costs, barriers, and policy implementation challenges. Additionally, it provides estimates of overall mitigation potential and costs at both sectoral and national scales. Kenya, in particular, places great importance on addressing climate change. All countries must implement mitigation strategies in keeping with the Convention's common but differentiated duties and respective capacities if they are to successfully keep global warming to below 2°C.

Environmental, social and economic factors are essential requirements for Kenya to effectively implement its NDCs, national adaptation plans, and mid-century strategies, which are integral components of the Paris Agreement. Governments' goals, strategies, and actions to combat climate change and support international climate action are outlined in NDCs. A crucial aspect of these contributions is the concept of national determination, ensuring that the plans are tailored to each nation's specific context, needs, and preferences. Furthermore, the Paris Agreement highlights the importance of mid-century policies and calls on nations to submit their long-term development plans for low greenhouse gas emissions by 2020. Additionally, many developing countries,

including Kenya, formulate national adaptation plans to determine their medium- and long-term adaptation needs and the techniques to combat them.¹⁷¹

The study sought to establish how Kenya has reduced greenhouse gas emissions as outlined in the Paris agreement. The summary of findings of how national determined contributions has reduced greenhouse is analyzed below.

Table 4.6: Nationally Determined Contributions (NDCs) in Reducing Greenhouse Gas Emissions

Category of Impact	Area(s) of Impact	Frequency	Percent
Environmental Impact	Climate change mitigation	40	33.1%
	Air pollution	32	26.4%
	Other environmental impact	5	4.1%
Social Impact	Accessibility to clean, reliable and affordable energy	20	16.5%
	Accessibility and quality of healthcare	6	5%
	Accessibility and quality of education	8	6.6%
	Other social impacts	3	2.5%
Economic Impact	Economic activity in the country	6	5%
	Other economic impact	1	0.8%
Total		121	100%

Source: Researcher (2024)

The findings indicate that reducing greenhouse gas emissions through nationally determined contributions has environmental, social, and economic impacts. The areas most affected include climate change mitigation (33.1%), air pollution (26.4%), access to clean, reliable, and affordable energy (16.5%), and access to quality education (6.6%). The analysis evaluates the mitigation component of the Kenyan NDC and finds that it positively impacts nine procedures and guidelines outlined in the Paris Agreement. However, there may be negative environmental impacts in the long term, as increased GDP, improved living standards, and higher consumption

¹⁷¹ “Government of Kenya (2018), Thematic Plan for Climate Change, Ministry of Environment and Forestry Publication”

of goods could lead to unintended consequences. It is crucial to note that the potential effects on households' consumption of goods are uncertain, as the increase in GDP resulting from access to electricity is considered possible but of moderate consequence. On the other hand, there could be positive effects due to a shift in perception towards renewable energy sources.

4.4.2 Practices Related to Mitigation of Climate Change and Paris Agreement

The Paris Agreement impacts on climate mitigation as well as human societies and ecosystems in modern history, countries have to significantly enhance their efforts to minimize carbon emissions and integrate adaptation to climate change into their economies. Social injustices already exist, and climate change is making them worse by making the poor and marginalized groups more vulnerable. The main obstacles to taking action on climate change do not only include lack of knowledge or technology, but rather political and governance challenges. These include the need to ensure sure that public support for climate action is translated into more aggressive policies that help the most vulnerable, the elimination of subsidies and exemptions for high-emitting industries, and improved public monitoring of the execution of both short- and long-term commitments.¹⁷²

International financing and capacity building are critical in enhancing governance and fostering political incentives for greater ambition. To effectively tackle climate change, nations must mobilize public support for comprehensive and fair climate action, backed by robust political will and institutional capacity for implementation. This necessitates ensuring that climate information is readily accessible and valuable, the processes of decision-making are clear and inclusive, and

¹⁷² <https://climatepromise.undp.org/news-and-stories>.

resulting decisions are subject to accountable oversight, with mechanisms in place to address grievances and seek remedies.¹⁷³

Renewable energy sources are crucial for meeting our energy requirements and mitigating carbon dioxide emissions. By reducing carbon emissions, we can enhance adaptability, promote sustainable development, improve livelihoods, and mitigate the risk of disasters. In the Kenyan economy, energy efficiency measures play a significant role. Moreover, However, certain challenges that must be addressed, including a lack of awareness regarding the benefits and methods of conservation, limited technical capacity, inadequate data, and a lack of interest in energy efficiency measures. One proposed approach to advocate for clean energy is the utilization of renewable energy. The study aims to assess the impact of renewable energy development on carbon emission reduction, aligning with Kenya's objective of transitioning to a green economy.¹⁷⁴

To guarantee the effective execution of climate-resilient development policies as well as strategies, it is imperative to acquire assistance in several key areas. T These include raising awareness and doing outreach, in addition to facilitating technology transfer and improved capacity building, as well as climate finance and resource mobilization. It is possible to obtain climate finance from bilateral or multilateral sources. Direct funding for climate change initiatives is given by a nation or an organization therein, like a government development agency. Financial institutions that get funds from a variety of nations as contributors or shareholders are referred to as multilateral sources.¹⁷⁵

¹⁷³ “Silvia S, Elizabeth B, Claudia R, et al.(2012), Climate change perception and adaptation of agro-pastoral communities in Kenya.”

¹⁷⁴ “Vinca A et al (2018) The role of carbon capture and storage electricity in attaining 1.5 and 2 °C. Int J Greenh Gas Control 78:148–159. <https://doi.org/10.1016/j.ijggc.2018.07.020>”

¹⁷⁵ “Government of Kenya. National environment policy. 2013.”

The study sought to determine whether Paris agreement influences climate mitigation practices.

Respondents findings are analysed below.

Table 4.7: Practices Related to Mitigation of Climate Change and Paris Agreement

Practices	%
Solutions in the agreement or other documents to address these challenges	
Climate adaptation, mitigation and resilience	30%
Climate finance	18%
Technology development and	27%
Capacity building	13%
Transparency and accountability	32%
Global stocktake	1%
How has the Paris Agreement affected national and regional climate policies, legislation, and regulations?	
Strengthening of climate policies and legislation	17%
Mainstreaming of climate considerations	14%
Subnational and regional action	33%
Adaptation, mitigation and resilience policies	26%
Climate finance flows	19%
Other factors	12%
What can we learn from successful implementation of Paris agreement?	
Importance of global cooperation	24%
Nationally determined approach	40%
Multi-stakeholder engagement	25%
Catalyzing private sector action	11%
Linkage with sustainable development	20%
Indicate the potential consequences could arise from the Paris Agreement's objective to restrict the increase in global temperature to well under 2°C above pre-industrial levels	
Geopolitical implications	10%
Increased investment in clean technologies	23%
Economic transitions	8%
Reduced climate change impacts	50%
Implications for adaptation and resilience	30%
To what extent has pre-industrial global temperature goal achievable given the current efforts to reduce emissions?	
Addressing gaps in national determined contributions and climate risks	39%
Implementation challenges	12%
Emission reduction gap	2%
Need for accelerated climate action	28%
Other emissions actions by countries	40%
Indicate effective is the current climate finance in supporting both mitigation and adaptation?	
Leveraging private finance	12%

Leverage on carbon credits	20%
Alignment with country priorities	1%
Access to climate finance	3%
Balance between mitigation and adaptation	30%
Mobilization of climate finance	55%
What is the extent to which countries and regions are fulfilling their nationally determined contributions (NDCs) as outlined in the Paris Agreement?	
Need for enhanced action and support	47%
Impact of the COVID-19 pandemic	21%
Challenges in tracking progress	7%
Gaps in NDC ambition	14%
Progress in NDC implementation	42%

Source: Researcher (2024)

The findings suggest that climate change mitigation involves actions aimed at reducing or preventing emissions of greenhouse gases (GHG) that contribute to human-induced climate change. Mitigating climate change can be achieved via the adoption of new technologies, the promotion of renewable energies, the improvement of energy efficiency in older systems, or modifications to management practices. Among the respondents, 32% emphasized the importance of transparency and accountability. Furthermore, 40% confirmed that Kenya's nationally determined approach includes both mitigation and adaptation measures. 50% indicated that Kenya has effectively achieved its mitigation target of limiting global warming to well below 2 degrees Celsius, as stated in the Paris Agreement.

Moreover, 55% of the respondents emphasized the crucial role of mobilizing climate finances in advancing the national response in regards to the danger of climate change and achieving the goals of the Paris Agreement. Interestingly, 47% of the respondents believe that Kenya's strategy to combating climate change and mitigation covers all sectors. These results show that Kenya has put in place aggressive policies and initiatives to follow a low-emission, climate-resilient growth path in order to meet the goals of Vision 2030. Additionally, Kenya is enhancing

techniques for monitoring, evaluating, and learning about adaptation at both the national and county levels, with the participation of non-state actors.

4.5 The Extent to which Kenya has implemented the Paris Agreement on Climate Change

Kenya recognizes the criticality of according equal priority to issues concerning the Global Goal on Adaptation (GGA) alongside the global temperature goal in order to effectively and sustainably implement the Paris Agreement. The objectives of the GGA are to increase adaptive capacity, foster resilience, and lessen susceptibility to climate change, as stated in Article 7.1 of the Agreement. As outlined in Article 2 of the Agreement, this goal is consistent with the aim of sustainable development and the requirement to create a thorough response to adaptation. Recognizing the limited comprehension surrounding the GGA, Kenya emphasizes the significance of developing a work program that can foster a shared understanding of the principles and philosophy underpinning the GGA, particularly with regards to vulnerability reduction, adaptive capacity enhancement, and resilience strengthening. Additionally, this work program should facilitate the formulation of metrics, guidelines, and indicators to monitor progress in adaptation actions, aligning them with the objectives of climate change mitigations.¹⁷⁶

As stated in the UNFCCC, efforts to increase public participation and access to information are in accordance with national goals for transparent governance and climate action. This is stipulated in Article 6(a) of the 1992 United Nations Framework Convention on Climate Change.¹⁷⁷

“Parties shall promote and facilitate at the national level, and as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities... (ii) public access to information on climate change and its effects;

¹⁷⁶ “Onencan A.M., and Van de Walle B (2018), From Paris Agreement to Action: Enhancing Climate Change Familiarity and Situation Awareness, *Sustainability Journal*.”

¹⁷⁷ “UNFCCC (2016), The Paris Agreement, : Phoenix Design Aid, Denmark.”

(iii) public participation in addressing climate change and its effects and developing adequate responses”

Moreover, it is indicated at Article 12 of the Paris Agreement that:¹⁷⁸

“Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.”

Climate policy at the national level poses distinct governance challenges, as it demands coordination among multiple levels of government and non-state entities, spanning various sectors of society. Moreover, it is a multifaceted endeavor with diverse objectives that can influence other developmental priorities. Current scientific information, comprehension of anticipated climate risks and impacts, knowledge of viable mitigation and adaptation strategies, and awareness of potential co-benefits to the economy, society, and biodiversity/ecosystems are all necessary for successful climate policy. It also requires the appropriate steps to be identified, prioritized, and estimated. Moreover, the existence of establishments possessing the ability and suitable mandates to execute policies and promote synchronized climate action is essential to its success.¹⁷⁹

Kiremu., et.al explains that Kenya has developed comprehensive national climate policies and strategies, which encompass dedicated National Adaptation Programmes of Action and mitigation policies such as REDD+ strategies. However, there is an ongoing need to effectively integrate climate change considerations into other sectoral policies, particularly in the water and agricultural sectors. Moreover, enhancing governance structures and processes for climate policies in Africa is imperative. Weak institutions and insufficient coordination among sectoral line ministries have been identified as major obstacles to the effective implementation of climate

¹⁷⁸ “IPCC (2015), Paris Agreement.”

¹⁷⁹ “Vinales, J. E., (2017), The Paris Agreement on Climate Change Forum: Paris Climate Agreement, Regional Science Policy & Practice, Volume 9, Issue 2, June 2017, Pages 121-141”

policies by African governments.¹⁸⁰ Research indicates that limited authority and data, as well as a lack of emphasis on gender dimensions and the inclusion of local communities, present barriers to the successful implementation of Kenya's climate policies, plans, and strategies. Therefore, engaging with district and local level governance actors is crucial for the development and implementation of these policies.¹⁸¹

Naeku posit that climate legislative frameworks are crucial for the effective implementation of climate policies. Whether specifically designed for climate change or not, strong legislative frameworks can drive more efficient adaptive actions. Study has shown that antiquated laws can hinder the achievement of NDCs, which many African nations have identified as a barrier. While some African nations have either enacted or are in the process of establishing laws specifically addressing climate change, others have created sector-specific legislation pertaining to forestry and climate change trust funds. An examination of these laws reveals common design elements across different jurisdictions in Kenya, which could contribute to a distinct and regionally appropriate body of law that prioritizes adaptation. However, conducting a comprehensive evaluation of the national legal landscape is vital to formulate climate regulations which align with the country's institutional requirements, the pertinent legal culture, and climate priorities.¹⁸²

Respondents were requested to state if the whether national policies, laws, and regulations have effectively addressed climate change mitigation in accordance with the objectives outlined

¹⁸⁰ “Kiremu M., Scrimgeour F., and Mumo R., (2022), Climate finance readiness: A review of institutional frameworks and policies in Kenya, *An international journal of environmental health and sustainability*.”

¹⁸¹“Naeku J. M, “Climate change governance: An analysis of the climate change legal regime in Kenya”, *Environmental Law Review*, 22(3), 170-183, (2020).”

¹⁸²“Oulu, M. (2015). Climate change governance: Emerging legal and institutional frameworks for developing countries. In W. L. Filho (Ed.), *Handbook of Climate Change Adaptation* (pp. 227–250). Springer.”

in the Paris Agreement, that aspires to minimize greenhouse gas emissions. They were also requested to provide their perspectives on the integration of climate change adaptation as well as mitigation within Kenya's national goals, institutional framework, and climate change governance, along with climate financing and nationally determined contributions. Moreover, other factors contributing to climate change mitigation were taken into consideration. The results have been analyzed and are presented in the table.

Table 4.8: The Extent to which Kenya has implemented the Paris Agreement to Climate Change

Intervention Area	%
What are the specific national policies, laws, and regulations is Kenya implementing to tackle the reduction of greenhouse gas emissions under its obligations under the Paris Agreement?	
“Green Economy Strategy and Implementation Plan (GESIP) 2016-2030”	21%
National Adaptation Plan (NAP) 2015-2030	40%
Climate Change Act, 2016	43%
Energy Act, 2019	15%
Forest Conservation and Management Act, 2016	28%
Indicate how has Kenya integrated climate change mitigation and adaptation into its national development plans and policies?	
Implementing of Kenya Vision 2030	21%
Sector-specific policies and strategies	12%
Kenya Environmental Policy	45%
Developing County Integrated Development Plans (CIDPs)	35%
National Climate Change Framework Policy (NCCFP) 2016	17%
What are institutional frameworks and governance structures has Kenya put in place to coordinate and oversee the execution of its obligations under the Paris Agreement?	
Climate change units in line ministries e.g. Ministry of Environment, Forestry and climate change	
National Climate Change Council (NCCC)	
Climate Change Directorate (CCD)	
County Climate Change Units (CCCUs)	
Parliamentary Committees	
County Government	
Kenya Metrological Department	
National Environmental Management Authority	
What the obstacles has Kenya encountered when attempting to secure climate finance in order to facilitate the implementation of its Nationally Determined Contributions (NDCs)?	
Financial Challenges	47%

Regulatory Barriers	11%
Capacity Constraints	37%
Global Economic Conditions	11%
Monitoring and Evaluation	10%
Reporting Policy incoherence	3%
What are insights and lessons can be gained from Kenya's execution of the Paris Agreement to assist and direct other developing nations in their implementation endeavors?	
Comprehensive National Climate Action Plans	7%
Inclusive Participation	59%
Community-Based Adaptation	24%
Institutional Strengthening	10%
Diversified Funding Sources	21%
What extent has Kenya's implementation of the Agreement been impeded by a lack in technical capacity, data, and resources under the Paris Agreement?	
Financial Constraints	22%
Insufficient Climate Data	5%
Limited Expertise	2%
Research and Development	12%
Policy and Institutional Reforms	80%
What progress has Kenya made in submitting updates to its Nationally Determined Contributions (NDC), national communications, and other transparency reports?	
Increased its emission reduction target from 30% to 32% by 2030, relative to the business-as-usual scenario.	
Expanded the scope to include additional sectors like waste and nature-based solutions.	
Provided more detailed information on adaptation priorities and implementation plans.	
Submitted National Communication to United Nations Framework Convention on Climate Change	
How can enhanced international support assist Kenya in fulfilling its obligations under the Paris Agreement?	
Providing grants and low-interest loans can reduce the financial burden on Kenya	62%
Private Sector Investment	13%
Research and Development (R&D)	12%
Public Awareness and Education	23%
Enhanced Collaboration and Partnerships	10%

Source: Researcher (2024)

The findings suggest that prioritizing institutions, the laws and regulations that are utilized to carry out the Paris Agreement and combat climate change are essential. Kenyans' reliance on natural resources and limited ability to adapt to its effects make them extremely susceptible to climate change, according to the National Climate Change Response Strategy (NCCRS). It is essential to clearly comprehend how the Global Gender Action Plan (GGA) informs the processes

of National Adaptation Plans (NAPs), NDCs, and Adaptation Communications (ACs) to ensure effective national planning and implementation of adaptation measures. Additionally, establishing clear connections between adaptation measures and corresponding indicators is vital for their formulation and implementation. The work programme aims to collaborate with the research community, the Intergovernmental Panel on Climate Change (IPCC), and other relevant bodies, for instance, the Adaptation Committee and the Nairobi Work Programme (NWP) to generate knowledge that enhances parties' capacity to develop indicators based on baselines and link adaptation measures with these indicators. Kenya emphasizes the importance of providing sufficient and predictable financial, technical, and knowledge support for the implementation as well as the formulation of NAPs and NDCs.

The Kenya Environmental Policy of 2013 has been instrumental in influencing Kenya's approach to environmental matters within its foreign relations. This policy acknowledged that air pollution within the country not only posed a local concern but also had far-reaching global consequences. Consequently, the policy underscored the importance of Kenya's active engagement in international endeavors to foster the adoption, coordination, and optimization of strategic Multilateral Environmental Agreements (MEAs). A significant focus outlined in the policy was the pursuit of low carbon development, with the aim of providing Kenyan citizens with a clean environment while mitigating the nation's contribution to global climate change.¹⁸³

Respondents identified several frameworks that are in line with the environmental diplomacy pillar of Kenya. These frameworks include the National Climate Change Action Plan (NCCAP), the Climate Change Act of 2016, policies related to carbon credits, and various by-laws

¹⁸³ GOK Environmental Policy (2013)

of the Nairobi City County that address air pollution. The NCCAP (2018-2022) is a national framework that spans over a period of 5 years and is aimed at guiding Kenya's climate change actions, with a specific goal on reducing greenhouse gas (GHG) emissions. It serves as a roadmap for Kenya to fulfill its Nationally Determined Contributions (NDCs) under the Paris Agreement of the UNFCCC. The NCCAP also encourages broad participation in addressing air pollution, including involvement from development partners, the private sector, and the general public.

The Climate Change Act of 2016 establishes a regulatory mechanism to enhance resilience to climate change and foster environmentally sustainable development. Kenya is one of the countries that has made notable strides in implementing the Paris Accord and committing to carbon emission reduction. In line with this, Kenya is currently in the process of enacting the Climate Change (Carbon Markets) Regulations, 2023. These regulations seek to establish a framework for carbon market and carbon credit projects, providing government incentives to lower emissions in alignment with Kenya's Nationally Determined Contributions (NDCs). Additionally, Kenya is presently reviewing the NCCAP-3 to update its NDCs, which presently aim for a 30% reduction by 2030.¹⁸⁴

The National Adaptation Plan (NAP 2015–2030) and other policy frameworks that support the environmental diplomacy pillar were also recognized by the study. This plan coordinates efforts to address hazards and vulnerabilities related to climate change and global air pollution, with actions spanning from 2015 to 2030. It outlines seven priority areas to ensure economic development that does not contribute to air pollution, further demonstrating Kenya's commitment to the Paris Agreement (Government of Kenya, 2016). The Energy Act of 2019 is a comprehensive

¹⁸⁴ Parliament of Kenya. Climate Change Act (2016)

framework that encompasses various energy sources, including fossil fuels and renewables, while promoting the development and utilization of renewable energy sources.

In the analysis of the IPCC 6th assessment report, it was found that the majority of developing nation Parties (138 out of 154) have reported on quantitative mitigation targets. These targets provide clear foundation for monitoring progress in their Nationally Determined Contributions (NDCs). Many of these countries have established absolute emission-reduction targets, using a specific base year as reference. Additionally, some have stated relative goals to cut emissions below "business as usual" situations. A small number of Parties did not set numerical targets, though. Rather, they have disseminated other tactics, regulations, and initiatives meant to encourage low emissions.

It is important to remember that less than half of the reporting countries from the Developing Island Nations and Small Island Developing States groups updated their NDC targets in consecutive submissions. Similarly, only a few countries from the Least Developed Countries group were able to update their targets. Approximately 10% of all developing country Parties did not communicate any quantitative targets or updates, except for certain cases. Furthermore, it is worth noting that approximately 47% of the updates to mitigation targets took place between the Intended Nationally Determined Contributions (INDCs) and the first NDCs. The remaining updates occurred when the second NDCs were submitted. Based on these findings, the study concludes that although Kenya has a variety of legal frameworks that support the goals of its climate change agenda, the lack of direct references to this aspect in the frameworks makes it difficult to understand how the international environmental actions are connected to domestic environmental actions. This may explain why 59% of the respondents indicated that the

implementation of the Paris Agreement has either not occurred at all or has been only partially implemented.

4.6 Opportunities, Challenges and Prospects for implementing the Paris Agreement in Mitigating Climate Change in Kenya

The study sought to establish the opportunities, challenges and prospects of implementing paris agreement in mitigating climate change in Kenya. According to studies, developed as well as developing nations must contend with the global challenge of climate change in order to pursue sustainable development. However, developing countries may be more severely affected due to the importance of the environment as a source of raw materials and livelihood for rural communities. As climate change undermines the environment's ability to meet these needs, it hampers communities and countries' capabilities of achieving growth and development. The Paris Agreement recognizes that not all developing countries have the necessary capacity to address these challenges and emphasizes the importance of capacity-building in these nations. Developed nations are urged to provide developing nations with more support for their capacity-building initiatives.¹⁸⁵

Many people face significant challenges due to result of climate changes. According to the UN Environment Program, it is causing severe meteorological conditions, such as heatwaves, floods, droughts, and tropical cyclones to occur more frequently and with greater intensity. As a result, this aggravates issues with water management, reduces food security and agricultural productivity, increases health risks, damages vital infrastructure, and interferes with the availability of basic services like energy, water and sanitation, education, and transportation.

¹⁸⁵ “Apollo A. and Mbah M.F., Challenges and Opportunities for Climate Change Education (CCE) in East Africa: A Critical Review, Sustainability Journal.”

There are several significant opportunities for integrating mitigation, sustainable development, and disaster risk reduction. These opportunities stem from common themes and agendas. Respondents were requested to provide an explanation of how the Paris agreement supports the mitigation of climate change in ecosystems and the development of resilient societies and economies. Participants acknowledged the necessity for resilient economies, such as Kenya, to endorse development and finance mitigation measures, including ecosystem protection. The areas addressed by respondents encompass the involvement of the private sector and civil society in the implementation of climate change measures, the measures taken by Kenya to promote renewable energy as stipulated in the Paris agreement, the climate mitigation initiatives outlined in the agreement such as sustainable development goals, and the trade-offs associated with climate change under the agreement.¹⁸⁶

Enhancing transparency and accountability is crucial to protect climate finance from corruption and mismanagement, especially as we urgently need to invest in climate resilience and low-carbon technology. We can improve legitimacy and collaboration from the general public and civil society by promoting openness and fostering public involvement. This will help officials gain assistance for national climate targets. Some European countries have already established citizen assemblies to address climate policy challenges. National datasets can be used to assess climate risks, refine regional climate models, and enhance their importance to planners and communities. Decision-making procedures for coastal resilience, urban development, agriculture, water resources management, and other sectors can be guided by the information provided here.

¹⁸⁶ “International Monetary Fund (2022), Climate change and select financial instruments: an overview of opportunities and challenges for Sub-Saharan Africa.”

Additionally, subnational governments can benefit from improved access to emissions data, enabling them to develop their own mitigation plans and initiatives.¹⁸⁷

Coordination and collaboration across sectors, including subnational actors, corporations, and civil society, are necessary for effective and efficient cross-government responses to climate change. Even while national decision-makers benefit from global datasets like climate models and remote sensing, national authorities still need to gather, organize, and disseminate relevant data. This contains data on the frequency and kind of extreme weather events, information on greenhouse gas-producing activities, and specifics on the production and emissions of power plants. Governments can improve the efficacy and efficiency of their responses to the national climate crisis by enacting open data laws that allow civil society to reuse data for the creation of tools and visualizations that successfully involve various stakeholders.¹⁸⁸

Digital technology provides valuable opportunities to deliver information, education, and climate risk management services to a wide audience in a targeted and differentiated manner. It can also encourage equity and justice in how risks and values are allocated. Large-scale, low-cost transformation could be facilitated by policy improvements. Additionally, the development of a new generation of climate-sensitive farmers, empowered by data-driven and ICT-enabled approaches, will play a pivotal role in the region's response to climate challenges. Embracing climate-resilient crops and breeds, utilizing both cutting-edge genetic tools and traditional methods, also presents significant adaptation opportunities for the agricultural sector. To enhance sustainable agriculture in rural areas, it is crucial to establish the necessary infrastructure and

¹⁸⁷ “Narita D, Sato I, Ogawada D, Matsumura A (2020) Integrating economic measures of adaptation effectiveness into climate change interventions: A case study of irrigation development in Mwea, Kenya. PLoS ONE 15(12): e0243779. <https://doi.org/10.1371/journal.pone.0243779>”

¹⁸⁸ “Hsu A.and Schletz M., (2024) Digital technologies - the missing link between climate action transparency and accountability? *Environment and Ecology Journal*.”

services on a large scale. This will enable farmers to lead dignified lives while ensuring fairness and equity in the sharing of risks and value along value chains.

The findings are presented in the table below.

Table 4.9: Opportunities, Challenges and Prospects for implementing the Paris Agreement to Climate Change in Kenya

	%
How has Kenya successfully involved the private sector and civil society in its efforts to implement the Paris Agreement?	
Renewable Energy Investments	15%
Fostering Public-Private Partnerships (PPPs)	20%
Community-based adaptation and mitigation projects	50%
Policy and Regulatory Frameworks	5%
Resource Mobilization	30%
What steps has Kenya taken to promote renewable energy and enhance energy efficiency in alignment with the goals set in Paris?	
Comprehensive legislation, policy and regulatory Frameworks	45%
Major Renewable Energy Projects	14%
Investment and Financing Green Bonds	12%
Enhancement of Energy Efficiency	31%
Energy Audits and Management	18%
How can Kenya effectively incorporate its climate change initiatives, as per the Paris Agreement, into other global sustainable development agendas such as the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction?	
Alignment of National Policies and Frameworks	30%
Cross-Sectoral Coordination	23%
Local Government and Community Engagement	34%
Monitoring, Reporting, and Accountability	11%
Capacity Building and Resource Mobilization	12%
International Cooperation and Partnership	10%
What are the measures can be taken to integrate climate change considerations into the urban planning and development strategies of Kenya's urban centers to improve resilience and decrease greenhouse gas emissions?	
Incorporating Climate Adaptation into Urban Planning	19%
Promoting Sustainable Transportation	34%
Enhancing Energy Efficiency and Renewable Energy	30%
Waste Management and Circular Economy	27%
Climate-Responsive Land Use Planning	10%
What are the synergies and trade-offs exist between climate change mitigation efforts under the Paris Agreement and other sustainable development goals such as poverty reduction, energy access, and food security?	
Renewable Energy and Poverty Reduction	31%

Sustainable Agriculture and Food Security	40%
Energy Access and Climate Adaptation	12%
Increasing bioenergy production for climate mitigation	6%
Land-based climate mitigation strategies such as afforestation and reforestation	21%
Energy Transition and Employment	10%
Please provide any additional comments or suggestions on the Paris Agreement's implementation in Kenya	

Source: Researcher (2024)

Based on the findings there are numerous opportunities to enhance mitigation action by pursuing integrated approaches to adaptation, sustainable development, and disaster risk reduction. As per the findings majority of the (40%) indicated sustainable agriculture and food security contribute significantly to overall mitigation that helps reduce the extent of adaptation and increases sustainably the agricultural production systems while increasing food accessibility. Additionally, 31% of the respondents indicated that renewable energy and poverty reduction are important measures for mitigating climate change, increasing energy access and alleviating poverty.

Chapter Five

Summary, Conclusion and Recommendations

5.0 Introduction

The sought to assess the mitigating effects of climate change in Kenya and assessing the Paris agreement. This last chapter of the study provides summary of the findings, conclusion and recommendations based on the study objectives which; To assess the performance of the Paris agreement in mitigating the effects of climate change, analyse the Paris agreement and climate change in Kenya and to assess the opportunities, challenges and prospects for implementing Paris agreement of climate change in Kenya.

5.1 Summary

The primary objective of the Paris Agreement is to address the performance mitigation of climate change and its impacts. It urges the global community to take decisive action in combatting climate change. The targets established by the agreement primarily focus on implementation issues, including planning, policies, and capacity building at both institutional and individual levels. Additionally, it underscores the necessity for financial support to achieve mitigation pathways that are aligned with the 1.5°C target. To accomplish this, comprehensive policy interventions are indispensable, which should encompass both supply and demand approaches. The agreement also highlights the significance of quantifying the potential and uncertain impacts of warming limits at various levels, with the aim of guiding global policies and fostering national mitigation actions.

Developing countries with rapidly growing economies should make increasingly ambitious efforts in both mitigation and adaptation. While the commitment of countries through their Nationally Determined Contributions (NDCs) serves as a positive starting point, it is deemed insufficient. These commitments will need to be escalated in terms of ambition based on periodic

assessment and review. Nevertheless, the primary challenge for the Paris Agreement lies in facilitating the expeditious increase of nationally determined contributions and climate financing, while ensuring a high rate of compliance.

The second objective found that Kenya has implemented a range of climate-specific policies to align to Paris agreement in mitigating the effects of climate. These policies include National Climate Change Strategy (2010), Climate Change Act (2016), Climate Finance Policy (2018), and the National Climate Change Action Plan (2018-2022), a 5-year rolling plan. The nation also adheres to the National Adaptation Plan (2015-2030) to guide climate-related actions undertaken by both national and county governments, as well as other stakeholders. Furthermore, Kenya has enacted the Energy Act 2012, Environmental Management and Coordination (Amendment) Act 2015, Green Economy Strategy Implementation Plan (GESIP) (2016-2030), and Vision 2030 to provide further support for its climate objectives. Moreover, government engagement at the county, national, and international levels, in collaboration with civil society and the private sector, has played a pivotal role in facilitating and expediting the development of pathways towards climate resilience and sustainable development in local communities.

The third objective was on opportunities, challenges and prospects of the implementation of Paris agreement, the challenges that have been identified largely as climate finance, food insecurity, youth unemployment, energy access, and land degradation. The findings has identified various opportunities such investment in carbon credits to mitigate the effect of climate change. Carbon credit projects have the potential to address underdevelopment in impoverished communities in Kenya. They can accomplish this by promoting sustainable development, fostering economic opportunities, and enhancing access to clean energy, preserving natural resources, and

empowering marginalized groups. By taking into account social, environmental, and economic factors during project planning and implementation, carbon credit initiatives contribute to poverty reduction, facilitate comprehensive growth, and support sustainable development endeavors across Kenya.

5.2 Conclusion/Findings

As per the first objective, the study analyzed the mitigating effects of climate change with assessment of Paris agreement. The study noted that the adoption of mitigation and adaptation strategies is imperative in addressing climate change global development and the objective of limiting global temperature rise to 2 degrees Celsius, the pursuit of the 1.5 degrees Celsius target may have a temporary negative impact on the economic development of developing nations in the short to medium term. This emphasizes the fact that embracing the 1.5 degrees Celsius target effectively address both climate mitigation and the reduction of economic inequality. Therefore, these results provide substantial evidence in support of ambitious mitigation efforts as outlined in the Paris Agreement.

Related to the performance of Paris agreement in mitigating the effects of climate change, Nationally Determined Contributions (NDCs) is an important climate policy documents formulated by Party countries in accordance with the UNFCCC Paris Agreement. These documents serve to convey each country's objectives and obligations in the realms of both national emission reduction and climate change adaptation.¹⁸⁹ Certain climate change mitigation measures, such as forest carbon markets, are currently in a nascent stage of development. Nonetheless, their

¹⁸⁹ "Taconet N, Méjean A, Guivarch C (2020), Influence of climate change impacts and mitigation costs on inequality between countries., *Climatic Change*; 160: 15-34"

importance is expected to grow substantially in the future as they play a critical role in achieving the ultimate aim of the Paris Agreement - balancing emission sources and sinks - particularly in the latter part of this century. Consequently, it is imperative to effectively manage new initiatives aimed at forest protection to ensure equitable outcomes.¹⁹⁰

To ensure Paris Agreement builds on the Convention by uniting all nations in a common mission to take ambitious action to mitigate climate change and adapt to its impacts. It also increases financial support for developing countries. The agreement aims to bolster nations' capacity to address climate change effects and align financial resources with low greenhouse gas (GHG) emissions and climate-resilient strategies. To accomplish these objectives, it is important to mobilize and provide adequate financial resources, establish a new technology framework, and strengthen capacity building.¹⁹¹ This will empower developing countries and the most vulnerable nations to pursue their respective national goals. The agreement also establishes a more transparent mechanism for action and support. Under the Paris Agreement, all Parties are obligated to make their utmost efforts through "nationally determined contributions" (NDCs) and to further enhance these efforts in the future.¹⁹²

Kenya's commitment to promoting climate action through the adoption of international climate laws and policies, strengthening its capacity for climate-related negotiations, fostering collaboration, raising public awareness, and allocating funds to tackle climate change in the country. Kenya has a strong climate change policy framework in place, as well as an advanced

¹⁹⁰“Kalkuhl M and Wenz L. (2020) The Impact Of Climate Conditions On Economic Production. Evidence from a Global Panel Of Regions. *J. Environ. Econ. Manag.* 2020; 103: 102360”

¹⁹¹ “Schleussner C.F *et.al* (2016), Science and policy characteristics of the Paris Agreement temperature goal. *Nat. Clim. Chang.* 2016; 6: 827-835”

¹⁹² “Nyiwul L. (2021), Climate change adaptation and inequality in Africa: case of water, energy and food insecurity. *J. Clean. Prod.* 2021; 278: 123393”

domestic institutional system. This is a significant structural change that will necessitate the collaboration of all sectors of society and levels of government. Coordination and coherence of these efforts within a multi-level governance system are critical for advancing climate action in an effective, efficient, and ambitious manner. Policymakers recognise that combating climate change will necessitate coordinated action across multiple levels of government, sectors, and with non-governmental stakeholders. New institutional arrangements and forms of collaboration are emerging at the national and subnational levels to promote low-emission development and increase climate resilience and mitigation.¹⁹³

The study also examined the opportunities, challenges and prospects to realise the successful implementation of Paris agreement for climate change mitigation. Paris Agreement implementation on climate change in Kenya encompasses numerous opportunities, challenges and prospects. In consideration of Kenya's implementation of its climate policies, there is a possibility of sharing best practices with other emerging nations in order to enhance climate action by South-South cooperation. The research identified the following opportunities include renewable energy growth, climate smart agricultural practices, forest restoration and conservation, green transportation, climate finance, green jobs, and adaptation and mitigation planning. These opportunities align with Kenya's national interests in sustainable development and climate mitigation. However, realising these benefits will require sustained effort, investment, and collaboration between government, private sector, and international partners.

The study has found that while the Paris Agreement on climate change presents both challenges and prospects, Kenya is facing a range of environmental, social, political, and economic

¹⁹³ "Peters, G. P. et al. Key indicators to track current progress and future ambition of the Paris Agreement. *Nat. Clim. Change* 7, 118–122 (2017)."

challenges, which are exacerbated by climate change. Similar to other developing countries, Kenya is constrained by limited resources, which hinder its ability to achieve the goals set out in the Paris Agreement. The lack of financial resources makes it difficult to invest in renewable energy projects and climate-resilient infrastructure. Additionally, Kenya lacks the necessary advanced technologies for a smooth transition to a low-carbon economy. Agriculture and tourism, which are crucial sectors of Kenya's economy, heavily rely on activities that mitigate the effects of climate change.

Furthermore, there is a need for increased public awareness and education on climate issues to garner widespread support for mitigation and adaptation efforts. The implementation of climate mitigation initiatives is further complicated by institutional and governance challenges. Coordinating efforts among different levels of government and sectors can be challenging, resulting in fragmented or inconsistent climate policies and inefficient implementation of climate initiatives. To address these challenges and meet its commitments in the Nationally Determined Contributions (NDCs), Kenya must prioritize investments in financial resources and human capital, including knowledge and skills development.¹⁹⁴

In terms of prospects, Kenya nation has effectively enacted a Climate Change Act and formulated a National Climate Change Action Plan, laying the groundwork for further advancements in accordance with the Paris Agreement. Climate initiatives bolstered by international climate finance mechanisms, including the esteemed Green Climate Fund. The funds have the potential to accelerate the realization of the objectives outlined in the Paris Agreement.

¹⁹⁴ "Onencan A.M. and Van de Walle, B. (2018), From Paris Agreement to Action: Enhancing Climate Change Familiarity and Situation Awareness, Faculty of Technology, Policy and Management, Delft University of Technology, Netherlands"

The unwavering dedication to sustainable development is manifest in its Vision 2030 strategy, which conscientiously incorporates climate considerations into development planning and aligns harmoniously with the objectives outlined in the Paris accord. Other areas of prospects found by the study include carbon credits, green bonds and jobs.

5.3 Recommendations

From the findings of the study on mitigating the effects of climate change in Kenya, assessment of Paris agreement, the study recommends the following. As a general recommendation, Kenya should explore opportunities for private financing, adapt local technologies, and accelerate innovation.

5.3.1 Improve Climate Literacy and Raise Awareness

In order to attain a high level of climate change literacy, people must acquire the necessary knowledge and skills that enable them to make well-informed decisions and take appropriate action. Generally, individuals who are acquainted with the causes of climate change and have personally witnessed its impacts are more likely to perceive it as a grave threat.¹⁹⁵ As a result, the IPCC places great importance on climate change literacy, rating it with "high confidence" as a critical foundation for global climate change adaptation and mitigation. Acknowledging the vital role of climate change literacy in decision-making and governance, the United Nations Environment Programme (UNEP) has developed a comprehensive curriculum on environmental law for judiciaries worldwide.¹⁹⁶

¹⁹⁵ "Owino D.O. (2022), Responding to Impacts of Climate Change: A case study of Kenya, Published Masters Thesis, Oslo Metropolitan University"

¹⁹⁶ "Njuguna, L., Uri, I., & Beauchamp, E. (2024). National Monitoring, Evaluation, and Learning Systems for Adaptation: A Comparative Analysis of Nine Countries. International Institute for Sustainable Development."

The factors influencing climate change literacy in Kenya should be in line with global development challenges. This offers an opportunity to achieve co-benefits by advancing the Sustainable Development Goals (SDGs) and climate action, especially in education, gender equality, and poverty reduction. By improving climate change literacy, Kenya can integrate climate change into its national and sub-national development plans, promoting a path towards climate-resilient development. It is essential to enhance the training and support provided to senior government officials, equipping them with the skills and knowledge necessary for effective climate action in terms of both mitigation and adaptation.

Develop climate change literacy programs for informal education in the country, including civil society and other partner organizations. These programs should aim to enhance skills and knowledge for effectively addressing climate change. Additionally, it is crucial to promote climate change literacy at all levels and departments of government, ensuring that everyone has the necessary skills and knowledge to tackle climate change. This includes providing climate change literacy training for key environmental decision-makers, including the judiciary. UNEP recognizes the importance of climate change literacy in decision-making and governance and has recently introduced a new curriculum on environmental law for higher education institutions to address this need.

Given the severe impacts of climate change that Kenya is currently facing across various socioeconomic sectors, it is imperative for the government and stakeholders to address climate change mitigation while taking into account its detrimental effects on each economic sector. These measures comprise enhancing food security to boost agricultural yield, bolstering forest management, diversifying the livelihood options of vulnerable populations, and enhancing the resilience of urban and transportation systems.

5.3.2 Coordinated County Climate Action

To address gaps in coordination, the Climate Change Council has been given the responsibility of developing programs and directives that promote collaborative implementation and monitoring of the Paris Agreement across all sectors and levels of governance. In order to achieve a carbon-neutral economy, it is crucial for both federal and regional institutions, as well as city administrations, to align Kenya's Nationally Determined Contributions (NDCs) with their respective development plans. Effectively combating climate change and implementing the Paris Agreement requires Kenya to strengthen its negotiations within the United Nations Framework Convention on Climate Change (UNFCCC) in order to secure support in terms of finance, technology development and transfer, and capacity building from developed countries.

Additionally, it is important to enhance coordination among counties, their structures, and regional partners to support local governance units in achieving climate mitigation. This coordination should include active engagement in global negotiations on collective action, with a focus on Article 6 of the Paris Agreement. This will enable nations to integrate and harmonize low-emission, climate resilient development strategies across continents, countries, and regional policies, frameworks, and action plans. Additionally, this approach will promote collaboration and cooperation among institutions and structures in addressing challenges related to climate change mitigation.

5.3.3 Long Term Planning and Anticipatory Governance

Anticipatory governance pertains to the practice of strategically planning for the future and making proactive decisions. It entails the thoughtful consideration of long-term objectives and potential hurdles, which serves as a guide for present-day decision-making. By adopting a forward-thinking approach, anticipatory governance empowers organizations to effectively navigate

uncertainties and proactively shape their future outcomes.¹⁹⁷ It is a strategic endeavor that underscores the significance of meticulous long-term planning and thorough preparation. Climate change policies in Kenya are formulated by carefully considering the prevailing challenges and anticipating future changes. In order to ensure the efficacy of these long-term policies, it is imperative for countries, such as Kenya, to take into account the potential transformations in their environment and envision various future scenarios.

The objective of the Paris Agreement is to enhance climate policy processes and transition towards a collaborative approach. This includes the formulation of NDCs, NAPs, and other initiatives to keep the global average temperature increase below 2°C by 2100, with efforts to limit it to 1.5°C.¹⁹⁸ Planning processes should be adaptable and flexible, not binding governments and stakeholders to outdated designs and procedures as the climate changes. Given the uncertainty of climate change, it may be necessary to reinforce approaches to resource management, infrastructure development, and investment. By adopting this approach, they can make well-informed decisions and ultimately enhance the effectiveness of their policies.¹⁹⁹ Moreover, this strategy will bolster countries' confidence in setting ambitious climate goals.

5.3.4 Resource Mobilization and Enhanced Climate Finance Flows

The effective implementation of climate-resilient development plans, mitigation, and policies necessitates assistance in terms of climate finance and resource mobilization, technology transfer, enhanced capacity building, and awareness creation and outreach. Developed-country

¹⁹⁷ “Maino, R. & Emrullahu, D. (2022). Climate change in Sub-Saharan Africa’s fragile states: Evidence from panel estimations. IMF working paper, 22(4).”

¹⁹⁸ “Tue, N. Van, Minh, N. H., Duc, V., Quang, D., Thi, T., Nga, T., & Hien, N. T. (2023b). Viet Nam’s approach to monitoring and evaluation (M&E) of the National Adaptation Plan briefing note. Department of Climate Change, Ministry of Natural Resources and Environment, Vietnam.”

¹⁹⁹ “Baarsch, F. & Schaeffer, M. (2019). Climate change impacts on Africa’s economic growth. New York: Economic Commission for Africa”

Parties to the UNFCCC made a commitment to mobilize over US\$100 billion per year by 2025 to support climate action in developing countries.²⁰⁰ According to the UNFCCC, climate finance refers to local, national, or transnational financing obtained from public, private, and alternative sources, with the aim of supporting mitigation and adaptation efforts to address climate change. Climate change is a cross-cutting macro-economic issue, and climate finance is considered 'strategic' as it enables the achievement of multiple development outcomes, including food and water security, energy security, good health, employment, and other advantages.²⁰¹

Climate finance can be obtained from bilateral and multilateral sources. Bilateral climate finance is provided directly by a country or an institution within that country, such as government development agencies. On the other hand, multilateral sources consist of financial institutions that receive contributions from multiple countries or have multiple countries as shareholders. These sources encompass Multilateral Development Banks like the World Bank, regional development banks, international public funds, and UN agencies. International public funds include those established under the Convention, such as the Global Environment Facility (GEF), the Special Climate Change Fund (SCCF), the Least Developed Countries Fund (LDCF), and the Green Climate Fund (GCF).

Kenya is struggling to access climate finance and implement effective measures to address climate change impacts on a large scale. The UNFCCC and the Paris Agreement emphasize the responsibility of developed countries to financially assist developing countries, considering their limitations and the need to balance support for mitigation and adaptation efforts. However, public

²⁰⁰ “Steinbach, D. et al. 2022. “The Good Climate Finance Guide for Investing in Locally Led Adaptation.” London: International Institute for Environment and Development.”

²⁰¹ “Orindi, V. et al. 2020. “The County Climate Change Funds in Kenya: Real Practice in Collaborative Climate Action.”

funds alone may not be sufficient to meet the increasing demands for adaptation. Thus, it is crucial to utilize public mechanisms that can attract private sector investment in climate-resilient development. This can be achieved by addressing regulatory, cost, and market barriers through approaches such as blended finance, public-private partnerships, and innovative financial instruments like green bonds. Moreover, subnational actors can contribute significantly to mobilizing domestic resources for adaptation actions, provided they receive adequate support and empowerment to participate.

5.3.5 Capacity Development

Country-led capacity-building involves experiential learning and relies on support from domestic institutions and civil society. Many initiatives aimed at enhancing capacity for climate action are currently being undertaken under the United Nations Framework Convention on Climate Change's Action for Climate Empowerment agenda. It is crucial for all climate stakeholders to have the necessary skills and expertise to effectively implement climate adaptation and promote low-emission, climate-resilient development. This requires being proficient in using tools and resources, and being open to initiating change.²⁰²

Develop capacity needs assessments to analyze stakeholder requirements for capacity-building. This will aid in the development of actionable interventions and strategies. Additionally, facilitate knowledge and skill exchange through learning exchanges, shadowing, or secondments. Moreover, utilize the opportunity to explore common challenges and questions pertaining to NDC implementation.²⁰³

²⁰² “Sunita Narain. (2022) Capacity for Climate Change Needs Knowledge and Politics with a Difference. *Climate Policy* 22:5, pages 680-686.”

²⁰³ “Tariro Kamuti. 2022. Indigenous Knowledge and Climate Governance. *Indigenous Knowledge and Climate Governance* 153 164.”

5.4 Areas for Further Research

According to the study, climate change mitigation and sustainable development are closely related.

As a result the study should be conducted to examine the correlation between sustainable development and climate change mitigation in Kenya. A research should be conducted to determine the possible measures of sustainable development in Kenya as a result of mitigation.

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APPENDIX

Appendix II: Letter of Introduction

Joan Jemwetich Kemboi
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March 2024

Dear Sir/Madam,

REQUEST TO COLLECT DATA

I am currently enrolled as a student at the University of Nairobi, specifically in the Department of Diplomacy and International Studies. My academic pursuit is focused on attaining a Master of Arts degree in International Studies. As an integral part of my course, I am obligated to undertake a research project. Therefore, I am writing this letter to kindly request your participation in completing the questionnaire. Your valuable input will greatly contribute to the success of my research project by providing essential information.

The focus of my research project is **Mitigating the Effects of Climate Change in Kenya: An Assessment of the Paris Agreement**. The data collected will be strictly for ACADEMIC USE and will be handled with the highest level of confidentiality. Enclosed, you will find a questionnaire and an introductory letter from the University. Your participation is greatly appreciated for the success of this research.

If there are any questions that are unclear during the exercise, I am hopeful that I can provide assistance to help ensure its success. Thank you in advance for your cooperation.

Yours Faithfully

JOAN JEMWETICH KEMBOI

Appendix II: Research Questionnaire

Section A: Mitigating the Effects of Climate Change: An Assessment of the Paris Agreement-

1. What are the effects of climate change on ecosystems, biodiversity, and species distribution?.....
.....
.....
2. “What are the specific impacts of climate change that disproportionately affect marginalized communities and developing nations?”
.....
.....
3. “What is the significance of different sectors, such as energy, transportation, and industry, in terms of their contribution to global greenhouse gas emissions?”
.....
.....
4. “How can communities enhance their resilience and effectively adapt to current and future impacts of climate change?”
.....
.....
5. “How do the nationally determined contributions (NDCs) aim to reduce greenhouse gas emissions?” -----

-
6. “Are there solutions in the agreement or other documents to address these challenges?”
.....
.....
7. “How has the Paris Agreement affected national and regional climate policies, legislation, and regulations?”
.....
.....
8. What can we learn from successful implementation of Paris Agreement?.....
.....
.....
9. “What potential consequences could arise from the Paris Agreement's objective to restrict the increase in global temperature to well under 2°C above pre-industrial levels?”
.....
.....

10. To what extent has pre-industrial global temperature goal achievable given the current efforts to reduce emissions?
11. How effective is the current climate finance in supporting both mitigation and adaptation?
12. “Discuss the extent to which the countries and regions are fulfilling their nationally determined contributions (NDCs) as outlined in the Paris Agreement?”
13. What are the key factors influencing their performance as discussed in question (13).....

Section B: The Extent to which Kenya has implemented the Paris Agreement on Climate Change

1. “What are the specific national policies, laws, and regulations is Kenya implementing to tackle the reduction of greenhouse gas emissions under its obligations under the Paris Agreement”
2. “How has Kenya integrated climate change mitigation and adaptation into its national development plans and policies?”
3. “What institutional frameworks and governance structures has Kenya put in place to coordinate and oversee the execution of its obligations under the Paris Agreement”?

4. “What obstacles has Kenya encountered when attempting to secure climate finance in order to facilitate the implementation of its Nationally Determined Contributions (NDCs)”?
.....
.....
5. “What insights and lessons can be gained from Kenya's execution of the Paris Agreement to assist and direct other developing nations in their implementation endeavors”?
.....
.....
7. To what extent has Kenya's implementation of the Agreement been impeded by a lack in technical capacity, data, and resources? tions under the Paris Agreement?.....
.....
.....
6. What progress has Kenya made in submitting updates to its Nationally Determined Contributions (NDC), national communications, and other transparency reports?.....
.....
.....
.....
7. How can enhanced international support assist Kenya in fulfilling its obligations under the Paris Agreement?
.....
.....

Section C: Opportunities, and Prospects for implementing the Paris Agreement on Climate Change in Kenya

1. “To what extent has Kenya successfully involved the private sector and civil society in its efforts to implement the Paris Agreement?”.....
.....
.....
2. “What steps has Kenya taken to promote renewable energy and enhance energy efficiency in alignment with the goals set in Paris?”.....
.....
.....
3. “How can Kenya effectively incorporate its climate change initiatives, as per the Paris Agreement, into other global sustainable development agendas such as the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction?”.....
.....
.....

4. “What measures can be taken to integrate climate change considerations into the urban planning and development strategies of Kenya's urban centers to improve resilience and decrease greenhouse gas emissions?”.....

.....
.....

5. “What synergies and trade-offs exist between climate change mitigation efforts under the Paris Agreement and other sustainable development goals such as poverty reduction, energy access, and food security?”.....

.....
.....

6. Please provide any additional comments or suggestions on the Paris Agreement's implementation in Kenya

.....
.....
.....