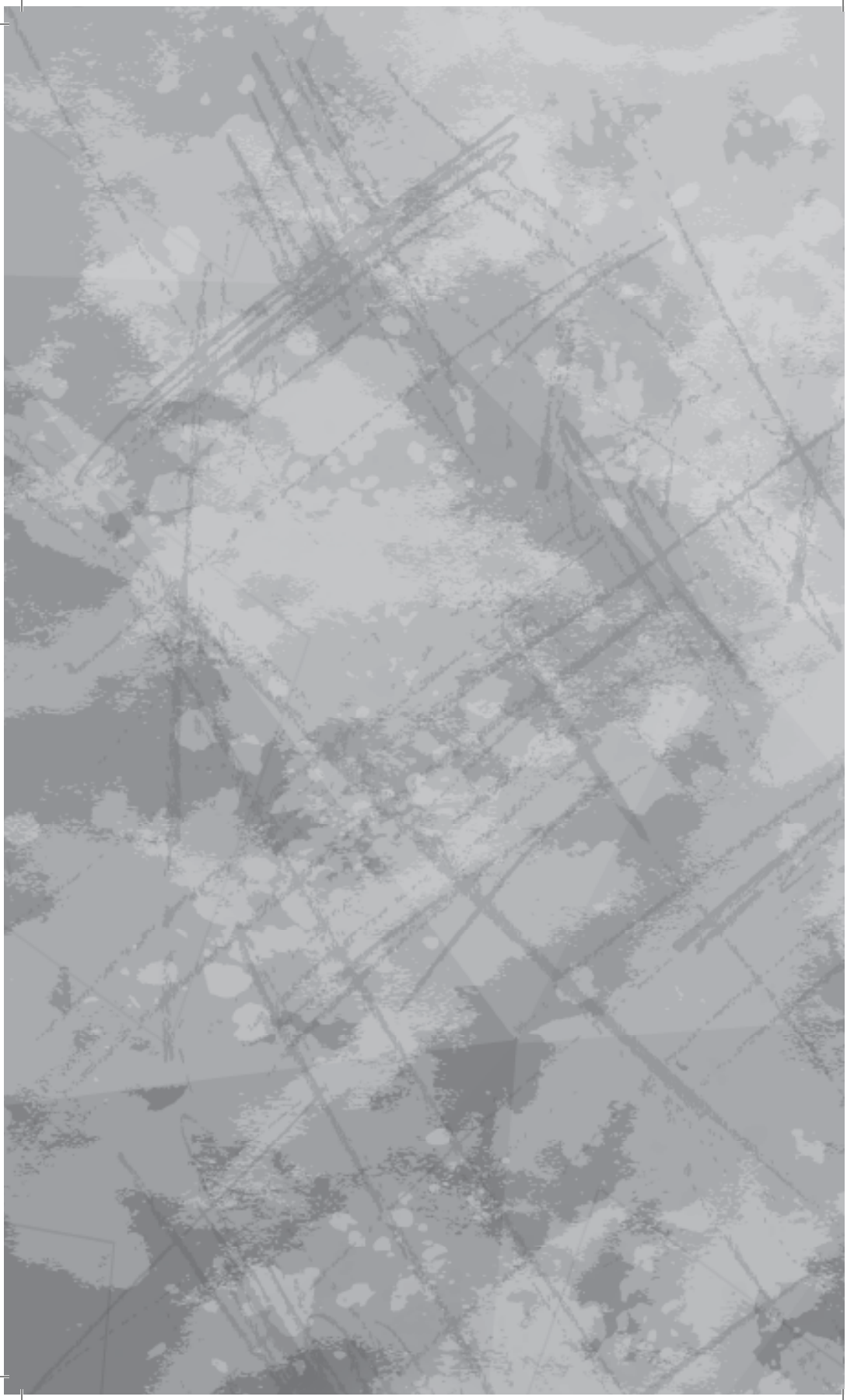
LEGAL RESOURCES FOUNDATION

Haki Itawale

A COMPENDIUM OF JURISPRUDENCE EMANATING FROM DECISIONS ON CLIMATE JUSTICE IN KENYA

LEGAL RESOURCES FOUNDATION
Haki Itawale

A Compendium of Jurisprudence Emanating from Decisions on Climate Justice in Kenya



Published by:

National Council for Law Reporting (NCLR)
ACK Garden Annex, 5th Floor, 1st Ngong Avenue, Ngong Road,
PO Box 10443 - 00100, Nairobi Kenya.
Landline: 020 271 9231, 020 271 2767, 020 272 4980
Safaricom: +254 718 799 464
Telkom Wireless: 020 - 201 161 4
Email: info@kenyalaw.org | Website: kenyalaw.org

and:

National Council on the Administration of Justice (NCAJ)
5th Floor, Mayfair Center Ralph Bunche Road,
PO Box 30041-00100 Nairobi,
Email: ncaj@court.go.ke | Website: www.ncaj.go.ke

and:

Legal Resources Foundation Trust (LRF)
1st Floor, Flamingo Towers, Upper Hill, Mara Road, Mara Lane.
PO Box 34720-00100, Nairobi
Cell: +254 722 209822/ 735 573910
Email: info@lrf-kenya.or.ke | Website: www.lrf-kenya.or.ke

This publication was supported by Hivos vide the Voices of Just Climate Action (VCA) facility through the Ministry of Foreign Affairs (MOFA) of the Dutch Government.

ISBN: 978-9914-751-31-4

Email: info@kenyalaw.org

List of Abbreviations

AACC	African Activists for Climate Change
CAN	Climate Action Network
CBD	Convention on Biological Diversity
CCA	Climate Change Act
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of Parties
EIA	Environmental Impact Assessment
ELC	Environment and Land Court
EMCA	Environment and Management Co-ordination Act
ESR	Effort Sharing Regulation
ETS	European Trading Systems
EU	European Union
FONERWA	Fund for Environment and Natural Resources for Rwanda
GDP	Gross Domestic Product
GHG	Green House Gases
GTS	Green Transport Strategy
IACtHR	Inter-American Court of Human Rights
ICJ	International Court of Justice
IJC	International Joint Commission
INC	Intergovernmental Negotiating Committee
IPAP	Industrial Policy Action Plan
IWRM	Integrated Water Resources Management
MTP	Medium Term Plan
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution

NEMA	National Environment Management Authority
NEES	National Energy Efficiency Strategy
NGO	Non-governmental Organization
OECD	Organisation for Economic Cooperation and Development
SET	Sectoral Emission Target
UNFCCC	United Nations Framework Convention on Climate Change
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environmental Programme
UNICEF	United Nations International Children's Emergency Fund
WWF	World Wildlife Fund

Table of Contents

Foreword

One of the most urgent challenges facing humanity today is the climate change crisis. Driven primarily by anthropogenic activities, particularly the burning of fossil fuels and large-scale deforestation, climate change is causing global temperatures to rise, leading to severe weather conditions that have affected the ecosystems and human beings negatively. As courts around the world, and particularly in Kenya, grapple with the realities of environmental degradation, which has contributed to climate change, their role in upholding the right to a clean and heathy environment becomes significant and urgent.

The Environment and Land Court is committed to ensuring that environmental disputes are not only addressed with urgency and fairness, but are also informed by principles of equity and sustainability. This compendium brings together the experiences, challenges, and innovative practices from both local and global perspectives on climate change litigation. It examines critical areas including the role of government, jurisprudence and best practices from foreign jurisdiction on climate justice. The compendium discusses in detail legal remedies for environmental harm, the protection of land and natural resources, and mechanisms for enforcing climate accountability. I am confident that this work will serve as an invaluable guide for policymakers, legal practitioners, judges, magistrates, environmental advocates, and students in achieving the climate justice that we all desire.

I encourage readers to engage with the content of the compendium and to contribute to the ongoing discourse on climate justice. By understanding the intricacies of this issue, we can collectively work towards a more equitable and sustainable future. Let us embrace the principles of climate justice and strive for a world where the environmental rights of the present and future generations are protected.

Hon. Justice Oscar A Angote, MBS

Principal Judge,

Environment and Land Court, Kenya

Acknowledgement

The preparation of this Compendium of Jurisprudence Emanating from Decisions on Climate Justice in Kenya has immensely benefited from key institutions and personalities who have engaged with pioneering work on the evolving climate justice space in Kenya. Our sincerest appreciation goes to the Honourable Chief Justice, and President of the Supreme Court of the Republic of Kenya, Lady Justice Martha K. Koome, as the NCAJ Chairperson, for expanding spaces for collaborations in promoting jurisprudence in Kenya. We wish to express special appreciation to Hon. Justice Oscar A. Angote, the Principal Judge (PJ), Environment and Land Court (ELC) for his stewardship in the generation of the Compendium. Similarly, we wish to acknowledge Hon. Rose Makungu (Registrar) and Hon. Diana Orago (Deputy Registrar) of the Environment and Land Court, for the partnership in conceptualising and generating the Compendium. Additionally, we wish to acknowledge the valuable support of the NCAJ Secretariat led by Dr Moses Marang'a, the Executive Director, NCAJ, for collaborations, and Ms. Sylvia Yiantet, NCAJ Secretariat and HOD, Court User Committees, for linkages and coordination of aspects of the development of the Compendium.

Special appreciation goes to the National Council for Law Reporting (NCLR) team comprising Prof Jack Mwimali, (Editor and CEO), Ms Janet Munywoki (Senior Assistant Editor/ Deputy CEO), Mr Andrew Halonyere and Ms Emma Kinya (Senior Law Reporters/ reviewers), Ms. Faith Wanjiku, Mr Kevin Kakai and Mr Ian Kiptoo (Assistant Law Reporters/Reviewers) Josephine Mutie (Publishing Officer), and Mr Robert Basweti (Design and Layout) for their valuable inputs into the compendium.

We wish to express our heartfelt gratitude to Fleria Ketherine Atieno, Stella Jepkoechi Kipkulei, Vivian Chesebe Tawarar and John Muasa Wathome, all students at the Centre for Clinical Legal Research in Sustainable Development (CCLRSD) operated at the Kenyatta University in partnership with the Konrad Adenauer Foundation Rule of Law Programme for Sub-Saharan Africa for their immense contribution in generating the first draft of the Compendium. We also acknowledge the student's mentors led by Dr. Jean Nyaboke Keraka, Mr. John Muchina Ng'ethe, and Prof. Tomasz P. Milej (CCLRSD Academic Supervisor) for their role in guiding the process. We remain eternally grateful. We also wish to thank Legal Resources Foundation Trust's (LRF) Climate Justice Community Paralegals (CJCPs) who played a key role in data collection that provided primary materials for the draft compendium. In addition, we wish to express our appreciation to Fredrick Otieno (LRF) for conceptualisation and the overall coordination of the study.

Lastly, we wish to express our sincere gratitude to Hivos for providing the resources that went into the generation of the compendium vide the Voices for Just Climate Action (VCA) facility through the Ministry of Foreign Affairs (MOFA) of the Dutch government. We are confident that this collaboration will continue to shape ecological jurisprudence in Kenya, thus promote climate justice to climate change impacted communities.

Haki Itawale!

Mr Esau O Riaroh
Executive Director
Legal Resources Foundation Trust

Editor's Note

Climate Justice entails a strategy for combating climate change that puts fairness and human rights first. It acknowledges that not everyone is affected equally by climate change, with marginalized communities and vulnerable groups frequently suffering the most. In order to ensure that those who have contributed the least to the issue are not disproportionately affected by its consequences, climate justice highlights the need for equitable and just responses.

The scope of this compendium covers Kenyan climate justice jurisprudence from the superior courts of record. The case of *Kituo cha Sheria & another v The Attorney General & others* Iten Elc Petition No E002 of 2022 (ISLA & KELIN) is one good example where the petitioners challenged the failure of the Kenyan government to fulfil its legal obligation to take measures to adapt to the effects of climate change and mitigate the impacts of climate change in relation to Rift Valley Basin.

The compendium further provides an overview of the fundamental ideas of climate justice and how it has developed historically in Kenya. The compilation describes the legislation and initiatives implemented by the Kenyan government to improve climate justice and addresses the role of the national and local governments in this regard. The global legislation and legal framework pertaining to climate justice are also highlighted in the compendium. The jurisprudence produced by courts worldwide, particularly those from commonwealth countries is also featured herein. An example is the case of *Urgenda Foundation vs The Kingdom of the Netherlands* [2015] HAZA C/09/00456689 which deliberates on GHG emissions reduction and trading. The Hague Court of Appeal ruled that the Dutch government had done too little to reduce the emissions as well as the prevention of dangerous climate change.

Additionally, included in this compendium are nations like Sweden and Germany that are thought to have the greatest climate change strategies and thus provide best practices globally on the same. The compendium is thus divided into 5 chapters namely: chapter 1 on introduction, chapter 2 on the role of the government in climate justice, chapter 3 on jurisprudence on climate justice established internationally, chapter 4 on the best practices from foreign jurisdictions and chapter 5 on conclusion & recommendations.

It is our sincere hope that the compendium will be a helpful reference book and research tool in matters climate justice for all the stakeholders in this sector and the public at large while enriching this particular legal sector in Kenya through the recommendations posited and developing the jurisprudence on it further.

Professor Jack Mwimali

CEO/Editor

Chapter 1: Introduction

Climate justice means recognizing that climate change has negative effects on most people in the world, but impacts the poor and vulnerable the most – those who have done the least to contribute to the problem. Climate justice says that we in wealthy countries – and the wealthier among us – who have benefitted the most from using fossil fuels, must do more of the heavy lifting to reduce our greenhouse gas (or carbon) emissions. As well, actions to address climate change and reduce our greenhouse gas emissions must be implemented in a way that is fair and just[1].

Climate justice means having a people-centred approach to climate action. This entails ensuring representation, inclusion, and protection of the rights of those most vulnerable to the effects of climate change. Solutions must promote equity, assure access to basic resources, and ensure that young people can live, learn, play and work in healthy and clean environments[2].

Dimensions of Climate Justice

There are four dimensions of climate justice: procedural; distributive; recognition; and intergenerational[3]. Procedural justice pertains to the processes for decision-making, that these processes should be fair and inclusive, which includes access to information and meaningful participation[4]; distributive justice means fairness in sharing the burden of climate change[5], including how costs and benefits of goods and burdens are allocated temporally and spatially, and deciding who gets to use what resources[6]; recognition is related to both procedural and distributional aspects but especially focuses on recognizing the differences faced between groups, and protecting equal rights for all, especially when facing uneven capacity to exercise and defend those rights[7]; and intergenerational climate justice is about protecting future generations

1 Scholes R & Engelbrecht F, 'Climate impacts in Southern Africa during the 21st Century: Report for the Centre for Environmental Rights' (2021) Global Change Institute, University of the Witwatersrand

2 Climate Risk Country Profile: South Africa' (2021) The World Bank Group

3 Newell P *et al*, 'Toward Transformative Climate Justice: An Emerging Research Agenda' (2021) WIREs Climate Change doi:10.1002/wcc.733

4 *Ibid*

5 Falkner R, 'The Unavoidability of Justice – and Order – in International Climate Politics: From Kyoto to Paris and Beyond' (2019) The British Journal of Politics & International Relations, 270

6 *Supra*

7 *Ibid*

from harm, and holding those causing harm accountable[8].

Justice is grouped under three main concerns: who the subjects are; the principles of justice; and the mechanisms proposed to advance justice and how justice issues are considered pertain to different ethical traditions of what justice is[9]. Three of these traditions have found expression in the political documents analysed as the main groups of thought under the United Nations Framework Convention on Climate Change[10]. They include: liberal egalitarianism; cosmopolitanism; and libertarianism[11]. Liberal egalitarianism tries to combine equality, personal freedom, and personal responsibility and employ social institutions to distribute rights[12]. Here, justice depends on how institutions, particularly the nation-state, assign these rights and responsibilities, and subjects of justice would be citizens of that nation-state[13].

Cosmopolitanism views justice similar to liberal egalitarianism but on the global level specifying what constitutes a globally fair distribution of benefits and burdens in the context of a globalized world[14]. Here, the subjects of justice would be individuals with global interdependence; and finally, libertarianism is more concerned with the rights of individuals to freedom and ownership and underpins market mechanisms, where the focus lies on whether the process in legitimate and lawful, rather than on the outcomes, as is the focus of cosmopolitanism[15]. The United Nations Framework Convention on Climate Change is based on cosmopolitan principles of justice and the goal has been to establish a fair division of responsibilities to avoid harm[16].

The aforementioned ethical traditions have a distinct notion of what is just: for liberal egalitarianism, it is equality of opportunity; for cosmopolitans, it would be a needs-based minimum floor principle for the global population; whereas for libertarians, the principles of justice are to protect civil rights and free market exchanges[17].

8 *Ibid*
9 Biermann F & Kalfagianni A, 'Planetary Justice: A Research Framework' (2020) < https://www.sciencedirect.com/science/article/pii/S2589811620300082?via%3Dihub > accessed January 18, 2024
10 *Ibid*
11 *Ibid*
12 *Ibid*
13 *Ibid*
14 *Ibid*
15 *Ibid*
16 *Supra*
17 *Ibid*

The Evolution of Climate Justice in Kenya

In order to show its commitment to protect the climate system for the benefit of the present and future generations, Kenya subscribed itself to the United Nations Framework Convention on Climate Change in 1994, and it went on to ratify the Kyoto Protocol in 2005[18]. Through the ratification of the aforementioned international laws, Kenya became a key player in the global climate change in articulating its national interest and position during international negotiations, particularly in the Conference of the Parties to the United Nations Framework Convention on Climate Change and Conference of the Parties to the Kyoto Protocol[19].

More importantly, some key pillars in relation to climate change such as sustainable development (which is one of the national values and principles of governance)[20]and the right to a clean and healthy environment[21]have been entrenched in Kenya's national laws in guiding the implementation of salient climate laws and policy. To effectively deal with climate related issues, there was also the establishment of the Environment and Land Court[22].

Other notable laws that have been legislated in Kenya to protect the environment are: the Environmental Management and Co-ordination Act 1999; the Climate Change Act 2016 (which was later amended as the Climate Change (Amendment) Act 2023); and the Energy Act 2019[23]. The Climate Change (Amendment) Act 2023 was assented to by President William Samoei Ruto against the backdrop of Kenya hosting the Africa Climate Summit and Africa Climate Week on September 1, 2023 and the Act came into force on September 15, 2023[24]. The amendment specifically incorporated article 6 of the Paris agreement by introducing provisions on the regulation of and participation in carbon markets[25].

18 Sessional Paper No. 3 of 2016 on National Climate Change Framework Policy

19 *Ibid*

20 Constitution of Kenya, article 10

21 Constitution of Kenya, article 42

22 Constitution of Kenya, article 162

23 Mallowah S & Oyier C, The Environment and Climate Change Law Review (6th edn), Ch 6

24 < https://www.oraro.co.ke/wp-content/uploads/2023/09/The-Climate-Change-Amendment-Act-2023.pdf > accessed January 19, 2024

25 *Ibid*

Why is Climate Justice Important?

Climate justice is significant primarily because it assigns responsibility to the countries which have polluted the environment and places a burden on them to bear the costs of polluting the environment[26]. It acknowledges that the industrially developed nations have contributed the maximum to climate change throughout the centuries because of which developing countries have experienced the devastating effects[27]. Essentially, climate justice is focused on safeguarding the most prone individuals to climate change and equitably distributes the responsibilities towards climate change[28].

Climate justice is also significant in addressing the aspect of human rights, particularly as regards the right to development[29]. The Paris Agreement linked the right to development and human rights with climate change action in its preamble thus:

> "Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity"

Impacts of Climate Change in Kenya

In Kenya, natural ecosystems have been adversely affected by climate change through variations of temperature and precipitation, among others, which in turn has caused social and economic hardships to the people who have depended on these ecosystems, and there has been increased conflict over the diminishing of natural resources, particularly in Mount Kenya, Mau Forests

26 Kimuyu P, 'Climate Justice through the Polluter Pays principle'

27 Bruce J *et al*, 'Economic and social dimensions of climate change' (1996) Climate Change 1995

28 Bhardwaj M, 'The role and relationship of climate justice and common but differentiated responsibilities & respective capabilities (CBDR-RC) principle in the international climate change legal framework: historical evaluation, developments challenges and future outlooks of CBDR-RC principle and climate justice' < https://www.connect4climate.org/sites/default/files/files/publications/Climate%20Justice_Manuj%20Bhardwaj%20India_0.pdf > accessed January 19, 2024

29 *Ibid*

Complex, Cherangany Hills, Mt. Elgon and the Aberdare Ranges[30].

Kenya has also experienced a high degree of risk from climate-sensitive infectious diseases such as diarrhoea, hepatitis A and typhoid fever as well as vector-borne diseases such as Malaria, Dengue Fever, and Rift Valley Fever and high temperatures and intense rainfall are some of the critical factors in initiating Malaria epidemics in Kenya[31].

In the coastal region, local communities have highly depended on coastal and marine ecosystems, with a majority of people relying on fishing and tourism being a major income earner[32]. Temperature increase, irregular precipitation, sea level rise and ocean acidification have posed great challenges to the health, structure and function of these ecosystems which increase the risk of coastal flooding or drought[33].

Kenya's mitigation and adaptations measures to Climate Change

Kenya's adaptation response to combatting climate change has included: ensuring enhanced resilience to climate change towards the attainment of Vision 2030 by mainstreaming climate change into the Medium Term Plans (MTPs); increasing the number of households benefitting from social protection systems and County Climate Change Funds, with an emphasis on reaching women, the poor and the marginalized, and minority groups; improving the ability to cope with droughts and floods through early warning systems, water harvesting and storage; implementing integrated food management plans; improved water-use efficiency and industrial symbiosis; and putting in place climate-proofed energy and transport infrastructure[34].

In the same vein, the mitigation efforts by Kenya have included: reducing greenhouse gas emissions through agroforestry, minimum tillage systems; manure management, and efficiency in livestock management; reducing and recycling solid waste, promoting green buildings and exploring options for methane capture and power generation; promoting sustainable charcoal production, industrial energy efficiency, and industrial symbiosis; and development of geothermal and other renewable energy for electricity supply, and energy efficiency[35].

30 *Supra*
31 *Supra*
32 *Supra*
33 *Supra*
34 < https://rise.esmap.org/data/files/library/kenya/Clean%20Cooking/Kenya_NCCAP_2018-2022.pdf > accessed January 19, 2024
35 *Ibid*

Principles in relation to the environment

The principles hereunder include, but not limited to[36]: the precautionary principle which postulates that if there is a strong suspicion that a certain activity may have environmentally harmful consequences, it is better to control that activity now rather than to wait for incontrovertible scientific evidence; the prevention principle which is the fundamental notion behind laws regulating the generation, transportation, treatment, storage and disposal of hazardous waste and laws regulating the use of pesticides; the polluter pays principle which compels polluters to bear the costs of their pollution, albeit such costs are difficult to calculate precisely; and the public participation principle where decisions concerning environmental protection often formally integrate views from the public.

Conclusion

The concept of climate justice has been entrenched in various international conventions such as the United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement with countries sharing responsibilities in combatting climate change as well as in Kenyan laws such as the Constitution of Kenya (2010), the Environmental Management and Co-ordination Act, 1999 and the most recent Climate Change (Amendment) Act 2023 and many countries have dedicated their resources in alleviating the effects of climate change and ameliorating the conditions caused by those effects.

The jurisprudence surrounding climate justice will be explored in greater detail in the subsequent chapters either at the international level, regional level or national level in order to examine how courts of law have interpreted the concept.

36 Bosek J, 'Implementing environmental rights in Kenya's new constitutional order: Prospects and potential challenges' (2014) AHRLJ 25 Ch 9, Vol 2

Chapter 2: Role of the Government in Climate Justice

Climate change is linked to a nation's development and the well-being of its environment and people. So as to ensure efficient and effective climate action, people's rights and the regulations that protect them must be taken into account. In light of this, the government's role is key in pushing the agenda of climate change action by providing action plans and regulations that give direction of how to reduce it Green House Gas emission. In Kenya, the government has provided for climate change through its various arms of government that execute various functions that will be discussed below.

I. Parliament and Executive

Policy framework

The national government, through the cabinet secretary responsible for environmental matters, retains the broad responsibility for setting policy at the national level for promoting environmental sustainability and mitigating the effects of climate change. The government of Kenya has developed several policies that strive to provide for climate change action and adaptation. These are:

The ***Sessional Paper No. 10 of 2012 on Kenya Vision 2030***

Kenya Vision 2030 is the country's development blueprint. Its objective is to help transform Kenya into a *"newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment."* The Vision 2030 particularly recognizes that agriculture will continue to play a crucial role towards the achievement of a sustained GDP growth rate of 10% annually. The Vision is based on three pillars: economic, social and political. The vision recognized climate change as a risk that could slow the country's development. However, it did not identify actions to address climate change in its original form. Climate change actions were identified in the Second Medium Term Plan (MTP) (2013-2017). The Third Medium Term Plan (2018-2022) recognized climate change as a crosscutting thematic area, and mainstreamed climate change actions in sector plans[1].

The National Climate Change Response Strategy (2010) which was the first national policy document on climate change. It sought to advance the integration of climate change adaptation and mitigation into all government planning, budgeting, and development objectives.

1 Kenyan National Climate Change Policies Gaps and Opportunities for Mainstreaming agroecology in Kenya 2020 pg 10

Kenya's Nationally Determined Contribution (NDC) (2016) Kenya's NDC under the Paris Agreement of the UNFCCC includes mitigation and adaptation contributions. In regard to adaptation,

"Kenya will ensure enhanced resilience to climate change towards the attainment of Vision 2030, by mainstreaming climate change into Medium Term Plans (MTPs), and implementing adaptation actions." The mitigation contribution "seeks to abate Kenya's GHG emissions by 30% by 2030[2], relative to the business as usual scenario of 143 MtCO2eq."

Achievement of Kenya's NDC is subject to international support in the form of finance, investment, technology development and transfer, and capacity development. To enhance the resilience of agriculture, livestock development and fisheries, Kenya banks on climate smart agriculture which is being taunted to provide both mitigation and adaptation opportunities.

The Kenya's National Adaptation Plan 2015-2030 (NAP) was submitted to the UNFCCC in 2017. The aim of NAP is to consolidate the country's vision on adaptation supported by macro-level adaptation actions that relate with the economic sectors and county level vulnerabilities to enhance long term resilience and adaptive capacity.

The Climate Risk Management Framework (2017) integrates disaster risk reduction, climate change adaptation, and sustainable development, so that they are pursued as mutually supportive rather than stand-alone goals. It promotes an integrated climate risk management approach as a central part of policy and planning at National and County levels.

The National Climate Change Framework Policy (2018) aims at ensuring the integration of climate change considerations into planning, budgeting, implementation, and decision-making at the National and County levels, and across all sectors. The objectives of the policy are:

The National Climate Finance Policy (2018) promotes the establishment of legal, institutional, and reporting frameworks for access to, and management of climate finance. The goal of the policy is to further Kenya's national development goals through enhanced mobilization of climate finance that contributes to low carbon climate resilient development goals. In addition, the Policy establishes the legal, institutional and reporting frameworks to access and manage climate finance, consistent with the institutional structures and framework set out in the Climate Change Act, 2016. The goal of the Policy is to further Kenya's national development goals through enhanced mobilization of climate finance that contributes to low carbon climate resilient development

2 Kenya has recently updated it NDC on December 24, 2020 to abates its GHG emissions by 32% by 2030

goals.

The National Climate Change Action Plan (2018-2022) furthers the achievement of Kenya's development goals by providing mechanisms to realize low carbon climate resilient development. It emphasizes sustainability, while prioritizing adaptation and enhanced climate resilience for vulnerable groups. In addition, the action plan provides for key priority areas that include; Disaster Risk Management; Food and Nutrition Security; Water and the Blue Economy; Forestry; Wildlife, and Tourism; Health, Sanitation, and Human Settlements; Manufacturing; and Energy and Transport.

In addition to the above national policies, county governments have formulated policies to address climate change. For example *the Makueni County Environment and Climate Change Policy, 2021*[3] and *Mombasa County Climate Change Policy, 2021*[4] are examples of a few

All the above plans, acts, policies recognize Climate Change as a global and emerging issue which needs to be addressed.

Legal Framework

In addition to the policies, Kenya has various laws that that address environment protection and climate change. The preamble to the Constitution of Kenya states that 'the people of Kenya are respectful of the environment, which is Kenya's heritage, and are determined to sustain it for the benefit of future generations'. Several provisions of the Constitution reflect this elevation of broad environmental principles. Article 10 entrenches the principle of sustainability as one of the national values and principles of governance, In addition, further provision is given to the right to a clean and healthy environment[5] for every Kenyan and the right to have the environment protected[6] for the benefit of present and future thereby establishing a commitment to ecologically sustainable development. Articles 2(5) and 2(6) of the Constitution also provide that the rules of international law and any treaty ratified by Kenya shall form part of the domestic legal system. Thus, the UNFCCC and the Paris Agreement, which provide for commitments made by countries towards CCA actions, form part of Kenyan law.[7]

3 https://makueni.go.ke/sandbox/site/files/2023/06/Makueni-County-Environment-and-Climate-Change-Policy-2021.pdf

4 https://www.mombasa.go.ke/wp-content/uploads/2021/10/Mombasa-Climate-Change-Policy-2021.pdf

5 Constitution of Kenya article 48

6 Constitution of Kenya article 69

7 International Federation of Red Cross and Red Crescent Societies Law and Policies that Protect the Most Vulnerable Against Climate-Related Disaster Risks pg 9

In addition, the Constitution mandates Parliament to enact legislation to give full effect to the provisions on the right to a clean and healthy environment as provided under Part 2 of Chapter 5 of the Constitution[8]. Pursuant to this, Parliament has enacted the following laws to protect the environment and address climate change.

The Environment and Management Co-ordination Act (EMCA) 1999 is the operative law on matters concerning the environment. It is Kenya's first framework on environmental law. It sets out general principles, creates administrative bodies, lays out environmental quality standards and provides for the inspection, enforcement and punishment of environmental offences. It complements other sectoral laws on water, land, forest, mining and wildlife, among others[9].

The Act further provides for the establishment of an appropriate legal and institutional framework for the management of the environment. In addition, the Act established the mechanism for management of the environment and co-ordination between various agencies in respect to the environmental and several regulations. The Act requires a mandatory Environmental Impact Assessment for any project before its implementation. This is a precaution measure aimed at subjecting development projects to the environment needs and to ensure that those projects are managed in a sustainable manner.

The Climate Change Act, 2016, is the main legislation guiding the country's climate change adaptation governance and actions. The objective of the Climate Change Act, 2016 is to provide a regulatory framework for an enhanced response to climate change, and to provide mechanisms and measures to improve resilience to climate change and promote low carbon development.

The Climate Change Act adopts a mainstreaming approach, provides a legal basis for climate change activities through the National Climate Change Action Plan, and establishes the National Climate Change Council and the Climate Fund. The Act establishes institutional structures, including the National Climate Change Council (the Council), headed by the President of Kenya, as well as the Climate Change Directorate. The Council is the over-arching national institution on climate change. Its role is to provide strategic and policy direction for climate change to national and county governments, as well as to manage the Climate Change Fund established under the Act.

The Council also approves and oversees the implementation of the NCCAP, and provides guidance on harmonizing sectoral laws and policies aligned to the objectives of the Act. Additionally, the Council is expected to "approve a national gender and inter-generational responsive public education awareness

8 Article 72

9 Environment and Climate Change Law Review Sixth Edition

strategy and implementation programme".

In relation to regulation of GHG emissions, the 2016 Act mandates the National Climate Change Council to set targets for the regulation of GHG emissions[10]. Section 13 of the Act further requires the National Climate Change Action Plan to prescribe measures and mechanisms to review levels and trends of GHG emissions. Furthermore, the Act imposes an obligation on all state departments and national government public entities to report on sectoral GHG emissions for the national inventory[11].

It is important to note that the Climate Change Act creates an avenue for citizens to hold governments (national and county) and corporations accountable for reducing greenhouse gas (GHG) emissions. It provides provisions for citizens to sue private and public entities that frustrate efforts to reduce the impact of climate change. This has been witnessed in the case of *Kituo cha Sheria & another v The Attorney General & others Iten* Elc Petition No E002 of 2022 (ISLA & KELIN) where the petitioners challenged the failure of the Kenyan government to fulfil its legal obligation to take measures to adapt to the effects of climate change and mitigate the impacts of climate change in relation to Rift Valley Basin. The petitioners' claim that owing to the failure of the government to provide a sufficient response to climate change and mitigate its impact thereof, they have suffered acute climate vulnerability which has affected various aspects of their lives including health, source of livelihoods, and their natural habitation.

The importance of climate change in development projects has been highlighted in the case of *Greenbelt Movement & 4 others v National Environmental Management Authority & another; Kenya National Highways Authority*[12]. The Appellants appealed against the Environmental Impact Assessment (EIA) License No NEMA/EIA/PSL/9163 issued to China Road and Bridge Corporation (Kenya), the 2nd Respondent herein, on 2nd April 2020 for the construction of the proposed Nairobi Expressway on the ground that the ESIA Study Report failed to include the cumulative impacts of the project, such as the effect of increasing the vehicular capacity in the city of Nairobi, the impact of the increased vehicle capacity on the greenhouse gas emissions, the impacts on the surrounding green spaces, and the role of these and other impacts on Kenya's climate change mitigation goals.

The court in its decision held that

> "although the ESIA report states that the Expressway shall pass through two distinct climatic zones being the Central

10 Section 6

11 Section 15

12 Tribunal Appeal No 19 of 2020

> Highlands/Rift Valley which includes the Nairobi County's JKIA-James Gichuru Section; and Eastern Kenya which includes the Machakos County's Mlolongo-JKIA Section, the report fails to do any analysis of the impacts created by the emissions of greenhouse gases on the sections affected by the Expressway. We find that climate change analysis was necessary prior to the issuance of the EIA Licence.[13]"

On September 1, 2023, against the backdrop of Kenya hosting the Africa Climate Summit and Africa Climate Week, the Climate Change (Amendment) Act, 2023 ("the Act") was assented to by the President. The Act came into force on September 15, 2023, and builds upon the foundations laid by the Climate Change Act, 2016, in pushing Kenya a step forward towards realizing its obligations under the Paris Agreement. Notably, the Act has brought with it a wide array of changes particularly in relation to effecting Article 6 of the Paris Agreement by introducing provisions on the regulation of and participation in carbon markets.

In an effort to boost accountability and transparency, the amendment Act provides for the establishment of a carbon registry that would be accessible to the public with registers on information relating to carbon credit projects and the amount of carbon credits issued or transferred from Kenya. The carbon registry will boost climate financing activities in the country by reassuring investors in carbon markets. A Designated National Authority as established by the Act will be the custodian of the Registry.[14]

Sectoral laws

These laws aim to address climate issues in a given sector of the economy such as industry, energy, transport or finance. Many such laws are introduced through amendments to pre-existing legislation. Examples include the Energy Act[15] that mandates the government to promote the development and use of renewable energy, including biodiesel, bioethanol, biomass, solar, wind and hydropower. The Energy Act provides a useful supporting framework for the transition to a green economy with likely gains in environmental protection and climate change. For example, it establishes a renewable energy Feed-In-Tariff[16] system that aims at catalyzing the generation of electricity via renewable energy sources and minimizing the emission of greenhouse gasses

13 *Ibid* para 102 and 103

14 https://www.oraro.co.ke/the-climate-change/ accessed on January 9 2024

15 Section 91

16 The FIT policy was developed by the Ministry of Energy in 2008 as a guideline on the government's commitment to incentivise the generation and use of renewable energy through preferential tariffs

by licensing reliance on non-renewable energy resources. The Feed-In-Tariff policy was developed as a guideline on the government's commitment, to act as stimulant of the generation and use of renewable energy through preferential tariffs; The Forest Conservation and Management Act that aims to conserve and manage forests to mitigate the impacts of climate change[17]; and the Water Act of 2016 that promotes the sustainable use of water resources and addresses the impacts of climate change on water availability[18]. The Mining Act gives provision for the Environmental and social impact assessment report and environmental management plan for the term of the mining licence to the National Environment Management Authority[19]; and Environmental protection bond sufficient to cover the costs associated with the implementation of the environmental and rehabilitation obligations of the licence holder[20].

In addition to national legislation, Counties have enacted legislation that address protection of the environment and natural resources with a view to establishing a durable and sustainable system of development and climate change[21], these include: The Wajir County Climate Change Fund Act No 3 of 2016; Wajir County Climate Change Fund (Amendment) Act, 2019; Makueni County Climate Change Act, No 6 of 2022**;** Kericho County Climate Change Act No 1 of 2021**;** Kilifi County Climate Change Act, No 1 of 2021**;** Machakos County Climate Change Act, No. 3 of 2021**;** Tharaka Nithi County Climate Change Fund Act, No 4 of 2019**;** Vihiga County Climate Change Act, No 7 of 2019; Kisumu County Climate Change Act, No 7 of 2020**;** and Isiolo County Climate Change Fund Act, No 3 of 2018.[22]

17 Forest Conservation and Management Act 2016, section 3

18 W F.X., Perrez, 'Key questions concerning the human rights and environment debate: An introduction,' in Human Rights and the Environment: Proceedings of a Geneva Environment Network roundtable, (United Nations Environment Programme for the Geneva Environment Network, 2004), p. 4. Water Act 2016, section 3

19 Mining Act, No 12 of 2016: section 101(2)

20 Section 181(1)

21 The Forth Schedule to the Constitution, which includes environmental provisions; 'Distribution of functions between National and County Governments'

22 https://Kenyalaw.org/KL/index.php?id=11764

Case law/Precedents: Established by Kenyan Courts and Tribunals in Relation to Environmental and Climate Justice

Climate change is not only an environmental crisis but also a profound threat to human rights, particularly in developing vulnerable nations like Kenya[23]. Human rights protection is crucial in the context of increasing climate ambition, from mitigation to adaptation, loss and damage, and climate finance. The effective integration of human rights considerations across all the areas of climate action requires it to be grounded on existing human rights obligations and principles, such as the right to access to information and participation, the protection of environmental human rights defenders, the rights of Indigenous Peoples, the meaningful, ethical, and equitable co-production of knowledge between Indigenous systems, the rights to life, land, food, water, health, and to a clean, healthy and sustainable environment[24]. This has been reaffirmed by the courts where it was held that:

> "In our view, the right to a clean and healthy environment is the highest form of right in the hierarchy of constitutional rights. This is because a clean and healthy environment is the sustainer of life itself which is the trajectory on which all other forms of rights gravitate. The right to a clean and healthy environment is fundamentally a right to life [25]

Additionally, failure to comply with environmental regulations or statutory duties leads to a presumption of a violation of the right to a clean and healthy environment. This could also form a basis for a suit under section 23 of the Climate change Act (CCA). The CCA envisages climate change duties being imposed on both public and private entities.[26]

The Environment and Land Court Act, No 19 of 2011[27] provides that in exercise of its jurisdiction under the Act, the Court shall be guided by the principles of sustainable development, including - the principle of public participation in the development of policies, plans and processes for the management of the environment and land; the cultural and social principles

23 Climate Change and Human Rights: Climate-Induced Displacement in Kenya IntroductionThe Advocate LSK Magazine Vol 1 Issue 15 - Annual Conference Edition 2023

24 Respecting,promoting,andprotectinghumanrights in climate action through the Global Stocktake Submission on views on the approach to the consideration of outputs component of the first Global Stocktake, February 2023.

25 *Kenya Association of Manufacturers & 3 others v Cabinet Secretary, Ministry of Environment and Natural Resources & 3 others* [2018] eKLR pg 133

26 Climate Change Act s 16.

27 Section 18

traditionally applied by any community in Kenya for the management of the environment or natural resources in so far as the same are relevant and not inconsistent with any written law; the principle of international co-operation in the management of environmental resources shared by two or more states; the principles of intergenerational and intragenerational equity; the polluter-pays principle; and the pre-cautionary principle.

In light of the above, Kenyan courts and tribunals have been seen to apply the principles of climate justice and provide interlinking with other human rights in the protection of the environment and to address climate change.

In this part, the jurisprudence emanating from the Environment and Land Court and Tribunals in Kenya will be analyzed in line with the established principles.

Polluter-pays principle

The Polluter Pays Principle first appeared in 1972 in the Organisation for Economic Co-operation and development, in the Guiding Principles concerning international economic aspects of environmental policies[28] as a response to the continued subsidization of pollution control costs of private firms by national public authorities. The principle was adopted as the 16th Principle for Sustainable Development in the Rio Declaration on Environment and Development in 1992. Principle 16 provides that:

> *'national authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.'*

The Principle requires the polluter to take responsibility for the external costs arising from its pollution. As expressed in 1972, OECD Guiding Principles on the International Economic Aspects of Environmental Policies reads:

> *"The so-called' Polluter Pays Principle is the principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment.' This Principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the costs of these measures should be reflected in the cost of goods and services*

28 The Guiding Principles of The Organization for Economic Co-operation and Development (OECD).

> *which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment.*"[29]

According to the Intergovernmental Panel on Climate Change, the Polluter Pays Principle is a possible principle of justice. In a further decisive sense, justice is about a fair allocation of environmental costs in bearing adaptive and mitigative capacities towards the environmental burdens and the successive determinations of the liability actors[30].

Who should pay?

A polluter is a person, legal or physical, who directly or indirectly causes damage to the environment. The polluter pays Principle (PPP) applies to operators who professionally conduct risky or potentially risky activities such as; industrial and agricultural activities that require environmental permits, waste management operators, the release of pollutants in the water or the air, use and release of dangerous chemicals and use and release of genetically modifies organisms[31]. In the case of *Michael Kibui & 2 others (suing on their own behalf as well as on behalf of the inhabitants of Mwamba Village of Uasin Gishu County) v Impressa Construzioni Giuseppe Maltauro* the court stated that:

> "The principle of polluter pays entails that a person involved in any polluting activity should be responsible for the costs of preventing or dealing with any pollution caused by that activity instead of passing them to somebody else. The polluter should bear the expenses of carrying out pollution prevention and control measures to ensure that the environment is in an acceptable state. In international law, the principle is embedded in the Rio Declaration on Environment and Development (1992) which reads at principle 16 as national authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments taking into account that the polluter should, in principle bear the costs of pollution with due regard to the public interests and without distorting international trade and investment."[32]

29 The 1972 Guiding Principles on the International Economic Aspects of Environmental Policies

30 Ebbesson, Jonas, Phoebe N. Okowa, and Phoebe Okowa. 2009. Environmental Law and Justice in Context. Cambridge University Press.

31 Annex III of the EU Liability Directive 2004/35/EC

32 Para 65

However, cases of environmental pollution due to force majeure are excluded from applying this Principle. Member states can exclude from liability the operators that demonstrate that their activities are not environmentally risky according to the state of technical and scientific knowledge of when the activity occurred. The liability directive is not applied even to individuals that caused environmental pollution on another person's property. This case should be solved under civil law.

Implementation of the Polluter Pays Principle in Kenya

The constitutional provision on the enforcement of the right to clean and healthy environment in Kenya is largely based on the principle of the polluter pays principle where the provisions give extensive powers to the court to compel the government or any public agency to take restorative measures and to provide compensation for any victim of pollution and to compensate the cost borne by victims for the lost use of natural resources as a result of an act of pollution.[33]

The Environmental Management and Coordination Act (EMCA) defines the polluter pays principle as *'the cost of cleaning up any element of the environment damaged by pollution, compensating victims of pollution, cost of beneficial uses lost as a result of an act of pollution and other costs that are connected with or incidental to the foregoing, is to be paid or borne by the person convicted of pollution.'* Further, one of the Principles of the Nairobi City County air Quality policy, the polluter and the users of environmental and natural resources shall bear the full environmental and social costs of their activities[34]

An individual seeking redress for violating environmental rights may seek redress from the High Court[35]. The High Court is required to consider the polluter pays Principle as one of the guiding principles when enforcing the right to a clean and healthy environment.

Part IX of the EMCA stipulates that NEMA may issue an environmental restoration order to require the potential polluter or polluter to restore the environment as close as possible to its original state prior to the violation, to prevent environmental damage, award compensation to victims or levy a charge for reduction of costs. The court is empowered to order forfeiture of a substance or motor vehicle which caused the pollution and be disposed of off as the court may direct[36].

33 Strengthening the Environmental Liability Regime in Kenya for Sustainable Development pg 19

34 Sessional Paper no.2 on Nairobi City County Air Quality Policy.

35 The Environmental Management and Coordination Act 2015, Section 3(5)

36 The Environmental Management and Coordination Act 2015, Section 146

The Act establishes The National Environment Restoration Fund[37] , which consists of fees or deposit bonds, donations or levies from industries and other project proponents. This fund provides further protection and mitigation of environmental damage in cases where the polluter is unidentifiable or NEMA intervention is required.

The Kenyan government is putting in the effort to safeguard the environment by incorporating the polluter pays Principle. Nakuru county government, for instance, is preparing a binding law that will apply the polluter pays Principle, including prison sentences for people or company managers convicted of pollution. This is done to effectively combat air, water, and soil pollution caused by sewage and waste. The new waste laws provide fines ranging from 1 to 2 million Kenyan shillings (between $9,200 and more than $18,300) for a person guilty of pollution[38].

In addition, the court have been seen to enforce this principle by awarding damages to those affected by environmental pollution and degradation

In *Kelvin Musyoka and others v the Attorney General and others,* the residents of the Owino Uhuru suburb in Mombasa brought a claim to court after a lead smelter that recycled lead batteries was opened up in the area, Metal Refinery (EPZ). The residents of the area stated that when the lead smelter was established in 2007, their children began feeling sick, and adults experienced symptoms akin to those of lead poisoning; further blood tests performed on the community residents showed that there were high levels of lead in their blood. They alleged that this resulted from poor waste management poisoning the environment. This also infringed on their right to life and a clean and healthy environment.[39]The Environment and Land Court eventually ruled that the government agencies responsible for enforcing the regulations at the plant ought to pay compensation in damages within 90 days' worth Kshs. 1.3 billion, and the environmental damage needed to be cleared within four months.[40]

In *Mohamed Ali Baadi and others v AG & 11 others* [2018] eKLR, the project proponent agreed to pay Kshs 1,760,424,000 in monetary compensation to the individuals who were impacted. The petitioners and the other residents of Lamu Island were to be consulted regarding how the LAPSSET project might affect their culture as a district indigenous community and how to mitigate any negative effects on culture. Because this project was still in progress,

37 The Environmental Management and Coordination Act 2015, Section 25(1)

38 Jean Marie Takouleu, Nakuru wants to apply "rigorously" the polluter-pays principle (2020) https://www.afrik21.africa/en/kenya-nakuru-wants-to-apply-rigorously-the-polluter-pays-principle/

39 The Constitution of Kenya 2010, Article 42

40 *Kelvin Musyoka and others vs Attorney General and others* (2016) eKLR

the court ordered the project proponent to include a demonstrably specific consultation plan[41].

In *Michael Kibui & 2 others (suing on their own behalf as well as on behalf of the inhabitants of Mwamba Village of Uasin Gishu County) v Impressa Construzioni Giuseppe Maltauro SPA & 2 others* [2019] eKLR**.** The court ordered that the plaintiffs each be paid Kshs 30,000 for breach of their right to a clean healthy environment as the 1st respondent had breached the petitioners right to a clean and healthy environment by causing, water, air and noise pollution and excessive vibrations hence the petitioners had suffered damage that require.

However, courts have also been seen to balance the rights of the people affected and the need of the society at large as was seen in the case of *In the case of Martin Osano Rabera and another vs Municipal Council of Nakuru and 2 others*[42]. The Petitioners being residents of Nakuru living near Gioto waste disposal site sought a declaration that their right to a clean and healthy environment under article 42 of the Constitution of Kenya, 2010 (Constitution) was violated. Furthermore, the Petitioners sought compensation, relocation and restoration of the waste disposal site and an order stopping the 3rd Respondent from depositing or permitting the depositing of waste at the site. The court in determining the matter held that:

> "…Though the Petitioners' right to a clean and healthy environment under article 42 of the Constitution had been breached and though the Petitioners had sought a mandatory injunction compelling relocation of Gioto dump site as well as an order restraining further dumping of waste at the site, the solution to the problem required a delicate balancing act. The site received waste from the whole of Nakuru Town. That waste was being generated daily and it had to be deposited somewhere. The Court was not aware of any alternative waste disposal site for Nakuru Town. An immediate relocation order or an order stopping delivery of waste at the site might have sound enticing but would in reality be impractical. A cautious graduated approach would be more appropriate. Consequently, the Court was not persuaded to issue mandatory injunction compelling relocation of Gioto dump site or an order restraining further dumping of waste at the site as sought."[43]

41 Para. 164.

42 Petition No 53 of 2012

43 *Ibid* para 76

Public participation principle

Justice in relation to climate change requires fair treatment and meaningful involvement of all people.[44] The foundation of public participation can be found in Principle 10 of the Rio Declaration on Environment and Development, 1992 which states as follows:-

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

In Kenya, Article 10(2)(a) of the Constitution outlines participation of the public as one of the national values and principles of governance which bind all state organs and public officers. Furthermore, article 69(1)(d) of the Constitution provides that the State shall encourage public participation in the management, protection and conservation of the environment. Furthermore, EMCA anticipates that public participation[45] is to be taken into consideration in the development of policies and processes for the management of the environment[46].

Whereas the constitution provides for public participation; it does not prescribe how public participation is to be effected. This was reiterated in the case of *National Association for the Financial Inclusion of the Informal Sector v Minister for Finance & another* [2012] eKLR (per Majanja J), where the court held that:

> "…the Constitution does not prescribe how public participation is to be effected and in every case where a violation is alleged, it is a matter of fact whether there is such a breach or not. While this may be true for the Constitutional provisions and/ or other sectors, in the matter of Environmental Impact Assessment Studies the

44 Declaration of ethical Principles in Relation to Climate Change (2017)

45 It is worth noting that there is Public Participation Bill, 2023 that seeks to provide for a general framework for effective public participation; to give effect to the constitutional principles of democracy and participation of the people under articles 10(2), 118, 196, 201(a) and 232(l)(d) of the Constitution; and for connected purposes

46 Section 3(5)

EMCA and its regulations provide a structure of how the public participation exercise will be conducted."

In the absence of legislation guiding on how public participation would be concluded. The Supreme Court in *British American Tobacco Kenya, PLC v Cabinet Secretary for the Ministry of Health and others* [2019] eKLR[47] provided a framework/Guiding Principles for public participation to include:

i. As a constitutional principle under article 10(2) of the Constitution, public participation applies to all aspects of governance.
ii. The public officer and or entity charged with the performance of a particular duty bears the onus of ensuring and facilitating public participation.
iii. The lack of a prescribed legal framework for public participation is no excuse for not conducting public participation; the onus is on the public entity to give effect to this constitutional principle using reasonable means.
iv. Public participation must be real and not illusory. It is not a cosmetic or a public relations act. It is not a mere formality to be undertaken as a matter of course just to 'fulfill' a constitutional requirement. There is need for both quantitative and qualitative components in public participation.
v. Public participation is not an abstract notion; it must be purposive and meaningful.
vi. Public participation must be accompanied by reasonable notice and reasonable opportunity. Reasonableness will be determined on a case to case basis.
vii. Public participation is not necessarily a process consisting of oral hearings, written submissions can also be made. The fact that someone was not heard is not enough to annul the process.
viii. Allegation of lack of public participation does not automatically vitiate the process. The allegations must be considered within the peculiar circumstances of each case: the mode, degree, scope and extent of public participation is to be determined on a case to case basis.
ix. Components of meaningful public participation

47 Petition No 5 of 2017

include the following:

a) clarity of the subject matter for the public to understand;
b) structures and processes (medium of engagement) of participation that are clear and simple;
c) opportunity for balanced influence from the public in general;
d) commitment to the process;
e) inclusive and effective representation;
f) integrity and transparency of the process;
g) capacity to engage on the part of the public, including that the public must be first sensitized on the subject matter.[48]

Public participation by individuals and communities in the system of environmental impact assessment[49] is a key element. The importance of public participation in environmental matters was restated in the case of *Save Lamu & 5 others v National Environmental Management Authority (NEMA) & another* where the court held that despite the ESIA Study reports endeavour to capture as much of the reasonably foreseeable anticipated impacts of the proposed project and attempted to address the mitigation measures to be put in place to mitigate the various matters identified as Environmental and Social impacts, however, the comprehensiveness of the EIA Study report did not excuse the failure to carry out effective public participation during this process as well as after the preparation of the voluminous EIA study report. The EIA study and report thereof were thus never subjected to proper and effective public participation that would have covered most of the grievances now raised in the appeal.

In addition to the above case, the courts in Kenya have gone further to explain what environmental democracy entails. The court in *Mohamed Ali Baadi and others v Attorney General & 11 others* [2018] eKLR defined environmental democracy as:

> "In the instant case, a key concept which this Court cannot ignore is environmental democracy, a term that reflects increasing recognition that environmental issues must be addressed by all, or at-least a majority of those affected by their outcome, not just by the minority comprising the

48 *Ibid* paara 96

49 Environmental Impact Assessment means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment

governments and leading private-sector actors. It captures the principle of equal rights for all including the public, community groups, advocates, industrial leaders, workers, governments, academics and other professionals to be involved in environmental governance. It connotes the right of all whose daily lives are affected by the quality of the environment to participate in environmental decision-making as freely as they do in other public interest matters such as education, health care, finance and government. Access to environmental information and justice for all those who choose to participate in such decision-making is integral to the concept of environmental democracy".[50]

The court have further outlined principles of public participation in environmental governance, these in the *Mui Coal Basin Local Community & 15 others v Permanent Secretary Ministry of Energy & 17 others*[51]. These include-:

"a) The government agency or public official involved should craft a programme of public participation which accords with the nature of the subject matter. While crafting the programme the government agency or public official had to consider the quantity and quality of the public's participation in their governance.

b) Public participation called for innovation and malleability depending on the nature of the subject matter, culture, logistical constraints and so forth. No single regime or programme of public participation could be prescribed and the Courts could not use any litmus test to determine if public participation was achieved or not. The only test that the Courts could use was the effectiveness of the mechanisms used in achieving public participation,

c) However the programme of public participation was fashioned, it had to include access to and dissemination of relevant information.

d) Public participation would not require everyone to offer their views on environmental governance. Such a standard would give a virtual veto power to each individual in the community to determine communal

50 Para 76 and 77

51 Constitutional Petition Nos 305 of 2012, 34 of 2013 & 12 of 2014 (Formerly Nairobi Constitutional Petition No 43 of 2014) (Consolidated).

collective affairs. However, a public participation programme would have to show inclusivity and diversity. Any clear and intentional attempts to lock out bona fide stakeholders would render the public participation programme ineffective and illegal by definition. In order to assess inclusivity in designing a public participation programme, the government agency or public official would have to consider the subsidiarity principle. The subsidiarity principle meant that those who would be most affected by a policy, legislation or action had to have a bigger say in that policy, legislation or action and their view would be sought more deliberately and taken into account.

e) The right to public participation would not guarantee that each individual's views would have a controlling impact. The right was one that allowed individuals to present their views and not one that created a duty on the government agency to accept those views as dispositive. However, the public official or government agency had a duty to consider all views offered in good faith as part of public participation.

f) The right of public participation would not usurp the technical or democratic role of office holders to cross-fertilize and enrich their views with the views of those who would be most affected by the decision or policy at hand."

Furthermore, in *Mohamed Ali Baadi and others v Attorney General & 11 others* [2018] eKLR[52] The court stated that that ***proper standard*** of ascertaining whether there was adequate public participation in environmental matters was the ***reasonableness standard*** which had to include compliance with prescribed statutory provisions as to public participation. Furthermore, failure to adhere to set statutory provisions on public participation was *per se* a violation of the constitutional requirement of public participation and yielded an inescapable conclusion that the project which did not so comply suffered from inadequate public participation.

The court further held that failure to have prior consultation with the indigenous community in Lamu Island about the potential cultural impacts of the LAPSSET Project on the culture of the Lamu Island was a violation of the Petitioners' right to culture as enshrined in articles 11(1) and 44 of

52 Petition No 22 of 2012

the Constitution and various international treaties. Failure to consult was a continuing one to the extent that a proponent of a development project was not obligated to only consult at the point of conceptualization of a project but was duty-bound to design on-going consultations with the local indigenous communities throughout the project cycle.

Climate change forms part of material considerations to be taken into account in public decision-making and failure to do so can lead to a decision being set aside or a mandatory requirement to consider climate change before decisions can be implemented. For example, where climate change considerations are not taken into account in the Environmental Impact Asessment process, then any person may challenge the process. This was illustrated in *Republic vs Kenya Forest Service ex- parte Clement Kariuki & 2 others* [2013][53] where the court quashed the decision of the ex-parte applicants, Kenya Forest Service for failure to consider the statutory requirements on public participation and forest management

In this case sought court orders to prohibit and quash the decision of the Respondent (Kenya Forest service) which had advertised in the Kenya Daily Nation newspaper and called for individuals and interested institutions to apply for concessions in state forest plantations, for parcels of land between 1,000 – 12,000 hectares each. The applicants complained that the Respondent had also not conducted public consultation prior to the issuance of the notice in the newspaper nor had it provided the public with any information as to how the decision to issue the notice was arrived at.

The court held that the issue of whether or not the principles of public participation had been adhered to by the Respondent's Board before it became satisfied that the subject forests would be efficiently managed as provided under section 37(2) of the Forest Act was highly relevant. By purporting to have been satisfied under section 37(2) of the Forest Act without involving the people of Kenya, the Respondent had denied the people of Kenya an opportunity to make representations on the issue, yet it was constitutionally bound to do so. It also denied itself of the opportunity to secure sufficient material on which it could properly be satisfied that a decision under section 37(2) of the said act ought to be made.

Precautionary/prevention principle;

Principle 15 of the Rio Declaration on Environment and Development states that in order to protect the environment, the precautionary approach should be widely applied by States according to their capabilities. Further, it states that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures

53 Judicial Review Case No 285 of 2012,

to prevent environmental degradation.[54]

Section 2 of EMCA defines the precautionary principle as the principle which postulates that where there were threats of damage to the environment, whether serious or irreversible, lack of full scientific certainty should not be used as a reason for postponing cost effective measures to prevent environmental degradation. The section mirrored Principle 15 of the Rio Declaration on Environment and Development.

Section 3 of EMCA spells out the principles to be applied in the management of the environment and Section 86 of the Act confers upon the 1st respondent powers to identify materials and processes that are dangerous to human health and the environment; to issue guidelines and prescribe measures for the management of the materials and processes so identified.

In the case of *Isaiah Luyara Odando & another v National Management Environmental Authority & 2 others; County Government of Nairobi & 5 others (Interested Parties)* [2021] eKLR[55]. The court was seen to apply the precautionary principle by discussing the duty the precautionary principle set on the State or on State organs in environmental law. The court stated:

> "Under this principle, the State would rather be wrong in acting instead of failing to act at all because the damage the pollution is likely to cause to human health and the environment may take years to be ascertained scientifically. The Respondents should minimise the future costs of being wrong about environmental and health risks posed by air and water pollution in the country. Applying the precautionary principle in stopping air and water pollution will prevent the actual causes of respiratory and other diseases as well as other underlying risks to health. This would entail examining the evidence of risk and uncertainty to determine the possibility of a significant health threat and the need to take precautionary action. This can only be done by reducing pollution at the source."[56]

The instant case involved a petition where the National Environment Management Authority (NEMA) and all the counties that the River Tana traversed. The suit claimed that NEMA and the county governments had not

54 Principle 15, 1992 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (vol. I) / 31 ILM 874 (1992). Adopted at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil from 3-14 June1992.

55 Constitutional Petition No 43 of 2019

56 *Ibid* para 16

stopped the pollution of the River Tana and Nairobi River, that in particular, the Nairobi Metorpolitan Service (NIMS) had not stopped the air and water pollution by the Dandora Dumpsite In its decision, the court held that the Respondents are directed to adopt the precautionary principle in the management of the environment in which the Petitioners reside by taking the measures to stop the air pollution and prevent the pollution of the Nairobi and Athi River.

In *Amina Said Abdalla & 2 others v County Government of Kilifi & 2 others* [2017] eKLR. The plaintiffs argued that dumping of solid waste on the plaintiffs' land had the effect of polluting the environment as the waste is being continuously and indiscriminately burnt on site, thereby producing obnoxious and toxic smoke, thereby rendering the plaintiffs land and surrounding areas unsafe for human habitation. The court in ordering an injunction restraining the County Government of Kilifi and NEMA from dumping, or continuing to dump and/or incinerate solid and/or any other form of waste, on the plaintiffs' situated at Malindi stated:

> "....the Principle of Prevention decrees that "the protection of the environment is best achieved by preventing environmental harm in the first place rather than relying on remedies or compensation for such harm after it has occurred. The reasoning behind this principle is that prevention is less costly than allowing environmental damage to occur and then taking mitigation measures. Closely related to the principle of prevention is the precautionary principle. This recognizes the limitations of Science in being able to accurately predict the likely environmental impacts and thus calls for precaution in making environmental decisions where there is uncertainty. This principle requires that all reasonable measures be taken to prevent the possible deleterious environmental consequences of development activities. I am satisfied in light of the weighty issues raised in the application that there is the danger of the suit land and the surrounding areas suffering serious environmental damage"

In the case above, the plaintiff were argued dumping of solid waste on the plaintiffs' land has the effect of polluting the environment as the waste is being continuously and indiscriminately burnt on site, thereby producing obnoxious and toxic smoke, thereby rendering the plaintiffs land and surrounding areas unsafe for human habitation

In *Kenya Association of Manufacturers & 3 others v Cabinet secretary, Ministry of Environment and Natural Resources & 3 others* [2018] eKLR[57] where the petitioners where challenging the Gazette Notice banning the use, manufacture and importation of certain categories of plastic bags used for commercial and domestic purposes. The court held that:

> "We are aware that there are jurisdictions that have successfully banned the manufacture and use of plastic bags with the objective of protecting and conserving the environment. Rwanda which is a member of the East African Community successfully banned plastic bags in 2008. We are not convinced that the plastic ban imposed by the 1st respondent is doomed to fail because similar initiatives in other jurisdictions have not seen the light of the day".

The court held that that the 1st respondent (NEMA) has power under sections 3 and 86 of EMCA to ban plastic bags. We therefore reject the petitioners' contention that the 1st respondent acted ultra vires the said provisions of EMCA.

In the case of *Pastor James Jessie Gitahi & 202 others v Attorney General*[58] **,** petitioners were in the music industry business when their sound equipment were confiscated, resulting in business loss. They also argued that the Minister did not have the power to prescribe offense under the Environmental Management and Coordination Act. Thus it was contrary to section 34 of the Interpretation and General Provisions Act which states that the general assembly must approve such provisions. The court, however, dismissed the petition citing that EMCA had the powers as an Act of Parliament through the Minister to take such mechanism to reduce noise pollution and that it was proportionately done in the name of the general interest. It also stated that noise pollution can cause injury to the human body as the general regulations forbid loud, unreasonable noise, which is unhealthy.[59]

In *Law Society of Kenya v Attorney General & 3 others; Katiba Institute & 6 others*[60]. The instant suit concerned the moratorium on logging that was put in place in 2018, for the purpose of reassessment and rationalization of the entire forest sector in the country. The Petition is primarily concerned with sustainable forest management. The petitioners sought orders for a declaration

57 ELC Petition No 32 of 2017

58 [2013] eKLR, Petition No 683 of 2009.

59 Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulation, 2009, Legal Notice No 61 of 2009.

60

that the people of Kenya were entitled to be involved and participate in making, formulating, developing and legislating of laws, rules, regulations and guidelines to govern logging activities and that if such laws, regulations and guidelines are enacted, passed or issued by the 1st to 4th Respondents without involvement and participation of the Petitioners and the people of Kenya and that that in line with international commitments to the efforts of conserving forests and reducing the effects of climate change, the government ought to implement policies/directives and measures reflecting the commitment under the United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity, United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Paris Agreement.

The Court held that:

> "…considering that the continuous non-harvesting of mature and over mature exotic trees, that is tress that are over 25 years old, has a deleterious effect on the environment as opposed to young tress…
>
> 198. The findings of the 2018 Taskforce paint a stark picture of the realities of illegal logging of both indigenous and plantation forests, unlawful settlements and impacts of cultivation under the Plantation Establishment and Livelihood System (PELIS), irregular licensing and poor forest management by the 3rd respondent.
>
> 254. This court also finds that the complete lifting of the moratorium under the guise of a consent order by parties and resumption of logging in Kenya, without implementing the 2018 Taskforce recommendations, or showing a comprehensive implementation matrix infringes on the rights of the Petitioner and the public to a clean and healthy environment."

Administrative and Green measures.

In addition determining cases that involve the protection of the right to clean and healthy environment, there are some certain administrative measures that the courts have taken to ensure that climate litigation is enhanced within the court system. In 2023, the judiciary deliberately separated Environment and Planning Division from the Land Division to expedite hearing and determination of cases related to Climate Change injustices. The aim of the move was to:

> "…Beginning the 1st July 2023, the ELC (Environment and Land Court) split into two divisions administratively:

> the Environment and Planning Division and the Land Division. This is geared towards improving efficiency and realization of the mission of the ELC of 'resolving environment and land disputes fairly and expeditiously for peaceful coexistence and sustainable development.'
> "The court aspires to hand environmental and climate justice real-time in any event within six months of their being filed in court," reads part of the document that the judge used in his presentation."[61]

With a view to reducing its environmental footprint, the Judiciary's greening initiative includes greater reliance on renewable energy, paperless court processes and biotechnology for waste management at court stations. The Judiciary's preference for solar power, to provide electricity for existing courts on and off grid power, is aligned with the Government of Kenya's commitment to achieve full transition to clean energy by the year 2030.[62]

Conclusion

Section 23 of the Climate Change Act provides that, 'any person may, pursuant to Article 70 of the Constitution, apply to the Environment and Land Court (ELC) alleging that a person has acted in a manner that has or is likely to adversely affect mitigation and adaptation efforts.' This provision, coupled with the constitutional and EMCA provisions, allows access to courts to anyone to hold private entities and government liable for their action or inaction relating to climate change. The importation of article 70 of the Constitution into the climate change enforcement provisions gives a direct reference for potential climate litigators to file the cases as constitutional matters and arguably places climate related violations at the same level as constitutional rights violations.

61 https://www.citizen.digital/news/kenya-establishes-court-division-to-tackle-climate-change-related-cases-n323407

62 Fact_Sheet_-_Greening_Kenyas_justice_system_-_Nov_2022

Chapter 3: Jurisprudence on Climate Justice Established Internationally

Introduction

The world's climate has always varied naturally. Scientists believe, however, that a new kind of climate change is now under way. Its impacts on people and ecosystems are to be drastic. Levels of carbon dioxide and other 'greenhouse gases' in the atmosphere have risen steeply since the industrial revolution. Concentrations have increased mainly because of the use of fossil fuels, deforestation and other human activities, spurred on by economic and population growth. Like a blanket around the planet, greenhouse gases stop energy escaping from the Earth's surface and atmosphere. If levels rise too high, excessive warming can distort natural patterns of climate[1].

People in some areas may benefit from climate change. But many more will struggle to cope. Developing countries will suffer more than others as their lack of resources makes them especially vulnerable to adversity or emergencies on any major scale. Yet people in developing countries have created only a small proportion of greenhouse gas emissions[2].

Evidence of human interference with the climate first emerged in 1979 at the First World Climate Conference. As public concern over environmental issues continued to increase during the 1980s, governments grew progressively more aware of climate issues. In 1988 the United Nations General Assembly adopted resolution 43/53, proposed by the Government of Malta, urging the 'Protection of global climate for present and future generations of mankind.' During the same year the governing bodies of the World Meteorological Organization and the United Nations Environment Programme created a new body, theA Intergovernmental Panel on Climate Change, to marshal and assess scientific information on the subject. In 1990 the IPCC issued its First Assessment Report, which confirmed that the threat of climate change was real[3].

The Second World Climate Conference held in Geneva later that year called for the creation of a global treaty. The General Assembly responded by passing resolution 45/212, formally launching negotiations on a convention on climate change, to be conducted by an Intergovernmental Negotiating Committee

1 UNFCCC 'Caring for climate a guide to the climate change convention and the kyoto protocol'https://unfccc.int/resource/docs/publications/caring_en.pdf accessed 17 January 2024

2 *Ibid*

3 *Ibid* 3

(INC)[4].

The INC first met in February 1991 and its government representatives adopted the United Nations Framework Convention on Climate Change, after just 15 months of negotiations, on 9 May 1992. At the Rio de Janeiro United Nations Conference on Environment and Development (or Earth Summit) of June 1992, the new Convention was opened for signature. It entered into force on 21 March 1994. Eight years later, the Convention had been joined by 188 states and the European Community. This almost worldwide membership makes the Convention one of the most universally supported of all international environmental agreements[5].

It is from this Convention that the Kyoto Protocol, 1997 and the Paris Agreement, 2015 were subsequently birthed. The Kyoto Protocol was adopted on 11 December 1997. Owing to a complex ratification process, it entered into force on 16 February 2005. Currently, there are 192 Parties to the Kyoto Protocol. In short, the Kyoto Protocol operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets. The Convention itself only asks those countries to adopt policies and measures on mitigation and to report periodically[6].

After the Kyoto Protocol, came the Paris Agreement. The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015. It entered into force on 4 November 2016. Its overarching goal is to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels[7]."

On the international scale, therefore, there are laws and case law that have emerged in the race towards climate justice. This section is therefore going to discuss that legal framework which includes treaties and conventions and principles that impact climate justice; the institutional framework and the case law revolving around climate justice enforced by the courts.

4 *Ibid* 3

5 *Ibid* 3

6 UNFCCC 'What is the Kyoto Protocol' https://unfccc.int/kyoto_protocol accessed 17 January 2024

7 UNFCCC, 'What is the Paris Agreement' < https://unfccc.int/process-and-meetings/the-paris-agreement> accessed 17 January 2024

State Obligations under International Law

International law is a system of rules and principles that are recognized and applied by nations and other actors in the international system. It consists of various sources, including treaties and other agreements, customs, and general principles of law.

International human rights law lays down obligations which States are bound to respect. By becoming parties to international treaties, States assume obligations and duties under international law to respect, to protect and to fulfil human rights. The obligation to respect means that States must refrain from interfering with or curtailing the enjoyment of human rights. The obligation to protect requires States to protect individuals and groups against human rights abuses. The obligation to fulfil means that States must take positive action to facilitate the enjoyment of basic human rights[8].

Through ratification of international human rights treaties, Governments undertake to put into place domestic measures and legislation compatible with their treaty obligations and duties. Where domestic legal proceedings fail to address human rights abuses, mechanisms and procedures for individual complaints or communications are available at the regional and international levels to help ensure that international human rights standards are indeed respected, implemented, and enforced at the local level[9].

Legal Framework Relating to Climate Justice

Treaties/Conventions

The main treaties hereunder have been influenced by the United Nations Framework Convention on Climate Change which sets an overall framework for intergovernmental efforts to tackle climate change. It establishes an objective and principles and spells out commitments for different groups of countries according to their circumstances and needs. It also provides a set of institutions to enable governments to monitor efforts to implement the Convention and to share insights on how best to pursue the Convention's aims. The following discussion espouses on the various treaties and conventions internationally that speak to climate justice.

8 UN, International Human Rights Law < https://www.ohchr.org/en/instruments-and-mechanisms/international-human-rights-law#:~:text=By%20becoming%20parties%20to%20international,the%20enjoyment%20of%20human%20rights.>accessed 19 January 2024

9 *Ibid*

The United Nations Framework Convention on Climate Change (UNFCCC)*, *1992, is the main international treaty on fighting climate change. Its objective is to prevent dangerous man-made interference with the global climate system. Kenya ratified the Convention on August 30, 1994. The UNFCCC is the foundational treaty that has provided a basis for international climate negotiations since it was established, including landmark agreements such as the **Kyoto Protocol** (1997) and the **Paris Agreement** (2015). The Convention has been ratified by 197 states who have committed to act on climate change and regularly report on their progress[10].

The ultimate goal of the Convention is the "stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" within a timeframe that allows people and planet to adapt and economies to develop sustainably. In joining the Convention, Parties acknowledge the existence of the threat of climate change and agree to undertake efforts to combat it. The Convention itself has not established concrete targets. Rather, it was intended to provide a framework for future agreements and policies[11].

***The Kyoto Protocol to the UNFCC*, 1997** implemented the objective of the UNFCCC to reduce the onset of global warming by reducing greenhouse gas concentrations in the atmosphere to "a level that would prevent dangerous anthropogenic interference with the climate system" (Article 2). The Kyoto Protocol applied to the seven greenhouse gases listed in Annex A; carbon dioxide (CO_2) methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)

The Protocol was based on the principle of common but differentiated responsibilities: it acknowledged that individual countries have different capabilities in combating climate change, owing to economic development, and therefore placed the obligation to reduce current emissions on developed countries on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere[12].

10 London School of Economics and Political Science, 'What is the UN Framework Convention on Climate Change (UNFCCC)?' https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-un-framework-convention-on-climate-change-unfccc/#:~:text=Signed%20in%201992%2C%20the%20United,the%20Paris%20Agreement%20(2015). 24 October, 2022 accessed 8 January 2024

11 *Ibid*

12 'Kyoto Protocol' https://en.wikipedia.org/wiki/Kyoto_Protocol#:~:text=As%20of%20October%202020%2C%20147,binding%20commitments%2C%2034%20had%20ratified. accessed 12 January 2024

The Protocol's first commitment period started in 2008 and ended in 2012. All 36 countries that fully participated in the first commitment period complied with the Protocol. However, nine countries had to resort to the flexibility mechanisms by funding emission reductions in other countries because their national emissions were slightly greater than their targets. The financial crisis of 2007–08 reduced emissions. The greatest emission reductions were seen in the former Eastern Bloc countries because the dissolution of the Soviet Union reduced their emissions in the early 1990s. Even though the 36 developed countries reduced their emissions, the global emissions increased by 32% from 1990 to 2010[13].

A second commitment period was agreed to in 2012 to extend the agreement to 2020, known as the Doha Amendment to the Kyoto Protocol, in which 37 countries had binding targets (now 27). As of October 2020, 147 states had accepted the Doha Amendment. It entered into force on 31 December 2020, following its acceptance by the mandated minimum of at least 144 states, although the second commitment period ended on the same day. Of the 37 parties with binding commitments, 34 had ratified. Negotiations were held in the framework of the yearly UNFCCC Climate Change Conferences on measures to be taken after the second commitment period ended in 2020. This resulted in the 2015 adoption of the Paris Agreement, which is a separate instrument under the UNFCCC rather than an amendment of the Kyoto Protocol[14].

The Kyoto Protocol, like the Convention, is also designed to assist countries in adapting to the adverse effects of climate change. It facilitates the development and deployment of technologies that can help increase resilience to the impacts of climate change. The Adaptation Fund was established to finance adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol. In the first commitment period, the Fund was financed mainly with a share of proceeds from CDM project activities. In Doha, in 2012, it was decided that for the second commitment period, international emissions trading and joint implementation would also provide the Adaptation Fund with a 2 percent share of proceeds[15].

The Paris Agreement, 2015

The Paris Agreement which Kenya ratified on April 22, 2016 is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December

13 *Ibid*

14 *Ibid*

15 UNFCCC 'What is the Kyoto Protocol' https://unfccc.int/kyoto_protocol accessed 17 January 2024

2015. It entered into force on 4 November 2016. Its overarching goal is to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels." The Paris Agreement is a landmark in the multilateral climate change process because, for the first time, a binding agreement brings all nations together to combat climate change and adapt to its effects.

However, in recent years, world leaders have stressed the need to limit global warming to 1.5°C by the end of this century. That's because the UN's Intergovernmental Panel on Climate Change indicates that crossing the 1.5°C threshold risks unleashing far more severe climate change impacts, including more frequent and severe droughts, heatwaves and rainfall. To limit global warming to 1.5°C, greenhouse gas emissions must peak before 2025 at the latest and decline 43% by 2030. The Paris Agreement is a landmark in the multilateral climate change process because, for the first time, a binding agreement brings all nations together to combat climate change and adapt to its effects[16].

There are also Conventions under environmental law that speak to climate justice as can be seen below:

The Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1975 (CITES). This treaty ratified by Kenya on December 13, 1978 regulates the international trade in endangered species and their parts and products to ensure that such trade is sustainable and does not threaten the survival of these species**.**

The Convention on Biological Diversity (CBD), 1992 entered into force in 1993. This treaty ratified by Kenya on October 24, 1994 promotes the conservation and sustainable use of biological diversity, including establishing protected areas and conserving species.

The Cartagena Protocol on Biosafety

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international agreement which aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. It was adopted on 29 January 2000 and entered into force on 11 September 2003.

16 UNFCCC, 'What is the Paris Agreement' < https://unfccc.int/process-and-meetings/the-paris-agreement> accessed 17 January 2024

The ***Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity*** is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way. It entered into force on 12 October 2014, 90 days after the date of deposit of the fiftieth instrument of ratification.

The Montreal Protocol on Substances that Deplete the Ozone Layer, 1987 entered into force in 1989. This treaty ratified by Kenya on November 9, 1988 aims to protect the ozone layer by regulating the production and consumption of ozone-depleting substances.

The Vienna Convention for Protection of the Ozone Layer, 1985 was the first convention of any kind to be signed by every country involved, taking effect in 1988 and reaching universal ratification in 2009. Kenya acceded to the treaty on November 9, 1988. The treaty speaks to the enormity of ozone depletion at the time and the willingness of countries around the world to work together to solve it. The Convention aimed to promote cooperation among nations by exchanging information on the effects of human activities on the ozone layer. In doing so, the creators of the Convention hoped policymakers would adopt measures to combat those activities responsible for ozone depletion.

Today, the Vienna Convention is still making progress. The countries involved meet once every three years to make decisions on important issues including on Research and Systematic observations as well as financial and administrative matters.

African Charter on Human and Peoples' Rights, 1981 ratified by Kenya on January 23, 1992 provides in Article 24 that all peoples shall have the right to a general satisfactory environment favorable to their development.

African Convention on the Conservation of Nature and Natural Resources, 1968 which Kenya ratified on May 12, 1969 speaks to the contracting States undertaking to adopt the measures necessary to ensure conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people in its Article II.

There's also the **Revised African Convention on the Conservation of Nature and Natural Resources, 2003** which Kenya is yet to ratify.

The United Nations Conference on Environment and Development (UNCED), also known as the **'Earth Summit'**, was held in Rio de Janeiro, Brazil, from 3-14 June 1992. This global conference, held on the occasion of the 20th anniversary of the first Human Environment Conference in Stockholm, Sweden, in 1972, brought together political leaders, diplomats,

scientists, representatives of the media and non-governmental organizations (NGOs) from 179 countries for a massive effort to focus on the impact of human socio-economic activities on the environment[17].

The 'Earth Summit' concluded that the concept of sustainable development was an attainable goal for all the people of the world, regardless of whether they were at the local, national, regional or international level. It also recognized that integrating and balancing economic, social and environmental concerns in meeting our needs is vital for sustaining human life on the planet and that such an integrated approach is possible. The conference also recognized that integrating and balancing economic, social and environmental dimensions required new perceptions of the way we produce and consume, the way we live and work, and the way we make decisions. This concept was revolutionary for its time, and it sparked a lively debate within governments and between governments and their citizens on how to ensure sustainability for development[18].

The 'Earth Summit' had many great achievements: the Rio Declaration and its 27 universal principles, the UNFCCC, the Convention on Biological Diversity; and the Declaration on the principles of forest management. The 'Earth Summit' also led to the creation of the Commission on Sustainable Development, the holding of first world conference on the sustainable development of small island developing States in 1994, and negotiations for the establishment of the agreement on straddling stocks and highly migratory fish stocks[19].

There are also **principles under climate justice** guided by Declaration on Ethical Principles in relation to Climate Change[20] which include:

> **Prevention of harm**: states and all actors are required to formulate policies and actions to mitigate and adapt to climate change, including through fostering climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production.

17 United Nations, Conferences |, 'Environment and sustainable development' https://www.un.org/en/conferences/environment/rio1992 accessed 11 January 2024

18 *Ibid*

19 *Ibid*

20 Declaration on Ethical Principles in relation to Climate Change < https://www.aaas.org/sites/default/files/Declaration_of_Ethical_Principles_in_Relation_to_Climate_Change_2017_en.pdf?Bd.qXt6DiNCGIoX6LcgqyVVCeXt90RlK> accessed 11 January 2024

Precautionary approach: where there are threats of serious or irreversible harm, a lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.

Equity and justice: in response to the adverse effects of climate change, and to climate change mitigation and adaptation policies and actions at the national level, effective access to judicial and administrative proceedings, including redress and remedy, should be provided pursuant to the 1992 Rio Declaration and according to national laws.

Sustainable development: it is imperative for states to tackle the adverse effects of climate change in areas that deserve special attention due to their humanitarian implications and consequences.

Solidarity: States and individuals should assist people and groups that are most vulnerable to climate change and natural disasters, especially when catastrophic events occur.

Institutional Framework

Global Organizations Working Towards Achieving Climate Justice

It is imperative that institutions dedicated in the implementation of climate change related functions are in place leading to the enforcement of the same efficiently where need arises. A sufficient level of capacity is therefore required to set off the climate policies by providing sufficient personnel dedicated to dealing with climatic issues in various sectors e.g relevant agencies, ministries, research centres, consulting firms, NGO's etc.

Limiting global heating to 1.5 °C and protecting biodiversity will require action from all sectors and across society. Environmental action is often framed as the responsibility of either individuals or national governments (sometimes via international agreements). Particularly from wealthier individuals, some personal actions — reducing air and car travel, having fewer children and moving to more plant-based diets — can substantially reduce greenhouse gas emissions and change social norms, but individual actions alone are not sufficient. Even with drastic changes to behaviour in response to the COVID-19 pandemic, fossil fuel emissions declined only by 6% in 2020 and deforestation rates increased compared to 2019. Likewise, to date, current climate policies from governments would still lead to an estimated 2.7 °C of warming by 2100. Greta Thunberg in a speech in 2019 observed: "And yes, I know we need a system change rather than individual change. But you cannot have one without

the other." Both individual and system change are clearly needed; action at the level of organizations that are intermediate in size and influence can be instrumental in catalysing behaviour change in both[21].

Organizations (defined broadly here as, for example, businesses, nongovernmental organizations (NGOs), charities, universities, schools, hospitals, and local and regional governments) have long been recognized as having a vital role in reducing environmental damage. They make decisions that influence the choices available for hundreds, and sometimes thousands, of citizens. Sustainability decisions taken by organizations are therefore much more powerful and influential than actions taken by one individual alone. Although organizations (generally) have less power than national governments, they can also (generally) act more quickly and ambitiously. Most organizations need to consider expenditure, but (democratic, subnational government institutions aside) they do not need to consider electability. While current government policies do constrain organizations' ability to operate sustainably and changes to national policies are vital, organizations can often already make changes and by doing so shift social norms and put pressure on governments to do more[22].

There are thus very many organizations across the world, international and regional that work towards helping the climate crisis in the world. Below are some leading organizations globally:

The **United Nations Environmental Programme (UNEP)** is the leading global authority on the environment. UNEP's mission is to inspire, inform, and enable nations and peoples to improve their quality of life without compromising that of future generations[23].

UNEP takes a four-pronged approach to addressing the climate crisis and reducing greenhouse gas emissions in line with the Paris Agreement. The organisation;

- → provides cutting-edge research to support science-based decision-making on climate change;
- → works across sectors to support the transition to a low-carbon, climate-resilient future;
- → ensures a just transition to a carbon-neutral world by empowering communities to adapt to changing climatic conditions; and
- → develops sustainable mechanisms to unlock

21 Emma E. Garnett and Andrew Balmford, 'The vital role of organizations in protecting climate and nature https://www.nature.com/articles/s41562-021-01260-z accessed 19 January 2024

22 *Ibid*

23 UNEP, https://www.unep.org/ accessed 11 January 2024

financing to help countries both mitigate and adapt to climate change[24].

UNICEF, originally called the United Nations International Children's Emergency Fund in full, now officially United Nations Children's Fund, is a United Nations humanitarian aid organization aimed at protecting the rights of every child acknowledges that virtually every child on the planet is already affected by climate change. Natural disasters, environmental degradation, and biodiversity loss can devastate agriculture, cutting children off from nutritious foods and safe water. They can lead to dangerous environments and disease outbreaks, and destroy the safe shelter, quality health care and education systems children need to survive and thrive[25].

As humanitarian action falls short of addressing the climate crisis, children and young people are bearing the brunt. They make up half of the world's population, but are least responsible for the greenhouse gas emissions, deforestation and other hazardous practices harming our environment[26].

The organization further finds that climate crisis is changing children. It is robbing them of their ability to grow healthy and happy, and can ultimately cause illness, disease and even death. Efforts to sustain a liveable planet must not only account for the unique needs and vulnerabilities of young people; they must also include them in the solutions. Children and young people have critical skills, experiences and ideas for safer, more sustainable societies. They are not simply inheritors of our inaction — they are living the consequences today[27].

World Widlife Fund, (WWF) is an international nonprofit that helps local communities access cutting-edge conservation science to protect natural resources. Local WWF chapters all around the world are tackling climate change by preparing for potential future disasters, and studying how these changes will impact ecosystems and wildlife[28].

Gender CC created as a result of the United Nations climate negotiations (UNFCCC), Gender CC acknowledges that women play an important role in fighting climate change. This global network of organizations, experts, and activists are working to integrate gender justice into climate justice through

24 *Ibid*
25 https://www.unicef.org/ accessed 9 January 2024
26 *Ibid*
27 *Ibid*
28 Foodtank; The Think tank for Food, '36 Organizations Helping Solve the Climate Crisis', https://foodtank.com/news/2020/10/36-organizations-helping-solve-the-climate-crisis/ accessed 10 January 2024

raising awareness and empowering women[29].

Climate Action Network (CAN), is a global network of more than 1,300 environmental NGOs. With regional hubs in regions including West Africa, South Asia, Latin America, and Eastern Europe, the Network works to promote governmental and individual action to address the impacts of climate change. CAN's working groups address a variety of issues including agriculture, science policy, and technology[30].

The African Activists for Climate Change (AACJ) Program is a five-year program funded by the Dutch Ministry of Foreign Affairs. Conceived by PACJA, FEMNET, Oxfam, Natural Justice, and African Youth Commission, the consortium aims at building a strong African movement, led by the groups most affected by climate change i.e., women, African youth, local and indigenous communities to help to ensure that people who are most impacted and have most at stake are at the frontline of designing, developing, implementing and monitoring climate action[31].

Case Law on Enforcement of Principles under Climate Justice

This sub-section will look at principles integrated into the case law as they all advance a human rights-centered approach to climate change. These principles as discussed in chapters 1 and 2 include the polluter pays principle, prevention principle, precautionary principle and the public participation principle. The jurisprudence from the courts below shows that the law is centered towards protecting human rights which include the rights to life, health and family life and the need to protect the natural foundations of life in responsibility for future generations in relation to climate justice.

South Africa

a. *Earthlife Africa Johannesburg and Another v Minister of Energy and Others* (19529/2015) [2017] ZAWCHC 50; [2017] 3 All SA 187 (WCC); 2017 (5) SA 227 (WCC) (April 26 2017)

Case category: Suit against government on environmental assessment and permitting

In this case, the application raised concerns regarding the environmental effects of the decision to construct a 1200MW coal-fired power station close to Lephalale in Limpopo Province. The Project was intended to be constructed by the 5th respondent (Thabametsi), and the Project was expected to last until

29 *Ibid*

30 *Ibid*

31 African Activists for Climate Justice Project, <https://aacj.africa/> accessed 10 January 2024

2061. Intending to construct the coal power plant, the project proponent, Thabametsi, sought authority from the Chief Director of The Department of Environmental Affairs (DEA) as required under section 24 of the National Environmental Management Act. The Petitioners appealed against this decision to the Minister of Environmental Affairs, but the decision was still upheld on the condition that the project proponent conducts a climate impact assessment. Consequently, Earthlife, a non-profit organization in South Africa, moved to the High Court, challenging the minister's decision and reviewing that decision.

The Western Cape High Court concluded that a climate change impact report would be the most effective way to address the consideration of the coal-fired power plant's climate change implications. The court's ruling struck a compromise between the necessity of coal for the economy and the generation of power, South Africa's obligations under national and international law, and the country's high GHG emissions levels and negative climate change effects.

b. ***Petro Props (Pty) Ltd v Barlow and Another [2006] ZAGPHC 46; 2006 (5) SA 160 (W)***

Case category: Public participation principle

In this case, the court dismissed the application for an interdict to prevent a public campaign against the construction of a fuel service station and convenience store on an ecologically sensitive wetland. Essentially the case involved the weighing up of the section 25 constitutional property right of the applicant against the section 16 constitutional right to freedom of expression of the respondent. The court found that the interests of the respondent and her associates had been selfless and that their *modus operandi* had been entirely peaceful and geared towards balanced public participation. Quite laudably so, the court made it clear that no decision-making power or process in terms of the Environment Conservation Act 73 of 1989 could be immune from public debate or the lodging of representations and that it wanted to prevent a situation that would deter people with environmental objections from stepping forward as active citizens.

Netherlands

c. ***Urgenda Foundation vs The Kingdom of the Netherlands*** **[2015] HAZA C/09/00456689**

Case category: ***GHG emissions reduction and trading***

The Dutch government was sued as it had allegedly contravened certain laws such as the UNFCCC, including the Kyoto Protocol and Paris Agreement, and European Union and Dutch law; Urgenda claimed that the Dutch government's failure to commit to a greater emission reduction by the end of 2020, was

unlawful because it violated proper social conduct and was contrary to the duty of care required of the Dutch Civil Code and Articles 2 and 8 of the European Convention on Human Rights (ECHR). The Hague Court ruled in favour of the Urgenda Foundation and ordered the Dutch Government to reduce the emissions by at least 25% below the 1990 level by 2020. The Dutch government appealed the decision on certain grounds, including the severity of climate change and unlawfulness; however, the Hague Court of Appeal dismissed the petition because the Dutch government had done too little to reduce the emissions as well as the prevention of dangerous climate change. Hence, it upheld the Hague's District Court decision.

The Hague, Netherlands

***d. Pulp Mills on the River Uruguay (Argentina v Uruguay)* 2010 20 April General List No. 135**

Case category: The need to conduct an environmental impact assessment

The ICJ considered the principle of prevention and pointed out that, "as a customary rule, [it] has its origins in the due diligence that is required of a State in its territory." The ICJ clarified that States must use all the means at their disposal to avoid transboundary harm from activities in their territory or under their jurisdiction.

To exercise due diligence, the State has to "ascertain whether there is a risk of significant transboundary harm prior to undertaking an activity having the potential adversely to affect the environment of another State. If that is the case, the State concerned must conduct an environmental impact assessment" (EIA). In *Costa Rica v Nicaragua/Nicaragua v Costa Rica cases* (2015), the ICJ reiterated this interpretation.

e. In 1991, Mexico filed a complaint with the International Court of Justice (ICJ) against the US:

Case category: Transboundary harm

Mexico sued the US allowing sewage and other pollutants to be discharged into the Rio Grande and Colorado Rivers, which serve as a source of drinking water and irrigation for many Mexican communities. Mexico and the United States share the Colorado River and the Rio Grande. The 1944 Water Treaty, along with other bilateral agreements, governs how the two countries divide the flows of these rivers. These accords are managed by the dual International Boundary and Water Commission (IBWC).[32] The ICJ ordered the US to take

32 Congressional Research Service, Sharing the Colorado River and the Rio Grande: Cooperation and Conflict with Mexico (2018) <https://sgp.fas.org/crs/row/R45430.pdf> accessed 11 January 2022

measures to address the pollution.

f. In 2001, ***Mexico filed another complaint with the ICJ against the US:***

Case category: Transboundary harm

Mexico sued the US for failure to prevent pollutants from flowing across the U.S.-Mexico border, specifically concerning the air pollution caused by US power plants and industrial activities affecting the air quality in Mexico.[33]

g. The Gabčíkovo-Nagymaros Project case

Case category: Transboundary harm

Hungary brought a claim against Slovakia in the International Court of Justice (ICJ) in 1997 over the construction of a hydroelectric dam on the Danube River. The project aimed to improve the river's navigability, producing clean electricity and preventing catastrophic floods. Only part of the project was finished by Slovakia because Hungary suspended the project. Hungary argued that the project would cause environmental damage and violate its rights under the 1977 Helsinki Convention on the Protection and Use of Transboundary Watercourses. The ICJ ruled in favor of Hungary, finding that Slovakia had violated its obligations under the Convention.

h. The Islamic Republic of Iran v The United States, Case Concerning the Oil Platforms

In this case, Iran requested the International Court of Justice (ICJ) to take jurisdiction over a dispute regarding the US Navy's destruction of three Iranian oil complexes during the Iran/Iraq conflict.[34] The clause allowing for ICJ dispute settlement within the US/Iran FCN treaty, the Treaty of Amity, Economic Relations, and Consular Rights, served as the basis for Iran's assertion that the court had jurisdiction. Iran claimed that the US military intervention broke a number of broad treaty clauses of this nature.[35] The court acknowledged that the FCN accords might be read to have extraterritorial applicability when it determined that it had jurisdiction. Still, it typically rejected the kind of expansive text construction that would be useful in a case involving global warming[36].

33 Time, the other crisis at the US Mexico border: Rising Air Pollution, (2022) <https://time.com/6150882/the-other-crisis-at-the-u-s-mexico-border-rising-air-pollution/>accessed 11 January 2022

34 Concerning Oil Platforms (*Iran v US*), 1996 ICJ 803, 811-12

35 Treaty of Amity, Economic Relations, and Consular Rights, Aug. 15, 1955, US-Iran, 8 UST 899, 901

36 *Ibid* 19

India

i. *Indian Council for Enviro-Legal Action v Union of India and others* 1996 AIR 1446, 1996 SCC (3) 212

Case category: Polluter 'pays' principle

A group of environmentalists raised awareness about the plight of the people living in the Rajasthani village of Bichhri, which is located in the Udaipur district. In the village of Bichhri, there was an industrial complex that made chemicals principally. The villagers' lives were made uncomfortable by the release of concentrated sulfuric acid and aluminum sulfate from one firm, namely, Hindustan Agro Chemical Limited. Due to their refractory character, the factory's effluents were exceedingly challenging to handle. Many of the pollutants filtered into the soil, contaminating the aquifers and groundwater below. Even the existing crop was ruined by the filthy water. The effluents percolated the groundwater making the nearby available water all unfit for consumption and irrigation purposes. As a result, it was decided that anyone who engages in an activity that involves the use of a chemical that is inherently dangerous is responsible for any harm done to people or the environment. By holding the polluter financially liable for all costs associated with restoring the environment to its pre-pollution state, the polluter pays principle was put into practise.

j. *Vellore Citizens Welfare Forum v Union of India and others* 1996 5 SCR 241

Case category: Polluter 'pays' principle

The inhabitants of Tamil Nadu protested that untreated effluents from tanneries and other industries were dumped into waterways in the case *Vellore inhabitants Welfare Forum v Union of India & others*. Each day, the tanneries produced roughly 200 tonnes of leather; the production process requires 40 liters of water for every kilogram, and each liter of water contains 176 different types of hazardous acids. Potable water was contaminated as a result of the effluents' poisonous character. The river water flowed onto the adjacent areas as a result of rain and flooding in the surrounding town.

The adjacent fields were primarily used for agriculture and farming. The effluents caused the agricultural area to become poisoned as a result. The water became unfit for consumption or any daily purposes. Consequently, in this case, the industrialists were made to pay for the damages that they caused.

k. Arbitrational Tribunal

The Trail Smelter arbitration

Case category: Transboundary air pollution

The United States brought a claim against Canada in the 1930s for alleged transboundary air pollution from a smelter near the border between the two countries. [37]It came about as a result of injuries brought on by the discharge of sulfur dioxide from a smelter plant in British Columbia, Canada, in the 1930s, which occurred in the American state of Washington. The two nations decided to submit the dispute to arbitration after the United States raised diplomatic objections.[38]

This case established the principle that states have a duty to prevent transboundary environmental harm, which means that whether or not the States in question share a border, it is the harm that occurs on the territory of or in other locations under the jurisdiction or control of a State other than the state of origin[39]. For the damages the Trail Smelter caused to the State of Washington between 1932 and 1937, the Canadian government was ordered to pay the United States $78,000 in compensation.[40]

l. International Joint Commission

Case category: Pollution of environment

In 1971, Canada brought a complaint to the International Joint Commission (IJC) accusing the United States of polluting the waters of the Great Lakes, which both countries share. The IJC ultimately found that the US was indeed causing environmental damage and ordered the US to take steps to reduce pollution in the Great Lakes.[41]

Case Law on Enforcement of Human Rights in Climate Justice

Climate justice entails a human rights-based approach in combating the negative effects of climate change. It is people centered and therefore there has been case law and there continues to be in order to protect human rights such as the right to life and the right to health which stem down from the right to

37 *Trailsmelter, United States v Canada* (1935) 3 RIAA 1938, 1965

38 *Ibid* 30

39 Prevention of Transboundary Harm from Hazardous Activities 2001, article 2

40 *Ibid* 27

41 International Joint Commission, Canada US achievements in protecting the great lakes: Highlights from the 2022 Progress reports of the parties (2022), <https://ijc.org/en/canada-us-achievements-protecting-great-lakes-highlights-2022-progress-report-parties> accessed 11 January 2023

a healthy environment. The following cases clearly show how the courts have been enforcing human rights that are violated due to the negative effects of climate change.

a. United States

***Rikki Held, et al., v State of Montana et al Cause* No CDV-2020-307**

Case category: Lawsuit seeking declaration of right under the Montana constitution to a stable climate system and to compel Montana to prepare and implement a remedial plan to reduce greenhouse gas emissions.

Plaintiffs' Complaint challenged the constitutionality of the State's fossil fuel-based state energy system, which they alleged caused and contributed to climate change in violation of their constitutional rights guaranteed under article II, section 3; article II, section 4; article II, section 15; article II, section 17; article IX, section 1; article IX, section 3 of the Montana Constitution; and the Public Trust Doctrine.

Specifically, the Complaint challenged the constitutionality of fossil fuel-based provisions of Montana's State Energy Policy Act, Mont. Code Ann.§ 90-4-l00l(l)(c)-(g); a provision of the Montana Environmental Policy Act (MEPA), Mont. Code Ann.§ 75-1-201(2)(a) (MEPA Limitation), which forbade the State and its agents from considering the impacts of greenhouse gas (GHG) emissions or climate change in their environmental reviews; and the aggregate acts the State had taken to implement and perpetuate a fossil fuel-based energy system pursuant to these two statutory provisions.

The court then held that because the MEPA Limitation affected plaintiffs' fundamental right to a clean and healthful environment, the proper standard of review was strict scrutiny analysis. The court found that the right to a clean and healthful environment extended to the climate, and that the state owed an affirmative duty to take active steps to realize this right. Applying strict scrutiny, the court explained that the state had not offered a compelling government interest that would justify infringing upon that right, and no argument that the MEPA Limitation was sufficiently tailored to serve that interest.

b. New South Wales

***Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7**

Case category: Climate change impacts of environmental projects vi-a-vis public interest

Gloucester Resources Limited sued the Minister of Planning, appealing the denial of the company's application to construct an open cut coal mine in New South Wales, the Rocky Hill Coal Project, which proposed to produce

21 million tonnes of coal over a period of 16 years. The Land & Environment Court of New South Wales upheld the government's denial of the application. The court found that the project was not in the public interest after weighing costs and benefits of the project, including the climate change impacts of the mine's direct and indirect greenhouse gas emissions. Under Section 4.15(1) of the Environmental Planning & Assessment Act (the EPA), the government was to consider the public interest as part of its review of a development application.

After weighing the costs and benefits of the project, the court upheld the government's denial of the application, finding that the negative impacts of the Project, including the planning impacts on the existing, approved and likely preferred land uses, the visual impacts, the amenity impacts of noise and dust that caused social impacts, other social impacts, and climate change impacts, outweighed the economic and other public benefits of the Project. While not foreclosing all mining projects, the court ruled that the project was not a sustainable use because of the combination of climate change impacts of the project and the high environmental and social costs of locating a coal mine in this particular location.

c. Germany

Neubauer, et al. v Germany 2021

Case category: Germany's GHG reduction goals violating human rights.

In February 2020, a group of German youth filed a legal challenge to Germany's Federal Climate Protection Act ("Bundesklimaschutzgesetz" or "KSG") in the Federal Constitutional Court, arguing that the KSG's target of reducing GHGs by 55% until 2030 from 1990 levels was insufficient. The complainants alleged that the KSG therefore violated their human rights as protected by the Basic Law, Germany's constitution.

On April 29, 2021, the Federal Constitutional Court published its decision striking down parts of the KSG as incompatible with fundamental rights for failing to set sufficient provisions for emission cuts beyond 2030. The court found that Article 20a of the Basic Law not only obliged the legislature to protect the climate and aim towards achieving climate neutrality, but also concerned how environmental burdens were spread out between different generations. For the first time in its jurisprudence, the court stated that the fundamental rights - as intertemporal guarantees of freedom - afford protection against the greenhouse gas reduction burdens imposed by article 20a of the Basic Law being unilaterally offloaded onto the future. It further stated that the KSG's emission provisions in question constituted an "advance interference-like effect", which possibly violated the complainants' fundamental rights and thus rendered the complaints admissible.

d. Colombia

Future Generations v Ministry of the Environment and others[42]

Case category: enforcement of fundamental rights to a healthy environment which were threatened by climate change and deforestation.

The plaintiffs in this case alleged that climate change along with the government's failure to reduce deforestation and ensure compliance with a target for zero-net deforestation in the Colombian Amazon by the year 2020, (as agreed under the Paris Agreement and the National Development Plan 2014-2018), threatened their fundamental rights. The youth plaintiffs filed a special constitutional claim called a "tutela" used to enforce fundamental rights. A lower court ruled against the youth plaintiffs. Youth plaintiffs filed an appeal on February 16, 2018.

On April 5, 2018, the Supreme Court reversed the lower court decision, recognizing that the fundamental rights of life, health, the minimum subsistence, freedom, and human dignity are substantially linked and determined by the environment and the ecosystem. It further recognized the Colombian Amazon as a subject of rights in the same manner that the Constitutional Court recognized the Atrato River. The Supreme Court declared that the Colombian Amazon accordingly was entitled to protection, conservation, maintenance, and restoration. The Court ordered the government to formulate and implement action plans to address deforestation in the Amazon.

e. Pakistan

Leghari v Federation of Pakistan[43]

Case category: Need for climate mitigation or adaptation efforts in order to preserve the right to life

Ashgar Leghari, a Pakistani farmer sued the national government for failure to carry out the National Climate Change Policy of 2012 and the Framework for Implementation of Climate Change Policy (2014-2030). Leghari argued that the government should pursue climate mitigation or adaptation efforts, and that the government's failure to meet its climate change adaptation targets had resulted in immediate impacts on Pakistan's water, food, and energy security. Such impacts offended his fundamental right to life.

On September 4, 2015, an appellate court in Pakistan granted the Leghari's claims, describing climate change as a defining challenge of our time. Citing domestic and international legal principles, the court determined that "the

42 *"Demanda Generaciones Futuras v Minambiente"*11001 22 03 000 2018 00319 00

43 (2015) WP No 25501/201

delay and lethargy of the State in implementing the Framework offend the fundamental rights of the citizens. The court reasoned that the constitutional rights to life and human dignity (under articles 9 and 14 of the constitution) included the right to a healthy and clean environment. Further, interpretation of these fundamental rights must be guided by (i) the constitutional values of democracy, equality, and social, economic, and political justice; and (ii) international environmental principles of sustainable development, precautionary principle, intergenerational and intragenerational equity, and the doctrine of public trust.

Although the government had formulated a climate change policy and implementation framework, the court concluded there had been no real progress with implementation. To oversee the execution of the policy, the court (i) directed several government ministries to each nominate "a climate change focal person" to help ensure the implementation of the Framework, and to present a list of action points by December 31, 2015; and (ii) created a Climate Change Commission composed of representatives of key ministries, NGOs, and technical experts to monitor the government's progress. On September 14, 2015, the court issued a supplemental decision naming 21 individuals to the Commission and vesting it with various powers.

In its final order, the court nominated climate justice as the successor to environmental justice. Environmental justice—said the court—revolved around enforcing national laws, with decisions informed by international legal principles. It focused on shifting or stopping pollutive industries. Climate justice, as the court envisioned it, adopted a human-centered approach. It linked human rights with development. It sought to safeguard the rights of vulnerable peoples and share "the burdens and benefits of climate change and its impacts equitably and fairly. Climate justice was informed by science, responds to science and acknowledges the need for equitable stewardship of the world's resources. However, realizing that climate justice was challenging, the court acknowledged that polluters often fell beyond national borders and were difficult to identify. Finally, the court outlined its vision for water justice as a human right to access clean water and a sub-concept of climate justice.

f. Argentina

Sacchi, et al v Argentina, et al.[44]

Case category: Whether respondents violated children's rights under international law by making insufficient cuts to greenhouse gas emissions and failing to use available tools to protect children from carbon pollution by the world's major emitters.

Sixteen children filed a petition alleging that Argentina, Brazil, France, Germany and Turkey violated their rights under the United Nations Convention on the Rights of the Child ("the Convention") by making insufficient cuts to greenhouse gases and failing to encourage the world's biggest emitters to curb carbon pollution. The children ask the United Nations Committee on the Rights of the Child ("the Committee") to declare that respondents violated their rights by perpetuating climate change, and to recommend actions for respondents to address climate change mitigation and adaptation.

The Committee accepted the claimant's arguments that States are legally responsible for the harmful effects of emissions originating in their territory on children outside their borders. The fact that all states are causing climate change did not absolve states of individual responsibility to reduce their own share of emissions. The Committee also found that the youth were victims of foreseeable threats to their rights to life, health, and culture.

Following the reasoning of the Inter-American Court of Human Rights (IACtHR)' 2017 advisory opinion, the CRC found that countries have extraterritorial responsibilities related to carbon pollution. Using the IACtHR's test for jurisdiction, the Committee found that when transboundary harm occurred, children were under the jurisdiction of the State on whose territory the emissions originated if there was a causal link between the acts or omissions of the State in question and the negative impact on the rights of children located outside its territory, when the State of origin exercised effective control over the sources of the emissions in question.

44 Communication No 104/2019

g. Inter-American Court of Human Rights, San Jose', Costa Rica

The Advisory Opinion OC-23/17's Influence on Current Debates on Climate Change and Human Rights[45]

In its 2017 Advisory Opinion on "the Environment and Human Rights" (OC-23/17) the IACtHR explicitly recognized, for the first time, the autonomous human right to a healthy environment in the context of the Inter-American Human Rights System. Arguably, the 2017 Advisory Opinion opened the door for rights-based climate litigation through the recognition of States' responsibilities for transboundary harms (including climate change-related harms) and the precautionary principle.

Notably, the IACtHR broadened the interpretation of extraterritorial jurisdiction in the 2017 Advisory Opinion to accept a link based on the factual nexus between a conduct in the territorial boundaries of the State and a human rights violation abroad. The IACtHR stated that jurisdiction could be established over human rights violations that take place outside the territory of a State if that State exercises effective control over damaging activities that cause the violation and thus could prevent the consequent harm (OC-23/17, paras. 102-104). This jurisdictional link is considered to be broader than any nexus previously recognized by a human rights court and reflects the responsibility of a State based on its failure to exercise due diligence within its territory in the context of human rights violation.

Conclusion

It is therefore clear that under the international law scale, climate justice advocacy is being felt worldwide through the legal framework in place, the institutional framework and the case law from the courts globally. The United Nations being the spearhead through the Conference of Parties (COP) and the conventions that have been birthed through these are thus out to ensure that a people-centered approach to climate action is being taken in order to achieve climate justice.

45 Maria Antonia Tigre, Natalia Urzola and Juan Sebastián Castellanos, 'A Request for an Advisory Opinion at the Inter-American Court of Human Rights: Initial Reactions' (February 17, 2023) https://blogs.law.columbia.edu/climatechange/2023/02/17/a-request-for-an-advisory-opinion-at-the-inter-american-court-of-human-rights-initial reactions/#:~:text=In%20its%202017%20Advisory%20Opinion,Inter%2DAmerican%20Human%20Rights%20System. accessed 10 January 2024

Therefore the targets for net zero[46] (cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance) have to be achieved globally. The science shows clearly that in order to avert the worst impacts of climate change and preserve a livable planet, global temperature increase needs to be limited to 1.5°C above pre-industrial levels. Currently, the earth is already about 1.1°C warmer than it was in the late 1800s, and emissions continue to rise. To keep global warming to no more than 1.5°C – as called for in the Paris Agreement – emissions need to be reduced by 45% by 2030 and reach net zero by 2050[47].

46 United Nations, 'For a livable climate: Net-zero commitments must be backed by credible action' https://www.un.org/en/climatechange/net-zero-coalition accessed 19 January 2024

47 *Ibid*

Chapter 4: Best Practices from Foreign Jurisdictions

Introduction

Climate change has been recognized world over as a growing concern and this has led to various nations coming up with policies to reduce and/prevent the negative effects of climate change. The climate is expected to continue changing as a result of human actions and the policies that guide them[1]. This chapter highlights some of the policies which have been adopted by select countries in an attempt to combat climate change within their jurisdictions and how Kenya can learn from them. This chapter majorly focusses on two nations Sweden and South Africa, the chapter also discusses other countries of significance in climate change, namely; Germany, Denmark, South Africa and Rwanda.

Sweden was chosen as it is among the countries within the Organisation for Economic Co-operation and Development (OECD) best performers in reducing greenhouse gas emissions. Germany was selected as it is viewed as one of the leading nations in climate change actions. Denmark was selected because despite its comprehensive policies on climate change, it is the first country to pay for loss and damage due to climate change impacts to developing countries. In Africa, South Africa has been selected to be part of this comparative analysis because it is the largest carbon emitter in Africa and it is also a Commonwealth nation while Rwanda has been selected because it is one of the countries in East Africa touted as being a front runner in climate change.

Sweeden

Sweden is located on the Scandinavian Peninsula in Northern Europe and it occupies the greater part of the Scandinavian Peninsula, which it shares with Norway[2]. Sweden is a member of the OECD which is an international organisation that works to build better policies for better lives. Its goal is to shape policies that foster prosperity, equality, opportunity and well-being for all[3]. Sweden was selected to be part of this comparative analysis as it is among the best performing countries within the OECD with regard to reducing

1 Robert Scholes and Francois Engelbrecht, Climate impacts in southern Africa during the 21st Century: Report for the Centre for Environmental Rights (Global Change Institute, University of the Witwatersrand, 2021)1.

2 Larson and 10 others "Sweden" *Encyclopedia Britannica*, available at <https://www.britannica.com/place/Sweden> accessed on 12th January 2024.

3 Organisation for Economic Co-operation and Development, 'Who are we' (Organisation for Economic Co-operation and Development) available on < https://www.oecd.org/about/> accessed on 12th January, 2024.

GHG emissions[4]. Sweden has been touted as having a comprehensive policy framework and relatively efficient policies in dealing with GHG emissions[5]. However, Sweden's track record as a climate frontrunner is under threat by policy changes[6].

Effects of Climate Change in Sweden

The direct negative effects of climate change in Sweden will be less pronounced in Sweden than in most countries especially on the economic front[7]. However, Sweden has had its fair share of calamities as a result of climate change. Climate change in this case is characterized by extreme weather conditions. Extreme weather conditions include; unexpected, unusual, unpredictable severe or unseasonal weather. They include occurrence of floods, storms and heatwaves among others. Extreme weather events are projected to increase, with for example longer heatwaves and more days with extreme precipitation[8]. On the other hand, a warmer climate will extend the growing season and increase forest growth[9]. The extreme weather conditions will therefore carry both positive and negative effects on agricultural output with a difficult to assess overall effect. Further, the expected increase in precipitation will increase the incidence of flooding and landslides, but will also set to increase the generation of hydropower[10]. Climate change increases the risk of dramatic changes to the ecosystems in the Baltic Sea, declining water quality in lakes and waterways, a shortened season for winter tourism and overgrowth affecting reindeer husbandry and tourism[11]. This section highlights some of the effects of climate change.

4 Jon Pareliussen & Axel Purwin, 'Climate policies and Sweden's green industrial revolution' (Sweden 2023) available at < https://www.oecd-ilibrary.org/sites/fb75b5d7-en/index.html?itemId=/content/component/fb75b5d7-en> accessed on 8th January 2024.

5 *Ibid.*

6 *Ibid.*

7 *Ibid.*

8 *Ibid.*

9 *Ibid.*

10 *Ibid.*

11 *Ibid.*

Storms

Major storms have affected Sweden over the years, an example of such a storm is Storm Gudrun which had serious consequences[12]. The storm claimed 17 lives, at its peak, the wind was recorded at speeds of 42 m/s[13]. The strong winds of Storm Gudrun, falling trees and pieces of timber flying around caused major disruption and damage to the infrastructure for electricity, electronic communications, roads and railways[14]. The indirect consequences the storm were grave, due to country's huge dependence on electricity and telecommunications. Various functions were affected, including water supply, care of the elderly, heating and transport[15].

Floods and high flows

Floods and high flows occur regularly as a result of climate change globally. Short intensive rain causes high flows mainly in small watercourses, with resultant flooding. Such rain can also lead to flooding in built-up areas due to overloading of the drainage system[16]. More prolonged periods of rain increase the flows in large water bodies and lakes which might lead to the displacement of people living near the water bodies. The expansion of settlements and infrastructure nearer water bodies is thus leading to an increased risk of flooding, with major consequences[17].

Landslides and erosion

Precipitation affects soil moisture properties such as pore pressure and groundwater levels which, together with the type of soil, have a major impact on the soil's solidity and stability[18]. Rapid, short-term changes, such as intensive rain, fluctuating water levels and erosion, all caused as a result of climate change have a major negative impact on stability. Human influence and external loads have a further effect on the situation. Rockslides, landslides and mudslides are sudden and fast processes which have catastrophic outcomes. Erosion in running water on the other hand requires loose soil and a flow speed that is

12 Swedish Commission on Climate and Vulnerability, 'Sweden facing climate change–threats and opportunities' (Stockholm, 2007) 92 available at https://www.government.se/contentassets/5f22ceb87f0d433898c918c2260e51aa/sweden-facing-climate-change-preface-and-chapter-1-to-3-sou-200760 accessed on 10th January 2024.

13 *Ibid.*

14 *Ibid.*

15 *Ibid.*

16 *Ibid* 97.

17 *Ibid.*

18 *Ibid* 100.

sufficiently high to dislodge and transport that soil[19]. Erosion from waves may be caused by wind waves, waves generated by discharge from dams or dam breaches and swell from boats[20].

Ice formation

Ice formation, refers to the creation/formation of any mass of ice that occurs on the Earth's surface or surface waters[21]. Such masses form wherever substantial amounts of liquid water freeze and remain in the solid state for some period of time[22]. Familiar examples include glaciers, icebergs, sea ice, seasonally frozen ground, and ground ice associated with permafrost that is perennially frozen soil found in frigid regions[23]. As well as causing problems for shipping, ice formation impacts on systems which have overhead cables and masts. Pylon damage has occurred in the national electricity grid on five occasions due to extreme formation of ice combined with only moderate winds[24]. This has occurred as a local phenomenon in northern Sweden down towards northern Dalsland and primarily in high-lying areas[25]. Two cases saw the loss of six and eight pylons respectively[26].

Heavy snowstorms

A snowstorm is defined as "*a disturbed weather event that leads to a whole lot of white, frozen precipitation*"[27]. Snowstorms have negative effects which include destruction on infrastructure, injuries on people and animals out in the open and low temperatures among others[28]. Heavy snowstorms have occurred in Sweden in the past and they have often resulted in damage of infrastructure and property, examples of areas in Sweeden which have experienced heavy snowstorms include; Gothenburg, Gävle, Stockholm, Eastern Småland and Örnsköldsvik[29].

19 *Ibid*.
20 *Ibid*.
21 Britannica, the Editors of Encyclopaedia, "ice formation". *Encyclopedia Britannica*, available at https://www.britannica.com/science/ice-formation accessed on12th January 2024.
22 *Ibid*.
23 *Ibid*.
24 Swedish Commission on Climate and Vulnerability (n96) 102.
25 *Ibid*.
26 *Ibid*.
27 Vocabulary.com Dictionary, 'snowstorm' (Vocabulary.com) available at <https://www.vocabulary.com/dictionary/snowstorm> accessed on 12th January, 2024.
28 Swedish Commission on Climate and Vulnerability (n96) 103.
29 *Ibid*.

Actions undertaken to address climate change in Sweden

From the previous section, climate change has had some negative impacts on Sweden in the past. Sweden has therefore embarked on a number of activities in an attempt to minimize or stop climate change. To begin with, Sweden is a party to the United Nations Paris Agreement which is a legally binding treaty on climate change. The Paris Agreement includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change, and calls on countries to strengthen their commitments over time. This section ventilates on the actions and policies being implemented by Sweden in order to combat climate change.

The Swedish Parliament (Riksdag) in 2017 via a majority of members approved a climate policy to implement the Paris agreement[30]. The pillars on which this policy framework rests are; a climate Act, emission reduction targets; and the Climate Policy Council, a climate policy watchdog[31]. Sweden's long-term target is to have zero net greenhouse gas emissions by 2045[32].The purpose of the framework is to create a clear and coherent climate policy to ensure long term signals to the market and other actors[33]. This section will therefore highlight the measures to be taken by Sweden to combat climate change under the climate Act, emission reduction targets; and the Climate Policy Council.

1. (SE) Climate Act, 2017

The Swedish Climate Act sets four main duties for the Government; firstly, the climate policy must be based on climate goals[34]; Secondly, the Government is obliged to present a climate report every year in its Budget Bill, the report should contain a description of emission trends, major policy decisions affecting those trends, and an assessment and plan for additional actions as needed to meet targets[35]; thirdly, every fourth year the Government is required to draw up a climate policy action plan to describe how the climate goals are to be achieved[36]; and fourthly, climate policy goals and budget policy goals should work together[37].

30 Pareliussen & Purwin (n88).

31 *Ibid*.

32 Ministry of Energy, 'The Swedish climate policy framework' (Government of Sweden, 2017)2 available at https://cdn.climatepolicyradar.org/navigator/SWE/2017/the-swedish-climate-policy-framework_4d29ca793f2bf5c7782ed55f5f62c434.pdf accessed on 12th July, 2024.

33 *Ibid*.

34 (SE) Climate Act, 2017, sections 2 and 3.

35 *Ibid* section 4.

36 *Ibid* section 5.

37 Pareliussen & Purwin (n88).

2. Emission reduction targets

Sweeden through its climate policy framework has set up emission reduction targets as follows:

a. By 2045, the country has set a target to have zero net emissions of GHGs into the atmosphere and that subsequently achieve negative emissions of GHGs[38]. That implies that the amount of GHGs emitted by Sweden would be less than the amount of GHGs reduced through the natural ecocycle, or through climate projects pursued by Sweden abroad[39]. However, emissions from activities in Sweden must be at least 85 per cent lower than in 1990, the 15% remaining can be reached by supplementary measures which include but are not limited to: increased uptake of carbon dioxide by forests and other natural sinks over and above business as usual; verified emission reductions abroad; and carbon capture and storage from biomass combustion[40]. Based on the population forecasts for Sweden, this means that emissions in Sweden will be less than one tonne per person by 2045[41].

b. Sweden also has intermediate targets. Contrary to the 2045 target, these only apply to the sectors covered by EU's Effort Sharing Regulation (ESR). These are the sectors not covered by the EU Emissions Trading Scheme (EU ETS). Sweden achieved its 2020 target to reduce ESR emissions by 40% from the 1990 level by 2020[42]. By 2030, Sweden's target is that emissions from domestic transport, excluding domestic aviation, will be reduced by at least 70 per cent compared with 2010[43].

c. By 2030, emissions in Sweden in the sectors that will be covered by the EU Effort Sharing Regulation[2] should be at least 63 per cent lower than in 1990 with a maximum of 8% through supplementary

38 Ministry of Energy (n116) 3.
39 *Ibid*.
40 Pareliussen & Purwin (n88).
41 Ministry of Energy (n116) 3.
42 Pareliussen & Purwin (n88).
43 Ministry of Energy (n116) 4.

measures[44]. This implies at least a reduction of 52% since 2005, which is only slightly tighter than the EU Commission's proposal for new targets under the Effort Sharing Regulation to reduce ESR emissions by 50% compared to 2005[45].

d. By 2040, emissions in Sweden in the sectors that will be covered by the EU Effort Sharing Regulation should be at least 75 per cent lower than in 1990 with maximum 2% of the reduction achieved by supplementary measures [46].

e. Sweden has a distinct target to decrease emissions from local transport (excluding aviation) by at least 70% from its 2010 level by 2030[47]. However, Sweden is seemingly likely to fail in achieving the transport sector target as a result of recent policy changes[48].

The goals as contained in Sweden's climate policy framework reflect Sweden's climate leadership on the international space, and demonstrate Sweden's intent to achieve emission reductions that are above what it is required under the coming EU Effort Sharing Regulation[49].

3. Climate Policy Council

The third pillar of the climate policy framework is a climate policy council. The Climate Policy Council comprises of technocrats in the fields of climate, climate policy, economics, social sciences and behavioural sciences[50]. The Climate Policy Council is be tasked with supporting the Government by providing an independent assessment of how the overall policy presented by the Government is compatible with the climate goals[51]. The Council will evaluate whether the direction of various policy areas will increase or reduce the likelihood of achieving the climate goals[52]. Within this overarching mandate, it evaluates existing policy instruments from a societal perspective, identifies areas requiring further action, analyses how to achieve targets cost-efficiently, evaluates the bases and models on which the Government builds its policy,

44 *Ibid.*
45 Pareliussen & Purwin (n88).
46 Ministry of Energy (n116) 4.
47 Pareliussen & Purwin (n88).
48 *Ibid.*
49 Ministry of Energy (n116) 5.
50 Pareliussen & Purwin (n88).
51 Ministry of Energy (n116) 5.
52 *Ibid.*

and contributes to the broader societal debate on climate policy[53]. The Council is required to submit an annual progress report to the Government with an assessment of current emission trends and work carried out to address climate change[54]. Moreover, the council is obligated to submit an assessment of the Government's four-year climate policy action plan within three months of its publication[55].

Other notable measures undertaken by the Swedish Government include the following:

4. Imposition of carbon tax

Carbon tax is a tax on fossil fuels intended to reduce the emission of carbon dioxide. The carbon tax provides incentives to reduce energy consumption, improve energy efficiency and increase the use of renewable energy alternatives[56]. The carbon tax in Sweden was introduced in response to; the challenge of climate change, captured through a unilaterally adopted target to stabilize Swedish carbon emissions (the so-called '1988 stabilization target'); and the pressing need to reform the entire Swedish tax system, through which a streamlined and lowered income taxation was compensated for by alternative sources of tax revenues[57]. The Swedish carbon tax was introduced in 1991, alongside an already existing energy tax, and it remains a key pillar of Swedish climate policy.

Over time, the carbon tax has increased in importance, contributing to a broad range of environmental and climate objectives[58]. Due to its structure, carbon tax has had different impacts on different sectors. In particular, it has been instrumental for the transition in the energy sector[59]. Investments in district heating have led to both a significant expansion and a transformation of the energy mix, *de facto* decarbonizing the sector[60]. This has generated an

53 Pareliussen & Purwin (n88).
54 *Ibid*.
55 *Ibid*.
56 Government of Sweden, 'Sweden's carbon tax' (Government of Sweden) available at < https://www.government.se/government-policy/swedens-carbon-tax/> accessed on 12th January, 2024.
57 Hildingsson, Roger, and Åsa Knaggård, 'The Swedish Carbon Tax: A Resilient Success', in Caroline de la Porte, and others (eds), *Successful Public Policy in the Nordic Countries: Cases, Lessons, Challenges* (Oxford, 2022) available at <https://doi.org/10.1093/oso/9780192856296.003.0012> accessed on 12th January, 2024.
58 Government of Sweden (n140).
59 Roger and Knaggård (n141).
60 *Ibid*.

expansion of biomass energy, which also has spilled-over to manufacturing industries, reducing their emissions despite being taxed at a lower rate. Other policies for instance investment subsidies have played a role in supporting this development, but the carbon tax is the main policy altering the financial incentives[61].

5. Renewable electricity certificate system

The electricity certificate is a market-based support system for renewable electricity production. The system came into force on May 1, 2003 and is intended to increase the production of renewable electricity and to make the production more cost-efficient[62]. The renewable sources of energy comprise of; wind, solar, wave, geothermal certain hydro, certain biofuels, and peat in combined heat and power (CHP) plants. For each Megawatt Hour (MWh) produced from renewable resources, electricity producers have the opportunity to be granted an electricity certificate by the Government[63]. The certificates can be sold on an open market to electricity consumers, usually through electricity suppliers, who have to fulfil a quota obligation of certificated electricity[64]. The quota is set in proportion to total electricity use, however, energy-intensive industry is exempt from the requirement[65].

The purpose of the electricity certificate system in Sweden was to increase the production of renewable electricity with 25 TWh by year 2020 compared to year 2002[66]. Between 2002 and 2011, the production of renewable electricity increased by approximately 13 Terawatt hours (TWh), mainly by means of biopower and wind power[67].

As from January 1, 2012, Sweden and Norway united their market for electricity certificates. The original target for the Swedish-Norwegian market was to increase renewable electricity production with 28,4 TWh by 2020[68]. However, that target was reached ahead of time, in 2019. Sweden has in addition to the original target decided to fund 18 TWh to 2030. The new total target of 46,4

61 *Ibid.*

62 International Energy Agency, 'Electricity Certificate System' (International Energy Agency, 2022) available at <https://www.energimyndigheten.se/en/> accessed on 12th January, 2023.

63 *Ibid.*

64 *Ibid.*

65 *Ibid.*

66 *Ibid.*

67 *Ibid.*

68 Swedish Energy Agency, 'The Electricity Certificate System' (Swedish Energy Agency, 2023) available at <https://www.energimyndigheten.se/en/> accessed on 12th January, 2023.

TWh to 2030 was however reached as early as March 2021[69].

The prices of the electricity certificates went down significantly as wind power increasingly became competitive and new capacity was added[70]. The Swedish Parliament made a decision to halt the support for installations coming on-line after 2021 in order to shore up certificate prices for existing installations[71]. That meant that the electricity certificate system would end in 2035 instead of 2045 and that new production devices that are commissioned after the end of 2021 would not be eligible for electricity certificates[72].

6. The bonus-malus system for new cars

The Bonus-Malus-system came into operation on July 1, 2018. This was a new system to encourage low-emission transportation was implemented by targeting new vehicles[73]. The Bonus- Malus-system (a feebate system), contains of two parts; the first (Bonus) is a subsidy of environmentally friendly vehicles, and the second part (Malus), is an increase in the tax on vehicles with combustion engines, based on the emissions from the exhaust pipe[74]. The purpose of this system is to change the relative prices and thus speed up the renewal of the Swedish vehicle fleet[75]. This system purposes to reduce the fossil fuel use, thus lowering the climate impact from road traffic. The underlying principle is that environmentally harmful activities should shoulder a higher tax, while environmentally friendly alternatives should get a tax relief.

7. Blending obligation for transport fuels

Biofuels are the major drivers of emission reductions in the transport sector[76]. As biofuels are more costly than fossil diesel and gasoline, biofuel production and consumption is dependent on policy support. Different countries have in the recent past implemented biofuel policy instruments, including tax

69 *Ibid*.

70 Pareliussen & Purwin (n88).

71 *Ibid*.

72 Swedish Energy Agency (n152).

73 K Vaghult, 'The Bonus-Malus system- Will it be a cost-effective and fair policy for emission reductions from road traffic in Sweden?' (Master Thesis, Södertörn University,2019)2 available at https://www.diva-portal.org/smash/get/diva2:1324769/FULLTEXT01.pdf accessed on 12th January 2024.

74 *Ibid* 2-3.

75 *Ibid* 2.

76 Liv Lundberg and 2 others, 'The impact of blending mandates on biofuel consumption, production, emission reductions and fuel prices' (2023)183 Energy Policy available at <https://www.sciencedirect.com/science/article/pii/S0301421523004202> accessed on 12th January, 2024.

exemptions, blending mandates, investment grants and research funding[77]. Over time blending mandates have come to dominate the biofuel policy mix in the EU and by 2020 all member states had a blending mandate[78].

In an attempt to encourage the use of biofuels in Sweden, the Government implemented a GHG reduction mandate for gasoline, diesel and aviation fuel[79]. This meant that fuel suppliers must reduce GHG emissions from these fuels by a certain percentage every year, through the blending of biofuels[80]. Biofuel blending is one of the world's simplest, most mature ways to decarbonize transportation fuels[81]. The GHG reduction mandate is intended to contribute to the national goal of 70% GHG reduction from domestic transport by 2030, compared to 2010.

Around May 2023, the Swedish Coalition Government decided to cut its biofuel blending mandates (the percentage of biofuels, like ethanol or biodiesel, that each liter of diesel or gasoline must legally contain)[82]. The mandate dropped from around 30 percent down to 6 percent beginning in 2024[83].However, critics of Sweden's policy change opine that that cutting blending mandates will prevent Sweden from achieving their ambitious 2040 goal of reducing total emissions by 75 percent from 1990 levels[84].

Germany

Germany is touted as lading light in climate change matters and has achieved a great deal in the arena of climate action. Under the Climate Action Programme 2030 and the Climate Action Act (Klimaschutzgesetz), the German Government is committed to has made a binding undertaking to reduce greenhouse gas emissions by 55% by 2030[85]. At the center of the programme is a new carbon dioxide pricing scheme for the transport sector and for heating buildings, by

77 *Ibid.*
78 *Ibid.*
79 Swedish Energy Agency (n152).
80 *Ibid.*
81 Spencer Hey, 'Sweden Backtracks on Biofuel Mandate' (2023) available at https://energyminute.ca/news/sweden-backtracks-on-biofuel-mandate/ accessed on 12th January, 2024.
82 *Ibid.*
83 *Ibid.*
84 *Ibid.*
85 Press and Information Office of the Federal Government, 'Climate policy, the energy transition and mobility: What is the German government doing for the climate?' (Press and Information Office of the Federal Government, 2024) available at https://www.bundesregierung.de/breg-en/issues/climate-action/government-climate-policy-1779414 accessed on 16th January 2024.

this Germany is making it more expensive to emit carbon dioxide in the said sectors. Germany is thereby pushing for the use of renewables, energy-saving buildings, and alternative engine technology in the transport sector[86].

Germany is also phasing out the use of coal to generate electric power and turning to renewable sources of power which include; wind and solar power[87]. According to Germany's Centre for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) and the Federal Association of Energy and Water Management (BDEW), 52.3% of Germany's power was sourced from renewable sources for the first six months of 2023[88]. That was an increase of 3.1% in comparison to the first sixth months of 2022[89].

Germany also subjects companies involved in the trade of fossil fuels, for instance companies trading in heating oil, gas, petrol or diesel are required to pay a carbon dioxide price[90]. According to the Federal Environment Agency (UBA), the European emissions trading system (EU ETS) and German's carbon pricing brought Germany a record 13.2 billion euros from the sale of carbon dioxide pollution rights in 2022[91].

The Federal Government and the railway operator Deutsche Bahn are set to invest 86 billion euros in modernising the country's rail network and have put in place the legal framework to accelerate planning and approval procedures for developing the rail network[92]. In March 2022, the Government introduced monthly public transport tickets that cost just €9 over 90 days in a bid to cushion businesses and consumers deal with the soaring cost of energy[93]. The programme has been a huge success based on its popularity[94].

86 *Ibid.*

87 *Ibid.*

88 Florence Jones, 'Renewables generating more than half German power consumption: data' (Power Technology, 2023) available at https://www.power-technology.com/news/renewables-over-half-german-power/?cf-view&cf-closed accessed on 16th January, 2024.

89 *Ibid.*

90 *Ibid.*

91 Carolina Kyllmann, 'CO2 pricing brings Germany record 13 billion euros in revenues in 2022' (Journalism for the Energy Transition, 2023) available at < https://www.cleanenergywire.org/news/co2-pricing-brings-germany-record-13-billion-euros-revenues-2022> accessed on 16th January 2024.

92 Press and Information Office of the Federal Government (n85).

93 Nick Ferris, 'How governments are shielding consumers from surging energy prices' (Energy Monitor, 2022) available at https://www.energymonitor.ai/finance/how-governments-are-shielding-consumers-from-surging-energy-prices/?cf-view&cf-closed accessed on 16th January, 2024.

94 Dave Keating, 'Germany's almost-free rail travel experiment hasn't displaced

The Government had introduced the introduction of strict new-build energy efficiency standards to begin in January 2023, as well as legislation that would mandate all new heating systems be powered by 65% renewables from 2024 "where possible"[95]. However, as at September 2023, the Government had agreed to put on hold the planned introduction of tighter building efficiency standards in order to boost the construction of affordable housing[96]. The country's Green Economy and Climate minister Robert Habeck stated that the country's new heating law already ensured that new buildings would have climate-friendly heating from 2024 and as such it was not necessary to quickly introduce the new standard[97]. The planned standard was meant to stipulate that new buildings only use 40% of the primary energy needed for a reference building[98].

Denmark

Climate change brings about harmful effects on the society and therefore Denmark has put in place measures to tackle climate change. From the onset, Denmark is a party to the Paris Agreement which is a legally binding treaty on climate change. This section covers the actions and policies being undertaken by Denmark in the fight against climate change, these include:

1. Climate Act, Act No 965 of 26 June 2020

In 2020, Denmark enacted the Climate Act, and Act sets Denmark's targets for the reduction of emissions by 70% in 2030 compared to 1990 and climate

cars' (Energy Monitor, 2022) available at <https://www.energymonitor.ai/transport/germanys-almost-free-rail-travel-experiment-hasnt-displaced-cars/?cf-minimized&cf-view&cf-closed> accessed on 16th January, 2024.

95 Press and Information Office of the Federal Government (n85).

96 Sören Amelang and Benjamin Wehrmann, 'German government to suspend tightening of building efficiency rules' (Journalism for the energy transition, 2023) available at https://www.cleanenergywire.org/news/german-government-suspend-tightening-building-efficiency-rules accessed on 16th January, 2024.

97 Verwandte Themen, 'Habeck zum Thema Bauen: EH 40 Standard nicht mehr in dieser Legislaturperiode' (Bundesministerium Für Wirtschaft Und Klimaschutz, 2023) available at <BMWK - Habeck zum Thema Bauen: „EH 40 Standard nicht mehr in dieser Legislaturperiode"> accessed on 16th January, 2024.

98 Sören Amelang and Benjamin Wehrmann, 'German government to suspend tightening of building efficiency rules' (Journalism for the energy transition, 2023) available at https://www.cleanenergywire.org/news/german-government-suspend-tightening-building-efficiency-rules accessed on 16th January, 2024.

neutrality by 2050 while considering the Paris Agreement[99]. The Act further sets a rolling five-year target, 10 years in advance[100]. The Danish Council on Climate Change is tasked under the Act to assist the Minister for Climate, Energy and Utilities to promote impartial advice on the climate effort, the Council also assists the Minister in setting national climate targets [101]. The Council is strengthened and expanded; its funds doubled, and its independence strengthened by self-election of new chairman and members[102].

The Act sets a series of reporting obligations on Government, including an annual parliamentary examination of the Government's action towards meeting the targets[103]. Government is required to produce on the impact of its climate policy on Danish imports and consumption. The Government must also produce an annual global strategy stating how its foreign, development and trade policies ensure Denmark's role as a global driver in international climate policy. The Act was amended in 2021 to include the emission reduction target for 2025 of 50-54%.

2. Denmark's Integrated National Energy and Climate Plan, 2019

The National Energy and Climate Plan is a ten-year integrated document required by the EU to each of its member states so as the EU can meet its overall GHG emissions targets. The plan discloses the key objectives and its measures as follows:

1. Decarbonization: This entails the following; reduction of GHG emissions, transport green transition with a stop to sales of all new diesel and petrol cars as of 2030, ban on burning of straw residues on fields, public afforestation and a grant scheme for afforestation on private agricultural land and subsidy for conversion of arable land on organic soils to nature, among others;
2. Renewable energy: this entails three new offshore wind farms of at least 800 MW each, reduction of the electrical heating tax and of the electricity tax, support of geothermal energy, among others;
3. Energy efficiency: this involves the building of a competitive subsidy scheme related to private enterprises, efficiency of existing buildings through renovation, among others;

99 Climate Act, Act. No 965 of 26 June 2020, Section 1.
100 *Ibid* section 2.
101 *Ibid*, section 3.
102 *Ibid*, section 10.
103 *Ibid* chapter 4.

4. Energy security: stable energy supply thanks to laws on responsibilities regarding electricity supply, gas supply and emergency plans, prevention of risks in the energy system, increased international cooperation, interconnectivity concerning energy supply.[104]

Other notable actions from Denmark which have played and are stillplaying a key role in dealing with climate change include:

3. Paying for loss and damage to developing countries for climate change impacts

Denmark has become the first U.N. member state to offer "loss and damage" support to developing nations that have experienced unavoidable social and financial impacts because of climate change. Denmark pledged 100 million Danish crowns (over $13 million) that will go to the Sahel region in North-Western Africa and other impacted regions[105]. The developed countries are responsible for the bulk of GHG emissions in the world[106].

Climate justice advocates have long pushed for loss and damage pay, but the idea has recently garnered more attention as climate disasters in developing nations ravage[107]. Some experts, however, have voiced concern about a portion of the Danish funding going to an insurance program instead of direct aid[108]. Those experts state that such a system would create business for European corporations in developing countries, eventually making vulnerable

104 Danish Ministry of Climate, Energy and Utilities, 'Denmark's Integrated National Energy and Climate Plan under the Regulation of The European Parliament and of the Council on the Governance of the Energy Union and Climate Action' (Danish Ministry of Climate, Energy and Utilities, 2019) 6 available at <https://cdn.climatepolicyradar.org/navigator/DNK/2019/denmarks-integrated-national-energy-and-climate-plan_5692da2c7b08e5bc5ea7cd595091b979.pdf> accessed on 13th January, 2024.

105 Margaret Osborne, "Denmark Will Pay 'Loss and Damage' to Developing Countries for Climate Change Impacts", Daily Correspondent, September 21, 2022.

106 *Ibid.*

107 *Ibid.*

108 *Ibid.*

people pay for the premium toward losses and damages from climate disasters[109].

4. Tax relief on registration, owner and electricity taxes for green vehicles

   Many policy measures, both direct and indirect, have been introduced which are of importance as regards the relative financial attractiveness of electric vehicles compared with petrol vehicles[110]. Lenient rules have been put in place in relation to the registration tax for electric vehicles, plug-in hybrid vehicles and hydrogen vehicles[111]. Several other special allowances have also been introduced for electric vehicles so as to encourage their use due to their impact in reducing carbon emmissions.

5. Incentives for biofuels

   As from 2010, Denmark has had a blending obligation requiring a minimum of 7.6% biofuels. Recently it was changed to a requirement to reduce emissions by 6%, rising to 7% by 2030[112]. The mandate also covers clean electricity used in transport. In Denmark, it is currently mandatory to blend petrol and diesel used for land transport with at least 5.75% biofuels (as a proportion of energy content). The requirement for blending is intended to promote the use of renewable energy resources in the transport sector and to reduce greenhouse gas emissions from fuels in the transport sector[113].

6. Introduction of a corporate carbon tax

   The Danish coalition government has made a decision to introduce a corporate carbon tax from

109 *Ibid*.

110 Ministry of Transport, *Building and Housing, Report on Denmark's deployment of alternative fuels Infrastructure* (Ministry of Transport, Building and Housing,)10 available at https://alternative-fuels-observatory.ec.europa.eu/system/files/documents/2022-12/2019%20Denmark%20NIR%20%28EN%29.pdf accessed on 13th January, 2024.

111 *Ibid* 11.

112 Oras Tynkkynen, 'Policy Brief: Future of transport biofuels in the Nordics' available at < https://concito.dk/files/media/document/Policy%20brief%20Future%20of%20transport%20biofuels%20in%20the%20Nordics.pdf> accessed on 13th January 2024.

113 Ministry of Transport (n110) 11.

2025, which should progressively increase[114]. This is expected to reduce the country's carbon dioxide emissions thereby contributing to the achievement of Denmark's target to lower its GHG emissions in 2030 by 70% from 1990 levels[115]. The Government will use the proceed of the carbon tax to lower the electricity tax as from 2028 and create a green fund to accelerate green transition and phase out fossil fuels between 2024 and 2040[116].

South Africa

South Africa is an upper middle-income country[117] whose population as per the country's 2022 census results was 62 million[118] with more than two-thirds of its population living in urban areas[119]. South Africa is highly susceptible to climate variability and change due to its high dependence on rain-fed agriculture and natural resources, high levels of poverty, particularly in rural areas, and a low adaptive capacity[120]. The impacts of climate change on South Africa's overall economic growth have been predominantly negative and in the future climate change in South Africa is anticipated to severely hamper economic growth, energy generation, job creation, and inequality[121].

South Africa, and Southern Africa, in general, is getting warmer by the day with the atmospheric concentration of greenhouse gases being on an upward

114 Enerdata, 'Denmark will introduce a corporate carbon tax from 2025' (Enerdata, 2022) available at <https://www.enerdata.net/publications/daily-energy-news/denmark-will-introduce-corporate-carbon-tax-2025.html> accessed on 13th January, 2024.

115 *Ibid*.

116 Enerdata, 'Denmark will introduce a corporate carbon tax from 2025' (Enerdata, 2022) available at <https://www.enerdata.net/publications/daily-energy-news/denmark-will-introduce-corporate-carbon-tax-2025.html> accessed on 13th January, 2024.

117 The World Bank Group, *Climate Risk Country Profile: South Africa* (The World Bank Group, 2021)2.

118 Statistics South Africa 'Media Release: Census 2022 Population Count Results 10 October 2023 (13th October 2023) available at < https://www.statssa.gov.za/?p=16716> accessed on 3rd January, 2024.

119 The World Bank Group (n2).

120 *Ibid*.

121 Environmental Affairs South Africa, South Africa's Third National Communication under the United Nations Framework Convention on Climate Change (Environmental Affairs South Africa, 2018)53.

trajectory and the sea level surrounding the continent rising[122]. The interior of Southern Africa is actually getting warmer at approximately double the average global rate[123]. The changes in climate are largely attributed to anthropogenic human activities such as industrial activities, energy generation, agriculture and forestry, resulting in the increase of greenhouse gases (GHG) in the atmosphere[124].

Effects of Climate Change in South Africa

Climate change has brought about negative effects and also has the potential to continue bringing forth negative effects. Some of the negative effects associated with climate change include the following:

1. Reduction in agricultural production

   As earlier stated, South Africa is getting warmer and with this increase in temperatures, the country is getting drier. This climate change is anticipated to bring about extreme weather conditions in South Africa such as droughts and floods[125]. These anticipated effects will lead to reduced agricultural production of crops and livestock as crops will be negatively affected by the insufficient water during droughts and excess water during floods. The South African region is experiencing temperatures which exceed the optimum levels for most crop and livestock production[126]. This in turn has the potential of leading to the downfall of key crops and the livestock sector[127].

2. Reduction in the availability of fresh water

   Climate change is projected to increase the risk and severity of water scarcity and drought across South Africa, affecting all sectors[128]. Despite the availability of fresh water being limited in Southern Africa, this will continue to diminish in future

122 Scholes and Engelbrecht (n1)

123 *Ibid*.

124 Department of Agriculture, Forestry and Fisheries, 'Draft Climate Change Sector Plan for Agriculture, Forestry and Fisheries (Notice 7 of 2013)17 available at <https://www.gov.za/sites/default/files/gcis_document/201409/36063gen7.pdf> accessed on 11th January, 2024.

125 The World Bank Group (n2) 10.

126 Scholes and Engelbrecht (n1).

127 *Ibid*.

128 The World Bank Group (n2) 12.

due to the reduction in rainfall and the increase in the rate of evaporation[129]. With the increase in floods, there is a looming threat to the quality of water which has a negative effect on the integrity of wetland ecosystems as well as agriculture and livestock communities[130]. Water quality declines in a warmer, drier Southern Africa and increases the risk of water-borne diseases[131]. South Africa has in the past experienced contaminated water supplies as a result of pas flooding[132].The decrease in rainfall and together with the high temperatures (including heat waves) have brought about substantial water restrictions and amplified the demand for water and energy for cooling across all sectors[133]. Extreme rainfall which causes floods have led to increased sedimentation rates which reduce the storage capacity of vital dams[134].

3. Increase in the likelihood of long-duration droughts
   Climate change enhances the likelihood of long-duration droughts occurring in future, this is due to two fundamental mechanisms emanating from global warming, namely: the strengthening of subsidence over Southern Africa, and the poleward movement of frontal systems[135]. When droughts surpass the historically-experienced frequency and intensity, the coping mechanisms are overwhelmed[136]. These risks increase from 1.5 to 2 °C of global warming, with further increases under higher levels of global warming[137]. Prolonged droughts have the negative effect of leading to loss of life both human an animal life as a result of starvation.

129 Scholes and Engelbrecht (n1) and *Ibid* 11.
130 The World Bank Group, (n2)11.
131 Scholes and Engelbrecht (n1).
132 The World Bank Group (n2).
133 *Ibid*.
134 *Ibid*.
135 Scholes (n1).
136 *Ibid*.
137 *Ibid*.

4. Increase in the number, intensity and duration of heat waves

   A heat wave is a prolonged period of unusually high temperatures and often high humidity that causes temporary changes in lifestyle and may have adverse health effects on the affected population[138]. Heat waves generally lead to harmful effects on both people and animals; these harmful effects include; suffering from shock, getting dehydrated, developing acute heat illnesses and worsening of chronic cardiovascular and respiratory diseases[139]. As a result of global warming and climate change, the number, intensity and duration of heat waves in South Africa is expected to increase[140]. With the expected increase in heat waves, there will be a drastic decrease in the capacity to perform manual labour out of doors; human mortality is likely to increase, especially in urban areas with inadequate housing, but may in some locations be offset by decreases in mortality as a result of fewer cold spells[141]. The temperature anomalies in South Africa are at the moment affecting vital infrastructure, such as roads and rail lines[142]. The heat waves will therefore have a negative impact on the country's economy.

5. Increase in risk of severe storms, intense tropical cyclones and very intense thunderstorms, floods

   Climate change brings about the increased likelihood of occurrence of floods, severe storms, including intense tropical cyclones and very intense thunderstorms[143]. These, as a consequence result in, among others, loss of life, injury and damage to infrastructure[144]. Floods in South Africa already

138 International Federation of Red Cross and Red Crescent Societies, 'Public awareness and public education for disaster risk reduction' available at < https://www.ifrc.org/sites/default/files/2021-06/10-HEAT-WAVE-HR.pdf> accessed on 11th January, 2024.

139 *Ibid*.

140 Scholes and Engelbrecht (n1).

141 *Ibid*.

142 The World Bank Group (n2) 12.

143 Scholes and Engelbrecht (n1) 2.

144 *Ibid*.

result in costly infrastructure repairs, road closures, limiting access to electricity, flooding and pollution as sewage and storm water systems are overwhelmed[145]. Coastal storms brought about by climate change have the potential of impacting fishing communities, as well as coastal biodiversity[146].

6. Conflicts over scarce resources
   As climate change brings about water scarcity and as drought conditions are expected to lead to risks of food insecurity, these situations are likely to intensify conflicts over scarce resources. The conflicts have the potential of leading to population displacement[147].

Actions undertaken to address climate change in South Africa

As has been discussed in the previous section, climate change has brought about or has the potential to bring about deleterious effects to South Africa. South Africa is a party to the United Nations Paris Agreement which is a legally binding treaty on climate change. The Paris Agreement includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change, and calls on countries to strengthen their commitments over time. South Africa has therefore embarked on a number of activities in an attempt to minimize or stop climate change. This section therefore discusses actions and policies being implemented by South Africa. The said actions and policies include: the creation of a Presidential Climate Commission; the formulation of South Africa's Low Emissions Development Strategy, 2050; the formulation of the National Climate Change Adaptation Strategy; the Third National Communication to the UNFCCC, 2018; the Second Biennial Update Report, 2017; the Nationally Determined Contribution, 2016; the Second National Communication to the UNFCCC, 2011; the National Climate Change Adaptation Strategy, draft ,2018; the Climate Change Response-White Paper, 2017; the National Energy Act, 2008; and the National Climate Change Response Strategy, 2004. Below is a discussion on the key actions and policies.

145 The World Bank Group (n2) 12.
146 *Ibid*.
147 *Ibid* 14.

1. The creation of a Presidential Climate Commission

The South African President Cyril Ramaphosa in December 2020 created the Presidential Climate Commission (the Commission)[148]. The Presidential Climate Commission is chaired by South African's President and is composed of government ministers and 22 commissioners who represent diverse perspectives. Its purpose is to oversee and facilitate a just and equitable transition towards a low-emissions and climate-resilient economy and in carrying out its role, the Commission's focus is to:

a. Create a social partnership around a just transition.
b. Define a vision for a just transition, and means of achieving that vision, covering the necessary sectoral shifts, technological innovation, employment opportunities, and climate finance.
c. Conduct independent analysis into climate change impacts on jobs, the economy, and policy.
d. Monitor progress towards mitigation and adaptation goals, as well as the achievement of a just transition linked to broader development objectives.
e. Engage with a wide range of stakeholders, including all spheres of government, business, labour, academia, communities, and civil society.

The Commission was tasked to develop a framework for a just transition and at its Sixth Meeting held on May 27, 2022, it adopted the Just Transition Framework[149].The Just Transition Framework identified key policy areas for a just transition, the policy areas constitute a basic frame-work to address the challenges of a just transition for all South Africans[150]. The said key policy areas are: human resource development and skills development; industrial development, economic diversification, and innovation; and social protection measures[151]. The Commission is of the view that skills development and education is crucial to respond to the transition risk and support people in becoming more climate resilient[152]. According to the Commission, industrial development and economic diversification are essential to supporting a just

148 Presidential Climate Commission, *A Framework for a Just Transition in South Africa* (Presidential Climate Commission, 2022)4 available at <https://pccommissionflo.imgix.net/uploads/images/22_PAPER_Framework-for-a-Just-Transition_revised_242.pdf> accessed on 11th January, 2024.

149 *Ibid.*

150 *Ibid.*

151 *Ibid.*

152 *Ibid.*

and equitable transition[153]. The Commission argues that new economic clusters will be needed to create new jobs and replace jobs where they may be lost and that they need not only be thought of in the context of energy or industry, but also in terms of the "biodiversity economy," which encompasses businesses and other economic activities that either directly depend on biodiversity for their core business, or that contribute to the conservation of biodiversity through their activities[154]. The Commission is also of the position that while some workers and communities may be able to transition to new jobs and industries, others will require transitional or long-term support according to their unique situations through a social security system[155].

2. The formulation of South Africa's Low Emissions Development Strategy, 2050

As earlier stated, South Africa is a party to the Paris Agreement. Article 4 of the Paris Convention requires parties to endeavor to formulate and communicate long-term low greenhouse gas emission development strategies taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances. South Africa, as a result of the requirements under the said Article 4, formulated South Africa's Low Emissions Development Strategy, 2050 (SA-LEDS).

SA-LEDS has its foundation on three critical climate policy documents namely; the National Development Plan which outlines a set of goals and actions to meet the nation's environmental sustainability and resilience needs, and commits a full chapter to environmental sustainability and an equitable transition to a low-carbon economy; The National Climate Change Response Policy which demonstrates South Africa's Government's comprehensive policy framework for responding to climate change, including provisions for adaptation and mitigation; and finally the Climate Change Bill which is expected to will form the legislative foundation for the climate change, adaptation and mitigation response in South Africa[156]. Several other strategies, policies and sector specific plans have been developed in an attempt to assist in emission reductions, most of these were however developed prior to the Paris Agreement hence they do not consider the long-term, global goals in a coordinated manner and but address a shorter timeframe[157].

153 *Ibid.*

154 *Ibid.*

155 *Ibid.*

156 South Africa's Low-Emission Development Strategy 2050 (2020) ix available at https://www.dffe.gov.za/sites/default/files/docs/2020lowemission_developmentstrategy.pdf accessed on 11th January, 2024.

157 *Ibid.*

SA-LEDS is majorly centered on actions which are being implemented as mitigation measures within the four key sectors, namely; energy; industry; agriculture, forestry and land use; and waste[158]. SA-LEDS encourages the implementation of strategies to reduce energy demand, or inhibit growth in energy demand, as the economy and population grows[159]. The strategies employed by South Africa in order to reduce the demand for energy and thus reduce carbon emissions include:

a. **The National Energy Efficiency Strategy, 2005:** The Department of Energy launched the first National Energy Efficiency Strategy (NEES) in 2005[160]. The NEES outlined how an overall energy intensity reduction target of 12% could be reached by 2015[161]. The strategy is being reviewed and a monitoring system is under development to assess the progress of the strategy's goals[162]. The Department of Minerals and Energy, building on the 2005 NEES, is finalizing the post-2015 NEES, which outlines a set of goals for energy efficiency improvements across the economy to 2030[163]. The NEES also identifies a set of measures to be implemented in each sector to achieve the stated targets. The Post-2015 NEES makes provision for a review every five years[164].

b. **Support for increased uptake of solar water heaters:** Solar water heaters partly reduce the use of electricity for water heating in low-, middle- and high-income homes[165]. Since 2005 a number of goals have been set, and associated support programmes have been established to drive uptake of solar water heaters, with the NDP introducing a goal of five million solar water heaters by 2030[166].

c. **The National Building Regulations and Buildings Standards Act:** To bolster efforts to reduce the consumption of energy and associated greenhouse

158 *Ibid* x.
159 *Ibid*.
160 *Ibid* xi.
161 Environmental Affairs South Africa (n6) 205.
162 *Ibid*.
163 South Africa's Low-Emission Development Strategy 2050 (2020) (n41) xi.
164 *Ibid*.
165 *Ibid*.
166 *Ibid*.

gas emissions emanating from new commercial and residential buildings, the South African Government has implemented energy efficiency and energy consumption standards under the National Building Regulations and Buildings Standards Act[167]. The first of these is South African National Standard 204 - Energy Efficiency in Buildings which specifies the design requirements for energy efficiency in buildings and of services in buildings with natural environmental control and artificial ventilation or air conditioning systems. The second, South African National Standard 10400 - XA - Energy Usage in Buildings, includes the provisions of South African National Standard 204 and others, providing a standard for energy efficient buildings.

d. Promotion of cleaner mobility: Emissions from the transport sector come about directly as a result of the combustion of fuels, and indirectly from the production of electricity or other energy carriers[168]. Emission sources include; civil aviation; road transport; railway and water-borne navigation. Several policy documents address emissions from energy supply in the transport sector. The 2007 Public Transport Strategy sets out an action plan for accelerated modal shifts and for the development of integrated rapid public transport networks. Its implementation has been slower than expected[169]. However, the successful implementation of the bus rapid transport (BRT) system in Johannesburg has led to it being adapted and implemented in other major South African cities[170].

The Green Transport Strategy (GTS) to 2050 which provides for the strategic direction for the transport sector regarding the reduction of GHG emissions, the contribution of transport to the green economy and the promotion of

167 *Ibid*.

168 Environmental Affairs South Africa (n6) 210.

169 P Browning, 'The Public Transport Strategy 2007: A Decade of Implementation' (36th Southern African Transport Conference (SATC 2017), Pretoria, South Africa July 2017) 653 available at< http://www.satc.org.za/archive17/assets/3a_browning.pdf> accessed on 11th January, 2024.

170 South Africa's Low-Emission Development Strategy 2050 (2020) (n41) xii.

sustainable mobility was launched in 2018[171]. The GTS aims to enhance reductions in the contribution of the transport sector to national GHG emissions through interventions that include local electric vehicle and battery production and roll out of solar powered charging stations; continued use of fuel economy norms and standards for fuel efficiency and GHG emissions of vehicles; and facilitating a shift of freight from road to rail. In September 2010 a carbon dioxide tax was introduced on the selling price of new motor vehicles that exceed a certain emissions limit[172].

The sources of emissions under the industry sector include industrial processes that chemically or physically transform raw materials and they account for 8.1% of South Africa's total emissions[173]. The strategies employed by South Africa in order to reduce carbon emissions from industries include:

a. **The Industrial Policy Action Plan (IPAP):** The IPAP was formulated in order to implement South Africa's industry policy objectives, it outlines the National Programme of Action that has been put in place to implement the country's industrial policy objectives[174]. Investment in the local green industry is one of IPAP's key focus areas.[175].
b. **The National Industrial Policy Framework:** This Policy Framework states South Africa's overarching approach to industrial development[176]. It seeks to support investment in innovation and technology capabilities[177]. The implementation plan for the National Industrial Policy Framework, is revised at various intervals[178]. The most recent revision which covers the years 2018/19 to 2020/21, providing updates on key focus areas within the industrial sector, one of which is green industry investment[179]. The implementation of technologies with potential for contribution to emissions reductions in the industrial sector is further supported by various tax

171 *Ibid*.
172 *Ibid*.
173 Environmental Affairs South Africa (n6) 207.
174 *Ibid* 209.
175 *Ibid*.
176 *Ibid*.
177 *Ibid*.
178 South Africa's Low-Emission Development Strategy 2050 (2020)(n41) xii.
179 *Ibid*.

incentives, contained in the Income Tax Act[180].

The agriculture, forestry and land use (AFOLU) sector comprise the production as well as the removal of emissions. The subsectors include livestock, aggregated sources and non-carbon dioxide emissions on land, land and harvested wood products[181]. The land and harvested wood products components are considered sinks[182]. The sequestration potential of the land subsector tends to vary quite widely over the years depending on the changes in carbon stocks in forest lands and land use changes in crop lands in particular[183].The strategies employed by South Africa in order to reduce carbon emissions from agriculture, forestry and land use (AFOLU) include policies and measures developed by line departments including the Department of Agriculture Forestry and Fisheries. These include:

a. The draft Climate Change Adaptation and Mitigation Plan for the South African Agricultural and Forestry sectors
b. The Conservation Agriculture Policy
c. The Agroforestry Strategic Framework for South Africa.

Emissions from the waste sector represent the smallest contribution to the national GHG inventory with 3.7%[184]. The major sources of emissions in the waste sector are solid waste disposal and wastewater treatment and discharge[185]. Waste management activities are legislated through the National Environmental Management: Waste Act, with further policy direction through the National Waste Management Strategy (NWMS). The Strategy adopts the waste management hierarchy of waste avoidance and reduction, re-use, recycling, recovery, treatment and disposal, activities which potentially contribute to a reduction in emissions from material life cycles[186]. Subsequent to the Waste Act and NWMS, twenty national waste management initiatives and annual targets have been established through a process known as the Waste Phakisa[187]. Of the initiatives, five are likely to have direct and indirect impacts on the total national greenhouse gas emissions[188].

180 *Ibid*.
181 Environmental Affairs South Africa (n6) 213.
182 *Ibid*.
183 *Ibid*.
184 *Ibid* 215.
185 *Ibid*.
186 South Africa's Low-Emission Development Strategy 2050 (2020)(n41) xiii.
187 *Ibid*.
188 *Ibid*.

In addition to the sector specific measures, SA-LEDS recognizes four cross-cutting measures that assist in low carbon development are in various stages of being implemented. These cross-cutting measures are:

a. **Carbon Tax:** This tax came into effect on June 1, 2019, and it gives effect to the polluter pays principle and intends to price carbon by internalising the negative costs of emitting GHGs[189]. The tax rate is set at R120 per tonne of carbon dioxide emmitted. In order to give businesses time for transition, a basic tax-free allowance of 60% applied to all emissions, with further allowances depending on the activities[190].

b. **Sectoral Emissions Targets (SETs):** These are quantitative GHG emission targets allocated to an emitting sector or sub-sector, over a defined time period[191]. Individual national government departments are tasked with developing and implementing policies and measures to ensure emissions from within a sector or sub-sector remain within SET limits[192].

c. **Carbon Budgets:** Carbon Budgets set a maximum volume of emissions from certain activities that individual entities are permitted to release over three rolling five-year periods[193]. By assigning a carbon budget to an entity, an indication is given as to the degree of GHG mitigation that is required within a specific time period, with a penalty being meted if the budget allocation is exceeded. Moreover, by providing entities with an understanding of how budgets are likely to be assigned in future phases to keep overall national emissions within the bounds of the national emissions trajectory, which will continue to be revised downward in keeping with the Paris Agreement, they are sensitised to how mitigation requirements may change in the future. The system thus affords an opportunity for entities to plan

189 *Ibid.*
190 *Ibid.*
191 *Ibid.*
192 *Ibid.*
193 *Ibid.*

ahead[194].

d. **Phasing out of inefficient fossil fuel subsidies:** As a member of the G20, where countries have undertaken to phase out inefficient fossil fuel subsidies, South Africa has indicated willingness to identify and minimise their harmful impacts, taking cognisance of its developmental state[195].

3. Formulation of the National Climate Change Adaptation Strategy

The National Climate Change Adaptation Strategy (NCCAS) provides a common vision of climate change adaptation and climate resilience for South Africa, and outlines priority areas for achieving that vision[196]. The said vision is drawn on various plans and policies, such as; South Africa's National Climate Change Response Policy (NCCRP) (DEA 2011), the National Development Plan (NDP) (NPC 2011), the adaptation commitments included in its Nationally Determined Contributions (NDC), sector adaptation plans, provincial adaptation plans and local government adaptation plans[197].

The NCCAS is deemed to be a significant step forward for South Africa, as it:

a. Acts as a common reference point for climate change adaptation efforts in South Africa in the short to medium-term, providing guidance across all levels of government, sectors, and stakeholders affected by climate variability and change.
b. Provides a policy instrument which national climate change adaptation objectives for the country can be articulated to provide overarching guidance to all sectors of the economy.
c. Facilitates the degree to which development initiatives at different levels of government and business integrate and reflect critical climate change adaptation priorities, and thus inform resource allocation by the various stakeholders towards climate change resilience.

194 *Ibid*.

195 *Ibid* xiv.

196 Department of Forestry, Fisheries and the Environment, 'National Climate Change Adaptation Strategy: Republic of South Africa' (Department of Forestry, Fisheries and the Environment, 2020) 12 available at < https://cdn.climatepolicyradar.org/navigator/ZAF/2020/national-climate-change-adaptation-strategy-2020_78cb4f314f603075ef6675a5fc5f235a.pdf> accessed on 12th January, 2024.

197 *Ibid*.

d. Guides stronger coherence and coordination on climate change adaptation activities between different institutions and levels of government.
e. Supports South Africa in meeting its international obligations by defining the country's vulnerabilities, plans to reduce such vulnerabilities and leverage opportunities, outlining the required resources for such action, whilst demonstrating progress on climate change adaptation[198].

The NCCAS serves as South Africa's National Adaptation Plan and fulfils South Africa's commitment to its international obligations as outlined in the Paris Agreement. The NCCAS is divided into sets of strategic objectives, strategic interventions and strategic outcomes with associated actions. The document is directed not only at national government departments, but speaks to South African society as a whole, including the key relevant sectoral institutions, provincial and local governments, and non-governmental entities including the private sector, the research community and civil society[199]. However, as the NCCAS is a national strategy it does not provide for how adaptation will take place in the many sectors impacted by climate change[200].

Rwanda

Like numerous other nations, Rwanda experiences the effects of climate change, such as landslides and droughts. The Rwandan Government has taken several climate actions to mitigate the challenges[201]. Rwanda submitted its revised nationally determined contribution (NDC) in which it committed a GHG emissions reduction target of 38 % from the Business As Usual (BAU) levels projected from 2015[202]. Rwanda is committed to slashing emissions by at least 16% by 2030[203].

198 *Ibid* 13.
199 *Ibid*.
200 *Ibid*.
201 Kingsley Ighobor, 'Climate action: Rwanda is a laboratory of innovative ideas' (United Nations Africa Renewal, 2022) available at <https://www.un.org/africarenewal/magazine/november-2022/climate-action-rwanda-laboratory-innovative-ideas> accessed on 17th January, 2024.
202 Republic of Rwanda, 'Climate Change' (Republic of Rwanda, 2021) available at https://www.rema.gov.rw/our-work/climate-change accessed on 17th January, 2024.
203 Climate and Clean Air Coalition, 'Rwanda: CCAC Partner since 2016' (Climate and Clean Air Coalition) available at https://www.ccacoalition.org/partners/rwanda accessed on 17th January, 2024.

Rwanda's adaptation and resilience priorities draw upon the Green Growth and Climate Resilience Strategy adopted in 2011 with a time horizon of 2050, the key adaptation actions are: sustainable intensification of agriculture; agriculture diversity in local and export markets; integrated water resources management (IWRM) and planning; integrated land use and management; efficient resilient transport systems; ecotourism, conservation and payment of ecosystem services; sustainable forest and agroforestry; disaster and diseases prevention; and climate data and projections[204].

Rwanda began the extraction and utilization of landfill gas for power generation from partially or fully controlled urban landfills as part of their NDCs in 2020. This is expected to lower methane emissions, avoid carbon emissions from fossil-based electricity use, and mitigate the public health effects of unmanaged waste[205]. The use of clamp kilns in the brick manufacturing industry is being phased out and in place, energy efficiency measures are being applied[206].

Rwanda is also improving livestock husbandry through more nutritious feed and increased training in improved livestock management as part of the Rwanda Livestock Master Plan, this process began in 2020[207]. This is expected to reduce methane emissions and increase yields and thus ensure Rwanda's food security.

Rwanda estimates that its efforts to limit its contribution to climate change and adapt to the consequences of climate change in the decade to be US $11 billion, made up of 5.7 billion dollars for mitigation and 5.3 billion dollars for adaptation[208]. The Rwanda Green Fund (FONERWA) was established to ensure the Rwanda remains well coordinated in financing these goals. FONERWA invests in public and private projects that help build a strong green economy and provides expert technical assistance to help those investments succeed[209]. From its inception, FONERWA has raised over US $217 million for green investments across the nation[210].

204 Republic of Rwanda (n 202).

205 Climate and Clean Air Coalition, 'Rwanda: CCAC Partner since 2016' (Climate and Clean Air Coalition) available at https://www.ccacoalition.org/partners/rwanda accessed on 17th January, 2024.

206 *Ibid.*

207 *Ibid.*

208 Rwanda in UK, 'Rwanda Calls for Ambitious Action at the COP26 UN Climate Change Conference' (Rwanda in UK, 2021) available at <https://www.rwandainuk.gov.rw/info/rwanda-calls-for-ambitious-action-at-the-cop26-un-climate-change-conference> accessed on 17th January, 2024.

209 Climate and Clean Air Coalition, 'Rwanda: CCAC Partner since 2016' (Climate and Clean Air Coalition) available at https://www.ccacoalition.org/partners/rwanda accessed on 17th January, 2024.

210 Rwanda in UK (n205).

Among the actions taken by Rwanda in its fight against climate change is the banning plastic bags in 2008 and single use plastics in 2019[211]. Rwanda's efforts to manage existing forests and reforest areas of the country have led to 30.4% of the country being covered with forests[212].

Rwanda has put in place a National Cooling Strategy which will phase out or reduce the use of powerful GHGs used in cooling systems (known as Hydrofluorocarbons (HFCs)) as part of efforts to achieve the goals of the Kigali Amendment to the Montreal Protocol[213]. HFCs are a potent short-lived climate pollutant common in refrigerators and air conditioners[214]. The Kigali Amendment to the Montreal Protocol has the potential to avoid a 0.4 degree celsius increase in global temperatures and it could not have happened without Rwanda[215]. The Strategy aims to address Rwanda's growing need for air conditioners and refrigeration while maintaining a green growth pathway. The Strategy recommends actions to expand access to cooling while conserving resources, including an upper limit on the electricity that can be used by typical refrigerants and air conditioners and the promotion of alternative cooling solutions such as shading and natural ventilation[216].

In order to reduce emissions from vehicles, Rwanda has introduced measures which include; tax incentives and scrappage of older vehicles; implementation of a new emission standard, all new vehicles registrations must have been EURO 4/IV type approved at the point of manufacture; and the expansion of public transportation infrastructure through measures such as a bus rapid transport project, bus lanes, and non-motorised transport lanes[217]. Rwanda is also investing heavily in e-mobility, sustainable urbanisation, climate smart agriculture and renewable energy[218].

211 Rwanda in UK (n208).
212 *Ibid*.
213 *Ibid*.
214 Climate and Clean Air Coalition (n203).
215 *Ibid*.
216 *Ibid*.
217 *Ibid*.
218 Rwanda in UK (n208).

On the sidelines of the UN Climate Change Conference (COP28) in 2023, Rwanda launched its National Carbon Market Framework[219]. The framework sets rules for the trading of carbon credits, encouraging businesses and industries to adopt cleaner practices and to invest in sustainable technologies[220]. The framework seeks to ensure openness and trust among the carbon traders. Rwanda aims to offer high quality carbon credits that will not only provide climate benefits, but also empower communities and protect and restore biodiversity[221]. The actions undertaken by Rwanda play a key role in mitigating its contribution to climate change.

Foreign jurisdictions *vis a vis* Kenya in climate change mitigation

From the jurisdictions discussed in this chapter, there is quite a lot Kenya can learn in an effort to foster climate justice and ensure the negative impact of climate actions are mitigated against. As discussed in chapter 2, Kenya has various legislations and policies dealing with climate change and its also a party to various treaties/conventions and agreements dealing with climate change.

Some of the notable actions taken by Kenya in the fight against climate change include the banning of use of plastic bags just like in Rwanda. Kenya banned single-use plastic bags in 2017[222]. However, despite the success of the said ban, it has not been enough to eliminate Kenya's struggles with pollution, as it did not include many other forms of plastic, including bottles, rubbish bags and takeaway containers[223].

219 Republic of Rwanda, 'Rwanda launches Carbon Market Framework to advance Climate Action for a Sustainable Future' (Republic of Rwanda) available at https://www.rema.gov.rw/info/details?tx_news_pi1%5Baction%5D=detail&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Bnews%5D=782&cHash=ee553ec77065747a392741a5e81d56c5 accessed on 17th January, 2024.

220 Rwanda Environment Management Authority, 'National Carbon Market Framework' (Rwanda Environment Management Authority, 2023) available at https://www.rema.gov.rw/fileadmin/user_upload/Rwanda_National_Carbon_Market_Framework_updated_1_.pdf accessed on 17th January 2024.

221 *Ibid.*

222 Caroline Kimeu, 'After a plastic bag ban, Kenya takes another shot at its pollution problem' The Guardian (Nairobi, 30th May, 2023) available at https://www.theguardian.com/global-development/2023/may/30/kenya-wrestles-with-its-plastic-pollution-problem accessed on 19th January, 2024.

223 *Ibid.*

Kenya recently introduced a new holiday dedicated to planting trees; the Government declared November 13, 2023 to be a national tree planting day[224]. This was a commendable move by the Kenyan Government as trees are carbon sinks. This is due to the fact that as trees grow, they take in carbon from the air and store it in wood, plant matter, and in the soil. Therefore, trees play an important role in the global carbon cycle by soaking up lots of carbon dioxide (CO2) that would otherwise live in the atmosphere.

From the jurisdictions discussed in this chapter, it is clear that they are embracing the use of renewable sources of energy and moving away from non-renewable sources. In the African region, Kenya is at the fore front in exploiting renewable energy sources to provide energy required to complement the realization of Vision 2030[225]. In Kenya, over 80 percent of Kenya's electricity is generated by renewable sources of energy today, placing it on its way to meeting its goal of transitioning to 100 percent clean energy by 2030[226].

In Sweden, lenient rules have been put in place in relation to the registration tax for electric vehicles, plug-in hybrid vehicles and hydrogen vehicles and other several special allowances have been introduced for electric vehicles [227]. This encourages the populace to utilize the said vehicles and thus reduce carbon emissions. Kenya has followed suit by reducing the amount of excise duty levied on electric powered , vehicles from 20% to 10%[228]. Charging stations for electric vehicles have been set up in various locations in Nairobi, Mombasa and Kisumu[229]. However, this is not sufficient as it limits the use of the said

224 Moses Korir, 'A tree growing holiday!' (International Tree Foundation, 2023) available at <https://www.internationaltreefoundation.org/news/national-tree-growing-day-kenya> accessed on 19th January, 2024.

225 Energy and Petroleum Regulatory Authority, 'Renewable Energy' (Energy and Petroleum Regulatory Authority) available at <https://www.epra.go.ke/services/renewable-energy-2/> accessed on 19th January, 2024.

226 CeCe Coffey, 'Kenya's Clean Energy Transition Gets a Boost from Solar Power' (**Kleinman Center for Energy Policy, 2023**) available at https://kleinmanenergy.upenn.edu/news-insights/kenyas-clean-energy-transition-gets-a-boost-from-solar-power/ accessed on 19th January, 2024.

227 Ministry of Transport, *Building and Housing, Report on Denmark's deployment of alternative fuels Infrastructure* (Ministry of Transport, Building and Housing,)10 available at https://alternative-fuels-observatory.ec.europa.eu/system/files/documents/2022-12/2019%20Denmark%20NIR%20%28EN%29.pdf accessed on 13th January, 2024.

228 Excise Duty Act, No 23 of 2015, First Schedule, paragraph 1.

229 Cindy Oraro and Blenda Nyahoro, 'Charging Ahead: The Bright Future of Electric Mobility in Kenya' (Oraro & Company Advocates, 2023) available at https://www.oraro.co.ke/charging-ahead-the-bright-future-of-electric-

vehicles only to areas near the charging stations.

Sweden has in place a system (Bonus- Malus-system) designed to reduce or encourage low-emission transportation by targeting new vehicles[230]. As earlier stated, this system purposes to reduce the fossil fuel use, thus lowering the climate impact from road traffic. This has led to the use of environmentally friendly vehicles in Sweden. Kenya on the other hand has banned the importation of vehicles above 8 years[231]. This is an attempt to reduce the about of carbon emissions from vehicles. Kenya has attempted to lower the age of vehicles to be covered by the ban to 5 years, however, this has faced opposition from various quarters. Kenya should consider introducing the Bonus- Malus-system in addition to its ban on older vehicles as this will go a long way in reducing the amount of carbon emissions by vehicles.

Kenya seeks to reduce its GHG emissions by 32% by 2030[232]. Kenya's achievement of its NDCs targets is subject to international support in the form of finance, investment, technology development and transfer, and capacity development. This translates to a huge amount of capital required to combat climate change. The current estimated cost of implementing Kenya's mitigation and adaptation actions under the NDC is approximately KES 6,775 billion (USD 65 billion) in 2020-2030[233]. Therefore, in order to meet the climate targets contained in the NDC, both public and private climate finance needs to be scaled-up significantly by 2030.

In this regard, Rwanda offers useful insight. As stated earlier in this chapter, Rwanda established the Rwanda Green Fund (FONERWA) for the financing of its efforts in tackling climate change and it had raised over US $217 million for green investments in Rwanda[234]. Kenya can emulate this establishing a fund of a similar nature to coordinate the financing of its climate actions and the

mobility-in-kenya/ accessed on 19th January, 2024.

230 K Vaghult, 'The Bonus-Malus system- Will it be a cost-effective and fair policy for emission reductions from road traffic in Sweden?' (Master Thesis, Södertörn University,2019)2 available at https://www.diva-portal.org/smash/get/diva2:1324769/FULLTEXT01.pdf accessed on 12th January 2024.

231 Anthony Kitimo, 'Transporters protest rule by Kenya to ban old truck imports' The East African (Nairobi, 9th January, 2023) available at < https://www.theeastafrican.co.ke/tea/business/transporters-protest-rule-by-kenya-to-ban-old-truck-imports-4079116> accessed on 19th January, 2024.

232 Anna Balm and Hélène Van Caenegem, 'The Landscape of Climate Finance in Kenya' (Climate Policy Initiative, 2021) available at https://www.climatepolicyinitiative.org/publication/the-landscape-of-climate-finance-in-kenya/ accessed on 19th January, 2024.

233 *Ibid*.

234 Rwanda in UK (n208).

offering of technical assistance where necessary. Further, as the leading cause of climate change is as a result of GHG emissions by developed countries, the said countries should follow in the steps of Denmark which has offered "loss and damage" support to developing nations that have experienced unavoidable social and financial impacts because of climate change[235].

Carbon taxing another lesson in which Kenya can adopt from foreign jurisdictions such as Sweden. As earlier stated, carbon tax provides incentives to reduce energy consumption, improve energy efficiency and increase the use of renewable energy alternatives. Carbon taxes could possibly provide Kenya with the resources it dearly needs to carry out its climate change mitigation actions[236].

Various jurisdictions like Rwanda have embraced the concept of carbon credits. Kenya too has not been left behind as it has provided for carbon credits in the Climate Change Act[237]. However, most of the provisions on carbon credits are yet to be fully operationalized thus the effectiveness of the provisions on carbon credits cannot be fully examined.

Conclusion

From a comparison of the actions and policies undertaken by the countries in this chapter *vis a vis* Kenya, it is evident that despite Kenya having made great strides towards dealing with climate change, it can benefit by emulating some of the policies in the jurisdictions discussed in this chapter. Some of the policies which Kenya should consider introducing include; the imposition of carbon tax, the introduction of the bonus-malus system for new cars and blending obligation for transport fuels among others. These will go a long way in the fight against climate change.

235 Osborne (n105).

236 Business Daily 'Carbon tax: Striking the right balance between environment, development' *Business Daily* (Nairobi, October 30 2023) available at https://www.businessdailyafrica.com/bd/opinion-analysis/columnists/-striking-the-right-balance-between-environment-development--4417400 accessed on 19th January 2024.

237 Climate Change Act, No 11 of 2016.

Chapter 5: Conclusion & Recommendations

This chapter gives a conclusion and gives recommendations emanating from this compendium.

The breadth of this compendium discusses the jurisprudence from decisions on climate justice in Kenya. It introduces the key concepts involved in climate justice and its historical evolution in Kenya. The compendium discusses the role of the Kenyan Government (both national and county governments) in climate justice and details the laws and actions undertaken by them to enhance climate justice. The compendium further highlights the international law governing climate justice. This entails a critical discussion on the relevant treaties, challenges to international cooperation and consensus on environmental and climatic justice and the jurisprudence established by courts internationally especially courts from commonwealth countries. This compendium also highlights countries which are considered to have best practices with regard to climate change policies such as Sweden and Germany internationally and South Africa and Rwanda regionally. This compendium finally makes recommendations for better combating of climate change.

Recommendations

From going through this entire compendium, it is evident that there are additional ways in which Kenya can utilize to further its fight against climate change. In that regard this chapter proposes the following recommendations to be adopted by the Kenyan Government.

1. Amendment of the Public Holidays Act

The Kenyan Government introduced the National Tree Growing day via a gazette notice by the Cabinet Secretary for Interior and National Administration[1]. The National Tree Growing day was observed on November 13, 2023[2]. This compendium recommends that Schedule 2 of the Public Holidays Act, which is an Act of Parliament enacted to make provision for public holidays[3] be amended to add National Tree Growing Day as a public holiday to enable the populace plant trees on that day. As the law stands today it is not a guarantee that it shall be observed in future where the Government of the day is of a contrary view. Thus this holiday needs to be cemented in the Public Holidays Act.

1 Government Printer, Kenya Gazette, Gazette Notice No 15238 (Government Printer, 6th November, 2024).

2 *Ibid*.

3 Public Holidays Act, Cap 110.

2. Establishment of a climate change action fund

This compendium proposes that Kenya follows in the footsteps of Rwanda and sets up a fund equivalent to Rwanda's FONERWA to coordinate the financing of its climate actions and the offering of technical assistance where necessary. The Government can then source funds to be specifically used in climate change actions. This will prevent the misuse of climate funds on activities which are not related to combating climate change.

3. Carbon taxing

As earlier stated carbon tax provides incentives to reduce energy consumption, improve energy efficiency and increase the use of renewable energy alternatives. This compendium recommends the introduction of carbon taxes in Kenya. Carbon taxes could possibly provide Kenya with the resources it dearly needs to carry out its climate change mitigation actions[4] and also assist in the reduction of harmful GHGs into the atmosphere.

4. Bonus- Malus-system

The Bonus-Malus-system proposes to reduce the fossil fuel use, thus lowering the climate impact from road traffic. Kenya has banned the importation of vehicles above 8 years[5]. This is an attempt to reduce the amount of carbon emissions from vehicles. Kenya has attempted to lower the age of vehicles to be covered by the ban to 5 years. However, this has faced opposition from various quarters. This compendium thus recommends that Kenya should introduce the Bonus- Malus-system in addition to its ban on older vehicles as this will go a long way in reducing the amount of carbon emissions by vehicles.

5. Funding of climate mitigation actions by developed countries

It is a notorious fact that developed countries are the leading causes of climate change and the countries which suffer most from the effects of climate change are developing nations, of which Kenya is a part of. As the developed countries are the leading pollutants, this compendium recommends the funding of climate change mitigation actions by the developed countries.

6. Tax incentives on electric vehicles

In order to reduce the amount of GHGs being emitted by vehicles on the road, this compendium proposes that citizens be encouraged to utilize electric vehicles. The Government in an attempt to increase the number of electric vehicles on the road should reduce taxes being subjected to the said vehicles. The Government should also incentivize the purchase of high capacity electric busses to carry passengers from one point to another.

4 Business Daily (n236).

5 Kitimo (n231).

7. Carbon Budgets

Carbon Budgets set a maximum volume of emissions from certain activities that individual entities are permitted to release. By assigning a carbon budget to an entity, an indication is given as to the degree of GHG mitigation that is required within a specific time period, with a penalty being meted if the budget allocation is exceeded. This compendium therefore recommends the setting up of carbon budget so as to prevent individual entities from releasing huge amounts of GHGs into the atmosphere.

Bibliography

Scholes R & Engelbrecht F, 'Climate impacts in southern Africa during the 21st Century: Report for the Centre for Environmental Rights' (2021) Global Change Institute, University of the Witwatersrand

'Climate Risk Country Profile: South Africa' (2021) The World Bank Group

Newell P *et al*, 'Toward Transformative Climate Justice: An Emerging Research Agenda' (2021) WIREs Climate Change doi:10.1002/wcc.733

Falkner R, 'The Unavoidability of Justice – and Order – in International Climate Politics: From Kyoto to Paris and Beyond' (2019) The British Journal of Politics & International Relations, 270

Biermann F & Kalfagianni A, 'Planetary Justice: A Research Framework' (2020) < https://www.sciencedirect.com/science/article/pii/S2589811620300082?via%3Dihub > accessed January 18, 2024

Sessional Paper No. 3 of 2016 on National Climate Change Framework Policy

The Constitution of Kenya, 2010

Mallowah S & Oyier C, The Environment and Climate Change Law Review (6th edn), Ch 6

< https://www.oraro.co.ke/wp-content/uploads/2023/09/The-Climate-Change-Amendment-Act-2023.pdf > accessed January 19, 2024

Kimuyu P, 'Climate Justice through the Polluter Pays principle'

Bruce J *et al*, 'Economic and social dimensions of climate change' (1996) Climate Change 1995

Bhardwaj M, 'The role and relationship of climate justice and common but differentiated responsibilities & respective capabilities (CBDR-RC) principle in the international climate change legal framework: historical evaluation, developments challenges and future outlooks of CBDR-RC principle and climate justice' < https://www.connect4climate.org/sites/default/files/files/publications/Climate%20Justice_Manuj%20

Bhardwaj%20India_0.pdf > accessed January 19, 2024

<https://rise.esmap.org/data/files/library/kenya/Clean%20Cooking/Kenya_NCCAP_2018-2022.pdf > accessed January 19, 2024

Bosek J, 'Implementing environmental rights in Kenya's new constitutional order: Prospects and potential challenges' (2014) AHRLJ 25 Ch 9, Vol 2

National Council for Law Reporting (Kenya Law)
ACK Garden Annex, 5th Flr., 1st Ngong Avenue, Off Ngong Road
P.O. Box 10443 GPO 00100, Nairobi - Kenya
Tel: **+254 20 271 2767, 20 271 9231, 2011614**
Mobile: **+254 718 799 464, 736 863 309**
website : www.kenyalaw.org
: Info@kenyalaw.org
: @mykenyalaw
: mykenyalaw
: www.youtube.com/kenyalawreports