

# Environmental Justice, Climate Change and Human Mobility:

Law, Sustainability and Global Futures



Kariuki Muigua

**Environmental Justice,  
Climate Change  
and Human Mobility:**

*Law, Sustainability and Global Futures*

**Prof. Kariuki Muigua, Ph.D, SC, C.Arb, OGW**

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## **Dedication**

This book is dedicated  
to communities and individuals  
whose lives and livelihoods are  
shaped by environmental change,  
often in circumstances of  
vulnerability and uncertainty.

It honours  
their resilience and  
Adaptability  
and recognises  
their experiences  
as central to rethinking justice,  
protection and  
sustainability in a  
changing climate.

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I also acknowledge the role of Kariuki Muigua & Co. Advocates in supporting research, dialogue, and publication in the fields of environmental justice and sustainable development. Special appreciation is extended to colleagues, collaborators, and reviewers whose insights and constructive critiques have strengthened this work. Finally, I am thankful to my family and friends for their patience, encouragement, and unwavering support throughout the writing and refinement of this book.

## **Author's Note**

This book is written at a moment when climate change has moved decisively from scientific projection to lived reality, reshaping human security, governance and movement across regions and borders. While environmental law and sustainable development have long formed the core of my scholarly and professional engagement, the growing visibility of climate-induced human mobility has compelled a deeper and more integrated reflection on justice, responsibility and protection in a rapidly changing world.

The ideas developed in this book are informed by years of engagement with environmental governance, dispute resolution, and policy processes at national, regional, and international levels. However, this work marks a deliberate shift in focus from sectoral legal analysis to a broader interrogation of how law responds when environmental change fundamentally alters human livelihoods, settlements and patterns of movement. It brings together insights from environmental law, human rights, refugee law, and sustainability to examine the justice dimensions of climate-induced mobility.

Several chapters in this book are adapted, revised and integrated from my previously published articles, many of which have appeared on the Kariuki Muigua & Co. Advocates website and in other scholarly and professional outlets. These earlier works have been substantially updated, reorganised, and contextualised to form a coherent and unified narrative that reflects the evolving legal, policy, and governance challenges posed by climate change and human mobility. Other chapters have been written specifically for this book to address emerging issues, deepen conceptual analysis, and advance future-oriented approaches to environmental justice and human mobility governance.

**Hon. Prof. Kariuki Muigua, Ph.D, SC, C.Arb, OGW**  
**Nairobi Kenya**  
**February 2026**



## **List of Abbreviations**

ADR - Alternative Dispute Resolution

AI - Artificial Intelligence

AU - African Union

EAC - East African Community

EA - Environmental Audit

EIA - Environmental Impact Assessment

ESG - Environmental, Social and Governance

ICJ - International Court of Justice

IDLO - International Development Law Organization

IOM - International Organization for Migration

MSMEs - Micro, Small and Medium-Sized Enterprises

NDCs - Nationally Determined Contributions

ODR - Online Dispute Resolution

SDGs - Sustainable Development Goals

UN - United Nations

UNDP - United Nations Development Programme

UNFCCC - United Nations Framework Convention on Climate Change

UN-Habitat - United Nations Human Settlements Programme

WHO - World Health Organization

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## **SECTION I: ENVIRONMENTAL JUSTICE, CLIMATE GOVERNANCE AND SUSTAINABILITY**

This section lays the normative and institutional foundation of the book by situating environmental justice at the heart of climate governance and sustainable development. It examines how law, policy, and the rule of law can be leveraged to address structural inequalities, environmental harm, and climate vulnerability, while promoting equitable and sustainable outcomes for present and future generations.

## **Chapter 1: Environmental Justice, Climate Change and Human Mobility: Examining Law, Sustainability and Global Futures**

### ***Abstract***

*This chapter critically examines the link between environmental justice, climate change and human mobility. The chapter observes that climate change is a major global challenge with severe impacts on people and planet. In particular, the chapter notes that climate change is an environmental justice concern due to its disproportionate impacts on vulnerable people and ecosystems. It examines how climate change drives environmental injustices. In addition, the chapter observes that climate change is a major cause of human mobility with severe consequences on peace, security and stability. In light of these relationships, the chapter argues that addressing the link between climate change, environmental justice and human mobility is crucial in securing a sustainable future for people and planet. It examines how climate change can be effectively tackled through law and other appropriate tools towards environmental justice and reduced risk of human mobility for sustainability.*

### **1.0 Introduction**

Climate change is an undesirable phenomenon that undermines realisation of the Sustainable Development agenda with grave impacts on both people and planet. Climate change has been described as one of the greatest challenges of our time whose adverse impacts undermine the ability of all countries to achieve Sustainable Development<sup>1</sup>. Adverse climatic events including intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are on the rise globally undermining development efforts<sup>2</sup>. It has been observed that due to the adverse impacts of climate change, the sustainability of the planet's ecosystems is under threat, as well as the future of humankind and the stability of the global economy<sup>3</sup>.

Climate change is also causing injustices. For instance, it has been pointed out that people and communities who have contributed the least to climate change are being affected by it the most, and are likely to be less able to protect themselves from its impacts<sup>4</sup>. In particular, climate change has disproportionate impacts on vulnerable groups and communities including women, the youth, the elderly, people of colour, persons with disabilities and people and communities

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<sup>1</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 28/01/2026)

<sup>2</sup> United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 28/01/2026)

<sup>3</sup> Climate Change: Meaning, Definition, Causes, Examples And Consequences., Available at <https://youmatter.world/en/definitions/climate-change-meaning-definition-causes-and-consequences/> (Accessed on 28/01/2026)

<sup>4</sup> Oxfam., 'Climate Justice.' Available at <https://www.oxfam.org.au/what-we-do/climate-justice/> (Accessed on 28/01/2026)

developing countries<sup>5</sup>. Due to its disproportionate impacts, climate change has been described as an environmental justice issue<sup>6</sup>.

In addition, climate change is also linked to human mobility. The International Organization for Migration (IOM) identifies climate change as a threat multiplier which drives human mobility through resource scarcity, environmental degradation, natural disasters and conflicts<sup>7</sup>. It has been argued that if left unchecked, climate change will trigger severe human mobility challenges including forced displacements and mass migrations that will lead to conflicts, instability, wars and insecurity<sup>8</sup>.

Climate change therefore affects Sustainable Development in various ways including through its impacts on ecosystems, environmental justice and human mobility. Consequently, confronting climate change is key towards securing a sustainable future for people and planet. Sustainable Development Goal (SDG) 13 under the United Nations 2030 Agenda for Sustainable Development urges all states to take urgent action to combat climate change and its impacts towards sustainability<sup>9</sup>.

This chapter critically examines the link between environmental justice, climate change and human mobility. The chapter observes that climate change is a major global challenge with severe impacts on people and planet. In particular, the chapter notes that climate change is an environmental justice concern due to its disproportionate impacts on vulnerable people and ecosystems. It examines how climate change drives environmental injustices. In addition, the chapter observes that climate change is a major cause of human mobility with severe consequences on peace, security and stability. In light of these relationships, the chapter argues that addressing the link between climate change, environmental justice and human mobility is crucial in securing a sustainable future for people and planet. It examines how climate change can be effectively tackled through law and other appropriate tools towards environmental justice and reduced risk of human mobility for sustainability.

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<sup>5</sup> Center for Climate Justice., 'What is Climate Justice?' Available at <https://centerclimatejustice.universityofcalifornia.edu/what-is-climate-justice/> (Accessed on 28/01/2026)

<sup>6</sup> Resnik. D.B., 'Environmental Justice and Climate Change Policies' Available at <https://pmc.ncbi.nlm.nih.gov/articles/PMC9391311/> (Accessed on 28/01/2026)

<sup>7</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Available at [https://www.iom.int/sites/g/files/tmzbd1486/files/migrated\\_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf](https://www.iom.int/sites/g/files/tmzbd1486/files/migrated_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf) (Accessed on 28/01/2026)

<sup>8</sup> United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://www.un.org/sustainabledevelopment/climate-change/> (Accessed on 28/01/2026)

<sup>9</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

## **2.0 Impacts of Climate Change on Environmental Justice and Human Mobility**

### **2.1 Climate Change and Environmental Justice**

It has been observed that climate change is an environmental justice issue<sup>10</sup>. The concept of environmental justice recognises the disproportionate impacts of environmental hazards including the triple planetary crisis of climate change, pollution, and biodiversity loss<sup>11</sup>. It has been observed that environmental justice highlights the plight of vulnerable people and communities who bear the most burden when it comes to environmental damage and seeks to give them a voice through access to environmental information, participation in environmental decision-making processes and access to justice in order to ensure sustainable and equitable development<sup>12</sup>.

Environmental justice therefore acknowledges that the impacts of environmental hazards such as climate change are felt unequally<sup>13</sup>. For example, it has been observed that while climate change is global, the poor are disproportionately vulnerable to its effects<sup>14</sup>. This is because they lack the resources to afford goods and services, they need to buffer themselves and recover from the impacts of climate change<sup>15</sup>. The impacts of climate change are also felt unequally across regions. For example, it has been observed that developing nations and communities in Africa, Asia, the Caribbean Islands and the Pacific Islands which due to an unfortunate mixture of economic and geographic vulnerability, continue to shoulder the brunt of the burdens of climate change despite their relative innocence in causing it<sup>16</sup>. Despite climate change being a global problem, it has a more destructive and widespread effect on communities living in the Global South, which have been marginalised and have fewer resources to adapt or respond to its adverse consequences<sup>17</sup>.

Climate change also fuels injustices against indigenous peoples and local communities. For example, it has been observed that due to their close relationship with nature, indigenous peoples

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<sup>10</sup> Resnik. D.B., 'Environmental Justice and Climate Change Policies' Op Cit

<sup>11</sup> United Nations Development Programme., 'Five steps to environmental justice' Available at <https://www.undp.org/blog/five-steps-environmental-justice> (Accessed on 29/01/2026)

<sup>12</sup> Muigua. K., Wamukoya. D., & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Glenwood Publishers Limited, 2015

<sup>13</sup> United Nations Development Programme., 'Five steps to environmental justice' Op Cit

<sup>14</sup> United Nations Environment Programme., 'Responding to climate change' Available at <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change> (Accessed on 29/01/2026)

<sup>15</sup> Ibid

<sup>16</sup> Giles. M., 'The Principles of Climate Justice at CoP27.' Available at <https://earth.org/principles-ofclimatejustice/#:~:text=That%20response%20should%20be%20based,the%20consequences%20of%20climate%20change> (Accessed on 29/01/2026)

<sup>17</sup> Bandera. G., 'How climate colonialism affects the Global South' Available at <https://www.fairplanet.org/story/how-climate-colonialism-affects-the-global-south/> (Accessed on 29/01/2026)

and local communities are among the first to face the direct consequences of climate change<sup>18</sup>. In particular, indigenous peoples living in mountainous and high altitude areas are severely impacted by melting glaciers which affect season flow of water leading to water scarcity<sup>19</sup>. Further, the impacts of climate change on forest ecosystems affect the livelihoods and health of indigenous peoples who depend on forests for food, water and traditional medicines<sup>20</sup>. It has also been observed that severe droughts threaten the lives and livelihoods of indigenous peoples in Africa especially pastoralists and hunter-gatherer communities<sup>21</sup>. Climate change also has uneven impacts on women and girls, especially those in rural areas since they make up the majority of the world's poor, who are highly dependent on local natural resources for their livelihoods<sup>22</sup>. In addition, the youth are also disproportionately impacted by climate change since they are likely to live with the consequences of climate change for longer timeframes compared to older generations<sup>23</sup>. Further, due to reduced mobility and limited access to resources, the elderly and persons with disabilities, especially those who live in developing countries, are highly vulnerable to the adverse impacts of climate change, including threats to their health, food security, access to water and sanitation, and livelihoods<sup>24</sup>.

From the foregoing, it emerges that climate change has disproportionate impacts on vulnerable groups including the poor, indigenous peoples and local communities, women and girls, the youth, the elderly, persons with disabilities and people and communities in the Global South. Environmental justice acknowledges these injustices and provides a framework towards redressing the disproportionate impacts of climate change among other environmental threats for justice, fairness, equity and human rights<sup>25</sup>. It seeks to ensure that vulnerable people and communities are protected from climate change and other environmental hazards including

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<sup>18</sup> United Nations., 'Climate Change' Available at <https://www.un.org/development/desa/indigenouspeoples/climate-change.html> (Accessed on 29/01/2026)

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> United Nations., 'Why Women are Key to Climate Action' Available at <https://www.un.org/en/climatechange/science/climate-issues/women> (Accessed on 29/01/2026)

<sup>23</sup> Climate Change is a Youth Issue., Available at <https://www.ifad.org/en/w/opinions/climate-change-is-a-youth-issue> (Accessed on 29/01/2026)

<sup>24</sup> United Nations Development Programme., 'What is climate justice and why does it matter?' Available at <https://climatepromise.undp.org/news-and-stories/climate-change-matter-justice-heres-why> (Accessed on 29/01/2026)

<sup>25</sup> Ekhatior. E., & Agbaitoro. G., 'The Role of Environmental Justice in Promoting the Rule of Law in Natural Resource Conflict Resolution in Africa: A Case Study of Nigeria' Available at [https://www.researchgate.net/publication/366640118\\_The\\_Role\\_of\\_Environmental\\_Justice\\_in\\_Promoting\\_the\\_Rule\\_of\\_Law\\_in\\_Natural\\_Resource\\_Conflict\\_Resolution\\_in\\_Africa\\_A\\_Case\\_Study\\_of\\_Nigeria](https://www.researchgate.net/publication/366640118_The_Role_of_Environmental_Justice_in_Promoting_the_Rule_of_Law_in_Natural_Resource_Conflict_Resolution_in_Africa_A_Case_Study_of_Nigeria) (Accessed on 29/01/2026)

through enhanced access to environmental information, public participation in environmental decision-making and access to justice in environmental matters<sup>26</sup>.

In particular, climate justice is a subset of environmental justice which highlights the plight of vulnerable people and communities in the climate change discourse. Climate justice focuses on how climate change impacts people differently, unevenly, and disproportionately, as well as redressing the resultant injustices in fair and equitable ways<sup>27</sup>. This concept acknowledges the uneven nature of the climate crisis and its adverse impacts on vulnerable groups including indigenous peoples, women, the youth, the elderly, persons with disabilities and communities in developing nations<sup>28</sup>. It has been observed that at its core, climate justice focuses on the protection of human rights of the most vulnerable in the face of a mounting climate crisis<sup>29</sup>. By recognising the disproportionate impacts of climate change, the concept of climate justice seeks solutions that address the root causes of climate change and in doing so, simultaneously address a broad range of social, racial, and environmental injustices caused by the climate crisis<sup>30</sup>. Climate justice advocates for fair, just, inclusive and equitable climate solutions that prioritize the needs of those who are most affected by climate change<sup>31</sup>.

Fostering environmental and climate justice is therefore key towards upholding the rights of those who are adversely impacted by climate change for equity, fairness and inclusivity.

## **2.2 Climate Change and Human Mobility**

Human mobility refers to the temporal or permanent movement of people within or across countries<sup>32</sup>. It has been observed that environmental factors including climate change, disasters and environmental degradation are key drivers of human mobility, leading to increased

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<sup>26</sup> United Nations Development Programme., 'Environmental Justice: Comparative Experiences in Legal Empowerment' Available at <https://www.undp.org/sites/g/files/zskgke326/files/publications/Environmental-Justice-Comparative-Experiences.pdf> (Accessed on 29/01/2026)

<sup>27</sup> Sultana. F., 'Critical Climate Justice.' Available at <https://www.farhanasultana.com/wp-content/uploads/Sultana-Critical-climate-justice.pdf> (Accessed on 29/01/2026)

<sup>28</sup> Center for Climate Justice., 'What is Climate Justice?' Available at <https://centerclimatejustice.universityofcalifornia.edu/what-is-climate-justice/> (Accessed on 29/01/2026)

<sup>29</sup> Aliozi. Z., 'Climate Justice and Human Rights, in a World in Climate Emergency' Available at <https://repository.gchumanrights.org/server/api/core/bitstreams/2eba3de1-1427-481b-a2d6-07818e00a53b/content> (Accessed on 29/01/2026)

<sup>30</sup> Center for Climate Justice., 'What is Climate Justice?' Op Cit

<sup>31</sup> Climate Justice Global Alliance., Op Cit

<sup>32</sup> United Nations Network on Migration., 'Human Mobility: a local, regional and global call for collective action and evidence-based public discourse' Available at <https://migrationnetwork.un.org/resources/human-mobility-local-regional-and-global-call-collective-action-and-evidence-based-public> (Accessed on 29/01/2026)

displacement and migration globally<sup>33</sup>. According to IOM, climate change fuels human mobility including through displacement, migration and planned relocation<sup>34</sup>. Displacement occurs when people are forced to leave their homes. Migration on the other hand occurs in cases of voluntary movement of people<sup>35</sup>. In addition, it has been observed that planned relocation is usually instigated or supervised by relevant authorities with the consent of affected individuals and communities<sup>36</sup>.

Climate change causes human mobility across its three dimensions. For instance, it has been observed that adverse climatic events including rising sea-levels, extreme drought, floods and heatwaves affect the livelihoods and well-being of vulnerable communities creating conditions for displacement and migration<sup>37</sup>. Climate change fuels water scarcity, food insecurity and disease outbreaks forcing people and communities to move in such of better conditions<sup>38</sup>. Further, climate change can lead to planned relocation especially in cases where communities have been devastated by adverse climatic events including floods, droughts and sea-level rise<sup>39</sup>.

Climate change is therefore a major driver of human mobility. It has been observed that slow and sudden-onset climatic events and processes are influencing the patterns of human mobility all over the world threatening Sustainable Development<sup>40</sup>. In particular, human mobility due to displacement and migration affects the livelihoods and well-being of those forced to leave their homes<sup>41</sup>. In addition, when people are displaced, they face challenges in accessing essential services including food, water, healthcare and education fuelling human rights violations<sup>42</sup>. Human mobility due to climate change is also a global security challenge. For example, it has been observed that the potential competition for scarce resources in host regions for displaced persons and migrants can increase the risk of violent conflict, with implications for peace, security and stability<sup>43</sup>.

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<sup>33</sup> Human mobility in the context of climate change, Disasters, and Environmental Degradation., Available at <https://www.icpac.net/our-projects/human-mobility-in-the-context-of-climate-change-disasters-and-environmental-degradation/> (Accessed on 29/01/2026)

<sup>34</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Op Cit

<sup>35</sup> Ibid

<sup>36</sup> Ibid

<sup>37</sup> Human Mobility in the Context of Climate Change., Available at [https://www.giz.de/de/downloads/GIZ\\_Broschuere\\_Human\\_Mobility\\_20230814.pdf](https://www.giz.de/de/downloads/GIZ_Broschuere_Human_Mobility_20230814.pdf) (Accessed on 29/01/2026)

<sup>38</sup> Ibid

<sup>39</sup> Ibid

<sup>40</sup> Global Forum on Migration & Development., 'The impact of climate change on human mobility: preventive action, humanitarian action and development' Available at [https://www.gfmd.org/sites/g/files/tmzbd11801/files/documents/france2023/roundtables/GFMD%20GRT%201%20-%20Background%20paper%20Final\\_EN.pdf?EN](https://www.gfmd.org/sites/g/files/tmzbd11801/files/documents/france2023/roundtables/GFMD%20GRT%201%20-%20Background%20paper%20Final_EN.pdf?EN) (Accessed on 29/01/2026)

<sup>41</sup> Ibid

<sup>42</sup> Ibid

<sup>43</sup> Human Mobility in the Context of Climate Change., Op Cit

Addressing the link between climate change and human mobility is therefore crucial towards peace, security and Sustainable Development.

### **3.0 Addressing the Nexus between Environmental Justice, Climate Change and Human Mobility**

Climate change causes environmental injustices and human mobility concerns with grave impacts on sustainability and the future of both people and planet. The adverse impacts of climate change are causing dangerous and widespread disruption, depletion and degradation of nature while also affecting the lives, health, livelihoods and well-being of billions of people all over the world<sup>44</sup>. Climate change disproportionately impacts the vulnerable including indigenous peoples, local communities, women, the youth, the elderly, persons with disabilities and people and communities in developing countries<sup>45</sup>. It also causes human mobility concerns including through forced displacements, migration and relocations with grave impacts on peace, security and stability<sup>46</sup>.

Tackling climate change is therefore an urgent priority towards protecting people and planet. In particular, there is need to strengthen the protection of vulnerable groups and populations from the adverse impacts of climate change through law and other tools for environmental justice. The *Paris Agreement*<sup>47</sup>, which establishes the global legal framework towards confronting climate change, urges all countries to foster climate justice when taking action to address the climate crisis<sup>48</sup>. The Paris Agreement further acknowledges the uneven effects of climate change and requires all countries to uphold the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations, as well as gender equality, empowerment of women and intergenerational equity in climate action<sup>49</sup>.

Achieving environmental and climate justice is therefore a key agenda towards addressing the uneven impacts of climate change for human rights, equity and fairness. Through appropriate laws and policies, it is possible to achieve this agenda by ensuring that vulnerable groups are meaningfully involved in decision-making processes. It has been observed that policies that empower disadvantaged groups through enhanced access to climate information and meaningful participation in climate change decision making processes are key towards securing true climate

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<sup>44</sup> Intergovernmental Panel on Climate Change., 'Climate change: a threat to human wellbeing and health of the planet. Taking action now can secure our future' Available at [https://www.ipcc.ch/report/ar6/wg2/downloads/press/IPCC\\_AR6\\_WGII\\_PressRelease-English.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/press/IPCC_AR6_WGII_PressRelease-English.pdf) (Accessed on 29/01/2026)

<sup>45</sup> United Nations Environment Programme., 'Responding to climate change' Op Cit

<sup>46</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Op Cit

<sup>47</sup> Paris Agreement to the United Nations Framework Convention on Climate Change., UNTS, Vol, 3156

<sup>48</sup> Ibid, preamble

<sup>49</sup> Ibid

justice for people and planet<sup>50</sup>. In addition, legal frameworks that empower vulnerable groups including the youth, women, indigenous peoples and local communities to access justice are vital in promoting environmental justice for people and planet by providing a forum to hold governments and organizations accountable in respect of laws and policies on climate change<sup>51</sup>.

Further, designing appropriate climate policies can ensure that disadvantaged groups have access to climate finance towards strengthening climate mitigation and adaptation<sup>52</sup>. For example, when developing countries have access to adequate climate finance, they can strengthen investments in food security, clean technology, sustainable transport and infrastructure, climate-resilient agriculture, renewable energy, sustainable blue economy and sustainable forestry in the pursuit of environmental and climate justice<sup>53</sup>. In addition, when disadvantaged groups including indigenous peoples, local communities, women, the youth, the elderly and persons with disabilities have access to timely and adequate climate finance, they can be able to access relevant information, goods and services required to anticipate, cope and respond to adverse climatic events<sup>54</sup>. Designing appropriate legal and policy frameworks on climate change can therefore ensure environmental and climate justice including through access to environmental information, public participation in climate action, access to justice in climate matters and access to timely and adequate climate finance.

Addressing human mobility in the context of climate change is also vital in safeguarding human rights, peace and security. It has been observed that for many decades, international law and policy had given only limited recognition to migration and displacement induced by climate change, disasters and other environmental hazards<sup>55</sup>. However, enhanced efforts have culminated in the international recognition of the impacts of climate change on human mobility

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<sup>50</sup> United Nations Development Programme., 'Climate change is a matter of justice – here's why' Available at <https://climatepromise.undp.org/news-and-stories/climate-change-matter-justice-heres-why> (Accessed on 29/01/2026)

<sup>51</sup> Setzer. J., 'Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance.' Available at [https://www.researchgate.net/profile/JoanaSetzer/publication/331499727\\_Climate\\_change\\_litigation\\_A\\_review\\_of\\_research\\_on\\_courts\\_and\\_litigants\\_in\\_climate\\_governance/links/5e89690d92851c2f527f820d/Climate-change-litigation-A-review-ofresearch-on-courts-and-litigants-in-climate-governance.pdf](https://www.researchgate.net/profile/JoanaSetzer/publication/331499727_Climate_change_litigation_A_review_of_research_on_courts_and_litigants_in_climate_governance/links/5e89690d92851c2f527f820d/Climate-change-litigation-A-review-ofresearch-on-courts-and-litigants-in-climate-governance.pdf) (Accessed on 29/01/2026)

<sup>52</sup> Climate Finance., 'Climate Finance Essential for Mitigating and Adapting to Climate Change.' Available at <https://www.iberdrola.com/sustainability/what-is-climate-finance> (Accessed on 29/01/2026)

<sup>53</sup> The World Bank Group., '3 Things You Need to Know About Climate Finance.' Available at <https://www.worldbank.org/en/topic/climatechange/brief/3-things-you-need-to-know-about-climate-finance> (Accessed on 29/01/2026)

<sup>54</sup> Ibid

<sup>55</sup> Human Mobility in the Context of Climate Change., Op Cit

under the *Cancun Adaptation Framework*<sup>56</sup>. The Adaptation Framework which was adopted at the 16<sup>th</sup> session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 16) requires all parties to undertake measures necessary to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels<sup>57</sup>. In addition, the *Sendai Framework for Disaster Risk Reduction*<sup>58</sup> seeks to tackle climate change-related disasters, displacement and migration in countries of origin. It aims to achieve this goal by minimising climate and disaster impacts in vulnerable countries<sup>59</sup>. Further, the Sendai Framework recognises migrants and displaced persons as key stakeholders in planning disaster risk reduction in the context of climate change<sup>60</sup>. Addressing the impacts of climate change on human mobility is therefore possible by minimising the impact of climate and natural disasters in vulnerable countries and regions, involving displaced persons and migrants in disaster risk reduction and ensuring that displaced people have access to essential services including food, water, clothing and healthcare<sup>61</sup>.

#### **4.0 Conclusion**

Climate change is an undesirable phenomenon that undermines Sustainable Development by causing environmental injustices and human mobility challenges. Fostering environmental and climate justice is therefore vital for people and planet. This involves ensuring that vulnerable and disadvantaged groups have access to environmental information, participate meaningfully in climate action, have appropriate channels to access justice in climate matters and are provided with timely and adequate climate finance<sup>62</sup>. It also involves addressing the impacts of climate change on human mobility by minimising the effects of climate and natural disasters in vulnerable countries and regions, involving displaced persons and migrants in disaster risk reduction and ensuring that displaced people have access to essential services including food, water, clothing and healthcare<sup>63</sup>. Tackling climate change in the context of environmental justice and human mobility is a possible dream. It is imperative to strengthen laws and policies towards actualising this agenda for both people and planet, now and in the future.

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<sup>56</sup> United Nations Climate Change., 'Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010' Available at <https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf> (Accessed on 29/01/2026)

<sup>57</sup> Ibid

<sup>58</sup> Sendai Framework for Disaster Risk Reduction 2015-2030., Available at <https://www.undrr.org/media/16176/download?startDownload=20240430> (Accessed on 29/01/2026)

<sup>59</sup> Ibid

<sup>60</sup> Ibid

<sup>61</sup> Ibid

<sup>62</sup> United Nations Development Programme., 'Climate change is a matter of justice - here's why' Op Cit

<sup>63</sup> Sendai Framework for Disaster Risk Reduction 2015-2030., Op Cit

## **Chapter 2: Strengthening Environmental Rule of Law for Sustainability**

### **Abstract**

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

### **1.0 Introduction**

The rule of law has been defined as a phenomenon that comprises a number of principles of a formal and procedural character, addressing the way in which a society is governed<sup>1</sup>. The formal principles concern the generality, clarity, publicity, stability, and prospectivity of the norms that govern a society<sup>2</sup>. The procedural principles on the other hand concern the processes by which these norms are administered, and the institutions like courts and an independent judiciary that their administration requires<sup>3</sup>. On some accounts, the rule of law also comprises certain substantive ideals like a presumption of liberty and respect for private property rights<sup>4</sup>. The hallmarks of respect for the rule of law in a society include separation of powers of the executive, legislature, and judiciary; regular, free, and fair elections; an independent and impartial judiciary; free and independent media institutions; and equality of the people before the law<sup>5</sup>.

The United Nations defines the rule of law as a principle of governance in which all persons, institutions and entities, public and private, including the state itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights norms and standards<sup>6</sup>. According to the United Nations, the rule of law requires measures to ensure adherence to the principles of supremacy of the law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of

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

<sup>2</sup> Ibid

<sup>3</sup> Ibid

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

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

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

arbitrariness, and procedural and legal transparency<sup>7</sup>. The rule of law therefore essentially means that the law and regulation matters and that legal rights will have the backing of the state<sup>8</sup>. In addition, the rule of law infers that the state itself is constrained by law and cannot act unfairly or arbitrarily in relation to its own citizens and businesses<sup>9</sup>.

The rule of law is foundational to resilient democratic societies<sup>10</sup>. It has further been asserted that the rule of law is an enabler of justice and development<sup>11</sup>. According to the International Development Law Organization (IDLO), the rule of law is inseparable from equality, from access to justice and education, from access to health and the protection of the most vulnerable<sup>12</sup>. The IDLO further points out that the rule of law is crucial for the viability of communities and nations, and for the environment, that sustains them<sup>13</sup>. The importance of the rule of law is also recognized under the 2030 Agenda for Sustainable Development at its Sustainable Development Goals (SDGs)<sup>14</sup>. SDGs 16 and 16.3 seeks to promote the rule of law at the national and international levels and ensure equal access to justice for all<sup>15</sup>.

According to the United Nations Environment Programme (UNEP), the rule of law is essential in all sectors of governance including the environment<sup>16</sup>. Consequently, the idea of environmental rule of law has emerged<sup>17</sup>. This chapter critically discusses the concept of environmental rule of law. It defines environmental rule of law and examines its salient principles. The chapter further examines progress made towards promoting environmental rule of law at the global, regional and national levels. It also explores some of the challenges facing the realization of environmental rule of law and suggests measures towards strengthening environmental rule of law for sustainability.

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<sup>7</sup> Ibid

<sup>8</sup> Lee, P., 'The Rule of Law and Investor Approaches to ESG: Discussion Paper.' Available at [https://binghamcentre.biicl.org/documents/155\\_rule\\_of\\_law\\_and\\_investor\\_approaches\\_to\\_esg.pdf](https://binghamcentre.biicl.org/documents/155_rule_of_law_and_investor_approaches_to_esg.pdf) (Accessed on 12/09/2023)

<sup>9</sup> Ibid

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

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

<sup>12</sup> Ibid

<sup>13</sup> Ibid

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

<sup>15</sup> Ibid

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

<sup>17</sup> Ibid

## **2.0 Defining Environmental Rule of Law**

Environmental law is a collective term encompassing all aspects of the law that provide protection to the environment<sup>18</sup>. It entails a set of regulatory regimes and environmental legal principles which focus on the management of specific natural resources, such as land, wildlife and biodiversity, forests, minerals, water, fisheries and coastal and marine resources<sup>19</sup>. It has been observed that if human society is to stay within the bounds of critical ecological thresholds, it is imperative that environmental laws are widely understood, respected, and enforced and the benefits of environmental protection are enjoyed by people and the planet<sup>20</sup>. Environmental rule of law offers a framework for addressing the gap between environmental laws as set out in text and in practice and is key to achieving the Sustainable Development Goals<sup>21</sup>.

Environmental rule of law is understood as the legal framework of procedural and substantive rights and obligations that incorporates the principles of ecologically Sustainable Development in the rule of law<sup>22</sup>. This concept integrates environmental needs with the essential elements of the rule of law, and provides the basis for improving environmental governance<sup>23</sup>. It highlights environmental sustainability by connecting it with fundamental rights and obligations<sup>24</sup>. It reflects universal moral values and ethical norms of behaviour, and it provides a foundation for environmental rights and obligations<sup>25</sup>. Environmental rule of law therefore refers to an ideal where environmental laws are widely understood, respected, and enforced and the benefits of environmental protection are enjoyed by people and the planet<sup>26</sup>.

According to the International Union for Conservation of Nature (IUCN), the concept of environmental rule of law is founded upon key elements of governance including development,

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

<sup>19</sup> Ibid

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

<sup>21</sup> Ibid

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

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

<sup>24</sup> Ibid

<sup>25</sup> Ibid

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

enactment, and implementation of clear, strict, enforceable, and effective laws, regulations, and policies that are efficiently administered through fair and inclusive processes to achieve the highest standards of environmental quality; respect for human rights, including the right to a safe, clean, healthy, and sustainable environment; measures to ensure effective compliance with laws, regulations, and policies, including adequate criminal, civil, and administrative enforcement, liability for environmental damage, and mechanisms for timely, impartial, and independent dispute resolution; effective rules on equal access to information, public participation in decision-making, and access to justice; environmental auditing and reporting, together with other effective accountability, transparency, ethics, integrity and anti-corruption mechanisms; and use of best-available scientific knowledge<sup>27</sup>. It has been observed that despite most countries having established, to varying degrees, environmental laws and institutions to foster environmental governance, there is a growing recognition that a considerable implementation gap exists in both developed and developing nations between the requirements of environmental laws and their implementation and enforcement<sup>28</sup>. UNEP in its global assessment of environmental rule of law finds weak enforcement to be a global trend that is exacerbating environmental threats, despite prolific growth in environmental laws and agencies worldwide over the past few decades<sup>29</sup>. The goal of environmental rule of law is to bridge this gap and foster the implementation and enforcement of environmental laws<sup>30</sup>.

IUCN posits that without the environmental rule of law and the enforcement of legal rights and obligations, environmental governance, conservation, and protection may be arbitrary, subjective, and unpredictable<sup>31</sup>. Therefore, environmental rule of law and robust institutions are essential to respond to increasing environmental pressures that threaten the ecological integrity of the Earth, in a way that respects fundamental rights and principles of justice and fairness<sup>32</sup>. Environmental rule of law is therefore an essential tool of environmental governance<sup>33</sup>. Environmental rule of law is central to Sustainable Development<sup>34</sup>. The concept of Sustainable Development seeks to foster development that meets the needs of the present without

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

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

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

<sup>30</sup> Ibid

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

<sup>32</sup> Ibid

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

<sup>34</sup> United Nations Environment Programme., 'Environmental Rule of Law.' Op Cit

compromising the ability of future generations to meet their own needs<sup>35</sup>. It combines elements such as environmental protection, economic development and social concerns<sup>36</sup>. Environmental rule of law provides an essential platform underpinning the four pillars of Sustainable Development— economic, social, environmental, and peace<sup>37</sup>. It seeks to integrate the fundamental principles of environmental law in environmental governance in order to realize Sustainable Development<sup>38</sup>. These principles include the principles of intergenerational and intragenerational equity, the polluter-pays principle, the precautionary principle, the principle of public participation and the principle of international cooperation in the management of shared environmental resources<sup>39</sup>. Environmental rule of law is thus vital in the attainment of the Sustainable Development agenda and the SDGs. UNEP asserts that the rule of law in environmental matters is essential for equity in terms of the advancement of the SDGs, the provision of fair access by assuring a rights-based approach, and the promotion and protection of environmental and other socio-economic rights<sup>40</sup>.

It has been pointed out that without environmental rule of law, development cannot be sustainable<sup>41</sup>. However, the presence of environmental rule of law ensures that well-designed laws are implemented by capable government institutions that are held accountable by an informed and engaged public lead to a culture of compliance that embraces environmental and social values<sup>42</sup>. Strengthening environmental rule of law is thus vital in protecting the environmental, social, and cultural values and to achieving ecologically Sustainable Development<sup>43</sup>. It is therefore imperative that environmental rule of law should serve as the legal foundation for promoting environmental ethics and achieving environmental justice, global ecological integrity, and a sustainable future for all, including for future generations, at local, national, regional, and global levels<sup>44</sup>.

The United Nations observes that environmental law is a foundation for environmental sustainability and the full realisation of its objectives is ever more urgent in lights of growing

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

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

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

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

<sup>39</sup> Ibid

<sup>40</sup> United Nations Environment Programme., 'Environmental Rule of Law.' Op Cit

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

<sup>42</sup> Ibid

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

<sup>44</sup> Ibid

environmental pressures<sup>45</sup>. The world is facing increasing environmental problems including climate change, biodiversity loss, water scarcity, air and water pollution, soil degradation, among others, which contribute to poverty and to growing social inequalities<sup>46</sup>. Conflicts over natural resources and environmental crimes are further intensifying these problems thus hindering sustainability<sup>47</sup>. Environmental rule of law is vital in addressing these challenges by fostering sound environmental governance and realization of its principles including Environmental Justice and Environmental Democracy<sup>48</sup>. Environmental Justice means the right to have access to natural resources; not to suffer disproportionately from environmental policies, laws and regulations; and the right to environmental information, participation and involvement in decision-making<sup>49</sup>. It also refers to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies<sup>50</sup>. Environmental Justice is attained when every person enjoys the same degree of protection from environmental and health hazards and has access to the decision-making process to have a healthy environment<sup>51</sup>. The concept of Environmental Democracy focuses on how decisions are made, with a particular emphasis on the need for citizens, interest groups, and communities generally, to participate and have their voices heard<sup>52</sup>. It enshrines principles such as inclusivity, representativity, accountability, efficiency, and effectiveness, as well as social equity, justice and good governance<sup>53</sup>. Environmental rule of law seeks to foster these principles by enhancing access to information, public participation, and access to justice and effective remedies in environmental matters<sup>54</sup>. Environmental rule of law is therefore pertinent in fostering sound environmental governance by ensuring that the environment and natural resources are managed sustainably, transparently, and on the basis of the rule of law towards Sustainable Development, peace and justice<sup>55</sup>. It is therefore vital to strengthen environmental rule of law for sustainability.

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

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

<sup>47</sup> Ibid

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

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

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

<sup>51</sup> Ibid

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

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> United Nations Environment Programme., 'Environmental Rule of Law.' Op Cit

### 3.0 Global Trends in Environmental Rule of Law: Prospects and Challenges

The importance of environmental rule of law received global recognition during the first world conference on the environment being the 1972 United Nations Conference on the Human Environment held in Stockholm, Sweden<sup>56</sup>. Participants at the conference adopted a series of principles for sound management of the environment including the *Stockholm Declaration and Action Plan for the Human Environment* and several resolutions<sup>57</sup>. The Stockholm Declaration provides that the protection and improvement of the human environment is a major issue which affects the well-being of people and economic development throughout the world and it is the urgent desire of the people of the whole world and the duty of all Governments<sup>58</sup>. The Declaration stipulates several principles that are vital in advancing environmental rule of law including the need to protect and improve the environment for present and future generations, careful planning and management of natural resources, halting and preventing environmental pollution, adoption of environmental laws and policies and adopt an integrated and the need to adopt a co-ordinated approach in development planning so as to ensure that development is compatible with the need to protect and improve environment<sup>59</sup>. The Stockholm Declaration was an important milestone for the development of environmental rule of law across the globe since it was the first global document outlining the general principles for the management of natural resources and the environment<sup>60</sup>.

Environmental rule of law was further enhanced following the United Nations Conference on Environment and Development also known as the 'Earth Summit', held in Rio de Janeiro, Brazil, from 3-14 June 1992<sup>61</sup>. 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<sup>62</sup>. 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<sup>63</sup>. One of the major results of

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

<sup>57</sup> Ibid

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

<sup>59</sup> Ibid

<sup>60</sup> Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

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

<sup>62</sup> Ibid

<sup>63</sup> Ibid

the Earth Summit was the adoption of *Agenda 21*<sup>64</sup> a daring program of action calling for new strategies to invest in the future to achieve overall sustainable development in the 21<sup>st</sup> century. Agenda 21 affirms that integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future<sup>65</sup>. It calls for international cooperation to accelerate Sustainable Development in developing countries and related domestic policies<sup>66</sup>. Agenda 21 further acknowledges the importance of the rule of law in sustainability and provides that laws and regulations suited to country -specific conditions are among the most important instruments for transforming environment and development policies into action, not only through "command and control" methods, but also as a normative framework for economic planning and market instruments<sup>67</sup>. It further stipulates that it is essential to develop and implement integrated, enforceable and effective laws and regulations that are based upon sound social, ecological, economic and scientific principles in order to enhance sustainability<sup>68</sup>. It also recognizes the importance of judicial and administrative procedures in advancing environmental rule of law and calls upon Governments and legislators, with the support, where appropriate, of competent international organizations, to establish judicial and administrative procedures for legal redress and remedy of actions affecting environment and development that may be unlawful or infringe on rights under the law, and should provide access to individuals, groups and organizations with a recognized legal interest<sup>69</sup>. Agenda 21 is therefore vital in fostering environmental rule of law by calling upon countries to develop integrated strategies to maximize compliance with their laws and regulations relating to Sustainable Development. These strategies include enactment of enforceable, effective laws, regulations and standards that are based on sound economic, social and environmental principles and appropriate risk assessment, incorporating sanctions designed to punish violations, obtain redress and deter future violations; establishing mechanisms for promoting compliance; strengthening institutional capacity for collecting compliance data, regularly reviewing compliance, detecting violations, establishing enforcement priorities, undertaking effective enforcement, and conducting periodic evaluations of the effectiveness of compliance and enforcement programmes; fostering mechanisms for appropriate involvement of individuals and groups in the development and enforcement of laws and regulations on environment and development and national monitoring of legal follow-up to international instruments<sup>70</sup>.

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<sup>64</sup> United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992., 'Agenda 21.' Available at [https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf?\\_gl=1\\*\\_9uipp7\\*\\_ga\\*MjA2NDk2MDMxMS4xNjcxMjU5NTEw\\*\\_ga\\_TK9BQL5X7Z\\*\\_MTY5NDU5NjE3MS41NS4xLjE2OTQ1OTgzODUuM\\_C4wLjA](https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf?_gl=1*_9uipp7*_ga*MjA2NDk2MDMxMS4xNjcxMjU5NTEw*_ga_TK9BQL5X7Z*_MTY5NDU5NjE3MS41NS4xLjE2OTQ1OTgzODUuM_C4wLjA). (Accessed on 13/09/2023)

<sup>65</sup> Ibid, Preamble

<sup>66</sup> Ibid, Article 2

<sup>67</sup> Ibid, Article 8.13

<sup>68</sup> Ibid, Article 8.14

<sup>69</sup> Ibid, Article 8.18

<sup>70</sup> Ibid, Article 8.21

Another important legal instrument that was adopted during the Earth Summit which is vital in advancing environmental rule of law is the *Rio Declaration on Environment and Development*<sup>71</sup>. The Declaration sought to balance the interests of states in exploiting their natural resources for development and environmental conservation with the aim of achieving Sustainable Development<sup>72</sup>. The Declaration stipulates that human beings are at the centre of concerns for Sustainable Development and are entitled to a healthy and productive life in harmony with nature<sup>73</sup>. It further states that in order to achieve Sustainable Development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it<sup>74</sup>. The Rio Declaration upholds key environmental principles that are vital in strengthening environmental rule of law including the principle of inter and intra generational equity, the principle of public participation, the precautionary principle and the principle of international cooperation<sup>75</sup>. It also recognizes the role of women, youth and indigenous people and local communities in environmental management and development<sup>76</sup>.

The Earth Summit was thus an important milestone in advancing environmental rule of law. It has been pointed out that following the 1992 Rio Earth Summit, countries made a concerted effort to enact environmental laws, build environment ministries and agencies, and enshrine environment-related rights and protections in their national constitutions<sup>77</sup>. At the global level, the right to a clean, healthy and sustainable environment has been recognized by the United Nations General Assembly as a fundamental human right<sup>78</sup>. The resolution by the United Nations General Assembly further affirms the importance of the right a clean, healthy and sustainable environment for the enjoyment of all human rights<sup>79</sup>. The declaration by the United Nations General Assembly demonstrates global acceptance of the right to a clean, healthy and sustainable environment as a human right and could stimulate global efforts towards attaining this right and strengthening environmental rule of law<sup>80</sup>.

In addition, there has been progress towards fostering environmental rule of law at the global level through the adoption of treaties, convention and other legal and regulatory instruments geared towards promoting environmental sustainability and Sustainable Development, in

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

<sup>72</sup> Ibid, Principle 2

<sup>73</sup> Ibid, Principle 1

<sup>74</sup> Ibid, Principle 4

<sup>75</sup> Ibid

<sup>76</sup> Ibid, Principles 20, 21 and 22

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

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

<sup>79</sup> Ibid

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

general<sup>81</sup>. Some of the key instruments include the *Ramsar Convention*<sup>82</sup> whose purpose is to foster the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving Sustainable Development throughout the world<sup>83</sup>; the *Convention on Biological Diversity*<sup>84</sup> whose objective is to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources<sup>85</sup>; the *United Nations Convention on the Law of the Sea*<sup>86</sup> that seeks to promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment; the *United Nations Framework Convention on Climate Change*<sup>87</sup> and the *Paris Agreement*<sup>88</sup> which are geared towards combating climate change. Ensuring compliance with these among other international instruments is vital in promoting international environmental law as a tool for addressing specific environmental threats and for integrating long-term environmental protection into the global economy<sup>89</sup>.

The *2030 Agenda for Sustainable Development*<sup>90</sup> and its 17 SDGs is also vital in fostering environmental rule of law. It is a plan of action for people, planet and prosperity<sup>91</sup>. It envisages the realization of Sustainable Development through tackling global environmental problems including water scarcity, lack of access to affordable, reliable, sustainable and modern energy and climate change through a combination of measures including enhancing national laws, policies and planning<sup>92</sup>. Achieving the 2030 Agenda for Sustainable Development is therefore vital in enhancing sustainability through environmental rule of law among other measures.

Further, the International Court of Justice (ICJ) has also played a vital role in enhancing environmental rule of law at the global level by providing an avenue for realizing the right of

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<sup>81</sup> Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

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

<sup>83</sup> Ibid

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

<sup>85</sup> Ibid, Article 1

<sup>86</sup> United Nations Convention on the Law of the Sea., Available at [https://www.un.org/depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf) (Accessed on 13/09/2023)

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

<sup>88</sup> United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf) (Accessed on 13/09/2023)

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

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

<sup>91</sup> Ibid

<sup>92</sup> Ibid

## Chapter 2: Strengthening Environmental Rule of Law for Sustainability

access to justice and legal remedies in environmental matters<sup>93</sup>. In the case concerning *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*<sup>94</sup>, ICJ emphasized the need for the two countries to continue their cooperation and devise the necessary means to promote the equitable utilization of the river, while protecting its environment. The Court also recently rendered its first decision on environmental damage and compensation in the case *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*<sup>95</sup>. Such decisions are pertinent in strengthening environmental rule of law at the global level.

Environmental rule of law has also been fostered in Africa through regional environmental agreements. It has been argued that a regional approach to environmental governance through regional environmental agreements has an advantage over global agreements since there is greater similarity of interests, norms, perceptions and values at the regional level which enhances international cooperation<sup>96</sup>. In Africa, these instruments include the *African Convention on the Conservation of Nature and Natural Resources*<sup>97</sup> which seeks to enhance environmental protection; to foster the conservation and sustainable use of natural resources; and to harmonize and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable policies and programmes<sup>98</sup>. Further instruments include the *Bamako Convention*<sup>99</sup> that is aimed at preventing environmental pollution by hazardous wastes by prohibiting the import into Africa of any hazardous (including radioactive) waste and the *Treaty for the Establishment of the East African Community*<sup>100</sup> which provides for co-operation in environment and natural resources and calls upon partner states to take joint efforts to cooperate in the efficient management of natural resources with key priorities to sectors such as climate change adaptation and mitigation, natural resource management and biodiversity conservation, disaster reduction and management, and pollution control and waste management<sup>101</sup>.

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

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

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

<sup>96</sup> Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

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

<sup>98</sup> Ibid, Article 1

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

<sup>100</sup> East African Community, *The Treaty for the Establishment of the East African Community*, Available at [https://www.eala.org/uploads/The\\_Treaty\\_for\\_the\\_Establishment\\_of\\_the\\_East\\_Africa\\_Community\\_20\\_06\\_1999.pdf](https://www.eala.org/uploads/The_Treaty_for_the_Establishment_of_the_East_Africa_Community_20_06_1999.pdf) (Accessed on 13/09/2023)

<sup>101</sup> Ibid

The African Court of Justice and Human Rights and the African Commission on Human and Peoples' Rights which are judicial bodies established pursuant to the African Charter on Human and Peoples' Rights have also played a pivotal role in fostering environmental rule of law in Africa through some of their decisions<sup>102</sup>. In the Endorois Case, the African Commission on Human and Peoples' Rights upheld the right of indigenous communities to utilize natural resources including ancestral land<sup>103</sup>. This decision is integral in enhancing environmental rule of law by recognizing the rights of indigenous people to property, to culture, to the free disposition of natural resources, and to development<sup>104</sup>.

At the national level, the Constitution of Kenya recognizes the right to a clean and healthy environment as a fundamental human right<sup>105</sup>. The Constitution further stipulates several obligations by the state in respect of the environment including the obligation to ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits, the need to encourage public participation in the management, protection and conservation of the environment, the obligation to protect genetic resources and biological diversity and the obligation to eliminate processes and activities that are likely to endanger the environment<sup>106</sup>. Constitutional recognition of environmental related rights is one the key ways of fostering environmental rule of law.<sup>107</sup> In addition, the *Environmental Management and Co-ordination Act*<sup>108</sup> establishes the legal and institutional framework for the management of the environment in Kenya. The Act upholds the right of every Kenyan to a clean and healthy environment and sets out various measures towards upholding this right including environmental planning, protection and conservation of the environment, Environmental Impact Assessment, Environmental Audit and Monitoring, environmental restoration and conservation orders and enforcement of environmental rights through courts and tribunals<sup>109</sup>. The Act further establishes the National Environment Management Authority which has the mandate to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment<sup>110</sup>.

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

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

<sup>104</sup> Ibid

<sup>105</sup> Constitution of Kenya, 2010., Article 42., Government Printer, Nairobi

<sup>106</sup> Ibid, Article 69

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

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

<sup>109</sup> Ibid

<sup>110</sup> Ibid, S 7 & 9.

## *Chapter 2: Strengthening Environmental Rule of Law for Sustainability*

Courts and tribunals are also integral enhancing environmental rule of law and fostering environmental justice in Kenya<sup>111</sup>. The Constitution of Kenya also recognizes the role of litigation in enforcement of environmental rights<sup>112</sup>. It allows a person alleging the denial, infringement or violation or of the right to a clean and healthy environment to apply to a court for redress in addition to any other legal remedies that are available<sup>113</sup>. The Environmental Management and Co-ordination Act further sets out the role of the Environment and Land Court and the National Environment Tribunal in fostering the right to a clean and healthy environment in Kenya<sup>114</sup>. Litigation has fostered environmental rule of law in Kenya through decisions that have emanated from the Environment and Land Court, the National Environment Tribunal and other courts and judicial bodies<sup>115</sup>. Through such decisions, judicial bodies have pronounced themselves on several environmental matters including Sustainable Development, public participation, access to information, climate change, pollution and compensation<sup>116</sup>.

From the foregoing, it emerges that there have been attempts towards promoting environmental rule of law at the global, regional and national level. However, it has been observed that while environmental laws have become commonplace across the globe, too often they exist mostly on paper because government implementation and enforcement is irregular, incomplete, and ineffective<sup>117</sup>. In addition, the laws that have been enacted are lacking in ways that impede effective implementation (for example, by lacking clear standards or the necessary mandates)<sup>118</sup>. As a result, it has been argued that there is no culture of environmental compliance in most societies<sup>119</sup>. This often hinders sound environmental governance and sustainability<sup>120</sup>. There is need to address these challenges and foster a culture of compliance and enforcement of environmental laws in order to strengthen environmental rule of law for sustainability.

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

<sup>112</sup> Constitution of Kenya, 2010., Article 70

<sup>113</sup> Ibid

<sup>114</sup> Ibid, S 3 & S 125

<sup>115</sup> See for example the cases of Peter K. Waweru -vs- Republic, Miscellaneous Civil Application, 118 of 2004, (2006) eKLR; Friends of Lake Turkana Trust vs Attorney General & 2 others., ELC Suit No. 825 of 2012, (2014) eKLR; KM & 9 others v Attorney General & 7 others, Petition No. 1 of 2016 (2020) eKLR; National Environment Management Authority -vs- Kelvin Musyoka & Others<sup>59</sup>, Mombasa Civil Appeal No. E004 of 2020; Mohamed Ali Baadi and others -vs- Attorney General & 11 Others, Petition No. 22 of 2012 (2018) eKLR

<sup>116</sup> Ibid

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

<sup>118</sup> Ibid

<sup>119</sup> Ibid

<sup>120</sup> Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

#### **4.0 Way Forward: Strengthening Environmental Rule of Law for Sustainability**

It is imperative to strengthen the rule of law in general in order to enhance environment sustainability and social justice<sup>121</sup>. It has been argued that the rule of law is an element not only for economic growth, but also for environment sustainability and social justice<sup>122</sup>. One of the key ways of strengthening environmental rule of law is by enactment, and implementation of clear, strict, enforceable, and effective laws, regulations, and policies that are efficiently administered through fair and inclusive processes to achieve the highest standards of environmental quality; respect for human rights, including the right to a safe, clean, healthy, and sustainable environment<sup>123</sup>.

In addition, it is vital to embrace civic engagement in order to strengthen environmental rule of law. It has been rightly pointed out that environmental rule of law requires an approach that involves everyone including the civil society<sup>124</sup>. The effective engagement of civil society results in more informed decision making by government, more responsible environmental actions by companies, more assistance in environmental management by the public, and more effective environmental law<sup>125</sup>. Civic engagement can be fostered through public participation and access to information<sup>126</sup>. Public participation is believed to be important in bridging the gap between the government, civil society, private sector and the general public, building a common understanding about the local situation, priorities and programmes as it encourages openness, accountability and transparency, and is thus at the heart of inclusive decision-making<sup>127</sup>.

Further, public participation can improve the quality of decision-making by providing decision-makers with additional, unique information on local conditions<sup>128</sup>. In addition, public participation can also improve policy implementation by increasing the legitimacy of the decision-making process and, in so doing, reducing instances of conflict<sup>129</sup>. Citizen involvement in environmental decision making has been associated with several benefits which include:

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

<sup>122</sup> Ibid

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

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

<sup>125</sup> Ibid

<sup>126</sup> Ibid

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

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

<sup>129</sup> Ibid

information and ideas on public issues; public support for planning decisions; avoidance of protracted conflicts and costly delays; reservoir of good will which can carry over to future decisions; and spirit of cooperation and trust between decision makers and the public<sup>130</sup>. The Importance of public participation in environmental decision making is upheld under Principle 10 of the *Rio Declaration on Environment and Development* which stipulates that:

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

It is thus pertinent to foster effective public participation and access to information in order to strengthen environmental rule of law. It is also vital to uphold the rights and foster the participation of indigenous people and communities who play an important role in managing the environment and natural resources through traditional ecological knowledge<sup>132</sup>. Local communities possess unique and valuable contextual knowledge of natural resources and have a vested interest in ensuring the sustainable use of land and resources<sup>133</sup>. It is therefore desirable to uphold indigenous peoples' full participation in environmental governance in order to strengthen environmental rule of law.

In addition, environmental rule of law can be strengthened by embracing a rights-based approach to environmental governance<sup>134</sup>. A rights-based approach to environmental protection is one that is normatively based on rights and directed toward protecting those rights<sup>135</sup>. This approach differs from regulatory approaches where environmental statutes set forth certain requirements and prohibitions relating to the environment<sup>136</sup>. It has been argued that taking a rights-based approach to improving environmental rule of law provides a strong impetus and means for

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

<sup>131</sup> Rio Declaration on Environment and Development, Principle 10

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

<sup>133</sup> International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Available at [https://www.idlo.int/sites/default/files/pdfs/publications/climate\\_justice\\_policy\\_paper\\_-\\_climate\\_action\\_-\\_final.pdf](https://www.idlo.int/sites/default/files/pdfs/publications/climate_justice_policy_paper_-_climate_action_-_final.pdf) (Accessed on 14/09/2023)

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

<sup>135</sup> Ibid

<sup>136</sup> Ibid

implementing and enforcing environmental protections<sup>137</sup>. There has been progress towards realizing this goal through the recognition of the right to a clean, healthy and sustainable environment as a human right<sup>138</sup>. This approach provides an impetus for realizing the right to a clean, healthy and sustainable environment and other human rights towards attainment of the Sustainable Development agenda<sup>139</sup>.

There is also need to enhance access to justice in order to strengthen environmental rule of law. Courts and tribunals play a pivotal role in enhancing environmental rule of law and fostering environmental justice<sup>140</sup>. It has been observed that countries have reinforced and publicized the linkages between human rights and the environment, which has elevated the normative importance of environmental law and empowered courts and enforcement agencies to enforce environmental requirements<sup>141</sup>. It is thus vital to enhance access to justice by addressing barriers such as high court filing fees, bureaucracy, complex legal procedures, illiteracy, distance from formal courts, backlog of cases in courts and lack of legal knowhow which hinder effective access to justice<sup>142</sup>. It is also crucial to enhance practices such as public interest litigation in order to enhance access to justice in environmental matters<sup>143</sup>.

Capacity building is also vital in strengthening environmental rule of law. It is therefore critical to create strong environmental agencies and continuously strengthen their capacity in order to enhance their effectiveness in environmental governance<sup>144</sup>. It is also vital to adequately build capacity for judges, staff and ADR practitioners in environmental law in order to ensure that justice institutions, both formal and informal have the capacity to foster sound environmental governance<sup>145</sup>. Further, it is essential to foster public awareness and education on environmental laws and regulations in order to promote compliance and enforcement of such laws<sup>146</sup>.

Finally, there is need to move beyond the law in order to enhance sound environmental governance. One of the ways through which these can be achieved is by embracing the concept

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<sup>137</sup> Ibid

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

<sup>139</sup> Ibid

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

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

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

<sup>143</sup> United Nations Economic Commission for Europe., 'Access to Justice in Environmental Matters: Standing, Costs and Available Remedies.' Available at [https://unece.org/DAM/env/pp/a.to.j/AnalyticalStudies/SEE\\_Access2Justice\\_Study\\_Final\\_logos.pdf](https://unece.org/DAM/env/pp/a.to.j/AnalyticalStudies/SEE_Access2Justice_Study_Final_logos.pdf) (Accessed on 14/09/2023)

<sup>144</sup> United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

<sup>145</sup> International Development Law Organization., 'Climate Justice: A Rule of Law Approach for Transformative Climate Action.' Op Cit

<sup>146</sup> United Nations Environment Programme., 'Environmental Rule of Law: First Global Report.' Op Cit

of community-based natural resource management through organized community legal action or through Alternative Dispute Resolution and traditional justice systems<sup>147</sup>. Further, the concept of Environmental, Social and Governance (ESG) plays a fundamental role in environmental governance by incorporating Environmental, Social and Governance matters in corporate decision making in order to foster sustainability<sup>148</sup>. It is thus vital for organizations to embrace ESG in order to achieve sustainable, responsible and ethical investments towards sustainability<sup>149</sup>. Environmental ethics and morals should also be embraced in environmental governance<sup>150</sup>. These ideas recognize the intrinsic value of nature and the responsibility of humans to act in accordance with ethical and moral principles towards environmental protection<sup>151</sup>. They envisage the moral and ethical obligations of human beings to protect and preserve the environment<sup>152</sup>. It is also ideal to embrace science and technology which play an important role in environmental governance in areas such sustainable waste management, climate change mitigation, sustainable agricultural practices and adoption of green and clean technologies<sup>153</sup>.

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

## 5.0 Conclusion

Environmental rule of law plays an important role in environmental governance. It offers a framework for addressing the gap between environmental laws as set out in text and in practice and is key to achieving the Sustainable Development Goals<sup>154</sup>. There has been global progress towards promoting environmental rule of law through the enactment of environmental laws, establishment of environment ministries and agencies, and enshrining environment-related rights and protections in national constitutions<sup>155</sup>. However, progress towards realizing environmental rule of law has often been thwarted by challenges of implementation and enforcement of environmental laws<sup>156</sup>. This often hinders sound environmental governance and

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<sup>147</sup> Muigua. K, Wamukoya. D, & Kariuki. F., 'Natural Resources and Environmental Justice in Kenya.' Op Cit

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

<sup>149</sup> Ibid

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

<sup>151</sup> Ibid

<sup>152</sup> Ibid

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

<sup>154</sup> United Nations Environment Programme., 'Environmental Rule of Law.'

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

<sup>156</sup> Ibid

## *Chapter 2: Strengthening Environmental Rule of Law for Sustainability*

sustainability<sup>157</sup>. It is thus imperative to strengthen environmental rule of law in order to foster sustainability. This can be achieved through the enactment, and implementation of clear, strict, enforceable, and effective laws, regulations, and policies, embracing civic engagement through public participation and access to information in environmental governance, upholding a rights-based approach to environmental governance, enhancing access to justice in environmental matters, capacity building and moving beyond the law for sound environmental governance<sup>158</sup>. Strengthening environmental rule of law for sustainability is a noble endeavour which must be realized.

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<sup>157</sup> Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Op Cit

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

## Chapter 3: Implementing Circular Economy for Sustainability

### Abstract

*Achieving sustainability has become pertinent concern in the wake of problems facing the planet from the environmental, social and economic spheres. Environmental problems including climate change and depletion of natural resources; social concerns such as poverty and inequalities; and economic challenges including recessions and underdevelopment in some countries and regions are a major hindrance to sustainability. Various initiatives are being embraced at local, national, regional and global levels towards achieving sustainability as envisioned under the United Nation's 2030 Agenda for Sustainable Development. The circular economy has been advocated as one of the key approaches towards sustainability with benefits for people and the planet, including reducing greenhouse gas emissions and other forms of pollution, biodiversity loss, and environmental degradation. The chapter critically examines the role of circular economy in the Sustainable Development agenda. It defines circular economy and identifies its key elements. It further discusses the progress made towards embracing circular economy at the global, regional and national levels. The chapter also explores the challenges facing realization of circular economy and suggests reforms towards implementing it for sustainability.*

### 1.0 Introduction

Sustainability has been defined as creating and maintaining the conditions under which humans and nature can exist in productive harmony to support present and future generations<sup>1</sup>. Sustainability is often thought of as composed of three overlapping, mutually dependent goals: to live in a way that is environmentally sustainable, or viable over the very long-term; to live in a way that is economically sustainable, maintaining living standards over the long-term; and to live in a way that is socially sustainable, now and in the future<sup>2</sup>. The need for sustainability has become a global concern in recent decades in light of the growing environmental challenges and climate change, together with issues of poverty, increasing disparity between societies and the tensions brought by social inequalities<sup>3</sup>. The need to strike a balance between the environmental, social and economic facets of development towards sustainability gave rise to the concept of Sustainable Development.

Sustainable Development requires an integrated approach that takes into consideration environmental protection along with economic development and social progress<sup>4</sup>. The concept of

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<sup>1</sup> United States Environmental Protection Agency., 'What is Sustainability.' Available at <https://www.epa.gov/sustainability/learn-about-sustainability> (Accessed on 30/11/2023)

<sup>2</sup> Heinberg, R., 'What Is Sustainability?.' Available at <https://cdn.auckland.ac.nz/assets/arts/documents/What%20is%20Sustainability.pdf> (Accessed on 30/11/2023)

<sup>3</sup> Giovannoni, E., & Fabietti, G., 'What Is Sustainability? A Review of the Concept and Its Applications.' In: Busco, C., Frigo, M., Riccaboni, A., Quattrone, P. (eds) Integrated Reporting. Springer, Cham. Available at [https://doi.org/10.1007/978-3-319-02168-3\\_2](https://doi.org/10.1007/978-3-319-02168-3_2) (Accessed on 30/11/2023)

<sup>4</sup> United Nations., 'Sustainability.' Available at <https://www.un.org/en/academic-impact/sustainability> (Accessed on 30/11/2023)

### Chapter 3: Implementing Circular Economy for Sustainability

Sustainable Development was defined by the World Commission on Environment and Development ('Brundtland Commission') as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs<sup>5</sup>.' Sustainable Development seeks to foster sustainability by ensuring environmental protection, economic development and addressing social concerns<sup>6</sup>. It has been asserted that Sustainable Development seeks to improve the quality of life on earth in a comprehensive manner by fostering economic prosperity, social equity and environmental protection<sup>7</sup>.

The need for sustainability has led to the adoption of the concept of Sustainable Development as the global blueprint for development as set out in the United Nation's 2030 Agenda for Sustainable Development<sup>8</sup>. The agenda represents a shared blue print for peace and prosperity for people and the planet in the quest towards the ideal of Sustainable Development<sup>9</sup>. The Agenda envisions attainment of the ideal of Sustainable Development through 17 Sustainable Development Goals (SDGs) which seek to strike a balance between social economic and environmental aspects of sustainability<sup>10</sup>.

Various initiatives have been undertaken at local, national, regional and global levels towards achieving sustainability as envisioned under the 2030 Agenda for Sustainable Development. The circular economy has been advocated as one of the key approaches towards sustainability with benefits for people and the planet, including reducing greenhouse gas emissions and other forms of pollution, biodiversity loss, and environmental degradation<sup>11</sup>.

The chapter critically examines the role of circular economy in the Sustainable Development agenda. It defines circular economy and identifies its key elements. It further discusses the progress made towards embracing circular economy at the global, regional and national levels. The chapter also explores the challenges facing realization of circular economy and suggests reforms towards implementing it for sustainability.

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<sup>5</sup> World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

<sup>6</sup> Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1

<sup>7</sup> Muigua. K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

<sup>8</sup> United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 30/11/2023)

<sup>9</sup> Ibid

<sup>10</sup> Ibid

<sup>11</sup> United Nations Development Programme., 'Circular Economy.' Available at <https://climatepromise.undp.org/what-we-do/areas-of-work/circular-economy> (Accessed on 30/11/2023)

## 2.0 Interpreting Circular Economy

The circular economy has been defined as a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible<sup>12</sup>. It has also been defined as a system where materials never become waste and nature is regenerated<sup>13</sup>. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting<sup>14</sup>. In addition, circular economy can also be understood as a tri-generation system in which input resources are conserved and waste, emissions, and energy leakage are reduced through the gradual closing and contraction of material and energy loops<sup>15</sup>. Circular economy accomplishes these goals through measures such as durability-enhancing construction, servicing, repair, reuse, re-manufacturing, refurbishment, and recycling<sup>16</sup>. According to the United Nations Development Programme (UNDP), circular economy aims to minimize waste and promote a sustainable use of natural resources, through smarter product design, longer use, recycling and more, as well as regenerate nature<sup>17</sup>.

Circular economy is therefore essentially about fostering sustainable production and consumption of goods as well as services<sup>18</sup>. This is in line with SDG 12 which seeks to ensure sustainable consumption and production patterns<sup>19</sup>. Among the targets under SDG 12 is to substantially reduce waste generation through prevention, reduction, recycling and reuse<sup>20</sup>. According to UNDP, encouraging industries, businesses and consumers to recycle and reduce

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<sup>12</sup> European Parliament., 'Circular Economy: Definition, Importance and Benefits.' Available at <https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits#:~:text=The%20circular%20economy%20is%20a,cycle%20of%20products%20is%20extended> (Accessed on 30/11/2023)

<sup>13</sup> Ellen MacArthur Foundation., 'What is a Circular Economy?.' Available at <https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview#:~:text=The%20circular%20economy%20is%20a,remanufacture%2C%20recycling%2C%20and%20composting> (Accessed on 30/11/2023)

<sup>14</sup> Ibid

<sup>15</sup> Muriithi. J., & Ngare. I., 'Transitioning Circular Economy from Policy to Practice in Kenya.' Available at <https://www.frontiersin.org/articles/10.3389/frsus.2023.1190470/full#:~:text=Kenya%20has%20been%20working%20toward,new%20avenues%20for%20financial%20growth> (Accessed on 30/11/2023)

<sup>16</sup> Ibid

<sup>17</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Available at <https://climatepromise.undp.org/news-and-stories/what-is-circular-economy-and-how-it-helps-fight-climate-change> (Accessed on 30/11/2023)

<sup>18</sup> Gendre. I., 'Circular Economy: Definition and Principles.' Available at <https://greenly.earth/en-us/blog/company-guide/circular-economy-definition-and-principles> (Accessed on 30/11/2023)

<sup>19</sup> United Nations., 'Transforming Our World: The 2030 Agenda for Sustainable Development.' SDG 12

<sup>20</sup> Ibid, SDG 12.5

waste is important in achieving the targets of SDG 12<sup>21</sup>. Circular economy is therefore an integral part of the Sustainable Development agenda.

The idea of circular economy is premised on certain fundamental principles such as *refuse*, which seeks to foster solutions that maximize the usage of fewer goods in order to avoid unnecessary and unsustainable products; *rethink*, a principle that asserts that every product and every system needs to be rethought with a focus on how to reduce its environmental impact; *reduce*, a principle whose central idea is dematerialisation or 'doing more with less'; *reuse*, that entails using products more than once in order to minimize waste; *repair*, which aims to extend product life cycles and to preserve rather than discard them; *refurbish*, a concept that aims at restoring old or discarded products and bringing them up to date to serve their initial function; *remanufacture*, which entails refurbishing and re-using parts of a discarded product in a new product with the same function; *repurpose*, a principle that seeks to foster the remodeling of discarded products into a new ones with different functions; *recycle* which entails using old products in new ways; and *recover*, a process that aims at sustainably sourcing bio-waste into uses such as energy generation<sup>22</sup>. The principles of circular economy aims to achieve certain objectives which include preservation and optimization of natural resources, reducing the consumption of non-renewable resources, achieving eco-design, reducing the impact of human activities on the environment and on health by minimizing carbon emissions and implementing the use of renewable energy, limiting consumption, and fostering efficient management of waste through reducing, reusing, recycling among other measures<sup>23</sup>.

Circular economy is integral in achieving sustainability. It has been argued that the adoption of circular economy principles enhances increased attention to environmental sustainability concerns, therefore, creating more benefits such as improved productivity and resource utilization<sup>24</sup>. Circular economy ensures that resources, energy and waste volumes are minimized at every stage of a product lifecycle, as well as greenhouse gas emissions, pollution and public health risks<sup>25</sup>. It has also been pointed out that circular economy has numerous benefits including protecting the environment since reusing and recycling products would slow down the use of natural resources, reduce landscape and habitat disruption and help to limit biodiversity loss, reducing the dependence on raw materials and creating jobs since redesigning materials and

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<sup>21</sup> United Nations Development Programme., 'Goal 12: Responsible Consumption and Production.' Available at <https://www.undp.org/sustainable-development-goals/responsible-consumption-and-production> (Accessed on 30/11/2023)

<sup>22</sup> The 10 Principles of a Circular Economy., Available at <https://www.lombardodier.com/contents/corporate-news/responsible-capital/2020/september/the-10-steps-to-a-circular-econo.html> (Accessed on 30/11/2023)

<sup>23</sup> Gendre. I., 'Circular Economy: Definition and Principles.' Op Cit

<sup>24</sup> Muriithi. J., & Ngare. I., 'Transitioning Circular Economy from Policy to Practice in Kenya.' Op Cit

<sup>25</sup> United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Available at <https://www.undp.org/blog/why-green-circular-economy-key-beating-triple-planetary-crisis> (Accessed on 30/11/2023)

products for circular use would boost innovation across different sectors of the economy<sup>26</sup>. In addition, it has been argued that apart from helping tackle the problem of pollution, circular economy can play an important role in solving other complex challenges such as climate change and biodiversity loss<sup>27</sup>. Circular economy can address climate change by reducing greenhouse gas emissions<sup>28</sup>. It has been argued that through efficient and more circular use of materials in key industrial materials such as cement, steel, plastics, and aluminum, circular economy strategies can help reduce global greenhouse gas emissions by up to 40 percent by 2050<sup>29</sup>.

It is therefore important for countries to embrace and transition towards circular economy. It has been argued that a transition to a green and circular economy is an opportunity to promote social inclusion, poverty eradication and sustained economic and employment growth, while simultaneously maintaining a healthy ecosystem<sup>30</sup>. It has further been asserted that transitioning to circular economy is key for climate change adaptation and mitigation, and has vast potential to create jobs, improve productivity and strengthen the economic competitiveness of countries<sup>31</sup>. Transitioning to a green, circular economy involves several elements which include promoting sustainable production through material and energy efficiency, eco-friendly materials and clean, renewable energy, such as solar and wind energy; fostering ecosystems and biodiversity conservation through sustainable management of natural resources; transitioning to sustainable and green transport based on e-mobility and energy efficiency; encouraging sustainable consumption by avoiding single-use items and keeping products in use for as long as possible; and encouraging waste reduction, reuse, repair and recycling to in order to recover valuable materials and minimize waste<sup>32</sup>. It is therefore necessary for all countries to implement a green, circular economy for sustainability.

### **3.0 Implementing Circular Economy: Opportunities and Challenges**

It has been observed that many countries especially those that are mainly industrialized, newly industrialized and emerging economies partially apply the 3R principles of circular economy

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<sup>26</sup> European Parliament., 'Circular Economy: Definition, Importance and Benefits.' Op Cit

<sup>27</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>28</sup> Ibid

<sup>29</sup> Ellen McArthur Foundation., 'Completing the Picture: How the Circular Economy Tackles Climate Change.' Available at <https://www.ellenmacarthurfoundation.org/completing-the-picture> (Accessed on 30/11/2023)

<sup>30</sup> Fwangkwal. B., Luotonen. E., & Jarvinen. L., 'Africa's Circular Economy Needs Support from Policymakers.' Available at <https://www.sitra.fi/en/articles/africas-circular-economy-needs-support-from-policymakers/> (Accessed on 30/11/2023)

<sup>31</sup> Lewis. I., 'AfDB's Donor-Funded Facility Supports Africa's Circular Economy.' Available at <https://impact-investor.com/afdb-donor-funded-facility-supports-africas-circular-economy/> (Accessed on 30/11/2023)

<sup>32</sup> United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Op Cit

(reduce, reuse and recycling of material)<sup>33</sup>. It has been observed that the reduce component is mostly practiced in production as a result of competition and the necessity of achieving high input use efficiency<sup>34</sup>. Further, it has been pointed out that in developed nations' households, recycling of certain materials including glass, plastic, chapter, metal and burnable solid waste is becoming more common<sup>35</sup>. On the other hand, municipalities take the responsibility of treating and reusing waste water from households as well as solid waste and recycling auto and household appliances<sup>36</sup>.

It has been pointed out that there are many opportunities to implement circular economy in different sectors including textiles, buildings and construction, and at various stages of a product's lifecycle, including design, manufacturing, distribution, and disposal<sup>37</sup>. For example, it has been pointed out that in the textiles and fashion sector, there are initiatives that employ regenerative agriculture to produce organic cotton and other natural fibres, through the use of natural colorings and dye, thus ensuring higher quality and safer garments for the health of consumers and the environment<sup>38</sup>. Such an approach ensures that clothing can last longer, be repaired, thrifted, and recycled<sup>39</sup>. In the building and construction sector, initiatives being undertaken to implement circular economy include reducing raw material use, re-using existing materials in circulation, substituting carbon-intensive materials for regenerative alternatives such as timber, promoting energy efficiency in buildings, recycling, waste management and the use of alternative construction materials, and embracing green buildings and green supply chains within the construction industry<sup>40</sup>. Implementation of circular economy principles in the construction industry promotes the use of sustainable materials, maximizing material recovery, and avoiding unnecessary waste generation and waste disposed to landfill<sup>41</sup>.

In addition, there are numerous opportunities for the private sector to implement circular economy. It has been observed that ensuring the success of circular economy requires the active engagement of the private sector, which brings with it innovation and investment, to identify new green circular business models<sup>42</sup>. For example, circular economy offers the hospitality sector an opportunity to move away from single-use plastic items and the transport sector to unlock

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<sup>33</sup> Heshmati. A., 'A Review of the Circular Economy and its Implementation.' Available at <https://docs.iza.org/dp9611.pdf> (Accessed on 01/12/2023)

<sup>34</sup> Ibid

<sup>35</sup> Ibid

<sup>36</sup> Ibid

<sup>37</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>38</sup> Ibid

<sup>39</sup> Ibid

<sup>40</sup> Norouzi. M., 'Circular Economy in the Building and Construction Sector: A Scientific Evolution Analysis.' *Journal of Building Engineering*, Volume 44, 2021

<sup>41</sup> Ibid

<sup>42</sup> United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Op Cit

opportunities for e-mobility<sup>43</sup>. By implementing circular economy, the hospitality sector can address the problem of plastic through elimination of problematic or unnecessary plastic packaging through redesign, innovation, and new delivery models; applying reuse models where relevant therefore reducing the need for single-use packaging; ensuring that plastic packaging is 100% reusable, recyclable, or compostable; ensuring that the use of plastic is fully decoupled from the consumption of finite resources; and making sure that plastic packaging is free of hazardous chemicals, and the health, safety, and rights of all people involved are respected and protected<sup>44</sup>.

The transport sector can also implement circular economy through approaches such as promoting public transport in order to reduce carbon emissions, encouraging active transport such as walking and cycling, embracing hybrid vehicles, adopting a shared economy approach, and encouraging the use of sustainable fuels including biofuels and hydrogen among others<sup>45</sup>. It has also been argued that there is need for circular economy approaches in the transport sector such as designing vehicles to be more lightweight so that fewer materials are needed to make them, and less energy is needed to power them and recycling end-of-life tyres<sup>46</sup>. It has been pointed out that by transitioning toward a circular economy and making efforts to reduce waste, emissions from the materials used in manufacturing vehicles could be reduced by up to 70 per cent by the year 2050 or an equivalent of 250 million tons of carbon dioxide<sup>47</sup>.

It is therefore evident that there are numerous opportunities to implement circular economy. The private sector therefore has a vital role to play in implementing circular economy. It has also been pointed out that the public can implement circular economy by demanding environmentally friendly products and services and actively minimizing waste by embracing practices such as reducing, reusing and recycling of materials<sup>48</sup>.

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<sup>43</sup> Ibid

<sup>44</sup> Ellen McArthur Foundation., 'Plastics and the Circular Economy -Deep Dive.' Available at <https://www.ellenmacarthurfoundation.org/plastics-and-the-circular-economy-deep-dive#:~:text=The%20vision%20for%20a%20circular%20economy%20for%20plastic%20has%20six,need%20for%20single%2Duse%20packaging> (Accessed on 01/11/2023)

<sup>45</sup> Africa Circular Business Alliance., 'Circular Economy Implementation Strategies for Sustainable Transportation.' Available at <https://www.linkedin.com/pulse/circular-economy-implementation-strategies/> (Accessed on 01/12/2023)

<sup>46</sup> Vandycke. N et al., 'Defining the Role of Transport in the Circular Economy.' Available at <https://blogs.worldbank.org/transport/defining-role-transport-circular-economy> (Accessed on 01/12/2023)

<sup>47</sup> Ibid

<sup>48</sup> United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Op Cit

### Chapter 3: Implementing Circular Economy for Sustainability

Circular economy is being implemented in Europe through the *European Union Circular Economy Action Plan*<sup>49</sup>. The action plans seeks to ensure that products within the European Union are fit for a climate-neutral, resource-efficient and circular economy, reduce waste and ensure that the performance of front-runners in sustainability progressively becomes the norm<sup>50</sup>. The Action plan embraces the sustainability principles of circular economy and seeks to achieve various targets which include improving product durability, reusability, upgradability and reparability, addressing the presence of hazardous chemicals in products, and increasing their energy and resource efficiency; increasing recycled content in products, while ensuring their performance and safety; enabling remanufacturing and high-quality recycling; restricting single-use and countering premature obsolescence; introducing a ban on the destruction of unsold durable goods; incentivising product-as-a-service or other models where producers keep the ownership of the product or the responsibility for its performance throughout its lifecycle; mobilising the potential of digitalisation of product information, including solutions such as digital passports, tagging and watermarks; and rewarding products based on their different sustainability performance, including by linking high performance levels to incentives<sup>51</sup>. The Action Plan acknowledges that circular economy is an essential part of a wider transformation of industry towards climate neutrality and long-term competitiveness<sup>52</sup>. It further points out that circular economy can deliver substantial material savings throughout value chains and production processes, generate extra value and unlock economic opportunities<sup>53</sup>. The Action Plan envisages implementation of circular economy across key products and value chains including electronics and Information and Communications Technology (ICT), batteries and vehicles, packaging, plastics, textiles, construction and buildings, and food, water and nutrients<sup>54</sup>. Actualizing the European Union Circular Economy Action Plan can accelerate the transition to circular economy in the European Union and beyond.

Circular economy is also being implemented in Africa. It has been asserted that circular economy is particularly relevant for African countries, whose economies remain largely resource dependent and under sustained pressure from rapid population growth<sup>55</sup>. It has been observed that circular practices are embedded in many of the Continent's cultures and activities, particularly within Micro, Small and Medium-Sized enterprises (MSMEs)<sup>56</sup>. There is increased emergence of economic activities centred around repairing, refurbishing and recycling end-of-

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<sup>49</sup> European Commission., 'A new Circular Economy Action Plan For a Cleaner and More Competitive Europe.' Available at [https://eur-lex.europa.eu/resource.html?uri=cellar:9903b325-6388-11ea-b735-01aa75ed71a1.0017.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:9903b325-6388-11ea-b735-01aa75ed71a1.0017.02/DOC_1&format=PDF) (Accessed on 01/12/2023)

<sup>50</sup>Ibid

<sup>51</sup> Ibid

<sup>52</sup> Ibid

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> Fwangkwal. B., Luotonen. E., & Jarvinen. L., 'Africa's Circular Economy Needs Support from Policymakers.' Op Cit

<sup>56</sup> Ibid

life products as well as growing access to renewable energy contributing to expanding circular systems in Africa<sup>57</sup>. There has been growth of circular economy initiatives in Africa such as the *Africa Circular Economy Network*<sup>58</sup> which seeks to build a restorative African economy that generates well-being and prosperity, inclusive of all its people, through new forms of economic production and consumption which maintain and regenerate its environmental resources; The *Africa Circular Economy Alliance*<sup>59</sup> which seeks to spur Africa's transition to a Circular Economy at the country, regional and continental levels by operating as a collaborative platform to coordinate and link the various initiatives on the continent and harness immediate opportunities in Africa for increased circularity in sectors that will support the economy, jobs, and the environment on the continent in the long-term; *Greenovations-Africa*<sup>60</sup> which seeks to enhance circular economy in Africa by promoting green practices in areas such as smart agriculture, renewable energy, waste management, water management and climate action; and the *Afri-Plastics Challenges Initiative*<sup>61</sup> which aims to reduce amount of plastic waste both on land and in the ocean in and around the African continent by providing funding for African recycling businesses, new bioplastics, waste conversion processes among others. There has also been growth of businesses and start-ups in Africa geared towards implementing circular economy through approaches such as technology-driven waste collection and management and recycling of waste<sup>62</sup>. The African Development Bank Group is also supporting the implementation of circular economy in Africa by channeling finance to businesses and supporting the country-led African Circular Economy Alliance in integrating the circular economy into African green growth strategies such as renewable energy, climate-smart agriculture and green manufacturing sectors<sup>63</sup>. It acknowledges that this will create new value-chains that generate new green jobs for the African youth<sup>64</sup>.

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<sup>57</sup> Ibid

<sup>58</sup> Africa Circular Economy Network., Available at <https://www.acen.africa/> (Accessed on 01/12/2023)

<sup>59</sup> Africa Development Bank Group., 'The African Circular Economy Alliance (ACEA).' Available at <https://www.afdb.org/en/topics-and-sectors/topics/circular-economy/african-circular-economy-alliance-acea> (Accessed on 01/12/2023)

<sup>60</sup> Greenovations-Africa., Available at <https://vc4a.com/greenovations-africa/greenovations-africa-2023/> (Accessed on 01/12/2023)

<sup>61</sup> Packaging Europe., 'Afri-Plastics Challenge Provides Funding for African Recycling Businesses, New Bioplastics, Waste Conversion Processes, and more.' Available at <https://packagingeurope.com/news/afri-plastics-challenge-provides-funding-for-african-recycling-businesses-new-bioplastics-waste-conversion-processes-and-more/9548.article#:~:text=Afri%2DPlastics%20Challenge%20provides%20funding,and%20more%20%7C%20Article%20%7C%20Packaging%20Europe> (Accessed on 01/12/2023)

<sup>62</sup> Nairobi Garage., 'Mr Green Africa // Kenyan Recycling Startup Secures Round of Funding.' Available at <https://nairobigarage.com/mr-green-africa-secures-round-of-funding/> (Accessed on 01/12/2023)

<sup>63</sup> African Development Bank Group., 'African Development Bank Group Launches Dedicated Trust Fund for Circular Economy.' Available at <https://www.afdb.org/en/news-and-events/press-releases/african-development-bank-group-launches-dedicated-trust-fund-circular-economy-51948> (Accessed on 01/12/2023)

<sup>64</sup> Ibid

Africa therefore has immense opportunities to implement circular economy. The East African Community recently launched its *Regional Bioeconomy Strategy*<sup>65</sup> which seeks to make use of the region's abundant natural resources, including underutilized agricultural waste materials, to produce value-added products with applications in many sectors including food, health, energy and industrial goods. The strategy seeks to implement circular economy within the East African Community through approaches such as the creation of new forms of sustainable bioenergy, and the conversion of waste materials to useful products<sup>66</sup>. The strategy further seeks to ensure the transformation of economies and place innovation in bio-based products and processes at the centre, with a bio-based circular economy as the organising framework<sup>67</sup>. The strategy has the potential to spur Sustainable Development within the East African region through effective, efficient and sustainable production and use of bio-based materials, products, processes and business models<sup>68</sup>. It has been asserted that moving towards circular economy within the East African region and Africa at large can help the Continent address the problem of waste management by adopting sustainable waste management models and further contribute towards creating green jobs and fostering entrepreneurship<sup>69</sup>.

From the foregoing, it is evident that there are immense opportunities to implement circular economy in Africa and other regions. However, it has been pointed out that implementing circular economy is threatened by challenges such as limited knowledge in some countries and regions about the potential of circular economy, lack of effective strategies for implementing circular economy, inadequate financing for businesses especially MSMEs to transition to circular economy, and lack of transparency in supply chains<sup>70</sup>. Other key challenges include shortage of advanced technology to implement circular economy in some countries, inadequate capacity, poor enforcement of legislations, weak economic incentives, lack of clear, standardized quantitative measurements and goals, poor leadership and management and lack of public awareness on circular economy and its benefits<sup>71</sup>. It is imperative to address these challenges in order to effectively implement circular economy and enhance its role in addressing key environmental challenges including pollution, resource security, climate change and biodiversity loss.

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<sup>65</sup> East African Community., 'Regional Bioeconomy Strategy 2021/22-2031/32.' Available at <https://www.eac.int/press-releases/2515-eac-unveils-regional-bioeconomy-strategy-2021-22-2031-32> (Accessed on 01/12/2023)

<sup>66</sup> Ibid

<sup>67</sup> Ibid

<sup>68</sup> Ibid

<sup>69</sup> Mwita. M., 'East Africa Mulls Shifting from Linear to Circular Economy.' Available at <https://theexchange.africa/investing/africas-development/east-africa-mulls-shifting-from-linear-to-circular-economy/> (Accessed on 01/12/2023)

<sup>70</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>71</sup> Heshmati. A., 'A Review of the Circular Economy and its Implementation.' Op Cit

#### **4.0 Way Forward**

In order to implement a circular economy, there is need for governments to develop and implement policies on circular economy while also aligning circular economy principles with national climate goals<sup>72</sup>. Such policies should focus on key areas of circular economy such as minimizing single-use plastics and the promotion of environmentally friendly products and on mainstreaming energy efficiency, clean energy and e-mobility in multiple sectors<sup>73</sup>. Governments also have role in implementing circular economy through designing new financing instruments, such as green bonds and blended financing, to raise funds to achieve widespread transformational change towards green economies<sup>74</sup>. In addition, it has been pointed out that by ensuring circular economy approaches are embedded into national climate goals such as Nationally Determined Contributions (NDCs), countries can accelerate the transition to a low-carbon economies, protect the natural environment, and create green, decent, and dignified jobs as well<sup>75</sup>. Circular economy can aid countries in meeting their climate targets by cutting greenhouse gas emissions associated with industry, agriculture, and land use that the energy transition cannot address due to its potential to eliminate waste and pollution therefore reducing greenhouse gas emissions across value chains, circulate products and materials therefore retaining their embodied energy, and regenerate nature thus sequestering carbon in soil and products<sup>76</sup>. It is therefore pertinent for governments to implement policies on circular economy and align circular economy approaches with national climate goals.

There is also need to enhance financing for businesses, startups, organizations and individuals undertaking initiatives to implement circular economy. One of the key challenges facing the implementation of circular economy especially in developing countries has been identified to be inadequate financing for businesses especially MSMEs to transition to circular economy<sup>77</sup>. Access to finance in developing countries remains a barrier, especially for small businesses in the circular economy and for businesses in general, in part due to unfavourable factors such as high interest rates<sup>78</sup>. It is therefore important for developing countries including those in Africa to enable access to finance in order to unlock circular economy through initiatives such as grant financing, lowering risks, removing policy barriers in order to foster investments, and investing in circular infrastructure<sup>79</sup>. Enhancing access to finance and investments in circular businesses can enable an

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<sup>72</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>73</sup> United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Op Cit

<sup>74</sup> Ibid

<sup>75</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>76</sup> Ellen McArthur Foundation., 'Fixing the Economy to Fix Climate Change.' Available at [https://www.ellenmacarthurfoundation.org/topics/climate/overview#:~:text=How%20a%20circular%20economy%20cuts,value\)%2C%20and%20regenerate%20nature.](https://www.ellenmacarthurfoundation.org/topics/climate/overview#:~:text=How%20a%20circular%20economy%20cuts,value)%2C%20and%20regenerate%20nature.) (Accessed on 01/12/2023)

<sup>77</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>78</sup> Milenge. D., Luotonen. E., & Korja. M., 'Enabling Access to Finance will Unlock Africa's Circular Economy.' Available at <https://www.sitra.fi/en/articles/enabling-access-to-finance-will-unlock-africas-circular-economy/> (Accessed on 01/12/2023)

<sup>79</sup> Ellen McArthur Foundation., 'Fixing the Economy to Fix Climate Change.' Op Cit

inclusive development approach that creates opportunities for marginalised people including the youth and women<sup>80</sup>.

It is also imperative for countries to strengthen their laws and policies on waste management in support of waste prevention and circular economy. It has been argued that countries need to modernize their laws and policies on waste management on an ongoing basis to make them fit for the circular economy and the digital age<sup>81</sup>. Countries should therefore improve their legislation on waste management in aspects such as batteries, packaging, end-of-life vehicles, and hazardous substances in electronic equipment in order to align them with circular economy principles through approaches such as preventing waste, increasing recycled content, promoting safer and cleaner waste streams, and ensuring high-quality recycling<sup>82</sup>.

Organizations and businesses should also be encouraged to embrace and implement principles of circular economy. It has been rightly pointed out that businesses sit at the heart of the transition to a circular economy by inspiring innovations and implementing circular economy solutions at scale<sup>83</sup>. Throughout the world, businesses have been at the forefront of transitioning to circular economy through measures which include refurbishing electronic goods, fostering green transport based on e-mobility and energy efficiency, promoting water-soluble, recyclable and biodegradable packaging, embracing sound waste management practices and processing animal waste into fertilizers and biogas for cooking, heating and lighting<sup>84</sup>. According to the United Nations Environment Programme (UNEP), moving to a more circular approach represents a huge opportunity for businesses, opening doors to new markets and the opportunity of increasing market share; reducing costs and risks for business; driving innovation, attracting talent and aligning business performance with public expectations<sup>85</sup>. To do this, businesses can use a value-chain approach to prioritize where they should take action to have the biggest impact on greenhouse gas emissions, biodiversity loss and pollution while making 'transformational sprints' towards circularity<sup>86</sup>. It is also imperative for organizations and businesses to integrate sustainability criteria into business strategies by improving their corporate governance

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<sup>80</sup> Ibid

<sup>81</sup> European Commission., 'A New Circular Economy Action Plan for a Cleaner and More Competitive Europe.' Op Cit

<sup>82</sup> Ibid

<sup>83</sup> Ellen McArthur Foundation., 'Business and the Circular Economy.' Available at <https://www.ellenmacarthurfoundation.org/resources/business/overview#:~:text=Business%20sits%20at%20the%20heart,create%20resilience%20and%20grow%20prosperity>. (Accessed on 01/12/2023)

<sup>84</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>85</sup> United Nations Environment Programme., 'The Role of Business in Moving from Linear to Circular Economies.' Available at <https://www.unep.org/resources/publication/role-business-moving-linear-circular-economies> (Accessed o 01/12/2023)

<sup>86</sup> Ibid

framework and enhance disclosure of environmental data in order to effectively implement circular economy<sup>87</sup>.

There is also need for developed countries to support developing countries in areas such technology development and transfer in order to accelerate the adoption of clean and green technologies necessary to implement circular economy<sup>88</sup>. Developing countries often face barriers in embracing technology and innovation necessary to implement circular economy in areas such as renewable energy, sustainable agriculture, waste management, and recycling<sup>89</sup>. It has correctly been argued that technology in its advanced stages along with technological capabilities are key factors in the successful implementation of circular economy principles at different levels and in different areas<sup>90</sup>. Technology development and transfer is envisioned under the *Paris Agreement*<sup>91</sup> which urges countries to promote and facilitate enhanced action on technology development and transfer in order to support the implementation of the Agreement<sup>92</sup>. It is therefore important for countries to cooperate in technology development and transfer in order to implement circular economy while also achieving climate targets envisioned under the Paris Agreement.

Finally, it is necessary to enhance public awareness on circular economy. It has been pointed out that the public can play an important role in implementing circular economy by demanding environmentally friendly products and services and actively minimizing waste by embracing practices such as reducing, reusing and recycling of materials<sup>93</sup>. Countries should therefore enhance public awareness by facilitating investments in education, providing information and active public participation to increase environmental awareness and the benefits of circular economy<sup>94</sup>. It has been suggested that improving community awareness about environmental protection and resource conservation, and environmental certification of products can accelerate the transition to circular economy<sup>95</sup>. Public awareness can encourage the public to embrace the principles of circular economy including reducing, reusing and recycling of materials. In addition to public awareness, countries should also embrace public participation in implementing circular economy<sup>96</sup>. It has been argued that many reviews of the various circular economy-related policies show that the huge public support for policies such those relating to the ban on the use, manufacture, and importation of single-use plastic bags in Kenya demonstrates the importance

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<sup>87</sup> European Commission., 'A New Circular Economy Action Plan for a Cleaner and More Competitive Europe.' Op Cit

<sup>88</sup> Muriithi. J., & Ngare. I., 'Transitioning Circular Economy from Policy to Practice in Kenya.' Op Cit

<sup>89</sup> Ibid

<sup>90</sup> Heshmati. A., 'A Review of the Circular Economy and its Implementation.' Op Cit

<sup>91</sup> United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf) (Accessed on 01/12/2023)

<sup>92</sup> Ibid, Article 10

<sup>93</sup> United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Op Cit

<sup>94</sup> Heshmati. A., 'A Review of the Circular Economy and its Implementation.' Op Cit

<sup>95</sup> Ibid

<sup>96</sup> Muriithi. J., & Ngare. I., 'Transitioning Circular Economy from Policy to Practice in Kenya.' Op Cit

of public participation in the enforcement of public policies that support circular economy principles<sup>97</sup>. Public participation is a key principle of environmental governance that has been recognized in various countries including Kenya<sup>98</sup>. The Constitution of Kenya enshrines public participation as one of the national values and principles of governance<sup>99</sup>. The Constitution also obligates the state to encourage public participation in the management, protection and conservation of the environment<sup>100</sup>. Countries should therefore embrace public participation in order to effectively implement circular economy for sustainability.

## **5.0 Conclusion**

Circular economy is pivotal in achieving sustainability since it aims to minimize waste and promote a sustainable use of natural resources, through smarter product design, longer use, recycling and more, as well as regenerate nature<sup>101</sup>. Adoption of circular economy principles enhances increased attention to environmental sustainability concerns, therefore, creating more benefits such as improved productivity and resource utilization<sup>102</sup>. It also plays an important role in tackling global environmental challenges such as pollution, climate change and biodiversity loss<sup>103</sup>. Despite efforts towards embracing circular economy, its effective implementation is hindered by challenges such as lack of effective strategies for implementing circular economy, inadequate financing for businesses especially MSMEs to transition to circular economy, lack of transparency in supply chains, shortage of advanced technology to implement circular economy in some countries, inadequate capacity, poor enforcement of legislations, weak economic incentives, lack of clear, standardized quantitative measurements and goals, poor leadership and management and lack of public awareness on circular economy and its benefits<sup>104</sup>. Addressing these challenges is necessary in order to effectively implement circular economy. Circular economy can be effectively implemented through approaches such as developing and implementing policies on circular economy while also aligning circular economy principles with national climate goals, enhancing financing for businesses, startups, organizations and individuals undertaking initiatives to implement circular economy, strengthening laws and policies on waste management in support of waste prevention and circular economy, embracing and implementing principles of circular economy by organizations and businesses, technology development and transfer, and enhancing public awareness on circular economy and embracing

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<sup>97</sup> Ibid

<sup>98</sup> Muigua. K., 'Towards Meaningful Public Participation in Natural Resource Management in Kenya.' Available at <https://kmco.co.ke/wp-content/uploads/2018/08/TOWARDS-MEANINGFUL-PUBLIC-PARTICIPATION-IN-NATURAL-RESOURCE-MANAGEMENT-IN-KENYA.pdf> (Accessed on 01/12/2023)

<sup>99</sup> Constitution of Kenya., 2010., Article 10 (2) (a)

<sup>100</sup> Ibid, Article 69 (1) (d)

<sup>101</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>102</sup> Muriithi. J., & Ngare. I., 'Transitioning Circular Economy from Policy to Practice in Kenya.' Op Cit

<sup>103</sup> United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit

<sup>104</sup> Heshmati. A., 'A Review of the Circular Economy and its Implementation.' Op Cit

### *Chapter 3: Implementing Circular Economy for Sustainability*

public participation in implementing circular economy<sup>105</sup>. Implementing circular economy for sustainability is an ideal that needs to be fast-tracked.

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<sup>105</sup> Ibid; United Nations Development Programme., 'Why the Green, Circular Economy is Key to Beating the Triple Planetary Crisis.' Op Cit; United Nations Development Programme., 'What is Circular Economy and Why Does it Matter?.' Op Cit; and Muriithi. J., & Ngare. I., 'Transitioning Circular Economy from Policy to Practice in Kenya.' Op Cit

## **Section II: Environmental Security, Vulnerability and Human Mobility**

*This section explores the intersections between environmental security, human vulnerability, and mobility in the context of climate disruption. It highlights how environmental degradation, climate-induced risks, and weak resilience mechanisms affect livelihoods, health, settlements, and movement, with a particular focus on Africa and other vulnerable regions.*

## **Chapter 4: Environmental Security, Rights and Law: Human Mobility in the Age of Climate Disruption**

### *Abstract*

*This chapter critically examines how climate change interacts with environmental security. The chapter notes that climate disruptions are increasingly driving environmental security challenges including through resource depletion, environmental degradation and loss of livelihoods. In particular, the chapter notes that human mobility in the age of climate disruption is a major global environmental security concern. It examines how climate change drives human mobility and examines how this connection fuels environmental security challenges. In light of its impact on human mobility, the chapter notes that tackling climate change is crucial for environmental security, peace, human rights and development. The chapter discusses how the vulnerability of human mobility in the age of climate disruption can be addressed towards environmental security, peace, rights and development.*

### **1.0 Introduction**

Environmental security is a concept that is concerned with the linkages between the environment and human security issues, particularly between environmental effects, such as climate change, natural disasters, water shortages and famine, and their effects on the security of people and societies<sup>1</sup>. According to the United Nations Environment Programme (UNEP), environmental security focuses on how environmental effects such as environmental degradation, biodiversity loss and climate change interact with peace and security dynamics<sup>2</sup>. Environmental security therefore acknowledges that threats to the environment including environmental degradation, overexploitation of natural resources, and illegal and unregulated extraction of resources pose significant risks to human security and development<sup>3</sup>. It has been observed that environmental security seeks to address the linkages between the environment and human security concerns for peace and development<sup>4</sup>.

Climate change is a major threat to environmental security. It has been observed that climate change is a threat multiplier that fuels environmental security concerns by driving resource scarcity, environmental conflicts, loss of livelihoods and human mobility<sup>5</sup>. UNEP notes that as climate change worsens, it impacts existing social, economic and environmental challenges thus

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<sup>1</sup> Whyte. A.V., 'Environmental Security' *International Encyclopedia of the Social & Behavioral Sciences.*, (2001), pp 4663-4667

<sup>2</sup> United Nations Environment Programme., 'Environment Security' Available at <https://www.unep.org/topics/disasters-and-conflicts/environment-security> (Accessed on 30/01/2026)

<sup>3</sup> Environmental Security., Available at <https://odi.org/en/about/our-work/environmental-security/> (Accessed on 30/01/2026)

<sup>4</sup> F. Rita, "The Environmental Security Debate and Its Significance for Climate Change," *The International Spectator: Italian Journal of International Affairs*, Vol. 43, Issue 3, 2008, pp.51-65 at p. 56

<sup>5</sup> United Nations Environment Programme., 'Climate Change and Security Risks' Available at <https://www.unep.org/topics/disasters-and-conflicts/environment-security/climate-change-and-security-risks> (Accessed on 30/01/2026)

increasingly driving conflicts and insecurity at local, national, regional and global levels<sup>6</sup>. It has been observed that the impacts of climate change on food security, water availability, energy supply, livelihoods and human mobility fuel security concerns at all levels<sup>7</sup>. Addressing the link between climate change and environmental security is therefore vital for peace and development. This chapter critically examines how climate change interacts with environmental security. The chapter notes that climate disruptions are increasingly driving environmental security challenges including through resource depletion, environmental degradation and loss of livelihoods. In particular, the chapter notes that human mobility in the age of climate disruption is a major global environmental security concern. It examines how climate change drives human mobility and examines how this connection fuels environmental security challenges. In light of its impact on human mobility, the chapter notes that tackling climate change is crucial for environmental security, peace, human rights and development. The chapter discusses how the vulnerability of human mobility in the age of climate disruption can be addressed towards environmental security, peace, rights and development.

## **2.0 Climate Change and Human Mobility: Environmental Security Concerns**

The world is witnessing a climate emergency. It has been observed that climate change is having devastating impacts on the global economy, ecosystems, human health and livelihoods<sup>8</sup>. The consequences of climate change including intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity are on the rise globally with disproportionate impacts on vulnerable populations<sup>9</sup>. Due to its impacts, it has been argued that climate change is an undesirable phenomenon that affects realization of the Sustainable Development agenda across the world by affecting the sustainability of the planet's ecosystems, the stability of the global economy and the future of humankind<sup>10</sup>. The United Nations observes that if left unchecked, climate change will undo a lot of the development progress made over the past years and will also provoke mass migrations that will lead to instability and wars<sup>11</sup>. The *2030 Agenda for Sustainable Development*<sup>12</sup> acknowledges that climate

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<sup>6</sup> United Nations Environment Programme., 'Climate Change and Security Risks' Available at <https://www.unep.org/topics/disasters-and-conflicts/environment-security/climate-change-and-security-risks> (Accessed on 30/01/2026)

<sup>7</sup> Ibid

<sup>8</sup> United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 31/01/2026)

<sup>9</sup> Ibid

<sup>10</sup> Climate Change., 'Meaning, Definition, Causes, Examples and Consequences.' Available at <https://youmatter.world/en/definition/climate-change-meaning-definition-causes-and-consequences/> (Accessed on 31/01/2026)

<sup>11</sup> United Nations., 'Goal 13: Take Urgent Action to Combat Climate Change and its Impacts.' Available at <https://www.un.org/sustainabledevelopment/climate-change/> (Accessed on 31/01/2026)

<sup>12</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 31/01/2026)

change is one of the greatest challenges of our time and its adverse impacts undermine the ability of all countries to achieve Sustainable Development<sup>13</sup>.

In particular, climate change is driving human mobility with negative impacts on environmental security. Human mobility refers to the temporal or permanent movement of people within or across countries<sup>14</sup>. The International Organization for Migration (IOM) observes that climate change fuels human mobility including through displacement, migration and planned relocation<sup>15</sup>. It has been pointed out that displacements occur in cases of forced movement of persons<sup>16</sup>. In addition, migration happens in situations of voluntary movement of persons<sup>17</sup>. Planned relocation on the other hand happens when settling people or communities, with their consent, in new locations<sup>18</sup>. Climate change is causing human mobility across these three dimensions contributing to an increase of internally displaced persons and climate refugees.

It has been observed that extreme climatic events and hazards act as both direct and indirect causes of human mobility<sup>19</sup>. For example, severe floods and sea-level rises can devastate households and communities causing human mobility through displacement<sup>20</sup>. In addition, prolonged droughts can act as an indirect cause of human mobility by leading to loss of livelihoods forcing people to move to other locations<sup>21</sup>. Impacts of climate change including environmental degradation, resource scarcity, loss of livelihoods, and extreme weather events are key drivers of human mobility causing forced displacements and migration globally as people and communities move to more safe, secure and productive locations<sup>22</sup>. Further, it has been observed that climate change can lead to planned relocation especially in cases where

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<sup>13</sup> Ibid

<sup>14</sup> United Nations Network on Migration., 'Human Mobility: a local, regional and global call for collective action and evidence-based public discourse' Available at <https://migrationnetwork.un.org/resources/human-mobility-local-regional-and-global-call-collective-action-and-evidence-based-public> (Accessed on 31/01/2026)

<sup>15</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Available at [https://www.iom.int/sites/g/files/tmzbd1486/files/migrated\\_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf](https://www.iom.int/sites/g/files/tmzbd1486/files/migrated_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf) (Accessed on 31/01/2026)

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> Ibid

<sup>19</sup> United Nations Climate Change., 'Technical guide on integrating human mobility and climate change linkages into relevant national climate change planning processes' Available at [https://unfccc.int/sites/default/files/resource/WIM\\_ExCom\\_human-mobility\\_TFD\\_2024.pdf](https://unfccc.int/sites/default/files/resource/WIM_ExCom_human-mobility_TFD_2024.pdf) (Accessed on 31/01/2026)

<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> Intergovernmental Authority on Development., 'Human mobility in the context of climate change, Disasters, and Environmental Degradation' Available at <https://www.icpac.net/our-projects/human-mobility-in-the-context-of-climate-change-disasters-and-environmental-degradation/> (Accessed on 31/01/2026)

communities have been devastated by adverse climatic events including floods, droughts and sea-level rise, forcing authorities to move them to other locations<sup>23</sup>.

It has been observed that by driving human mobility, climate change contributes to peace and environmental security risks<sup>24</sup>. For instance, climate-related disasters, forced migration and displacement are a major cause of conflicts and competition over scarce resources creating peace and security challenges<sup>25</sup>. The likelihood of competition for scarce resources in host regions for displaced persons, climate refugees and migrants can increase the risk of violent conflict, with implications for peace, security and stability<sup>26</sup>. According to IOM, climate change is a threat multiplier that worsens and compounds existing vulnerabilities with grave impacts on environmental security<sup>27</sup>. In particular, it has been observed that in fragile and vulnerable contexts, the impacts of climate change including resource scarcity and environmental degradation have disproportionate effects on marginalized groups including rural women, local communities and indigenous peoples leading to socio-economic fragility and human mobility<sup>28</sup>. Further, climate change is also transforming traditionally symbiotic relationships such those between herders, farmers and fishers, into antagonistic relationships marked by violence and insecurity as they compete for dwindling resources including pasture, water, and arable land<sup>29</sup>.

Addressing the link between climate change, environmental security and human mobility is therefore key towards upholding rights particularly for vulnerable groups including rural women, local communities and indigenous peoples who depend on climate-sensitive natural resources for their livelihoods and survival.

### **3.0 Fostering Environmental Security in the Age of Climate Disruption**

The climate crisis is increasingly driving human mobility with grave impacts on environmental security. Adverse climatic events including droughts and flooding are impacting livelihoods and availability of natural resources fuelling internal and cross-border human mobility<sup>30</sup>. It has been observed that this situation is particularly severe in Africa where migration has for a long time been a strategy to cope with environmental stress<sup>31</sup>. Severe and prolonged droughts and food

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<sup>23</sup> Human Mobility in the Context of Climate Change., Available at [https://www.giz.de/de/downloads/GIZ\\_Broschuere\\_Human\\_Mobility\\_20230814.pdf](https://www.giz.de/de/downloads/GIZ_Broschuere_Human_Mobility_20230814.pdf) (Accessed on 31/01/2026)

<sup>24</sup> United Nations Environment Programme., 'Climate Change and Security Risks' Op Cit

<sup>25</sup> Ibid

<sup>26</sup> Human Mobility in the Context of Climate Change., Op Cit

<sup>27</sup> International Organization for Migration., 'Climate Security' Available at <https://environmentalmigration.iom.int/climate-and-security> (Accessed on 31/01/2026)

<sup>28</sup> Ibid

<sup>29</sup> Ibid

<sup>30</sup> International Organization for Migration., 'Climate Security' Op Cit

<sup>31</sup> Climate Change Impacts on Human (Im-)Mobility in Sub-Saharan Africa., Available at [https://www.adaptationcommunity.net/wp-content/uploads/2020/07/GIZ\\_Climate-impacts-on-human-mobility-Africa.pdf](https://www.adaptationcommunity.net/wp-content/uploads/2020/07/GIZ_Climate-impacts-on-human-mobility-Africa.pdf) (Accessed on 31/01/2026)

insecurity in various parts of Africa including West Africa and the Horn of Africa cause vulnerable people and communities to resort to already established mobility patterns by migrating to other areas as a coping strategy<sup>32</sup>. This situation drives environmental security threats including through conflicts over scarce and dwindling natural resources<sup>33</sup>.

At its core, environmental security seeks to peacefully reduce vulnerability to human-induced environmental degradation by addressing the root causes of environmental threats including climate change which drive conflicts, insecurity and instability<sup>34</sup>. Environmental security envisages collaboration and cooperation among nations and regions to solve transboundary environmental problems such as climate change, biodiversity loss and pollution towards political stability, economic development, and peace<sup>35</sup>. With climate change induced human mobility driving political instability, loss of livelihoods and conflicts, fostering environmental security is therefore pertinent towards human rights, peace and development<sup>36</sup>. It has been observed that environmental security aims to effectively respond to changing environmental conditions, including climate change, which have the potential to reduce peace and stability at the global, regional, national, and local levels<sup>37</sup>.

It has been argued that environmental security is achieved when the environment and natural resources provide full environmental services to all human beings who depend on them and when this condition is sustainable<sup>38</sup>. Human mobility in the context of climate change therefore undermines environmental security since it is related to resource scarcity and environmental degradation<sup>39</sup>. In light of these concerns, there is need to strengthen climate action at all levels. It has been observed that effective climate action can reduce challenges such as environmental degradation, resource scarcity and competition of resources which drive human mobility<sup>40</sup>. In particular, it has been observed that effective climate adaptation strategies including climate-smart and resilient agricultural techniques, sustainable water conservation methods, livelihood diversification and the development of sustainable water infrastructure can enhance the resilience linked to climate change, peace, and security risks<sup>41</sup>. Bolstering climate action is therefore key towards reducing human mobility, protecting rights and advancing environmental security.

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<sup>32</sup> Ibid

<sup>33</sup> Ibid

<sup>34</sup> Rita. F., 'The Environmental Security Debate and its Significance for Climate Change' Op Cit

<sup>35</sup> Ibid

<sup>36</sup> International Organization for Migration., 'Climate Security' Op Cit

<sup>37</sup> King. C., 'A Strategic Analytic Approach to the Environmental Security Program for NATO' Available at [https://www.nato.int/docu/comm/2008/0803-science/pdf/chris\\_king.pdf](https://www.nato.int/docu/comm/2008/0803-science/pdf/chris_king.pdf) (Accessed on 31/01/2026)

<sup>38</sup> Muigua. K., 'Achieving Environmental Security in Kenya' (2022) *Journalofcmsd*, Volume 8(3)

<sup>39</sup> International Organization for Migration., 'Climate Security' Op Cit

<sup>40</sup> United Nations Environment Programme., 'Climate Change and Security Risks' Op Cit

<sup>41</sup> Ibid

Embracing effective disaster risk reduction policies is also key towards strengthening the resilience of climate migrants, displaced people and hosted communities towards peace and environmental security<sup>42</sup>. The concept of disaster risk reduction aims to prevent new and reduce existing disaster risks and contribute to strengthening resilience of both people and planet against disasters<sup>43</sup>. It covers a set of approaches, techniques and policies that enable us to understand how and why disasters happen while also identifying preventive actions that can be implemented in order to reduce the vulnerability of both people and planet to disasters<sup>44</sup>. Climate induced disasters including floods, droughts and environmental degradation are a major cause of human mobility due to displacement of populations leading to humanitarian crises including increase in the number of refugees and internally displaced persons, a situation that fuels peace and security concerns<sup>45</sup>. Strengthening disaster risk reduction particularly in vulnerable contexts is therefore key towards enhancing the resilience of both people and planet in the wake of a mounting climate crisis towards environmental security. The *Sendai Framework for Disaster Risk Reduction*<sup>46</sup> seeks to tackle climate change-related disasters, displacement and migration in countries of origin towards peace and security. Implementing this Framework is therefore vital towards addressing human mobility in the age of climate disruption for environmental security.

Strengthening conflict prevention and management is also paramount towards fostering environmental security in the age of climate disruption<sup>47</sup>. Conflicts over scarce natural resources and conflicts between climate migrants, internally displaced persons and host communities and regions drive insecurity and instability undermining peace and Sustainable Development<sup>48</sup>. Consequently, it has been observed that integrating conflict prevention, management and peacebuilding in climate adaptation and disaster risk reduction strategies in the context of climate change induced human mobility can ensure sustainable and durable solutions<sup>49</sup>. It has been pointed out that inclusive and collaborative approaches that embrace dialogue can ensure effective conflict prevention and resolution towards peace and environmental security<sup>50</sup>. Embracing appropriate techniques including mediation and negotiation is therefore key towards

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<sup>42</sup> International Organization for Migration., 'Climate Security' Op Cit

<sup>43</sup> World Meteorological Organization., 'Disaster Risk Reduction (DRR)' Available at <https://community.wmo.int/site/knowledge-hub/programmes-and-initiatives/disaster-risk-reduction-drr> (Accessed on 31/01/2026)

<sup>44</sup> United Nations., 'Disaster Risk Reduction' Available at <https://sustainabledevelopment.un.org/topics/disasterriskreduction#:~:text=For%20example%2C%20by%20reducing%20exposure,risk%20reduction%20is%20not%20explicit> (Accessed on 31/01/2026)

<sup>45</sup> East African Community., 'Disaster Risk Reduction and Management' Available at <https://www.eac.int/gender/114-sector/environment-natural-resources-management/disaster-risk-reduction> (Accessed on 31/01/2026)

<sup>46</sup> Sendai Framework for Disaster Risk Reduction 2015-2030., Available at <https://www.undrr.org/media/16176/download?startDownload=20240430> (Accessed on 31/01/2026)

<sup>47</sup> International Organization for Migration., 'Climate Security' Op Cit

<sup>48</sup> Human Mobility in the Context of Climate Change., Op Cit

<sup>49</sup> International Organization for Migration., 'Climate Security' Op Cit

<sup>50</sup> United Nations Environment Programme., 'Climate Change and Security Risks' Op Cit

strengthening conflict prevention, resolution and peacebuilding for environmental security and Sustainable Development<sup>51</sup>.

#### **4.0 Conclusion**

Climate change disruptions are driving human mobility with severe impacts on environmental security. It is therefore vital to strengthen climate action at all levels, adopt and implement effective disaster risk reduction strategies and foster conflict prevention, resolution and peacebuilding through collaborative approaches in order to protect people and planet in the age of climate disruption<sup>52</sup>. Achieving environmental security is a worthy endeavour towards addressing human mobility in the context of climate change for peace and Sustainable Development.

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<sup>51</sup> Muigua. K., 'Achieving Sustainable Development, Peace and Environmental Security.' Glenwood Publishers Limited, 2021

<sup>52</sup> International Organization for Migration., 'Climate Security' Op Cit

## Chapter 5: Enhancing Climate Resilience in Africa for Development

### Abstract

*This chapter critically examines the need to enhance climate resilience in Africa. It argues that climate change is a major threat to development in Africa. It explores the impacts of climate change in Africa and their effects on development in the continent. In light of the adverse impacts of climate change in Africa, the chapter posits that enhancing climate resilience is a key approach towards confronting climate change and fostering development. The chapter critically discusses the achievements made and challenges faced towards fostering climate resilience in Africa. It also offers ideas towards enhancing climate resilience in Africa for development.*

### 1.0 Introduction

Climate change is increasingly impacting our ecosystems, with disruptive effects on the social well-being, economic development, and environmental sustainability of current and future generations<sup>1</sup>. The impacts of climate change include intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity among others<sup>2</sup>. These impacts are being felt across regions and in many sectors important to society, such as human health, agriculture and food security, water supply, transportation, energy, and biodiversity and ecosystems<sup>3</sup>. These effects are expected to become increasingly disruptive in the coming decades threatening the future of both humanity and nature<sup>4</sup>.

Climate change therefore presents significant and complex challenges for global economies since it affects economic development, social progress, and the sustainability of communities and ecosystems<sup>5</sup>. It has been described as one of the greatest challenges facing humanity today<sup>6</sup>. Climate change has significant implications on energy, food and water security as well as health and safety for countries and people around the world<sup>7</sup>. It is therefore a key threat to the attainment of the Sustainable Development agenda<sup>8</sup>.

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<sup>1</sup> United Nations Environment Programme., 'Climate Change' Available at <https://www.unepfi.org/climate-change/climate-change/> (Accessed on 03/06/2024)

<sup>2</sup> United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 03/06/2024)

<sup>3</sup> World Bank Climate Change Knowledge Portal., 'What is Climate Change?' Available at <https://climateknowledgeportal.worldbank.org/overview> (Accessed on 03/06/2024)

<sup>4</sup> Ibid

<sup>5</sup> Navigating Climate Resilience: Kenya's Battle with Recent Flooding., Available at <https://www.acts-net.org/blogs/foresight-africa-blog/navigating-climate-resilience-kenya-s-battle-with-recent-flooding> (Accessed on 03/06/2024)

<sup>6</sup> United Nations Environment Programme., 'Responding to Climate Change' Available at <https://www.unep.org/regions/europe/regional-initiatives/responding-climate-change> (Accessed on 03/06/2024)

<sup>7</sup> Ibid

<sup>8</sup> Ibid

As a result of its impacts, responding to climate change has become an urgent global, regional, and national priority<sup>9</sup>. The United Nations *2030 Agenda for Sustainable Development*<sup>10</sup> acknowledges that climate change is one of the greatest challenges facing humanity and its adverse impacts undermine the ability of all countries to achieve Sustainable Development. It urges all countries to take urgent action to combat climate change and its impacts<sup>11</sup>. In order to achieve this goal, Sustainable Development Goal (SDG) 13 urges all countries to strengthen their resilience and adaptive capacity to climate-related hazards and natural disasters<sup>12</sup>; integrate climate change measures into national policies, strategies and planning<sup>13</sup>; and improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning<sup>14</sup>.

In order to effectively tackle climate change, it has been noted that there is need for the global community, states, and communities to embrace climate resilient strategies as a transformative approach towards climate change<sup>15</sup>. States have been urged to take urgent steps to build resilient societies and economies in order to effectively confront climate change and foster development<sup>16</sup>.

This chapter critically examines the need to enhance climate resilience in Africa. It argues that climate change is a major threat to development in Africa. It explores the impacts of climate change in Africa and their effects on development in the continent. In light of the adverse impacts of climate change in Africa, the chapter posits that enhancing climate resilience is a key approach towards confronting climate change and fostering development. The chapter critically discusses the achievements made and challenges faced towards fostering climate resilience in Africa. It also offers ideas towards enhancing climate resilience in Africa for development.

## **2.0 Climate Change in Africa**

Climate change represents a major threat to the realization of the Sustainable Development agenda in Africa<sup>17</sup>. It has been noted that Africa is the most vulnerable continent to the impacts

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<sup>9</sup> Ibid

<sup>10</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 30/05/2024)

<sup>11</sup> Ibid

<sup>12</sup> Ibid

<sup>13</sup> Ibid

<sup>14</sup> Ibid

<sup>15</sup> Navigating Climate Resilience: Kenya's Battle with Recent Flooding., Op Cit

<sup>16</sup> United Nations Climate Change., 'Adaptation and Resilience' Available at <https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/introduction> (Accessed on 03/06/2024)

<sup>17</sup> African Development Bank Group., 'Climate Change in Africa' Available at <https://www.afdb.org/en/cop25/climate-change-africa> (Accessed on 03/06/2024)

of climate change<sup>18</sup>. Despite having the lowest greenhouse gas emissions compared to other continents, Africa faces exponential collateral damage as a result of climate change, posing systemic risks to its economies, infrastructure investments, water and food systems, public health, agriculture, and livelihoods, threatening to undo its modest development gains and slip into higher levels of extreme poverty<sup>19</sup>.

The United Nations Environment Programme (UNEP) notes that while Africa has contributed negligibly to climate change, with just about two to three percent of global greenhouse gas emissions, it stands out disproportionately as the most vulnerable region in the world<sup>20</sup>. According to UNEP, Africa's vulnerability to climate change is driven by the prevailing low levels of socioeconomic growth in the continent<sup>21</sup>. It has been noted that while climate change is global, the poor are disproportionately vulnerable to its effects since they lack the resources to afford goods and services they need to buffer themselves and recover from the impacts of climate change<sup>22</sup>. Africa's vulnerability to climate change is also worsened by the continent's reliance on climate-sensitive activities such as rain-fed agriculture, herding and fishing, leading to income losses and increased food insecurity<sup>23</sup>.

It has been noted 17 out of the 20 countries most threatened by climate change in the world are located in Africa and climate change already impacts up to 2 to 9 percent of national budgets across the continent demonstrating the severe impacts of climate change in Africa<sup>24</sup>. Africa is responsible for only a fraction of global greenhouse gas emissions but is suffering disproportionately from climate change<sup>25</sup>. Climate change is harming food security, ecosystems and economies, fueling displacement and migration and worsening the threat of conflict over dwindling resources in Africa<sup>26</sup>. Further, it has been noted that heatwaves, heavy rains, floods, tropical cyclones, and prolonged droughts among other impacts of climate change are having devastating impacts on communities and economies in Africa, with increasing numbers of people

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<sup>18</sup> Ibid

<sup>19</sup> Ibid

<sup>20</sup> United Nations Environment Programme., 'Responding to Climate Change' Available at <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change> (Accessed on 03/06/2024)

<sup>21</sup> Ibid

<sup>22</sup> Ibid

<sup>23</sup> Ibid

<sup>24</sup> United Nations Economic Commission for Africa., '17 out of the 20 countries most threatened by climate change are in Africa, but there are still solutions to this crisis' Available at <https://www.uneca.org/stories/17-out-of-the-20-countries-most-threatened-by-climate-change-are-in-africa%2C-but-there-are#:~:text=According%20to%20the%20latest%20report,health%2C%20productivity%20and%20food%20security>. (Accessed on 03/06/2024)

<sup>25</sup> World Meteorological Organization., 'Africa Suffers Disproportionately from Climate Change' Available at <https://wmo.int/media/news/africa-suffers-disproportionately-from-climate-change> (Accessed on 03/06/2024)

<sup>26</sup> Ibid

being at risk<sup>27</sup>. It has been argued that if climate change is left untamed, the coming decades and years would easily be characterized by severe climate-induced pressure on Africa's economies, livelihoods and nature<sup>28</sup>.

According to the United Nations, climate change is having a growing impact on the African continent, hitting the most vulnerable hardest, and contributing to food insecurity, population displacement and stress on water resources<sup>29</sup>. Climate change has severe economic, social, and environmental impacts in Africa including food and water insecurity, health hazards, and decrease in Gross Domestic Product (GDP)<sup>30</sup>. It has been pointed out that given Africa's high exposure, fragility and low adaptive capacity, the effects of climate change are expected to be felt more severely in the coming years<sup>31</sup>. Due to climate change, people's health, peace, prosperity, infrastructure, and other economic activities across many sectors in Africa are exposed to significant risks threatening development in the continent<sup>32</sup>.

Responding to climate change is therefore vital for development in Africa. Despite its little contribution to the problem of climate change, Africa is already experiencing the negative effects of this phenomenon, resulting widespread losses and damages<sup>33</sup>. The negative impacts of climate change are already directly affecting food security and livelihoods in Africa with extreme climate events such as drought, heavy rains, and floods fueling migration and displacement in the continent<sup>34</sup>. As a result of the severe and growing impacts of climate change in Africa, it has been noted that there is an urgent need to enhance the resilience of African people and economies to climate change in order to foster development in the continent<sup>35</sup>.

### **3.0 Enhancing Climate Resilience in Africa: Progress and Setbacks**

Climate resilience has been defined as the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate change<sup>36</sup>. It has also been described

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<sup>27</sup> Ibid

<sup>28</sup> Ibid

<sup>29</sup> United Nations Climate Change., 'Climate Change is an Increasing threat to Africa' Available at <https://unfccc.int/news/climate-change-is-an-increasing-threat-to-africa> (Accessed on 03/06/2024)

<sup>30</sup> Ibid

<sup>31</sup> World Meteorological Organization., 'Africa Suffers Disproportionately from Climate Change' Op Cit

<sup>32</sup> Ibid

<sup>33</sup> Jacob. D., Weber. T., & Celliers. L., 'Supporting Africa's Development to Increase its Resilience to the Impacts of Climate Change' Available at <https://www.openaccessgovernment.org/supporting-africas-development-to-increase-its-resilience-to-the-impacts-of-climate-change/161370/> (Accessed on 03/06/2024)

<sup>34</sup> Ibid

<sup>35</sup> United Nations., 'Realizing a Climate-Resilient and Prosperous Africa' Available at <https://www.un.org/en/un-chronicle/realizing-climate-resilient-and-prosperous-africa> (Accessed on 03/06/2024)

<sup>36</sup> Center for Climate and Energy Solutions., 'Climate Resilience Portal' Available at <https://www.c2es.org/content/climate-resilience->

as the capacity or ability to anticipate and cope with climate shocks, and to recover from their impacts in a timely and efficient manner<sup>37</sup>. It can also refer to the capacity to prepare for, respond to, and recover from the impacts of hazardous climatic events while incurring minimal damage to societal wellbeing, the economy and the environment<sup>38</sup>. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks<sup>39</sup>.

It has been noted that the ideal of climate resilience can be achieved through three independent outcomes<sup>40</sup>. This can be realized through realizing the vision of resilient people and livelihoods where people most vulnerable to climate risks, especially those living in least developed countries and small island developing States, are resilient, and bale to prosper and thrive<sup>41</sup>. Achieving the ideal of resilient people and livelihoods entails fostering climate justice and a just transition for all with no one being left behind<sup>42</sup>. The ideal of climate resilience can also be achieved through resilient businesses and economies where all climate risks are fully understood by all businesses, investors and society<sup>43</sup>. Further, it can be attained through resilient environmental systems where ecosystems and biodiversity are protected against climate risks including extreme events and disasters as well as long-term changes in climate<sup>44</sup>. Strengthening climate resilience requires a holistic and multi-dimensional approach to enhance individuals', communities', and countries' social, human, natural, physical and financial capacities to cope with and recover from the impacts of climate change<sup>45</sup>.

Enhancing climate resilience is a key priority for all countries. It has been noted that as greenhouse gas emissions continue to rise, climate change will continue to accelerate<sup>46</sup>. Further, it has been observed that even if greenhouse gas emissions were to stop today, climate change will continue to manifest for some time as the Earth's system responds to the warming already

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[overview/#:~:text=For%20example%2C%20a%20combination%20of,impacts%20can%20exacerbate%20existing%20inequalities](#) (Accessed on 03/06/2024)

<sup>37</sup> The London School of Economics and Political Science., 'What is the Difference between Climate Change Adaptation and Resilience?' Available at <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-difference-between-climate-change-adaptation-and-resilience/> (Accessed on 03/06/2024)

<sup>38</sup> Ibid

<sup>39</sup> Center for Climate and Energy Solutions., 'Climate Resilience Portal' Op Cit

<sup>40</sup> United Nations Climate Change., 'Climate Resilience' Available at [https://unfccc.int/sites/default/files/resource/ExecSumm\\_Resilience\\_0.pdf](https://unfccc.int/sites/default/files/resource/ExecSumm_Resilience_0.pdf) (Accessed on 03/06/2024)

<sup>41</sup> Ibid

<sup>42</sup> Ibid

<sup>43</sup> Ibid

<sup>44</sup> Ibid

<sup>45</sup> The London School of Economics and Political Science., 'What is the Difference between Climate Change Adaptation and Resilience?' Op Cit

<sup>46</sup> Center for Climate and Energy Solutions., 'Climate Resilience Portal' Op Cit

underway<sup>47</sup>. It is therefore necessary for all countries to anticipate the impacts of climate change and act now to minimize future economic, environmental, and social risks<sup>48</sup>.

The need to enhance climate resilience for development is set out under the *United Nations Framework Convention on Climate Change* (UNFCCC)<sup>49</sup>. The Convention urges all countries to protect the climate system for present and future generations<sup>50</sup>. It seeks to achieve the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system<sup>51</sup>. According to UNFCCC, such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner<sup>52</sup>. It sets out commitments by states aimed at fostering climate-resilient development and limiting greenhouse gas emissions in order to combat climate change<sup>53</sup>. UNFCCC also recognizes the adverse impacts of climate change in developing countries and urges developed countries to support these countries in enhancing climate resilience through approaches such as climate finance and technology development and transfer<sup>54</sup>.

In addition, the *Paris Agreement*<sup>55</sup>, seeks to strengthen the global response to the threat of climate change, in the context of Sustainable Development and efforts to eradicate poverty. It sets out the need to enhance climate resilience and urges all countries to increase their ability to adapt to the adverse impacts of climate change and *foster climate resilience* and low greenhouse gas emissions development, in a manner that does not threaten food production (Emphasis added)<sup>56</sup>. Parties under the Paris Agreement establish the global goal on adaptation of enhancing adaptive capacity, *strengthening resilience* and reducing vulnerability to climate change, with a view to contributing to Sustainable Development (Emphasis added)<sup>57</sup>. The Paris Agreement also urges states to build the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources<sup>58</sup>. It further acknowledges that enhancing the resilience of communities, livelihoods, and ecosystems is vital in combating climate change<sup>59</sup>. The Paris Agreement also urges states to fully realize the ideal of

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<sup>47</sup> Ibid

<sup>48</sup> Ibid

<sup>49</sup> United Nations Framework Convention on Climate Change., United Nations., 1992., Available at <https://unfccc.int/resource/docs/convkp/conveng.pdf> (Accessed on 04/06/2024)

<sup>50</sup> Ibid, Preamble

<sup>51</sup> Ibid

<sup>52</sup> Ibid

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> United Nations Framework Convention on Climate Change., 'Paris Agreement.' Available at [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf) (Accessed on 03/06/2024)

<sup>56</sup> Ibid, article 2 (1) (b)

<sup>57</sup> Ibid, article 7 (1)

<sup>58</sup> Ibid, article 7 (9) (e)

<sup>59</sup> Ibid, article 8 (4) (h)

technology development and transfer in order to *improve resilience* to climate change and to reduce greenhouse gas emissions (Emphasis added)<sup>60</sup>. Realizing the objectives of the Paris Agreement is therefore vital in enhancing climate resilience for development.

Further, at a continental level, the *African Union Climate Change and Resilient Development Strategy and Action Plan*<sup>61</sup> seeks to achieve the vision of climate-resilient communities and economies as set out in Africa Union's *Agenda 2063*<sup>62</sup>. The strategy sets out the principles, priorities and action areas for enhanced climate cooperation and long term, climate-resilient development in Africa<sup>63</sup>. It seeks to realize a sustainable, prosperous, equitable and climate-resilient Africa by building the resilience of African communities, ecosystems and economies, and supporting regional adaptation<sup>64</sup>. The Strategy identifies key cross-sectoral opportunities and interventions that are essential for achieving climate-resilient development pathways and accomplishing the SDGs in Africa including transforming food systems, protecting land-based ecosystems, transforming energy systems, transforming mobility and transport, enhancing inclusive, low-emission industrialization, transforming water systems, transforming the blue economy, digital transformation, and building resilient urban centres<sup>65</sup>. It is imperative to implement this Strategy in order to enhance climate resilience in Africa for development.

In addition, the *East African Community Climate Change Policy*<sup>66</sup> acknowledges that the adverse impacts of climate change are a major challenge to socio-economic development globally<sup>67</sup>. According to the Policy, the African continent including the East African region is particularly vulnerable to impacts of climate change affecting key economic drivers such as water resources, agriculture, energy, transport, health, forestry, wildlife, land and infrastructure, disaster risk management among others<sup>68</sup>. The Policy notes that these impacts include; water stress and scarcity, food insecurity, diminished hydropower generation potential, loss of biodiversity and ecosystem degradation, increased incidence of disease burden, destruction of infrastructure, high costs of disaster management as result of increased frequency and intensity of droughts, floods

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<sup>60</sup> Ibid, article 10 (1)

<sup>61</sup> African Union Climate Change and Resilient Development Strategy and Action Plan., Available at [https://au.int/sites/default/files/documents/41959-doc-CC\\_Strategy\\_and\\_Action\\_Plan\\_2022-2032\\_08\\_02\\_23\\_Single\\_Print\\_Ready.pdf](https://au.int/sites/default/files/documents/41959-doc-CC_Strategy_and_Action_Plan_2022-2032_08_02_23_Single_Print_Ready.pdf) (Accessed on 04/06/2024)

<sup>62</sup> Africa Union., 'Agenda 2063: The Africa we Want' Available at [https://au.int/sites/default/files/documents/33126-doc-framework\\_document\\_book.pdf](https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf) (Accessed on 04/06/2024)

<sup>63</sup> African Union Climate Change and Resilient Development Strategy and Action Plan., Op Cit

<sup>64</sup> Ibid

<sup>65</sup> Ibid

<sup>66</sup> East African Community Climate Change Policy., Available at <https://www.eac.int/environment/climate-change/eac-climate-change-policy-framework> (Accessed on 04/06/2024)

<sup>67</sup> Ibid

<sup>68</sup> Ibid

and landslides<sup>69</sup>. The Policy seeks to strengthen climate resilience within the East African region<sup>70</sup>. It urges member states of the East African Community to institute and implement measures which will improve the adaptive capacity and resilience of the East African region to the negative impacts of climate change<sup>71</sup>. These approaches include promoting diversification of economies to reduce overdependence on climate-sensitive sectors<sup>72</sup>; promoting alternative livelihoods systems amongst most vulnerable communities<sup>73</sup>; enhancing the adaptive capacities of communities, fragile ecosystems and national economies<sup>74</sup>; and promoting social protection as a tool for disaster risk reduction and climate change adaptation<sup>75</sup>. Implementing these strategies is key in enhancing climate resilience within the East African Community.

At a national level, Kenya has an elaborate legal and policy framework aimed at enhancing climate resilience including the *Climate Change Act*<sup>76</sup>, the *National Climate Change Policy*<sup>77</sup>, and a *National Climate Change Action Plan*<sup>78</sup>. However, despite these attempts, the ideal of climate resilience in Africa is yet to be realized.

The negative impacts of climate change continue to directly affect food security and livelihoods in Africa<sup>79</sup>. In addition, adverse effects of climate change including drought, heavy rains, and floods continue to drive migration and displacement in the continent<sup>80</sup>. It has also been noted that climate change is increasing inequalities and poverty rates in Africa<sup>81</sup>. According to the United Nations, extreme weather events including more frequent and intense droughts, floods, heatwaves and other climate-induced impacts, including accelerated desertification, coastal erosion, species extinction and habitat loss are wreaking havoc on African economies<sup>82</sup>. As a result, it is imperative for African countries to adopt climate response strategies that foster Sustainable Development<sup>83</sup>.

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<sup>69</sup> Ibid

<sup>70</sup> Ibid

<sup>71</sup> Ibid

<sup>72</sup> Ibid

<sup>73</sup> Ibid

<sup>74</sup> Ibid

<sup>75</sup> Ibid

<sup>76</sup> Climate Change Act., No. 11 of 2016, Government Printer, Nairobi

<sup>77</sup> Sessional Paper No. 5 of 2016., 'National Climate Change Framework Policy.' Available at <http://aiap.or.ke/wp-content/uploads/2018/10/Climate-Change-Framework-PolicyMay2017.pdf> (Accessed on 04/06/2024)

<sup>78</sup> Ministry of Environment, Climate Change and Forestry., 'Draft Strategic Plan: 2023-2027' Available at <https://www.environment.go.ke/wp-content/uploads/2023/05/MoECCF-Strategic-PlanDraft07.05.2023-updated.pdf> (Accessed on 04/06/2024)

<sup>79</sup> Jacob. D., Weber. T., & Celliers. L., 'Supporting Africa's Development to Increase its Resilience to the Impacts of Climate Change' Op Cit

<sup>80</sup> Ibid

<sup>81</sup> Ibid

<sup>82</sup> United Nations., 'Realizing a Climate-Resilient and Prosperous Africa' Op Cit

<sup>83</sup> Ibid

#### 4.0 Conclusion

Climate change is a major threat to Sustainable Development in Africa<sup>84</sup>. The impacts of climate change including droughts, floods, heatwaves, desertification, coastal erosion, species extinction and habitat loss are wreaking havoc on African economies<sup>85</sup>. Climate change poses systematic risks to African economies, infrastructure investments, water and food systems, public health, agriculture, and livelihoods, threatening to undo the continent's modest development gains and slip it into higher levels of extreme poverty<sup>86</sup>. Further, in light of Africa's high exposure, fragility and low adaptive capacity, the effects of climate change are expected to be felt more severely in the coming years<sup>87</sup>. It is therefore vital to enhance climate resilience in Africa for development.

Investments in Africa's infrastructure is a key strategy in making people and communities more resilient to the threats posed by climate change<sup>88</sup>. It has been pointed out that infrastructure can drive climate-resilience and development through providing direct adaptation or resilience benefits that protect from climate hazards<sup>89</sup>; through driving economic development that underpins people's capacity and resources to adapt<sup>90</sup>; and through contributing to macro-economic resilience by facilitating trade or reducing dependence on imports<sup>91</sup>. Enhancing Africa's infrastructure is therefore vital for climate resilience and continued socio-economic development in the continent<sup>92</sup>.

It is also necessary to invest in disaster risk reduction in Africa<sup>93</sup>. Climate change is intensifying natural disasters in Africa such as floods, droughts, cyclones, earthquakes, landslides with increased economic losses and mortalities<sup>94</sup>. Disaster Risk Reduction entails reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters including through reduced exposure to hazards, lessened vulnerability of people and property, wise

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<sup>84</sup> African Development Bank Group., 'Climate Change in Africa' Op Cit

<sup>85</sup> United Nations., 'Realizing a Climate-Resilient and Prosperous Africa' Op Cit

<sup>86</sup> African Development Bank Group., 'Climate Change in Africa' Op Cit

<sup>87</sup> World Meteorological Organization., 'Africa Suffers Disproportionately from Climate Change' Op Cit

<sup>88</sup> Private Infrastructure Development Group., 'Africa Climate Solutions: Investing in Infrastructure for Climate Resilience across Africa' Available at [https://www.exeter.ac.uk/v8media/research/gsi/PIDG-Exeter\\_Report\\_2023.pdf](https://www.exeter.ac.uk/v8media/research/gsi/PIDG-Exeter_Report_2023.pdf) (Accessed on 04/06/2024)

<sup>89</sup> Ibid

<sup>90</sup> Ibid

<sup>91</sup> Ibid

<sup>92</sup> World Bank Group., 'Enhancing the Climate Resilience of Africa's Infrastructure' Available at <https://www.worldbank.org/content/dam/Worldbank/Feature%20Story/Africa/Conference%20Editi on%20Enhancing%20Africas%20Infrastructure.pdf> (Accessed on 04/06/2024)

<sup>93</sup> Muigua. K., '(Re) Imagining Effective Disaster Prevention and Management for Development in Africa' Available at <https://kmco.co.ke/wp-content/uploads/2024/04/Re-Imagining-Effective-Disaster-Prevention-and-Management-for-Development-in-Africa.pdf> (Accessed on 04/06/2024)

<sup>94</sup> African Union., 'Catalysing Risk-Informed Early Action in Africa: Investing in Multi-Hazard Early Warning Systems to Strengthen Resilience to Disaster Risk' Available at [https://au.int/sites/default/files/documents/42530-doc-AUC\\_DRR\\_Policy\\_Brief\\_2.pdf](https://au.int/sites/default/files/documents/42530-doc-AUC_DRR_Policy_Brief_2.pdf) (Accessed on 04/06/2024)

management of land and environment and improved preparedness for adverse events<sup>95</sup>. Disaster Risk Reduction is a key approach in enhancing climate resilience. It has been noted that climate-smart disaster risk reduction saves lives by limiting the amount of risk people face and the level of damage a crisis might cause<sup>96</sup>. It can help communities effectively prepare for and cope with natural hazards<sup>97</sup>. Strengthening Disaster Risk Reduction is therefore vital in enhancing climate resilience in Africa for development.

It is also necessary for African countries to foster climate-resilient development strategies by transforming key sectors including food systems, energy systems, transport, industrialization, water systems, and the blue economy by enhancing their resilience and adaptive capacity to climate change<sup>98</sup>. Further, unlocking climate finance is vital in strengthening climate resilience in Africa<sup>99</sup>. Access to climate finance can enhance climate resilience in Africa through investments in human, technical, and institutional capacity of the continent towards confronting climate change<sup>100</sup>.

Africa has the ability to manage the effects of climate change and build resilience. Enhancing climate resilience in Africa for development is therefore a goal that can be unlocked.

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<sup>95</sup> Ibid

<sup>96</sup> IFRC., 'Climate-Smart Disaster Risk Reduction' Available at <https://www.ifrc.org/our-work/disasters-climate-and-crises/climate-smart-disaster-risk-reduction#:~:text=Climate%2Dsmart%20disaster%20risk%20reduction%20saves%20lives%20by%20limiting%20the,and%20cope%20with%20natural%20hazards>. (Accessed on 04/06/2024)

<sup>97</sup> Ibid

<sup>98</sup> African Union Climate Change and Resilient Development Strategy and Action Plan., Op Cit

<sup>99</sup> Ibid

<sup>100</sup> Ibid

## **Chapter 6: Towards Climate Justice: Establishing Safe, Resilient and Sustainable Habitats for the Present and Future Generations**

### ***Abstract***

*This chapter discusses how the ideal of safe, resilient and sustainable habitats can be achieved. The chapter argues that establishing safe, resilient and sustainable habitats and human settlements is key in fostering climate justice. In particular, the chapter notes that human habitats and settlements are fuelling environmental threats including climate change while also being vulnerable to the adverse impacts of the climate crisis. The chapter argues that climate change is devastating human settlements with adverse impacts on the vulnerable including the urban poor who lack access to adequate, safe and affordable housing. In light of these concerns, the chapter discusses how safe, resilient and sustainable habitats can be established for present and future generations towards climate justice.*

### **1.0 Introduction**

The right to housing is a fundamental human right that has been recognised at all levels. For example, at the global level, the *Universal Declaration of Human Rights*<sup>1</sup> stipulates that every person has the right to an adequate standard of living including the right to housing<sup>2</sup>. Further, the *International Covenant on Economic, Social and Cultural Rights*<sup>3</sup> urges all states to recognise the right of everyone to an adequate standard of living including housing<sup>4</sup>. In addition, at a national level, the *Constitution of Kenya*<sup>5</sup> provides that every person has the right to accessible and adequate housing<sup>6</sup>.

The rapid growth of cities and human settlements globally is crucial in fostering the right to housing. For example, it is estimated that currently, more than half of the world's population lives in cities<sup>7</sup>. According to the United Nations, human settlements are the cornerstone of human existence, shaping how we live, work, and connect with each other and the environment<sup>8</sup>. Human settlements and habitats provide shelter which is among the most fundamental human needs<sup>9</sup>.

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<sup>1</sup> United Nations General Assembly. The Universal Declaration of Human Rights (UDHR). New York: United Nations General Assembly, 1948

<sup>2</sup> Ibid., article 25 (1)

<sup>3</sup> United Nations General Assembly, *International Covenant on Economic, Social and Cultural Rights*, United Nations, Treaty Series, vol. 993, p. 3, 16 December 1966

<sup>4</sup> Ibid, article 11 (1)

<sup>5</sup> Constitution of Kenya., 2010., Government Printer, Nairobi

<sup>6</sup> Ibid., article 43 (1) (b)

<sup>7</sup> Monitoring Human Settlement Indicators., 'A Short Guide to Human Settlements Indicators Goal 11+' Available at <https://www.local2030.org/library/296/A-short-guide-to-Human-Settlements-Indicators-Goal-11.pdf> (Accessed on 08/12/2025)

<sup>8</sup> United Nations., 'Human Settlements' Available at <https://www.un.org/en/global-issues/human-settlements> (Accessed on 08/12/2025)

<sup>9</sup> Ibid

Further, it has been argued that human settlements drive human potential, innovation, creativity and societal progress<sup>10</sup>.

Despite their role in ensuring that the right to housing is achieved, it has been argued that human settlements and habitats are facing mounting challenges including increased pressure on the environment and accelerated demand for basic services, infrastructure, jobs, land, and affordable housing, particularly for the nearly 1 billion urban poor who live in informal settlements<sup>11</sup>. Consequently, it has become vital to build safe, resilient and sustainable habitats. This goal is enshrined under the United Nations *2030 Agenda for Sustainable Development*<sup>12</sup> which seeks to ensure that human habitats are safe, resilient and sustainable<sup>13</sup>.

This chapter discusses how the ideal of safe, resilient and sustainable habitats can be achieved. The chapter argues that establishing safe, resilient and sustainable habitats and human settlements is key in fostering climate justice. In particular, the chapter notes that human habitats and settlements are fuelling environmental threats including climate change while also being vulnerable to the adverse impacts of the climate crisis. The chapter argues that climate change is devastating human settlements with adverse impacts on the vulnerable including the urban poor who lack access to adequate, safe and affordable housing. In light of these concerns, the chapter discusses how safe, resilient and sustainable habitats can be established for present and future generations towards climate justice.

## **2.0 Climate Injustices in Human Habitats**

It has been argued if not appropriately designed, human settlements can fuel climate injustices with severe impacts on vulnerable populations<sup>14</sup>. According to the United Nations Environment Programme (UNEP), the impacts of climate change such as sea level rise, floods, droughts, storms and spread of tropical diseases have costly impacts on basic services in cities and human settlements including infrastructure, housing, human livelihoods and health<sup>15</sup>. In particular, it has been argued that due to high concentration of people, infrastructure, housing and economic activities, cities are particularly vulnerable to the consequences of climate change and natural

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<sup>10</sup> Ibid

<sup>11</sup> United Nations Environment Programme., 'Goal 11: Sustainable Cities and Communities' Available at <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-11> (Accessed on 08/12/2025)

<sup>12</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 08/12/2025)

<sup>13</sup> Ibid

<sup>14</sup> United Nations Environment Programme., 'Cities and Climate Change' Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities-and-climate-change> (Accessed on 09/12/2025)

<sup>15</sup> Ibid

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disasters<sup>16</sup>. For example, in most cities in developing countries, the size and vulnerability of informal settlements, generally built in unstable areas such as coastal zones, flood-prone planes and ravines, and geologically unstable slopes, greatly increases their vulnerability to climate change and natural disasters with adverse consequences on the urban poor<sup>17</sup>.

It has been argued that urban areas are highly vulnerable to rising sea levels, heatwaves, flooding, and other extreme weather events that disrupt infrastructure, health, housing, and livelihoods thus causing climate injustices<sup>18</sup>. According to the United Nations Human Settlements Programme (UN-Habitat), most of the world's urban areas are located along coastlines, where rising sea levels and storms threaten inhabitants and infrastructure with flooding and strong winds<sup>19</sup>. In addition, it has been pointed out that more than 1 billion people globally living in urban slums and informal settlements are vulnerable to climate change since many of them live along waterfronts and riverbanks prone to flooding<sup>20</sup>.

Human habitats especially cities are therefore highly vulnerable to climate change. Adverse climatic events such as extreme temperatures, floods, storms and sea-level rise in human settlements cause climate injustices since they disproportionately impact the urban poor and people in informal settlements despite their little contribution to the climate crisis<sup>21</sup>. With the world witnessing a rapid pace of urbanisation, it has been argued that climate change may cause hundreds of millions of urban residents – and in particular the poorest and most marginalized – increasingly vulnerable to adverse events such as floods, landslides, extreme weather events and other natural disasters<sup>22</sup>. Most of the world's urban centres (especially those in developing countries) are already vulnerable to the impacts of climate change and other natural and human-made hazards particularly those located in coastal areas, delta regions and Small Island Developing States<sup>23</sup>. This causes climate injustices due to impacts on human health with disproportionate impacts on the poor. For example, climate change has led to an increase in health problems including malaria, meningitis, and dengue fever that affect human habitats in both

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<sup>16</sup> United Nations Environment Programme., 'Goal 11: Sustainable Cities and Communities' Available at <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-11> (Accessed on 09/12/2025)

<sup>17</sup> Bigio. A., 'Cities and Climate Change' Available at <https://unfccc.int/sites/default/files/wbcitiescc.pdf> (Accessed on 09/12/2025)

<sup>18</sup> Cities and Climate Change., Available at <https://unccelearn.org/course/view.php?id=21&page=overview&lang=en> (Accessed on 09/12/2025)

<sup>19</sup> UN-Habitat., 'Cities and climate change' Available at <https://unhabitat.org/cities-and-climate-change#:~:text=Cities%20are%20critical%20actors%20in,with%20flooding%20and%20strong%20winds.> (Accessed on 09/12/2025)

<sup>20</sup> Ibid

<sup>21</sup> UN-Habitat., 'Global Report on Human Settlements' Available at <https://www.unccelearn.org/wp-content/uploads/library/un-hab58.pdf> (Accessed on 09/12/2025)

<sup>22</sup> Ibid

<sup>23</sup> United Nations Climate Change., 'Human Settlements and Adaptation' Available at <https://www4.unfccc.int/sites/nwpstaging/Pages/HS-page.aspx> (Accessed on 09/12/2025)

urban and rural areas<sup>24</sup>. Climate change also causes disruption of infrastructure and basic services including water, energy, sanitation and education in informal settlements thus contributing to injustices<sup>25</sup>.

In addition to being vulnerable to climate change, cities and human settlements are also among the main contributors to the climate crisis. For example, it has been argued that cities are a key contributor to climate change since urban activities are a major source of greenhouse gas emissions<sup>26</sup>. It is estimated that urban areas are responsible for 70 percent of global carbon dioxide emissions, with transport, buildings and infrastructure being among the largest contributors<sup>27</sup>. According to UN-Habitat, rapid urbanization, population growth, economic development and rising prosperity are expected to contribute to increased emissions in cities thus worsening the climate crisis<sup>28</sup>.

In light of the foregoing, it has been argued that climate change is a major global concern that is impacting the Sustainable Development of human settlements globally<sup>29</sup>. Consequently, establishing safe, resilient and sustainable habitats is a vital global agenda towards climate justice. It has been argued that establishing sustainable human settlements that can cope with the impacts of climate change is key in ensuring that growth and urbanisation is not compromised and the rising global population can live and thrive in safe habitats<sup>30</sup>. It is therefore imperative to establish sustainable habitats towards climate justice.

### **3.0 Establishing Safe, Resilient and Sustainable Habitats for Climate Justice**

In light of their extreme vulnerability to climate change, it is imperative to establish safe, resilient and sustainable habitats. This ideal is envisaged under Sustainable Development Goal (SDG) 11 which seeks to make cities and human settlements inclusive, safe, resilient and sustainable<sup>31</sup>. In order to achieve this goal, SDG 11 urges all states to undertake relevant measures including ensuring access to adequate, safe and affordable housing; ensuring sustainable transport systems in cities and human settlements; nurturing green urban spaces; and integrating resource

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<sup>24</sup> Mosha. A.C., 'The Effects of Climate Change on Urban Human Settlements in Africa' Available at [https://link.springer.com/Article/10.1007/978-90-481-9867-2\\_5](https://link.springer.com/Article/10.1007/978-90-481-9867-2_5) (Accessed on 09/12/2025)

<sup>25</sup> Climate Change Adaptation Human Settlements., Available at [https://www.dffe.gov.za/sites/default/files/reports/research/ccaq/ltas\\_ph2factsheet4climateadaptati on\\_humansettlements.pdf](https://www.dffe.gov.za/sites/default/files/reports/research/ccaq/ltas_ph2factsheet4climateadaptati on_humansettlements.pdf) (Accessed on 09/12/2025)

<sup>26</sup> United Nations Environment Programme., 'Cities and Climate Change' Op Cit

<sup>27</sup> Ibid

<sup>28</sup> UN-Habitat., 'Cities and climate change' Op Cit

<sup>29</sup> Kumar. A et al., 'Climate change vulnerability, adaptation, and human settlements' Available at <https://www.frontiersin.org/research-topics/61137/climate-change-vulnerability-adaptation-and-human-settlements/magazine> (Accessed on 09/12/2025)

<sup>30</sup> Ibid

<sup>31</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

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efficiency, climate change mitigation and adaptation, and disaster risk reduction in urban development processes<sup>32</sup>.

In addition, the *New Urban Agenda*<sup>33</sup> adopted by UN-Habitat lays out standards and principles for the planning, construction, development, management and improvement of urban areas towards establishing safe, resilient and sustainable habitats<sup>34</sup>. The New Urban Agenda sets out a long-term vision and stipulates priorities and actions towards sustainable urban development, in addition to providing tools that can be applied at the regional, national, subnational and local levels, allowing governments and other relevant stakeholders to meet context specific urban needs and challenges<sup>35</sup>. The Agenda has been described as an accelerator towards achieving the SDGs particularly SDG 11 which aims to make cities and human settlements inclusive, safe, resilient and sustainable<sup>36</sup>.

At a continental level, African Union's *Agenda 2063*<sup>37</sup> seeks to realize the ideal of modern, affordable and liveable habitats in Africa<sup>38</sup>. In order to achieve this goal, Agenda 2063 seeks to ensure that every citizen in Africa has affordable and sustainable access to quality basic services such as decent affordable housing, access to adequate and clean water and sanitation, transport among others<sup>39</sup>. It also seeks to ensure that African cities are well planned with modern mass transit systems, while rural communities are connected to the rest of the economy through road, energy, mobile communication networks, water, sanitation and hygiene systems<sup>40</sup>. Actualising the goals and aspirations of Agenda 2063 is therefore key towards establishing safe, resilient and sustainable habitats in Africa.

Building inclusive, safe, resilient and sustainable habitats is therefore a key agenda both globally and in Africa. In order to realise this goal, there is need to enhance access to adequate, safe and affordable housing particularly for urban residents<sup>41</sup>. The rapid pace of urbanisation, poor urban planning and poverty has resulted in many residents living in slums and informal settlements often in precarious conditions including extreme vulnerability to climate change and natural

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<sup>32</sup> Ibid

<sup>33</sup> United Nations Human Settlements Programme (UN-Habitat), 'The New Urban Agenda' Available at [https://unhabitat.org/sites/default/files/2020/12/nua\\_handbook\\_14dec2020\\_2.pdf](https://unhabitat.org/sites/default/files/2020/12/nua_handbook_14dec2020_2.pdf) (Accessed on 09/12/2025)

<sup>34</sup> Ibid

<sup>35</sup> Ibid

<sup>36</sup> Ibid

<sup>37</sup> Africa Union., 'Agenda 2063: The Africa we Want' Available at [https://au.int/sites/default/files/documents/33126-doc-framework\\_document\\_book.pdf](https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf) (Accessed on 09/12/2025)

<sup>38</sup> Ibid

<sup>39</sup> Ibid

<sup>40</sup> Ibid

<sup>41</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

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disasters<sup>42</sup>. As a result, it has been argued that access to adequate and affordable housing is crucial in promoting socially and economically diverse habitats and neighborhoods, in which residents have access to quality facilities, services, amenities, and employment opportunities for their health and development<sup>43</sup>. Governments have been urged to establish appropriate policies and enhance investments in adequate, safe and affordable housing towards fostering sustainable habitats<sup>44</sup>.

Further, it is imperative to enhance access to basic urban services. Basic urban services refer to essential civil services that are required by urban residents in order to live healthy and prosperous lives<sup>45</sup>. These services include water supply, sanitation services, infrastructure, electricity, housing, and waste management<sup>46</sup>. It has been argued that effective and efficient access to basic urban services is a pre-condition for inclusive, equitable and sustainable urban growth<sup>47</sup>. With challenges related to urban poverty, enhancing access to basic urban services is key in ensuring that all citizens can live in safe, resilient and sustainable habitats<sup>48</sup>. It is therefore necessary to foster access to basic urban services including through providing adequate and safe water and sanitation services especially for the urban poor, strengthening urban solid waste management, enhancing access to clean and sustainable sources of energy in cities and human settlements, providing sustainable transport systems and ensuring availability of education and health services<sup>49</sup>.

In addition, it is of utmost importance to build green spaces in cities and human settlements<sup>50</sup>. These include urban forests, green roofs, green walls, urban parks and gardens, and engineered wetlands and storm water ponds<sup>51</sup>. It has been argued that green spaces provide critical ecosystem services including water purification, improving air quality, providing space for recreation, and climate mitigation and adaptation<sup>52</sup>. Green spaces support biodiversity, mitigate

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<sup>42</sup> United Nations Human Settlements Programme (UN-Habitat), 'The New Urban Agenda' Op Cit

<sup>43</sup> UN-Habitat., 'The Global Housing Affordability Challenge' Available at [https://unhabitat.org/sites/default/files/2020/06/urban\\_data\\_digest\\_the\\_global\\_housing\\_affordability\\_challenge.pdf](https://unhabitat.org/sites/default/files/2020/06/urban_data_digest_the_global_housing_affordability_challenge.pdf) (Accessed on 09/12/2025)

<sup>44</sup> Ibid

<sup>45</sup> Nallathiga. R., 'Access to Basic Urban Services and Human Development: An analysis of the Indian States' Available at [https://www.researchgate.net/publication/339325095\\_Access\\_to\\_Basic\\_Urban\\_Services\\_and\\_Human\\_Development\\_An\\_analysis\\_of\\_the\\_Indian\\_States](https://www.researchgate.net/publication/339325095_Access_to_Basic_Urban_Services_and_Human_Development_An_analysis_of_the_Indian_States) (Accessed on 09/12/2025)

<sup>46</sup> Ibid

<sup>47</sup> Underprovision of Basic Urban Services., Available at <https://encyclopedia.uia.org/problem/underprovision-basic-urban-services> (Accessed on 09/12/2025)

<sup>48</sup> Ibid

<sup>49</sup> United Nations Human Settlements Programme (UN-Habitat), 'The New Urban Agenda' Op Cit

<sup>50</sup> World Health Organization., 'Urban Green Spaces: A Brief for Action' Available at <https://iris.who.int/bitstream/handle/10665/344116/9789289052498-eng.pdf> (Accessed on 09/12/2025)

<sup>51</sup> Ibid

<sup>52</sup> European Commission., 'Green Infrastructure' Available at

the impacts of noise and air pollution while also protecting residents from the adverse impacts of extreme weather events such as heatwaves and flooding<sup>53</sup>. Nurturing green spaces is therefore vital towards establishing safe, resilient and sustainable habitats.

Integrating climate resilience and disaster management strategies in cities and human settlements is also necessary towards establishing safe, resilient and sustainable habitats<sup>54</sup>. The consequences of climate change and disasters including rising sea levels, increased precipitation, inland floods, more frequent and stronger cyclones and storms, and periods of more extreme heat and cold are fuelling climate injustices since they disproportionately impact vulnerable populations including the urban poor<sup>55</sup>. It is therefore necessary to put in place effective governance and institutional capabilities to anticipate and respond to the impacts of climate change and disasters while also harnessing opportunities provided by nature-based solutions and low-carbon development towards reducing the vulnerability of cities and human settlements to climate change and disasters<sup>56</sup>.

#### **4.0 Conclusion**

In light of the impacts of climate change and disasters in cities and human settlements, establishing safe, resilient and sustainable habitats is vital towards climate justice. Achieving this goal involves fostering access to adequate, safe and affordable housing, providing access to basic urban services, nurturing green spaces in cities and human settlements and integrating climate resilience and disaster management in cities and human settlements<sup>57</sup>. Establishing safe, resilient and sustainable habitats is a vital goal that should be pursued globally towards climate justice for the present and future generations.

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[https://environment.ec.europa.eu/topics/nature-and-biodiversity/green-infrastructure\\_en](https://environment.ec.europa.eu/topics/nature-and-biodiversity/green-infrastructure_en) (Accessed on 09/12/2025)

<sup>53</sup> World Health Organization., 'Urban Green Spaces: A Brief for Action' Op Cit

<sup>54</sup> De Genaro Chiroli et al., 'Integrating Resilience and Sustainability: A systematic Analysis of Resilient Cities Using ISO 37123' Available at

<https://www.sciencedirect.com/science/article/abs/pii/S2212420923004405> (Accessed on 09/12/2025)

<sup>55</sup> United Nations-Habitat., 'Climate Change' Available at <https://unhabitat.org/topic/climate-change> (Accessed on 09/12/2025)

<sup>56</sup> United Nations Human Settlements Programme (UN-Habitat)., 'The New Urban Agenda' Op Cit

<sup>57</sup> Ibid

## **Chapter 7: Towards Green Growth: Achieving Sustainability in Cities and Human Settlements**

### *Abstract*

*This chapter critically examines the need to achieve sustainability and human settlements. It argues that achieving sustainability in cities and human settlements is key in fostering green growth. The chapter explores the idea of green growth and its benefits. Further, the chapter suggests measures towards achieving sustainability in cities and human settlements for green growth.*

### **1.0 Introduction**

Achieving sustainability has become an urgent global concern in the wake of mounting problems facing the planet including environmental challenges such as climate change, pollution, and loss of biodiversity together with issues of poverty, increasing disparity between societies and the tensions brought by social inequalities<sup>1</sup>. It has been noted that humanity is facing multiple interlinked environmental, social, economic and health challenges – the climate change crisis, pollution, biodiversity loss and the extinction of species, deforestation, land degradation, increased incidents of environmental disasters, widening gaps between rich and poor, backlash to women’s rights, lack of decent jobs and new emerging zoonotic diseases<sup>2</sup>. In light of these challenges, achieving sustainability has emerged as an ideal towards establishing harmony between humanity and nature<sup>3</sup>.

The ideal of sustainability entails creating and maintaining the conditions under which humanity and nature can exist in productive harmony to support present and future generations<sup>4</sup>. This ideal has been embraced as the global vision for development under the Sustainable Development agenda. The concept of Sustainable Development aims to promote development that meets the needs of the present without compromising the ability of future generations to meet their own

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<sup>1</sup> Giovannoni, E., & Fabietti, G., ‘What Is Sustainability? A Review of the Concept and Its Applications.’ In: Busco, C., Frigo, M., Riccaboni, A., Quattrone, P. (eds) Integrated Reporting, Springer, Cham. Available at [https://doi.org/10.1007/978-3-319-02168-3\\_2](https://doi.org/10.1007/978-3-319-02168-3_2) (Accessed on 03/07/2024)

<sup>2</sup> United Nations Development Programme., ‘Triple Planetary Crisis’ Available at [https://www.undp.org/sites/g/files/zskgke326/files/2022-11/UNDP-Triple-Planetary-Crisis-Infographic\\_0.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2022-11/UNDP-Triple-Planetary-Crisis-Infographic_0.pdf) (Accessed on 03/07/2024)

<sup>3</sup> United Nations Environment Programme., ‘The Triple Planetary Crisis: Forging a New Relationship Between People and the Earth’ Available at <https://www.unep.org/news-andstories/speech/tripleplanetary-crisis-forging-new-relationship-between-people-and-earth> (Accessed on 03/07/2024)

<sup>4</sup> United States Environmental Protection Agency., ‘What is Sustainability.’ Available at <https://www.epa.gov/sustainability/learn-about-sustainability> (Accessed on 03/07/2024)

needs<sup>5</sup>. It aims to enhance sustainability by promoting environmental conservation, economic development and social progress<sup>6</sup>.

The United Nations *2030 Agenda for Sustainable Development*<sup>7</sup> provides an integrated approach to development that takes into account environmental, economic, and social considerations. It provides a roadmap towards sustainability through through 17 Sustainable Development Goals (SDGs)<sup>8</sup>. The SDGs are the blueprint to achieve a better and more sustainable future for all<sup>9</sup>. They seek to address the global challenges facing humanity including those related to poverty, inequality, climate change, environmental degradation, peace and justice<sup>10</sup>.

One of the key approaches towards achieving the Sustainable Development agenda is fostering green growth<sup>11</sup>. The concept of green growth seeks to foster socially inclusive economic growth and development path that is low-carbon, climate-resilient, and resource efficient; and maintains and enhances biodiversity and ecosystems<sup>12</sup>. The 2030 Agenda for Sustainable Development seeks to attain green growth through various approaches including making cities and human settlements inclusive, safe, resilient, and sustainable<sup>13</sup>.

This chapter critically examines the need to achieve sustainability and human settlements. It argues that achieving sustainability in cities and human settlements is key in fostering green growth. The chapter explores the idea of green growth and its benefits. Further, the chapter suggests measures towards achieving sustainability in cities and human settlements for green growth.

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<sup>5</sup> World Commission on Environment and Development., 'Our Common Future.' Oxford, (Oxford University Press, 1987)

<sup>6</sup> Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' *International Sustainable Development Law.*, Vol 1

<sup>7</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 03/07/2024)

<sup>8</sup> Ibid

<sup>9</sup> United Nations., 'Take Action for the Sustainable Development Goals' Available at <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> (Accessed on 03/07/2024)

<sup>10</sup> Ibid

<sup>11</sup> African Development Bank Group., 'Climate and Green Growth Strategic Framework: Projecting Africa's Voice' Available at [https://www.afdb.org/sites/default/files/documents/publications/african\\_development\\_bank\\_-\\_climate\\_change\\_and\\_green\\_growth\\_policy.pdf](https://www.afdb.org/sites/default/files/documents/publications/african_development_bank_-_climate_change_and_green_growth_policy.pdf) (Accessed on 03/07/2024)

<sup>12</sup> Ibid

<sup>13</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

## 2.0 Green Growth

Green growth has been defined as an ideal aimed at fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies<sup>14</sup>. Green growth has been described as a new revolutionary development paradigm that sustains economic growth while at the same time ensuring climatic and environmental sustainability<sup>15</sup>. It focuses on addressing the root causes of environmental challenges while ensuring the creation of the necessary channels for resource distribution and access to basic commodities for the impoverished<sup>16</sup>.

The United Nations Environment Programme (UNEP) defines green growth as low carbon, resource efficient and socially inclusive approach towards development<sup>17</sup>. UNEP further notes that in a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services<sup>18</sup>. Green growth aims to respect biodiversity, conserve natural resources and promote good working conditions<sup>19</sup>. The green economy also means limiting greenhouse gas emissions by removing fossil fuels from our consumption<sup>20</sup>.

Green growth can therefore be understood as a development approach that seeks to deliver economic growth that is both environmentally sustainable and socially inclusive<sup>21</sup>. This idea emphasizes that economic growth is of central importance for development and poverty reduction and that achieving environmental sustainability and social inclusion are equally important and necessary to ensure that economic development is sustainable over the long term<sup>22</sup>.

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<sup>14</sup> Organisation for Economic Co-operation and Development., 'What is Green Growth and How can it Help Deliver Sustainable Development?' Available at <https://www.oecd.org/greengrowth/whatisgreengrowthandhowcanithelpdeliversustainabledevelopment.htm> (Accessed on 03/07/2024)

<sup>15</sup> United Nations., 'Green Growth' Available at <https://sustainabledevelopment.un.org/index.php?menu=1447> (Accessed on 03/07/2024)

<sup>16</sup> Ibid

<sup>17</sup> United Nations Environment Programme., 'Green Economy' Available at <https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy> (Accessed on 03/07/2024)

<sup>18</sup> Ibid

<sup>19</sup> Green Growth: Definition, Issues and Implementation., Available at [https://www.google.com/search?q=achieving+green+growth&oq=achieving+green+growth&gs\\_lcrp=EgZjaHljbWUyBggAEEUYOTIHCAEQIRifBTIHCAIQIRifBTIHCAQQIRifBTIHCAUQIRifBTIHCAQIRifBTIHCAgQIRifBTIHCAkQIRifBdIBCDc1NDFqMGo3qAIAAsAIA&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=achieving+green+growth&oq=achieving+green+growth&gs_lcrp=EgZjaHljbWUyBggAEEUYOTIHCAEQIRifBTIHCAIQIRifBTIHCAQQIRifBTIHCAUQIRifBTIHCAQIRifBTIHCAgQIRifBTIHCAkQIRifBdIBCDc1NDFqMGo3qAIAAsAIA&sourceid=chrome&ie=UTF-8) (Accessed on 03/07/2024)

<sup>20</sup> Ibid

<sup>21</sup> Global Green Growth Institute., 'Green Growth in Action: Attaining Green Cities' Available at [https://gggi.org/wp-content/uploads/2020/11/Green-Growth-in-Action-Attaining-Green-Cities\\_reduced-size.pdf](https://gggi.org/wp-content/uploads/2020/11/Green-Growth-in-Action-Attaining-Green-Cities_reduced-size.pdf) (Accessed on 03/07/2024)

<sup>22</sup> Ibid

It has been opined that green growth consists of four fundamental underlying dimensions<sup>23</sup>. It entails *efficient and sustainable use of resources*, including energy, water, land, and materials<sup>24</sup>; *protection of natural capital* and recognition of the limits of Earth system processes<sup>25</sup>; *green economic opportunities* for investment, trade, employment, and innovation; and *inclusive growth*, which ensures access to basic services and resources, health and safety, social equality, and social protection (Emphasis added)<sup>26</sup>.

Green growth has been described as the optimal choice for our future<sup>27</sup>. It is now a widely embraced concept with an increasing number of countries taking steps to adopt green growth as the primary and essential model of national development for the long-term<sup>28</sup>. It has been noted that greening growth is necessary, efficient and affordable<sup>29</sup>. Inclusive green growth has been described as the pathway to Sustainable Development<sup>30</sup>. Green growth builds on the broad concept of Sustainable Development and provides a pathway that seeks to achieve growth targets and development objectives in a more efficient, sustainable and resilient manner<sup>31</sup>.

### 3.0 Sustainability in Cities and Human Settlements: Opportunities and Challenges

Cities have been described as hubs for ideas, commerce, culture, science, productivity, social, human and economic development<sup>32</sup>. Cities have enabled people to advance socially and economically through creation of jobs and providing opportunities<sup>33</sup>. It is estimated that currently, more than half of the world's population lives in cities<sup>34</sup>. By 2030, it is projected that 6 out of 10 people will be urban dwellers<sup>35</sup>. Further, by 2050, it is estimated that the figure will have risen to 6.5 billion people; representing two-thirds of all civilization<sup>36</sup>. With more than half of humankind currently living in cities and the number of urban residents growing by nearly 73

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<sup>23</sup> Ibid

<sup>24</sup> Ibid

<sup>25</sup> Ibid

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> Ibid

<sup>29</sup> The World Bank Group., 'Inclusive Green Growth: The Pathway to Sustainable Development' <https://documents1.worldbank.org/curated/en/368361468313515918/pdf/691250PUB0Publ067902B09780821395516.pdf> (Accessed on 03/07/2024)

<sup>30</sup> Ibid

<sup>31</sup> African Development Bank Group., 'Green Growth' Available at <https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/green-growth-initiative/background> (Accessed on 03/07/2024)

<sup>32</sup> United Nations., 'Sustainable Cities and Human Settlements' Available at <https://sdgs.un.org/topics/sustainable-cities-and-human-settlements?page=1%2C3> (Accessed on 03/07/2024)

<sup>33</sup> Ibid

<sup>34</sup> Monitoring Human Settlement Indicators., 'A Short Guide to Human Settlements Indicators Goal 11+' Available at <https://www.local2030.org/library/296/A-short-guide-to-Human-Settlements-Indicators-Goal-11.pdf> (Accessed on 03/07/2024)

<sup>35</sup> Ibid

<sup>36</sup> Ibid

million every year it is estimated that urban areas account for 70 per cent of the world's Gross Domestic Product and has therefore generated economic growth and prosperity for many<sup>37</sup>.

Taking into account the increasing rural to urban migration and the rapid growth of cities in the developing world, it is clear that cities face a myriad of problems that may hinder planned growth and development<sup>38</sup>. It has been noted that to date, the trend towards urbanization has been accompanied by increased pressure on the environment and accelerated demand for basic services, infrastructure, jobs, land, and affordable housing, particularly for the nearly 1 billion urban poor who live in informal settlements<sup>39</sup>. As a result of the high concentration of people, infrastructure, housing and economic activities, it has been observed that cities are particularly vulnerable to climate change and natural disasters impacts<sup>40</sup>.

The location of many urban areas with large populations and critical economic assets in high-risk zones contributes to the increased attention given to impacts in urban areas of disasters induced or enhanced by climate change<sup>41</sup>. In addition, it has been observed that in most cities in developing countries, the size and vulnerability of informal settlements, generally built in unstable areas such as coastal zones, flood-prone planes and ravines, and geologically unstable slopes, greatly increases their vulnerability to climate change and natural disasters<sup>42</sup>. Further, the impacts of climate change including droughts and rising sea level and more frequent and intense natural disasters in rural areas will likely generate an additional influx of people to cities who often become permanent dwellers thus increasing the vulnerability of cities to climate change and natural disasters<sup>43</sup>. The effects of climate change have costly impacts on cities' basic services, infrastructure, housing, human livelihoods and health<sup>44</sup>. At the same time, cities are a key contributor to climate change, since urban activities are a major source of greenhouse gas emissions<sup>45</sup>. It is estimated that urban areas are responsible for 70 percent of global carbon dioxide emissions, with transport, buildings and infrastructure being among the largest contributors<sup>46</sup>.

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<sup>37</sup> United Nations., 'Sustainable Cities and Human Settlements' Op Cit

<sup>38</sup> Monitoring Human Settlement Indicators., 'A Short Guide to Human Settlements Indicators Goal 11+' Op Cit

<sup>39</sup> United Nations Environment Programme., 'Goal 11: Sustainable Cities and Communities' Available at <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-11> (Accessed on 03/07/2024)

<sup>40</sup> Ibid

<sup>41</sup> Bigio. A., 'Cities and Climate Change' Available at <https://unfccc.int/sites/default/files/wbcitiescc.pdf> (Accessed on 03/07/2024)

<sup>42</sup> Ibid

<sup>43</sup> Ibid

<sup>44</sup> United Nations Environment Programme., 'Cities and Climate Change' Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities-and-climate-change> (Accessed on 03/07/2024)

<sup>45</sup> Ibid

<sup>46</sup> Ibid

It is therefore imperative to achieve sustainability in cities and human settlements. According to UNEP, there is a strong link between the quality of life in cities and how cities draw on and manage the natural resources available to them<sup>47</sup>. It has been opined that building urban resilience is crucial to avoid human, social and economic losses while improving the sustainability of urbanization processes in order to protect the environment and mitigate disaster risk and climate change<sup>48</sup>. Further, it has been asserted that sustainable cities and human settlements combine greater productivity and innovation with lower costs and reduced environmental impacts, while providing increased opportunities for consumer choices and sustainable lifestyles<sup>49</sup>.

#### **4.0 Achieving Sustainability in Cities and Human Settlements for Green Growth**

The rapid growth of cities and human settlements has resulted in urbanization being described as among the most significant global trends of the 21<sup>st</sup> century<sup>50</sup>. It has been noted that urbanization is not only a demographic or spatial phenomenon but a force which if steered and deployed correctly can help the world to overcome some of its major global challenges such as poverty, inequality, environmental degradation, climate change, fragility and conflict, which are all fundamental targets of the 2030 Agenda for Sustainable Development<sup>51</sup>. Embracing green growth in cities is an urgent priority for addressing the environment and climate emergency<sup>52</sup>. It has been argued that the world's cities have a critical role to play in supporting global sustainability and climate change ambitions and the realization of green growth pathways<sup>53</sup>. While urban areas are at the forefront of national and global wealth accumulation, it has been pointed out that they must urgently address their unsustainable planetary footprint in order to achieve green growth<sup>54</sup>.

SDG 11 under the 2030 Agenda for Sustainable Development seeks to make cities and human settlements inclusive, safe, resilient and sustainable<sup>55</sup>. It sets out several targets towards realizing this goal including ensuring access for all to adequate, safe and affordable housing and basic services and upgrading of slums<sup>56</sup>; providing access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with

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<sup>47</sup> United Nations Environment Programme., 'Goal 11: Sustainable Cities and Communities' Op Cit

<sup>48</sup> Ibid

<sup>49</sup> Ibid

<sup>50</sup> Monitoring Human Settlement Indicators., 'A Short Guide to Human Settlements Indicators Goal 11+' Op Cit

<sup>51</sup> Ibid

<sup>52</sup> Global Green Growth Institute., 'Green Growth in Action: Attaining Green Cities' Op Cit

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Op Cit

<sup>56</sup> Ibid

disabilities and older persons<sup>57</sup>; enhancing inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries<sup>58</sup>; strengthening efforts to protect and safeguard the world's cultural and natural heritage<sup>59</sup>; reducing the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management<sup>60</sup>; providing universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities<sup>61</sup>; and supporting least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials<sup>62</sup>. Achieving these targets is key in fostering sustainability in cities and human settlements towards green growth.

The *New Urban Agenda*<sup>63</sup> adopted by the United Nations Human Settlements Programme (UN-Habitat) further lays out standards and principles for the planning, construction, development, management and improvement of urban areas. The New Urban Agenda highlights linkages between sustainable urbanization and job creation, livelihood opportunities and improved quality of life, and it insists on incorporation of all these sectors in every urban development<sup>64</sup>. The New Urban Agenda identifies five main pillars of implementation towards achieving sustainability in cities and urban areas which are: national urban policies, urban legislation and regulations, urban planning and design, local economy and municipal finance, and local implementation<sup>65</sup>. It has been described as an accelerator towards achieving the SDGs particularly SDG 11 which aims to make cities and human settlements inclusive, safe, resilient and sustainable<sup>66</sup>. It has been noted that while the challenges that cities, towns and villages face in different countries are varied, the New Urban Agenda is designed to be universally applicable<sup>67</sup>. It presents a long-term vision and sets out priorities and actions, in addition to providing tools that can be applied at the regional, national, subnational and local levels, allowing governments and other relevant stakeholders to meet context specific urban needs and challenges<sup>68</sup>. It is imperative to implement the New Urban Agenda in all countries in order to achieve sustainability in cities and human settlements.

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<sup>57</sup> Ibid

<sup>58</sup> Ibid

<sup>59</sup> Ibid

<sup>60</sup> Ibid

<sup>61</sup> Ibid

<sup>62</sup> Ibid

<sup>63</sup> United Nations Human Settlements Programme (UN-Habitat), 'The New Urban Agenda' Available at [https://unhabitat.org/sites/default/files/2020/12/nua\\_handbook\\_14dec2020\\_2.pdf](https://unhabitat.org/sites/default/files/2020/12/nua_handbook_14dec2020_2.pdf) (Accessed on 07/07/2024)

<sup>64</sup> Ibid

<sup>65</sup> Ibid

<sup>66</sup> Ibid

<sup>67</sup> Ibid

<sup>68</sup> Ibid

At a continental level, Africa Union's *Agenda 2063*<sup>69</sup> acknowledges the challenge related to rapid urbanization in Africa and estimates that more than two thirds of the African population will be living in urban centres by 2063<sup>70</sup>. It notes that the growth in urban population has many implications including spatial planning; access to housing; provision of basic services; job creation; economic and social development<sup>71</sup>. Agenda 2063 seeks to realize modern, affordable and liveable habitats in Africa<sup>72</sup>. According to Agenda 2063, African cities will be well planned with modern mass transit systems, while rural communities will be connected to the rest of the economy through road, energy, mobile communication networks, water, sanitation and hygiene systems<sup>73</sup>. Agenda 2063 also seeks to ensure that every citizen has affordable and sustainable access to quality basic services such as decent affordable housing, access to adequate and clean water and sanitation, transport and other services<sup>74</sup>. It is imperative to actualize Agenda 2063 in order to achieve sustainability in cities and human settlements in Africa for green growth.

## **5.0 Conclusion**

Achieving sustainability in cities and human settlements is a key priority towards green growth. In order to realize this goal, foster green human settlements<sup>75</sup>. Green human settlements create opportunities to mitigate greenhouse gas emissions as well as utilize ecosystem services to address vulnerabilities and risks<sup>76</sup>. Further, it has been noted that natural ecosystems in human settlements can enhance climate change adaptation and mitigation capabilities such as when trees provide a cooling effect as well as absorb carbon dioxide while also reducing disaster risks such as when mangroves serve as a buffer against strong winds and storm surges<sup>77</sup>. Green human settlements are therefore key towards green growth.

It has been pointed out that human settlements globally are being affected by multifaceted climate hazards that are both intensifying and increasing in frequency<sup>78</sup>. As a result, human settlements must adapt and build resilience<sup>79</sup>. It is therefore imperative to strengthen the resilience of cities

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<sup>69</sup> Africa Union., 'Agenda 2063: The Africa we Want' Available at [https://au.int/sites/default/files/documents/33126-doc-framework\\_document\\_book.pdf](https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf) (Accessed on 04/07/2024)

<sup>70</sup> Ibid

<sup>71</sup> Ibid

<sup>72</sup> Ibid

<sup>73</sup> Ibid

<sup>74</sup> Ibid

<sup>75</sup> UN-Habitat., 'The Resilient and Green Human Settlements Framework' Available at <https://unhabitat.org/sites/default/files/2023/06/resilient-and-green-human-settlements-framework-2023.pdf> (Accessed on 04/07/2024)

<sup>76</sup> Ibid

<sup>77</sup> Ibid

<sup>78</sup> Sharm El-Sheikh Adaptation Agenda., '2030 Adaptation Outcomes for Human Settlements' Available at <https://climatechampions.unfccc.int/wp-content/uploads/2022/11/Human-Settlements-1.pdf> (Accessed on 04/07/2024)

<sup>79</sup> Ibid

and human settlements to climate change and natural disasters by building resilient infrastructure, resilient services and communities, and improving risk management and response to crises<sup>80</sup>. Building urban resilience is crucial to avoid human, social and economic losses while improving the sustainability of urbanization processes and is thus needed to protect the environment and mitigate disaster risk and climate change<sup>81</sup>.

In addition, it is also necessary for all countries to embrace and promote sustainable urban development<sup>82</sup>. Sustainable urban development takes into account social sustainability, economic growth, and environmental conservation<sup>83</sup>. It has been noted that by getting urban development right, cities can create jobs and offer better livelihoods, increase economic growth, improve social inclusion, promote the decoupling of living standards and economic growth from environmental resource use, protect local and regional ecosystems, reduce both urban and rural poverty and drastically reduce pollution<sup>84</sup>. This goal can be realized through addressing the specific challenges of urban poverty and access to infrastructure, promoting integrated and innovative infrastructure design and service delivery, and ensuring resilience to climate change and disaster risk reduction<sup>85</sup>. It is also vital to promote sustainable energy and transport systems in cities and human settlements<sup>86</sup>.

Finally, it is imperative to embrace effective urban planning<sup>87</sup>. Properly planned, well governed, people centered, and compact cities and human settlements not only generate lower levels of greenhouse gases – but can also increase productivity, and reduce the capital and operating costs of basic urban infrastructure and services<sup>88</sup>. It has been pointed out that public spaces are at the core of well-functioning cities<sup>89</sup>. They are key drivers of social and economic development by supporting mobility, productivity, social interaction, recreation and public engagement, all of which improve the liveability and prosperity of cities and human settlements<sup>90</sup>. It is therefore vital for cities to build and maintain urban green spaces<sup>91</sup>. It has been noted that the quality of

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<sup>80</sup> Ibid

<sup>81</sup> United Nations Environment Programme., 'Goal 11: Sustainable Cities and Communities' Op Cit

<sup>82</sup> United Nations., 'Sustainable Cities and Human Settlements' Op Cit

<sup>83</sup> UN-Habitat., 'Sustainable Urban Development in Africa' Available at <https://unhabitat.org/sites/default/files/download-manager-files/Sustainable%20Urban%20Development%20in%20Africa.pdf> (Accessed on 04/07/2024)

<sup>84</sup> Ibid

<sup>85</sup> Ibid

<sup>86</sup> Ibid

<sup>87</sup> UN-Habitat., 'Inclusive and Sustainable Urban Planning: A Guide for Municipalities' Available at <https://unhabitat.org/sites/default/files/2014/07/A-guide-for-Municipalities-Inclusive-and-Sustainable-Urban-Development-Planning-Volume-1.pdf> (Accessed on 04/07/2024)

<sup>88</sup> UN-Habitat., 'Sustainable Urban Development in Africa' Op Cit

<sup>89</sup> Ibid

<sup>90</sup> Ibid

<sup>91</sup> Council for European Studies., 'Urban Green Spaces: Combining Goals for Sustainability and Placemaking' Available at <https://www.europenowjournal.org/2021/05/10/urban-green-spaces-combining-goals-for-sustainability-and-placemaking/> (Accessed on 04/07/2024)

life in cities is influenced positively by a range of significant roles that urban green spaces play<sup>92</sup>. Building and maintaining urban green spaces requires careful planning and sound knowledge on how nature and biodiversity can be integrated in a city's limited space<sup>93</sup>. Resource efficiency is also at the heart of proper urban planning<sup>94</sup>. Resource efficient cities and human settlements combine greater productivity and innovation with lower costs and reduced environmental impacts, while providing increased opportunities for consumer choices and sustainable lifestyles<sup>95</sup>. It is therefore necessary to build resource efficient cities and human settlements by promoting energy efficiency in the building sector, embracing sustainable waste management, fostering sustainable urban transport, ensuring water supply and waste water treatment and enhancing urban ecosystem management<sup>96</sup>.

Achieving sustainability in cities and human settlements is an ideal that should be actualized towards green growth.

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<sup>92</sup> Ibid

<sup>93</sup> Ibid

<sup>94</sup> United Nations Environment Programme., 'Goal 11: Sustainable Cities and Communities' Op Cit

<sup>95</sup> Ibid

<sup>96</sup> United Nations Environment Programme., 'Sustainable, Resource Efficient Cities-Making it Happen' Available at

<https://sustainabledevelopment.un.org/content/documents/1124SustainableResourceEfficientCities.pdf> (Accessed on 04/07/2024)

## Chapter 8: Harnessing Indigenous Knowledge for Climate Action in Africa

### Abstract

*Africa is a continent that is highly vulnerable to climate change. Most African countries are already experiencing effects of climate change such as drought, water scarcity, flooding among others which affect the attainment of Sustainable Development. Responding to climate change is an urgent concern in Africa. Africa has the potential to adopt innovative approaches in addressing climate change including the use of indigenous knowledge. This chapter critically discusses the role of indigenous knowledge in addressing the impacts of climate change in Africa. The chapter defines indigenous knowledge. It argues that Africa is endowed with indigenous knowledge which can be effective in responding to climate change. The chapter examines the progress made towards utilizing indigenous knowledge for climate action in Africa and challenges thereof. It also offers suggestions towards harnessing indigenous knowledge for climate action in Africa.*

### 1.0 Introduction

Africa is a continent that is highly vulnerable to climate change<sup>1</sup>. This has been attributed to several reasons including endemic poverty and high dependence on rain-fed agriculture, complex governance and institutional dimensions, limited access to capital including markets and technology, weak infrastructure, ecosystem degradation and poor management of natural resources, disasters both natural and man-made and conflicts<sup>2</sup>. This vulnerability is worsened by strong dependence of African economies on climate sensitive natural resources<sup>3</sup>. According to the United Nations Environment Programme (UNEP), while Africa has contributed negligibly to the changing climate, with just about two to three percent of global emissions, it stands out disproportionately as the most vulnerable region in the world<sup>4</sup>. This vulnerability is driven by the prevailing low levels of socioeconomic growth in the continent<sup>5</sup>. UNEP further points out that while climate change is global, the poor are disproportionately vulnerable to its effects since they lack the resources to afford goods and services they need to buffer themselves and recover from the worst of the changing climate effects<sup>6</sup>.

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<sup>1</sup> Kimaro. Didas et al., 'Climate Change Mitigation and Adaptation in ECA/SADC/COMESA Region: Opportunities and Challenges.' Available at [https://www.researchgate.net/publication/346628199\\_Climate\\_Change\\_Mitigation\\_and\\_Adaptation\\_in\\_ECASADCCOMESA\\_region\\_Opportunities\\_and\\_Challenges](https://www.researchgate.net/publication/346628199_Climate_Change_Mitigation_and_Adaptation_in_ECASADCCOMESA_region_Opportunities_and_Challenges) (Accessed on 15/02/2024)

<sup>2</sup> Ibid

<sup>3</sup> Ibid

<sup>4</sup> United Nations Environment Programme., 'Responding to Climate Change' Available at <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change> (Accessed on 15/02/2024)

<sup>5</sup> Ibid

<sup>6</sup> Ibid

Responding to climate change is an urgent concern in Africa. Most African countries are already experiencing effects of climate change such as drought, water scarcity, flooding among others<sup>7</sup>. Climate change is having a devastating impact on the African continent creating food insecurity, stressing water resources, depleting human health, displacing populations and impeding socio-economic development<sup>8</sup>. It has been observed that in Africa, approximately 50 million people are on the brink of falling below the poverty line for reasons connected to climate change while 100 million people are at risk of being displaced by climate change<sup>9</sup>. Climate change is therefore a major threat to Sustainable Development in Africa<sup>10</sup>.

Sustainable Development Goal 13 under the United Nations 2030 Agenda for Sustainable Development urges all countries to take urgent action to combat climate change and its impacts<sup>11</sup>. In addition, Africa Union's Agenda 2063 seeks to reduce the vulnerability of the continent to climate change through building environmentally sustainable and climate resilient economies and communities in Africa<sup>12</sup>. It has been pointed out that Africa has the potential to adopt innovative approaches in addressing climate change<sup>13</sup>. To this end, indigenous knowledge has been advocated as a key tool for climate action in Africa<sup>14</sup>.

This chapter critically discusses the role of indigenous knowledge in addressing the impacts of climate change in Africa. The chapter defines indigenous knowledge. It argues that Africa is endowed with indigenous knowledge which can be effective in responding to climate change. The chapter examines the progress made towards utilizing indigenous knowledge for climate

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<sup>7</sup> Kimaro. Didas et al., 'Climate Change Mitigation and Adaptation in ECA/SADC/COMESA Region: Opportunities and Challenges.' Op Cit

<sup>8</sup> Rao. V., & Yadav. P., 'Confronting Climate Change in Africa.' Available at <https://knowledge.insead.edu/responsibility/confronting-climate-change-africa> (Accessed on 15/02/2024)

<sup>9</sup> African Development Bank Group., 'Climate Change in Africa.' Available at <https://www.afdb.org/en/cop25/climate-change-africa> (Accessed on 15/02/2024)

<sup>10</sup> Ibid

<sup>11</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 15/02/2024)

<sup>12</sup> Africa Union., 'Agenda 2063: The Africa we Want' Available at [https://au.int/sites/default/files/documents/33126-doc-framework\\_document\\_book.pdf](https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf) (Accessed on 15/02/2024)

<sup>13</sup> United Nations Environment Programme., 'Africa Offers Creative Solutions to Climate Change - Here are 3 of Them' Available at <https://climatepromise.undp.org/news-and-stories/africa-offers-creative-solutions-climate-change-here-are-3-them#:~:text=It%20has%20increased%20its%20ambition,implementing%20more%20robust%20adaptation%20actions>. (Accessed on 15/02/2024)

<sup>14</sup> Attoh. E., & Ajayi. O., 'Indigenous Knowledge and Climate Change Adaptation in Africa: A Systematic Review' Available at <http://www.cabi.org/cabreviews> (Accessed on 15/02/2024)

action in Africa and challenges thereof. It also offers suggestions towards harnessing indigenous knowledge for climate action in Africa.

## 2.0 Defining Indigenous Knowledge

Indigenous Peoples have been defined as distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy or from which they have been displaced<sup>15</sup>. The land and natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, as well as their physical and spiritual well-being<sup>16</sup>. In addition, it has been pointed out that indigenous peoples often subscribe to their customary leaders and organizations for representation that are distinct or separate from those of the mainstream society or culture<sup>17</sup>. It has been observed that over time, indigenous peoples around the world have preserved distinctive understandings, rooted in cultural experience, that guide relations among human, nonhuman, and other-than-human beings in specific ecosystems<sup>18</sup>. These understandings and relations constitute a system broadly identified as indigenous knowledge, also called traditional knowledge or aboriginal knowledge<sup>19</sup>. It has been asserted that indigenous knowledge is the vehicle through which the principles of indigenous worldviews, beliefs, traditions, practices, and institutions are transmitted and put into practice<sup>20</sup>. This knowledge is characteristically local in scale, transmitted orally, collectively owned, holistic in perspective, and adaptive in nature<sup>21</sup>.

Indigenous knowledge also referred to as traditional knowledge or aboriginal knowledge has been broadly defined as a cumulative, collective body of knowledge, experience, and values held by societies with a history of subsistence<sup>22</sup>. It has also been defined as any knowledge originating from a local or traditional community that is the result of intellectual activity and insight in a traditional context, including know-how, skills, innovations, practices and learning, where the knowledge is embodied in the traditional lifestyle of a community, or contained in the codified knowledge systems passed on from one generation to another<sup>23</sup>. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), local and indigenous knowledge

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<sup>15</sup> The World Bank., 'Indigenous Peoples' Available at <https://www.worldbank.org/en/topic/indigenouspeoples#:~:text=Indigenous%20Peoples%20are%20distinct%20social,which%20they%20have%20been%20displaced> (Accessed on 15/02/2024)

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> Bruchac. M., 'Indigenous Knowledge and Traditional Knowledge' Available at [https://link.springer.com/referenceworkentry/10.1007/978-1-4419-0465-2\\_10](https://link.springer.com/referenceworkentry/10.1007/978-1-4419-0465-2_10) (Accessed on 15/02/2024)

<sup>19</sup> Ibid

<sup>20</sup> Mistry. J et al., 'Indigenous Knowledge' *International Encyclopedia of Human Geography.*, (2020) pp 211-215

<sup>21</sup> Ibid

<sup>22</sup> Ellis, S.C., "Meaningful consideration? A review of traditional knowledge in environmental decision making," *Arctic* (2005): 66-77, at p. 66.

<sup>23</sup> African Regional Intellectual Property Organization (ARIPO), *Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore*, Adopted by the Diplomatic Conference of ARIPO at Swakopmund (Namibia) on August 9, 2010.

refers to the understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings<sup>24</sup>. UNESCO further points out that for rural and indigenous peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life<sup>25</sup>. It has been pointed out that the term indigenous knowledge is not limited to a specific technical field, and may include agricultural, environmental or medical knowledge, and knowledge associated with genetic resources among other forms of knowledge<sup>26</sup>.

Indigenous knowledge can also be understood as the wisdom, techniques, approaches, skills, practices, philosophies, and uniqueness of knowledge within a given culture, which is developed by local communities over years through the accumulation of experiences and informal experiments, and based on an intimate understanding of local contexts<sup>27</sup>. Indigenous knowledge is rooted in the deep connection that communities have with their land, resources and environment<sup>28</sup>. This knowledge is usually transmitted via oral and practiced traditions from one generation to another<sup>29</sup>. It has been pointed out that indigenous knowledge has been developed and nurtured by communities around the world for generations<sup>30</sup>. Indigenous knowledge encompasses a deep understanding of local ecosystems, the behavior of wildlife, the medicinal properties of plants, weather patterns, and the complex interconnections between nature and human society among other phenomena<sup>31</sup>. It is not only an accumulation of practical knowledge but also a way of life, deeply intertwined with cultural traditions, rituals, and beliefs<sup>32</sup>. Indigenous knowledge can therefore be understood as know-how that is unique to a given society<sup>33</sup>.

It has been observed that indigenous knowledge and practices have many benefits to humanity and the environment<sup>34</sup>. It has been argued that as the world grapples with escalating environmental challenges including as climate change, deforestation, habitat loss, and biodiversity depletion, there is a growing recognition of the invaluable contributions that

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<sup>24</sup> United Nations Educational, Scientific and Cultural Organization., 'Local and Indigenous Knowledge Systems (LINKS)' Available at <https://en.unesco.org/links> (Accessed on 15/02/2024)

<sup>25</sup> Ibid

<sup>26</sup> African Regional Intellectual Property Organization (ARIPO), *Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore*, Op Cit

<sup>27</sup> Filho. W et al., 'The Role of Indigenous Knowledge in Climate Change Adaptation in Africa' Available at <https://doi.org/10.1016/j.envsci.2022.06.004> (Accessed on 15/02/2024)

<sup>28</sup> Ibid

<sup>29</sup> Ibid

<sup>30</sup> Ibid

<sup>31</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Available at [https://www.linkedin.com/pulse/role-indigenous-knowledge-environmental-conservation-eurasia-carbon?utm\\_source=share&utm\\_medium=member\\_android&utm\\_campaign=share\\_via](https://www.linkedin.com/pulse/role-indigenous-knowledge-environmental-conservation-eurasia-carbon?utm_source=share&utm_medium=member_android&utm_campaign=share_via) (Accessed on 15/02/2024)

<sup>32</sup> Ibid

<sup>33</sup> Sergon. P., Akoth. S., & Dzinekou. J., 'The Role of Indigenous Knowledge: Practices and Values in Promoting Socio-Economic Well-Being and Equity Among Endorois Community of Kenya' Available at <https://doi.org/10.1177/11771801221086724> (Accessed on 15/02/2024)

<sup>34</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

indigenous knowledge systems can make to environmental conservation<sup>35</sup>. In addition, it has been correctly observed that indigenous people, who have lived in harmony with their natural surroundings for generations, possess a wealth of knowledge about their local ecosystems, sustainable resource management practices, and unique cultural perspectives that can play a pivotal role in shaping effective conservation strategies<sup>36</sup>. As a result, it has been opined that traditional ecological knowledge is believed to represent experience acquired over thousands of years of direct human contact with the environment<sup>37</sup>. Indigenous knowledge has been effectively utilized to foster environmental conservation through sustainable resource management, biodiversity conservation, and climate change mitigation and adaptation<sup>38</sup>.

The role of indigenous knowledge in environmental conservation is recognized under the *Convention on Biological Diversity*<sup>39</sup>. The Convention requires each contracting party to as far as possible and as appropriate respect, preserve and maintain *knowledge*, innovations and practices of *indigenous and local communities* embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such *knowledge*, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such *knowledge*, innovations and practices (Emphasis added)<sup>40</sup>. In addition, the Convention requires parties to as far as possible and as appropriate protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements<sup>41</sup>. The Convention on Biological Diversity has been hailed as being the only international treaty that specifically acknowledges the role of indigenous knowledge, innovations, and practices in biodiversity conservation and Sustainable Development, as well as the need to guarantee their protection, whether through intellectual property rights (IPRs) or other means<sup>42</sup>.

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<sup>35</sup> Ibid

<sup>36</sup> Ibid

<sup>37</sup> Muigua. K., 'Mainstreaming Traditional Ecological Knowledge in Kenya for Sustainable Development' Available at <https://kmco.co.ke/wp-content/uploads/2019/08/Mainstreaming-Traditional-Ecological-Knowledge-in-Kenya-for-Sustainable-Development-Kariuki-Muigua-23rd-August-2019.pdf> (Accessed on 15/02/2024)

<sup>38</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

<sup>39</sup> United Nations., 'Convention on Biological Diversity' [1993] ATS 32 / 1760 UNTS 79 / 31 ILM 818 (1992).

<sup>40</sup> Ibid, article 8 (j)

<sup>41</sup> Ibid, article 10 (c)

<sup>42</sup> Muigua. K., 'Harnessing Traditional Knowledge for Environmental Conflict Management in Kenya' Available at <https://kmco.co.ke/wp-content/uploads/2018/08/TRADITIONAL-KNOWLEDGE-AND-CONFLICT-MANAGEMENT-29-SEPTEMBER-2016.pdf> (Accessed on 15/02/2024)

In addition, the *United Nations Declaration on the Rights of Indigenous Peoples*<sup>43</sup> recognizes that respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment<sup>44</sup>. The Convention provides that indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts<sup>45</sup>. In addition, it also provides that indigenous peoples also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions<sup>46</sup>. The Declaration requires states in conjunction with indigenous peoples, to take effective measures to recognize and protect the exercise of these rights<sup>47</sup>.

At a national level, the Constitution of Kenya recognises culture as the foundation of the nation and as the cumulative civilization of the Kenyan people and nation<sup>48</sup>. It requires the state to inter alia recognise the role of science and indigenous technologies in the development of the nation<sup>49</sup>; and promote the intellectual property rights of the people of Kenya<sup>50</sup>. Further, with respect to the environment, the state is obligated to protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities<sup>51</sup>. The Constitution of Kenya therefore requires the state to not only protect the indigenous knowledge of the people of Kenya but to also actively promote the use of this knowledge for environmental protection and conservation for Sustainable Development.

In addition, the *Protection of Traditional Knowledge and Cultural Expressions Act*<sup>52</sup> was enacted to provide a framework for the protection and promotion of traditional knowledge and cultural expressions in Kenya. The Act defines traditional knowledge as any knowledge originating from an individual, local or traditional community that is the result of intellectual activity and insight in a traditional context, including know-how, skills, innovations, practices and learning, embodied in the traditional lifestyle of a community; or contained in the codified knowledge systems passed on from one generation to another including agricultural, environmental or

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<sup>43</sup> United Nations., 'United Nations Declaration on the Rights of Indigenous People.' Available at [https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\\_E\\_web.pdf](https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf) (Accessed on 15/02/2024)

<sup>44</sup> Ibid, Preamble

<sup>45</sup> Ibid, Article 31 (1)

<sup>46</sup> Ibid

<sup>47</sup> Ibid, Article 31 (2)

<sup>48</sup> Constitution of Kenya, 2010., Article 11 (1), Government Printer, Nairobi

<sup>49</sup> Ibid, article 11 (b)

<sup>50</sup> Ibid, article 11 (c)

<sup>51</sup> Ibid, article 69 (1) (c)

<sup>52</sup> Protection of Traditional Knowledge and Cultural Expressions Act., Cap 218A Laws of Kenya

medical knowledge, knowledge associated with genetic resources or other components of biological diversity, and know-how of traditional architecture, construction technologies, designs, marks and indications<sup>53</sup>. The Act requires both national and county governments to promote the protection of traditional knowledge and cultural expressions from misuse and misappropriation<sup>54</sup>.

Indigenous knowledge is therefore a concept that is well embedded at international and national levels. There is need to effectively harness this knowledge for climate action.

### **3.0 Indigenous Knowledge and Climate Action in Africa: Promises and Pitfalls**

It has been noted that Africa is particularly affected by climate change due to its exposure to climate hazards, high vulnerability, and low adaptive capacity<sup>55</sup>. Yet, Africa is also a continent rich in indigenous and local knowledge that has a long history of informing responses to climatic variability and change<sup>56</sup>. Indigenous knowledge can therefore be effectively harnessed for enhanced climate action in Africa<sup>57</sup>.

It has been pointed out that indigenous people in Africa like those in other parts of the world have proved to be good custodians of their environment<sup>58</sup>. Over a long period, indigenous people in Africa and other parts of the world have assimilated detailed knowledge about the functionality of their immediate environment through experiences, insights into nature and society relationship, and communal and institutional practices developed by keen observations, monitoring, innovation, practice, and experimentation<sup>59</sup>. It has been argued that over the years, indigenous people in Africa have developed deep and sophisticated indigenous knowledge systems, based on their observations and interactions with the environment over generations, that have enabled them to harness ecosystem services to support their livelihoods and survive socioecological changes including climate change<sup>60</sup>. It has further been asserted that as climate change became a prominent global priority, understanding the importance and effectiveness of indigenous knowledge systems has also increased, especially how indigenous knowledge and practices can be harnessed to foster effective adaptation and mitigation actions<sup>61</sup>.

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<sup>53</sup> Ibid, S 2

<sup>54</sup> Ibid, S 4 & 5

<sup>55</sup> Filho. W et al., 'The Role of Indigenous Knowledge in Climate Change Adaptation in Africa' Op Cit

<sup>56</sup> Ibid

<sup>57</sup> Ibid

<sup>58</sup> Attoh. E., & Ajayi. O., 'Indigenous Knowledge and Climate Change Adaptation in Africa: A Systematic Review' Op Cit

<sup>59</sup> Ibid

<sup>60</sup> Zougmore. R., Segnon. A., & Thornton. P., 'Harnessing Indigenous Knowledge and Practices for Effective Adaptation in the Sahel' Available at <https://doi.org/10.1016/j.cosust.2023.101389> (Accessed on 16/02/2024)

<sup>61</sup> Ibid

Climate change and climatic extremes adversely affect the adaptive capacity of indigenous communities in Africa and across the world, particularly those who rely on rainfed agriculture for their livelihoods<sup>62</sup>. It has been correctly asserted that indigenous peoples depend on natural resources for their livelihood and they often inhabit diverse but fragile ecosystems<sup>63</sup>. Therefore, for indigenous peoples around the world, climate change brings different kinds of risks and opportunities, threatens cultural survival and undermines indigenous human rights<sup>64</sup>. The consequences of ecosystem changes have implications for the use, protection and management of water, wildlife, fisheries and forests among other natural resources, affecting the customary uses of culturally and economically important species and resources<sup>65</sup>. It has been pointed out that despite having contributed the least to greenhouse gas emissions, indigenous peoples are the ones most at risk from its consequences due to their dependence upon and close relationship with the environment and its resources<sup>66</sup>.

In light of the threat of climate change to indigenous communities, it has been pointed out that the communities, particularly those in hazard-prone areas, have developed a good understanding and knowledge of disaster prevention and mitigation, early warning, preparedness and response, and post disaster recovery<sup>67</sup>. This knowledge is often based on facts that are known or learnt from experience or acquired through observation and practice, and is handed down from generation to generation<sup>68</sup>. Indigenous knowledge is therefore recognised for its potential to play a key role in climate change adaptation, resources governance, conservation, and sustainable use of biodiversity and ecosystems<sup>69</sup>. Indigenous and local knowledge can thus make an important contribution to climate change policy and Sustainable Development Goal 13 on climate action; by observing changing climates, evolving methods to convert observation and knowledge into relevant data, adapting to impacts and contributing to global mitigation efforts<sup>70</sup>. It has been pointed out that indigenous communities in Africa easily identify with indigenous knowledge systems, which have enabled them to live sustainably with their environments for generations<sup>71</sup>.

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<sup>62</sup> Filho. W et al., 'The Role of Indigenous Knowledge in Climate Change Adaptation in Africa' Op Cit

<sup>63</sup> Nilsson. C., 'Climate Change from an Indigenous Perspective: Key Issues and Challenges' Available at [https://www.iwgia.org/images/publications/IA%201-2\\_08\\_Climate\\_Change\\_from\\_ind\\_perspective.pdf](https://www.iwgia.org/images/publications/IA%201-2_08_Climate_Change_from_ind_perspective.pdf) (Accessed on 16/02/2024)

<sup>64</sup> Ibid

<sup>65</sup> Ibid

<sup>66</sup> Ibid

<sup>67</sup> United Nations Educational, Scientific, and Cultural Organization., 'Harnessing Indigenous Knowledge for Climate Risk Management' Available at <https://www.unesco.org/en/articles/harnessing-indigenous-knowledge-climate-risk-management> (Accessed on 16/02/2024)

<sup>68</sup> Ibid

<sup>69</sup> Filho. W et al., 'The Role of Indigenous Knowledge in Climate Change Adaptation in Africa' Op Cit

<sup>70</sup> United Nations Educational, Scientific, and Cultural Organization., 'Harnessing Indigenous Knowledge for Climate Risk Management' Op Cit

<sup>71</sup> Africa Policy Research Institute., 'Harnessing Local Knowledge through Community-Based Interventions' Available at <https://afripoli.org/harnessing-local-knowledge-through-community-based-interventions> (Accessed on 16/02/2024)

These indigenous knowledge systems also function as essential tools in environmental conservation and natural disaster management<sup>72</sup>.

Indigenous knowledge has been to a certain extent harnessed for climate action in Africa. For example, it has been observed that Nganyi rainmakers in western Kenya are one of the most renowned indigenous forecasters, with the consistency in the accuracy of their weather predictions<sup>73</sup>. It has been pointed out that the rainmakers observe the flora and fauna in the Nganyi forest shrine to predict weather conditions which predictions have proved as accurate as forecasts made through scientific equipment<sup>74</sup>. The community preserves the local forest which is used as a shrine by rainmakers that serves as a means of rainfall observations and prediction, with the knowledge passed down the generations through select families who take the community role of rainmakers<sup>75</sup>. This forecast would then be disseminated in the local language through a community-based radio station<sup>76</sup>. This knowledge is vital in climate action since it prepares it enables the community to prepare adequately for planting and harvesting seasons and serve as a safeguard against unpredictable weather patterns<sup>77</sup>.

In addition, it has been pointed out that indigenous knowledge has been effectively used for climate adaptation in the Sahel region<sup>78</sup>. The Sahel region which is a semiarid and transitional zone between the Sahara Desert and the Sudanian savannas has been identified as a 'hotspot' not only of climate change exposure but also climate change impacts and is considered as one of the most vulnerable regions in Africa<sup>79</sup>. As a result local communities in the Sahel have developed extensive knowledge and understanding of their environment and climate that enables them to harness ecosystem services to support their livelihoods and survive environmental changes<sup>80</sup>. They have adopted practices that are based on indigenous knowledge such as traditional integrated soil and water management practices to combat land degradation and improve soil productivity, farmer-managed natural tree regeneration practices, tailored shrub-based conservation agriculture system, effective mobility-based adaptation strategies by pastoralists, and modification of the variety of crops and crop varieties to respond to climate change<sup>81</sup>.

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<sup>72</sup> Ibid

<sup>73</sup> Ibid

<sup>74</sup> Esipisu. I., 'Nganyi: The Tiny Forest in Kenya that Predicts the Weather' Available at <https://news.mongabay.com/2016/02/nganyi-the-tiny-forest-in-kenya-that-can-predict-the-weather/#:~:text=%E2%80%9CRainmakers%E2%80%9D%20in%20the%20Bunyore%20community,forecasts%20made%20through%20scientific%20equipment>. (Accessed on 16/02/2024)

<sup>75</sup> Africa Policy Research Institute., 'Harnessing Local Knowledge through Community-Based Interventions'

<sup>76</sup> Ibid

<sup>77</sup> Ibid

<sup>78</sup> Zougmore. R., Segnon. A., & Thornton. P., 'Harnessing Indigenous Knowledge and Practices for Effective Adaptation in the Sahel' Op Cit

<sup>79</sup> Ibid

<sup>80</sup> Ibid

<sup>81</sup> Ibid

Indigenous knowledge has also been effectively utilized for conserving biodiversity in Africa<sup>82</sup>. It has been pointed out that indigenous peoples' traditional ecological knowledge, traditional systems of control, use and management of lands and resources, and traditional institutions for self-governance contribute substantially to conservation of biodiversity<sup>83</sup>. For example, trees which were traditionally regarded as housing spirits or sacred were not be felled without performing rituals, thus achieving a protective effect on conservation of trees such as the mugumo tree among the Gikuyu community of Kenya<sup>84</sup>; animals in a particular habitat may be regarded as sacred and are therefore protected from hunting<sup>85</sup>; sacred groves or forests are pieces of land set aside for spiritual purposes, as shrines thus protected from encroachment<sup>86</sup>; and indigenous plants are used in preventing and curing diseases in plants, animals and humans thus guaranteeing their protection and conservation<sup>87</sup>. It has been pointed out that throughout Africa, the regular use of different but interrelated forms of indigenous and traditional ecological knowledge in conservation of biodiversity is significant<sup>88</sup>. These include taboos and totems, customs and rituals, rules and regulations, metaphors and proverbs, traditional protected areas (social institutions), local knowledge of plants, animals and landscapes, and resource management systems<sup>89</sup>. These forms of indigenous knowledge play a significant role in biodiversity conservation and protection of indigenous communities from the impacts of climate change<sup>90</sup>. Indigenous people in Africa therefore serve as stewards of biodiversity-rich areas<sup>91</sup>. Their knowledge of sustainable resource management is invaluable for preserving ecosystems and combating habitat loss<sup>92</sup>.

Indigenous knowledge has also enabled African communities to embrace climate resilient agricultural practices<sup>93</sup>. It has been pointed out that traditional agricultural practices like agro

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<sup>82</sup> Muigua. K., 'Fostering a Human Rights Approach to Biodiversity Conservation in Kenya' Available at <https://kmco.co.ke/wp-content/uploads/2021/11/Fostering-a-Human-Rights-Approach-to-Biodiversity-Conservation-in-Kenya-Kariuki-Muigua-November-2021.pdf> (Accessed on 16/02/2024)

<sup>83</sup> Ibid

<sup>84</sup> Ibid

<sup>85</sup> Hens L, 'Indigenous Knowledge and Biodiversity Conservation and Management in Ghana' (2006) 20 *Journal of Human Ecology* 21, 24; Brown, C., Tacio, H. D., & Ishikawa, M. (eds), *In Search of Excellence: Exemplary Forest Management in Asia and the Pacific* (FAO, Regional Office for Asia and the Pacific 2005).

<sup>86</sup> Ibid

<sup>87</sup> Ibid

<sup>88</sup> Sinthumule. N., 'Traditional Ecological Knowledge and its Role in Biodiversity Conservation: A Systematic Review' *Frontiers in Environmental Science.*, Volume 11 (2023)

<sup>89</sup> Ibid

<sup>90</sup> Ibid

<sup>91</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Available at [https://www.linkedin.com/pulse/harnessing-indigenous-knowledge-climate-change-africa-aatifah-latief/?utm\\_source=share&utm\\_medium=member\\_android&utm\\_campaign=share\\_via](https://www.linkedin.com/pulse/harnessing-indigenous-knowledge-climate-change-africa-aatifah-latief/?utm_source=share&utm_medium=member_android&utm_campaign=share_via) (Accessed on 16/02/2024)

<sup>92</sup> Ibid

<sup>93</sup> Rinku . S & Singh. G., 'Traditional Agriculture: A Climate-Smart Approach for Sustainable Food Production' *Energy, Ecology and Environment*, No. 2 of 2017, 296

forestry, intercropping, crop rotation, cover cropping, traditional organic composting and integrated crop-animal farming are practiced throughout Africa and have the potential for enhancing crop productivity and mitigating the impacts of climate change<sup>94</sup>. Indigenous people in Africa practise mixed farming where organic manure in the form of plant remains, cow dung and urine, and chicken droppings is applied to gardens to improve soil fertility as they are good sources of organic fertilizer which tends to promote organic farming<sup>95</sup>; and the use of nitrogen fixing pulses in mixed cropping, growing of plants of different patterns, maturity and duration which assists significantly in stabilizing soil fertility and prevention of soil erosion<sup>96</sup>. It has been pointed out that such practices are an effective way to biologically manage pests and diseases<sup>97</sup>. In addition, they also conserve biodiversity of animal and biannual crops and plants while reducing labour costs<sup>98</sup>. Further, trees are planted in gardens to provide shade for the plants, to act as wind breaks, and also to demarcate people's farmlands and homes<sup>99</sup>. Indigenous communities in Africa have also developed sophisticated water management systems, from rainwater harvesting to aquifer management among others<sup>100</sup>. As a result, harnessing such indigenous knowledge would help in achieving food security throughout Africa, conserving water, mitigating climate change and ensuring biodiversity conservation<sup>101</sup>.

It has also been pointed out that throughout the continent, the integration of community-based forecasting and scientific forecasting has been successfully demonstrated to provide early warning weather and climate information for local communities in Malawi, Kenya, Ghana, Ethiopia, Uganda, South Africa, Swaziland and Tanzania among other countries<sup>102</sup>. In addition, it has been noted that for early warning systems, farmers have developed special techniques for gathering, predicting, and interpreting certain indicators to anticipate the weather or seasonal climatic conditions for farm decision-making<sup>103</sup>. This is as a result of the long-term experiences of indigenous communities in Africa through the interaction with their immediate environment has enabled them to identify certain indigenous ecological indicators that are explored to predict the weather and seasonal climate<sup>104</sup>. Indigenous communities in Africa have therefore developed the

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<sup>94</sup> Ibid

<sup>95</sup> Gathogo J, 'Environmental Management and African Indigenous Resources: Echoes from Mutira Mission, Kenya (1912-2012)' (2013) 39 *Studia Historiae Ecclesiasticae* 33, at 37.

<sup>96</sup> Ibid

<sup>97</sup> Ibid

<sup>98</sup> Ibid

<sup>99</sup> Ibid

<sup>100</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Op Cit

<sup>101</sup> Ibid

<sup>102</sup> Africa Policy Research Institute., 'Harnessing Local Knowledge through Community-Based Interventions' Op Cit

<sup>103</sup> Attoh. E., & Ajayi. O., 'Indigenous Knowledge and Climate Change Adaptation in Africa: A Systematic Review' Op Cit

<sup>104</sup> Ibid

ability to read natural signs and predict weather patterns<sup>105</sup>. Integrating this knowledge into climate forecasting systems can enhance preparedness for extreme weather events<sup>106</sup>.

From the foregoing, it is evident that harnessing indigenous knowledge can enhance climate action in Africa. However, it has been noted that indigenous knowledge is often marginalized or dismissed by mainstream scientific and governmental institutions<sup>107</sup>. In addition, it has been asserted that indigenous communities in Africa often face threats to their lands and traditional territories, undermining their ability to practice sustainable resource management<sup>108</sup>. It has also been pointed out that climate change brings additional vulnerabilities to indigenous peoples, which add to existing challenges, including political and economic marginalization, land and resource encroachments, human rights violations and discrimination<sup>109</sup>. The potential threat of climate change to their very existence, combined with various legal and institutional barriers that affect their ability to cope with and adapt to climate change, makes climate change an issue of human rights and inequality to indigenous peoples and not merely an environmental issue<sup>110</sup>. It is therefore vital to harness indigenous knowledge in order to enhance climate action in Africa and foster the human rights of indigenous people<sup>111</sup>.

#### **4.0 Way Forward**

In order to effectively harness indigenous knowledge for climate action in Africa, there is need to respect traditional ecological practices in Africa<sup>112</sup>. Such practices have been carried out by indigenous communities in African for many centuries and remain a valued asset in many societies of the world and Africa in particular<sup>113</sup>. It has been pointed out that for centuries, this accumulated knowledge gave the community a sense of relevance and self-esteem, sustained indigenous innovation, endogenous technological growth and employment<sup>114</sup>. In addition, indigenous knowledge strongly roots the foundation of the community's livelihoods by connecting the people to their land and natural resources<sup>115</sup>. As a result, it has been pointed out that one of key characteristic and core function of indigenous knowledge is the promotion of the sense of well-being of the community<sup>116</sup>. Indigenous knowledge has been effective in environmental conservation in Africa for many centuries through sustainable resource management, biodiversity conservation, and climate resilient agriculture among other ways<sup>117</sup>.

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<sup>105</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Op Cit

<sup>106</sup> Ibid

<sup>107</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

<sup>108</sup> Ibid

<sup>109</sup> Nilsson. C., 'Climate Change from an Indigenous Perspective: Key Issues and Challenges' Op Cit

<sup>110</sup> Ibid

<sup>111</sup> Ibid

<sup>112</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Op Cit

<sup>113</sup> Serگون. P., Akoth. S., & Dzinekou. J., 'The Role of Indigenous Knowledge: Practices and Values in Promoting Socio-Economic Well-Being and Equity Among Endorois Community of Kenya' Op Cit

<sup>114</sup> Ibid

<sup>115</sup> Ibid

<sup>116</sup> Ibid

<sup>117</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

However indigenous knowledge is often marginalized or dismissed by mainstream scientific and governmental institutions<sup>118</sup>. Therefore, in order to harness its potential, it is essential to recognize and respect indigenous knowledge<sup>119</sup>.

In addition, it is necessary to protect and safeguard the rights of indigenous people especially the right to land<sup>120</sup>. It has been argued that indigenous communities often face threats to their lands and traditional territories, undermining their ability to practice sustainable resource management and other forms of indigenous knowledge vital for climate action<sup>121</sup>. It has been observed that government projects in many parts of the world often involve removing indigenous peoples from their traditional lands and territories<sup>122</sup>. Land and resource encroachments has been identified as a key threat to indigenous people threatening their human rights violations and resulting in discrimination<sup>123</sup>. Some government policies and initiatives in Africa often lead to the eviction of indigenous peoples from their traditional lands<sup>124</sup>. For example, the Endorois community, an indigenous community in Kenya was a victim of land injustices after the government of Kenya created Lake Hannington Game Reserve renamed Lake Bogoria Game Reserve, gazetted and declared it a game park in 1973<sup>125</sup>. This action denied the property and land rights of Endorois community with families being forcefully ejected from their ancestral land<sup>126</sup>. This resulted in a suit before the African Commission on Human and Peoples' Rights that found the government of Kenya guilty of violating the rights of the Endorois community<sup>127</sup>. Such actions are threat to indigenous knowledge since they deny them access to ecological, cultural and spiritual resources which are vital in nurturing indigenous knowledge<sup>128</sup>. It is therefore vital to ensure that the land rights of indigenous people are protected through measures such as participation in determining priorities and strategies for the development or use of their lands<sup>129</sup>; obtaining the free and informed consent of the respective communities, prior to the approval of any project affecting their lands and resources<sup>130</sup>; and ensuring that indigenous people benefit directly and equitably from the conservation and ecologically sustainable use of natural resources through mechanisms

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<sup>118</sup> Ibid

<sup>119</sup> Ibid

<sup>120</sup> Ibid

<sup>121</sup> Ibid

<sup>122</sup> Nilsson. C., 'Climate Change from an Indigenous Perspective: Key Issues and Challenges' Op Cit

<sup>123</sup> Ibid

<sup>124</sup> Ibid

<sup>125</sup> Sergon. P., Akoth. S., & Dzinekou. J., 'The Role of Indigenous Knowledge: Practices and Values in Promoting Socio-Economic Well-Being and Equity Among Endorois Community of Kenya' Op Cit

<sup>126</sup> Ibid

<sup>127</sup> Ibid

<sup>128</sup> Ibid

<sup>129</sup> Muigua. K., 'Fostering a Human Rights Approach to Biodiversity Conservation in Kenya' Op Cit

<sup>130</sup> Ibid

such as equitable benefit sharing arrangements<sup>131</sup>. It has been pointed out that protecting indigenous lands is a matter of justice and a way to safeguard invaluable ecological knowledge<sup>132</sup>.

There is also need to integrate indigenous knowledge into climate action efforts in Africa<sup>133</sup>. It has been argued that by combining traditional wisdom with modern science and technology, Africa can build resilient, sustainable, and equitable societies<sup>134</sup>. Indigenous and local knowledge can provide valuable insights into climate adaptation strategies in Africa including rainwater harvesting, sustainable farming practices, and biodiversity conservation<sup>135</sup>. It has been argued that by integrating indigenous knowledge with modern climate adaptation strategies, African countries can tap into a wealth of knowledge to address the science-policy-society interfaces and lead to sustainable results to address climate change<sup>136</sup>. This calls for collaboration between states and indigenous communities in order to enhance climate action in Africa<sup>137</sup>. It has been pointed out that collaboration with indigenous communities should be guided by ethical principles, including informed consent, fair compensation, and the recognition of intellectual property rights in order to effectively harness indigenous knowledge while safeguarding the rights and interests of indigenous communities<sup>138</sup>.

Finally, it is necessary for governments to support cultural preservation through investing in efforts to preserve and transmit indigenous knowledge to future generations<sup>139</sup>. Cultural preservation is a key measure of ensuring that indigenous knowledge is not lost and can be passed to future generations for utilization in ecological conservation<sup>140</sup>. According to the United Nations, indigenous and traditional knowledge is at the core of indigenous identity, culture, languages, heritage and livelihoods, and its transmission from one generation to the next must be protected, preserved and encouraged<sup>141</sup>. It is therefore necessary for governments to promote preservation and transmission of indigenous knowledge through strengthening indigenous education and documenting oral traditions and cultural practices<sup>142</sup>. This will enable future

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<sup>131</sup> Ibid

<sup>132</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

<sup>133</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Op Cit

<sup>134</sup> Ibid

<sup>135</sup> Brown. C., 'Sustainable Solutions for Climate Change Adaptation in Africa: Combining Indigenous Knowledge and Modern Technology' Available at <https://sdgs.un.org/sites/default/files/2023-05/B38%20-%20Brown%20-%20Assessing%20African%20Led%20Science-Technological%20Innovation%20Approaches%20to%20Climate%20Change%20Adaptation.pdf> (Accessed on 16/02/2024)

<sup>136</sup> Ibid

<sup>137</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

<sup>138</sup> Ibid

<sup>139</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Op Cit

<sup>140</sup> Ibid

<sup>141</sup> United Nations., 'Indigenous People's Traditional Knowledge Must Be Preserved, Valued Globally, Speakers Stress as Permanent Forum Opens Annual Session' Available at <https://press.un.org/en/2019/hr5431.doc.htm> (Accessed on 16/02/2024)

<sup>142</sup> Ibid

generations to utilize indigenous knowledge to address their environmental needs among other challenges<sup>143</sup>.

Through the foregoing among other measures, indigenous knowledge will be effectively harnessed for climate action in Africa.

## **5.0 Conclusion**

Africa is a continent that is rich in indigenous and local knowledge that has a long history of informing responses to climatic variability and change<sup>144</sup>. Indigenous knowledge has been effectively utilized in Africa for many decades in responding to climate change and other environmental needs and challenges<sup>145</sup>. It has been utilized in rainmaking, climate adaptation, biodiversity conservation, fostering climate resilient agriculture, and weather forecasting<sup>146</sup>. Indigenous knowledge can therefore be effectively harnessed for enhanced climate action in Africa<sup>147</sup>. However, the role of indigenous knowledge in climate action in Africa is hindered by challenges such as its marginalization or dismissal by mainstream scientific and governmental institutions and land injustices against indigenous people<sup>148</sup>. It is necessary to harness indigenous knowledge in order to strengthen climate action in Africa. To achieve this, there is need to respect traditional ecological practices in Africa, protect and safeguard the rights of indigenous people especially the right to land, integrate indigenous knowledge into climate action efforts in Africa, and support cultural preservation through investing in efforts to preserve and transmit indigenous knowledge to future generations<sup>149</sup>. Harnessing indigenous knowledge for climate action in Africa is a quest worth pursuing.

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<sup>143</sup> Latief. A., 'Harnessing Indigenous Knowledge for Climate Change Resilience in Africa' Op Cit

<sup>144</sup> Filho. W et al., 'The Role of Indigenous Knowledge in Climate Change Adaptation in Africa' Op Cit

<sup>145</sup> Attoh. E., & Ajayi. O., 'Indigenous Knowledge and Climate Change Adaptation in Africa: A Systematic Review' Op Cit

<sup>146</sup> Ibid

<sup>147</sup> Filho. W et al., 'The Role of Indigenous Knowledge in Climate Change Adaptation in Africa' Op Cit

<sup>148</sup> EurAsia Carbon., 'The Role of Indigenous Knowledge in Environmental Conservation' Op Cit

<sup>149</sup> Ibid

## **Chapter 9: Achieving Good Health and Well-Being for All**

### ***Abstract***

*Health is both a basic human right in itself and an essential means for the realisation of other human rights. Achieving good health and well-being is therefore of fundamental importance as envisaged under Sustainable Development Goal 3. This chapter critically discusses the progress made towards achieving good health and well-being for all. It examines the legal framework on the right to health at the global, regional and national levels and its efficacy in fostering good health and well-being for all. The chapter further discusses some of the key challenges hindering the realization of the right to health and offers proposals towards achieving good health and well-being for all.*

### **1.0 Introduction**

The Constitution of the World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity<sup>1</sup>. According to the WHO, the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition<sup>2</sup>. It further posits that the health of all peoples is fundamental to the attainment of peace, security and development and is dependent upon the fullest co-operation of individuals and states<sup>3</sup>.

According to the Office of the United Nations High Commissioner for Human Rights (OHCHR), the right to health extends beyond access to health care and includes a wide range of factors that can help everyone to lead a health life<sup>4</sup>. These include safe drinking water and adequate sanitation, safe food, adequate nutrition and housing, healthy working and environmental conditions, health related education and information, and gender equality<sup>5</sup>. The OHCHR further asserts that the right to health contains freedoms which include the right to be free from non-consensual medical treatment, such as medical experiments and research or forced sterilization, and to be free from torture and other cruel, inhuman or degrading treatment or punishment; and entitlements which include the right to a system of health protection providing equality of opportunity for everyone to enjoy the highest attainable level of health, the right to prevention,

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<sup>1</sup> Constitution of the World Health Organization., Available at <https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf> (Accessed on 01/11/2023)

<sup>2</sup> Ibid

<sup>3</sup> Ibid

<sup>4</sup> Office of the United Nations High Commissioner for Human Rights., 'The Right to Health.' Available at <https://www.ohchr.org/sites/default/files/Documents/Publications/Factsheet31.pdf> (Accessed on 01/11/2023)

<sup>5</sup> Ibid

treatment and control of diseases, access to medical services, maternal, child and reproductive health and equal and timely access to basic health services<sup>6</sup>.

The right to health is also at the heart of the *United Nation's 2030 Agenda for Sustainable Development*<sup>7</sup>. Sustainable Development Goal (SDG) 3 aims to ensure health lives and promote well-being for all at all ages<sup>8</sup>. SDG 3 makes a bold commitment to end the epidemics of AIDS, tuberculosis, malaria and other communicable diseases by 2030<sup>9</sup>. It also aims to achieve universal health coverage, and provide access to safe and affordable medicines and vaccines for all among other targets<sup>10</sup>.

Health is therefore a fundamental human right. It has correctly been observed that health is both a basic human right in itself and an essential means for the realisation of other human rights<sup>11</sup>. Good health is one of the many aspects of human well-being that is necessary for the enjoyment of all other human rights<sup>12</sup>. Good health and well-being also plays a pivotal role in empowering people to pursue other activities that will enhance their welfare<sup>13</sup>. It is therefore one of the cornerstones for the enhancement and improvement of overall wellbeing and human development since it enables human beings to undertake social, economic and cultural activities as well partake in civil and political activities<sup>14</sup>.

Achieving good health and well-being is therefore of fundamental importance as envisaged under SDG 3. According to the United Nations Development Programme (UNDP), good health is essential to Sustainable Development and the 2030 Agenda for Sustainable Development reflects the complexity and interconnectedness of the two<sup>15</sup>. This chapter critically discusses the progress made towards achieving good health and well-being for all. It examines the legal framework on the right to health at the global, regional and national levels and its efficacy in fostering good health and well-being for all. The chapter further discusses some of the key challenges hindering the realization of the right to health and offers proposals towards achieving good health and well-being for all.

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<sup>6</sup> Ibid

<sup>7</sup> United Nations., 'Transforming our World: the 2030 Agenda for Sustainable Development.' Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 01/11/2023)

<sup>8</sup> Ibid

<sup>9</sup> Ibid

<sup>10</sup> Ibid

<sup>11</sup> Nampewo. Z., Mike. J., & Wolff. J., 'Respecting, Protecting and Fulfilling the Human Right to Health.' *International Journal of Equity in Health*, Volume 21, No. 36 (2022)

<sup>12</sup> Ibid

<sup>13</sup> Ibid

<sup>14</sup> Ibid

<sup>15</sup> United Nations Development Programme., 'Goal 3: Good Health and Well-Being.' Available at <https://www.undp.org/sustainable-development-goals/good-health> (Accessed on 02/11/2023)

## 2.0 Legal Framework on the Right to Health

The right to health is enshrined under various legal instruments at the global, regional and national levels.

### 2.1 Global Legal Framework

At the global level, the *Universal Declaration of Human Rights (UDHR)*<sup>16</sup> provides that everyone has the right to a standard of living adequate for the *health and well-being* of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control (emphasis added)<sup>17</sup>. Further, the UDHR provides that women and children are entitled to special care and assistance in relation to the right to health and that all children, whether born in or out of wedlock, shall enjoy the same social protection<sup>18</sup>. It has been asserted that the UDHR sets a common standard for the achievement of fundamental human rights and freedoms including the right to health for all people and all nations<sup>19</sup>. The UDHR has inspired and paved the way for the universal protection of human rights including the right to health and has led to the adoption of numerous human rights treaties, applied today on a permanent basis at global and regional levels<sup>20</sup>.

The right to health is also enshrined under the *International Covenant on Economic, Social and Cultural Rights (ICESCR)*<sup>21</sup>. The ICESCR recognizes the right of everyone to the enjoyment of the highest attainable standard of physical and mental health<sup>22</sup>. It further requires states to undertake various steps towards the full realization of the right to health including those necessary for the provision for the reduction of the stillbirth-rate and of infant mortality and for the healthy development of the child; the improvement of all aspects of environmental and industrial hygiene; the prevention, treatment and control of epidemic, endemic, occupational and other diseases; and the creation of conditions which would assure to all medical service and medical attention in the event of sickness<sup>23</sup>. The ICESCR therefore identifies the various dimensions of the right to health including both physical and mental health and various key domains pertinent to the achievement of this right including the healthy development of the newborn and the child; and public health measures to promote environmental health and to prevent epidemic, endemic,

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<sup>16</sup> United Nations General Assembly, 'Universal Declaration of Human Rights,' 10 December 1948, 217 A (III)

<sup>17</sup> Ibid, Article 25 (1)

<sup>18</sup> Ibid

<sup>19</sup> United Nations., 'Universal Declaration of Human Rights.' Available at <https://www.un.org/en/about-us/universal-declaration-of-human-rights> (Accessed on 02/11/2023)

<sup>20</sup> Ibid

<sup>21</sup> United Nations General Assembly, 'International Covenant on Economic, Social and Cultural Rights.' 16 December 1966, A/RES/2200.

<sup>22</sup> Ibid, Article 12 (1)

<sup>23</sup> Ibid, Article 12 (2)

## Chapter 9: Achieving Good Health and Well-Being for All

occupational and other diseases<sup>24</sup>. The scope, content and nature of state obligations in relation to the right to health as set out under the ICESCR has been expounded by the Committee on Economic, Social and Cultural Rights (CESCR) under *General Comment No. 14 on the Right to the Highest Attainable Standard of Health*<sup>25</sup>.

*General Comment No. 14 on the Right to the Highest Attainable Standard of Health* acknowledges that health is a fundamental human right indispensable for the exercise of other human rights<sup>26</sup>. It further provides that every human being is entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity<sup>27</sup>. General Comments No. 14 also acknowledges that the right to health is closely related to and dependent upon the realization of other human rights, as contained in the International Bill of Rights, including the rights to food, housing, work, education, human dignity, life, non-discrimination, equality, the prohibition against torture, privacy, access to information, and the freedoms of association, assembly and movement which among other rights and freedoms address integral components of the right to health<sup>28</sup>. It requires states to foster the progressive realization of the essential elements of the right to health including availability, accessibility, acceptability and quality while ensuring non-discriminatory and gender-based approach<sup>29</sup>. General Comment No. 14 is therefore important in ensuring respect, protection and fulfillment of the right to health for all persons.

The *Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)*<sup>30</sup> highlights that in situations of poverty, women have the least access to food, *health*, education, training and opportunities for employment and other needs<sup>31</sup>. The Convention requires states to ensure that women have access to specific educational information to help to ensure the *health and well-being* of families, including information and advice on family planning<sup>32</sup>. Further, in the field of employment, CEDAW requires states to accord women protection of health and to safety in working conditions, including the safeguarding of the function of reproduction<sup>33</sup>. CEDAW further requires states parties to take all appropriate measures to eliminate discrimination against women in the field of health care in order to ensure, on a basis of equality of men and women, access to health care services, including those related to family planning<sup>34</sup>. In addition, it requires

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<sup>24</sup> Ibid

<sup>25</sup> United Nations Committee on Economic, Social and Cultural Rights (CESCR), '*General Comment No. 14: The Right to the Highest Attainable Standard of Health*. '(Art. 12 of the Covenant), 11 August 2000, E/C.12/2000/4.

<sup>26</sup> Ibid, Paragraph 1

<sup>27</sup> Ibid

<sup>28</sup> Ibid, paragraph 3

<sup>29</sup> Ibid, Paragraph 12

<sup>30</sup> United Nations General Assembly, '*Convention on the Elimination of All Forms of Discrimination against Women*, 18 December 1979, A/RES/34/180

<sup>31</sup> Ibid, Preamble

<sup>32</sup> Ibid, Article 10 (h)

<sup>33</sup> Ibid, Article 11 (f)

<sup>34</sup> Ibid, Article 12 (1)

state parties to ensure to women appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation<sup>35</sup>. CEDAW also requires state parties to ensure that the rights set out extend to all women including those in the rural areas by ensuring that they have, inter alia, access to adequate health care facilities, including information, counselling and services in family planning<sup>36</sup>. CEDAW is therefore an important legal instrument geared towards elimination of all forms of discrimination against women in various fields and realization of their fundamental human rights and freedoms including the right to health.

The *Convention on the Rights of the Child*<sup>37</sup> is geared towards the protection of fundamental rights and freedoms of children and requires state parties to ensure that the institutions, services and facilities responsible for the care or protection of children shall conform with the standards established by competent authorities, particularly in the areas of safety, *health*, in the number and suitability of their staff, as well as competent supervision<sup>38</sup>. It further requires state parties to ensure that the child has access to information and material from a diversity of national and international sources, especially those aimed at the promotion of his or her social, spiritual and moral well-being and physical and mental health<sup>39</sup>. Of specific importance, the Convention recognizes the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health<sup>40</sup>. It requires states parties shall to ensure that no child is deprived of his or her right of access to such health care services<sup>41</sup>. In order to achieve the right to health for all children, the Convention requires state parties to take appropriate measures: to diminish infant and child mortality; to ensure the provision of necessary medical assistance and health care to all children with emphasis on the development of primary health care; to combat disease and malnutrition, including within the framework of primary health care, through, inter alia, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution; to ensure appropriate pre-natal and post-natal health care for mothers; to ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation and the prevention of accidents; and to develop preventive health care, guidance for parents and

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<sup>35</sup> Ibid, Article 12 (2)

<sup>36</sup> Ibid, Article 14 (2) (b)

<sup>37</sup> United Nations General Assembly., 'Convention on the Rights of the Child,' 20 November 1989, Available at <https://www.ohchr.org/sites/default/files/Documents/ProfessionalInterest/crc.pdf> (Accessed on 02/11/2023)

<sup>38</sup> Ibid, Article 3 (3)

<sup>39</sup> Ibid, Article 17

<sup>40</sup> Ibid, Article 24 (1)

<sup>41</sup> Ibid

family planning education and services<sup>42</sup>. Realizing the provisions of the Convention on the Rights of the Child can enhance achievement of good health and well-being for all children.

## 2.2 Regional Legal Framework

At the regional level, African countries have subscribed to a robust normative legal framework on the right to health. At its core is the *African Charter on Human and Peoples' Rights*<sup>43</sup> which enshrines the right of every person to enjoy the best attainable state of physical and mental health<sup>44</sup>. The Charter further requires African countries to take the necessary measures to protect the health of their people and to ensure that they receive medical attention when they are sick<sup>45</sup>. In addition, the *African Charter on the Rights and Welfare of the Child*<sup>46</sup> requires African countries to undertake several measures towards achieving good health and well-being for all children in the continent including reducing infant and child mortality rate; ensuring the provision of necessary medical assistance and health care to all children with emphasis on the development of primary health care; ensuring the provision of adequate nutrition and safe drinking water; combating disease and malnutrition within the framework of primary health care through the application of appropriate technology; ensuring appropriate health care for expectant and nursing mothers; developing preventive health care and family life education and provision of service; integrating basic health service programmes in national development plans; and ensuring the meaningful participation of non-governmental organizations, local communities and the beneficiary population in the planning and management of basic service programme for children<sup>47</sup>.

Further, the *Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (Maputo Protocol)*<sup>48</sup> requires state parties to ensure that the right to health of women, including sexual and reproductive health is respected and promoted<sup>49</sup>. This includes the right of women to control their fertility; to decide whether to have children, the number of children and the spacing of children; to choose any method of contraception; to self-protection and to be protected against sexually transmitted infections, including HIV/AIDS; to be informed on one's health status and on the health status of one's partner, particularly if affected with sexually transmitted infections, including HIV/AIDS, in accordance with internationally recognised

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<sup>42</sup> Ibid, Article 24 (2)

<sup>43</sup> Organization of African Unity (OAU), *African Charter on Human and Peoples' Rights* ("Banjul Charter"), 27 June 1981, CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982)

<sup>44</sup> Ibid, Article 16 (1)

<sup>45</sup> Ibid, Article 16 (2)

<sup>46</sup> African Union., 'African Charter on the Rights and Welfare of the Child.' Available at <https://au.int/sites/default/files/treaties/36804-treaty-african-charter-on-rights-welfare-of-the-child.pdf> (Accessed on 02/11/2023)

<sup>47</sup> Ibid, Article 14 (2)

<sup>48</sup> African Union., 'Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (Maputo Protocol).' Available at <https://au.int/sites/default/files/treaties/37077-treaty-charter-on-rights-of-women-in-africa.pdf> (Accessed on 02/11/2023)

<sup>49</sup> Ibid, Article XIV (1)

standards and best practices; and to have family planning education<sup>50</sup>. Further, the Protocol requires state parties to take all appropriate measures towards achieving good health and well-being for all women in Africa including providing adequate, affordable and accessible health services, including information, education and communication programmes to women especially those in rural areas; establishing and strengthening existing pre-natal, delivery and post-natal health and nutritional services for women during pregnancy and while they are breast-feeding; and protecting the reproductive rights of women by authorising medical abortion in cases of sexual assault, rape, incest, and where the continued pregnancy endangers the mental and physical health of the mother or the life of the mother or the foetus<sup>51</sup>. It also enshrines the right of women to live in healthy and sustainable environment which is vital in achieving good health and well-being<sup>52</sup>.

Finally, the *Protocol to the African Charter on Human and Peoples' Rights on the Rights of Older Persons in Africa*<sup>53</sup> recognizes the right to health for older persons in Africa and requires states to ensure that they access health services that meet their specific needs<sup>54</sup>. It further requires states to take reasonable measures to facilitate access to health services and medical insurance cover for older persons within available resources and to ensure the inclusion of geriatrics (medical care for older persons) and gerontology (the study of aging including physical, mental, social and societal implications) in the training of health care personnel<sup>55</sup>.

Actualizing the provisions of the foregoing regional instruments can enhance the achievement of good health and well-being for all in Africa.

### 2.3 National Legal Framework

The right to health has also been embraced in Kenya. The *Constitution of Kenya*<sup>56</sup> enshrines the right of every person to the highest attainable standard of health, which includes the right to health care services, including reproductive health care<sup>57</sup>. The Constitution further provides that a person shall not be denied emergency medical treatment<sup>58</sup>. In addition, the Constitution contains provisions geared towards fostering the right to health for all groups of persons

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<sup>50</sup> Ibid

<sup>51</sup> Ibid, Article XIV (2)

<sup>52</sup> Ibid, Article XVIII

<sup>53</sup> African Union., 'Protocol to the African Charter on Human and Peoples' Rights on the Rights of Older Persons in Africa.' Available at [https://au.int/sites/default/files/pages/32900-file-protocol\\_on\\_the\\_rights\\_of\\_older\\_persons\\_e.pdf](https://au.int/sites/default/files/pages/32900-file-protocol_on_the_rights_of_older_persons_e.pdf) (Accessed on 02/11/2023)

<sup>54</sup> Ibid, Article 15 (1)

<sup>55</sup> Ibid, Articles 15 (2) & (3)

<sup>56</sup> Constitution of Kenya, 2010., Government Printer, Nairobi

<sup>57</sup> Ibid, Article 43 (1) (a)

<sup>58</sup> Ibid, Article 43 (2)

including children<sup>59</sup>, minorities and marginalized persons<sup>60</sup>, consumers<sup>61</sup> and older persons<sup>62</sup>. The Constitution further enshrines the right of every person to a clean and healthy environment, which includes the right-to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and to have obligations relating to the environment fulfilled under Article 70<sup>63</sup>. It has been asserted the right to health is closely related to the state of the environment hence achieving good health and well-being is also dependent upon realization of the right to a clean, healthy and sustainable environment<sup>64</sup>. A safe, clean, healthy and sustainable environment is considered to be integral to the full enjoyment of a wide range of human rights, including the rights to life, *health*, food, water and sanitation<sup>65</sup>.

Another fundamental legal instrument geared towards achieving good health and well-being for all in Kenya is the *Health Act*<sup>66</sup>. The Health Act was enacted to establish a unified health system, to coordinate the inter-relationship between the national government and county government health systems, to provide for regulation of health care service and health care service providers, health products and health technologies and for connected purposes<sup>67</sup>. The objectives of the Act include establishing a national health system which encompasses public and private institutions and providers of health services at the national and county levels and facilitate in a progressive and equitable manner, the highest attainable standard of health services; protecting, respecting, promoting and fulfilling the health rights of all persons in Kenya to the progressive realization of their right to the highest attainable standard of health, including reproductive health care and the right to emergency medical treatment; protecting, respecting, promoting and fulfilling the rights

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<sup>59</sup> Article 53. Children

(1) Every child has the right –

(c) to basic nutrition, shelter and health care;

(d) to be protected from abuse, neglect, harmful cultural practices, all forms of violence, inhuman treatment and punishment, and hazardous or exploitative labour

<sup>60</sup> Article 56. Minorities and marginalised groups

The State shall put in place affirmative action programmes designed to ensure that minorities and marginalised

groups – e) have reasonable access to water, *health services* and infrastructure

<sup>61</sup> Article 46. Consumer rights

(1) Consumers have the right –

(a) to goods and services of reasonable quality;

(c) to the protection of their *health*, safety, and economic interests.

<sup>62</sup> 57. Older members of society

The State shall take measures to ensure the rights of older persons –

(d) to receive reasonable care and assistance from their family and the State

<sup>63</sup> Ibid, Article 42

<sup>64</sup> Muigua. K., 'Realizing the Right to a Clean, Healthy and Sustainable Environment.' Available at <https://kmco.co.ke/wp-content/uploads/2023/06/Realizing-the-Right-to-a-Clean-Healthy-and-Sustainable-Environment.pdf> (Accessed on 02/11/2023)

<sup>65</sup> Ibid

<sup>66</sup> Health Act, No. 21 of 2017, Laws of Kenya

<sup>67</sup> Ibid, Preamble

of children to basic nutrition and health care services contemplated in Articles 43 (1) (c) and 53 (1) (c) of the Constitution; protecting, respecting, promoting and fulfilling the rights of vulnerable groups as defined in Article 21 of the Constitution in all matters regarding health; and recognizing the role of health regulatory bodies established under any written law and to distinguish their regulatory role from the policy making function of the national government<sup>68</sup>.

The Act stipulates that it is a fundamental duty of the state to observe, respect, protect, promote and fulfill the right to the highest attainable standard of health including reproductive health care and emergency medical treatment<sup>69</sup>. It requires the state to fulfill this duty by developing policies, laws and other measures necessary to protect, promote, improve and maintain the health and well-being of every person; ensuring the prioritization and adequate investment in research for health to promote technology and innovation in health care delivery; ensuring the realization of the health related rights and interests of vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalized communities and members of particular ethnic, religious or cultural communities; ensuring the provision of a health service package at all levels of the health care system, which shall include services addressing promotion, prevention, curative, palliative and rehabilitation, as well as physical and financial access to health care; and ensuring adequate investment in research for health to promote technology and innovation in health care delivery<sup>70</sup>.

The Health Act upholds the right of every person in Kenya to the highest attainable standard of health which shall include progressive access for provision of promotive, preventive, curative, palliative and rehabilitative services<sup>71</sup>. In addition, the Act provides that every person shall have the right to be treated with dignity, respect and have their privacy respected in accordance with the Constitution and the Act<sup>72</sup>. Further, it requires the national and county governments to ensure the provision of free and compulsory vaccination for children under five years of age and maternity care<sup>73</sup>. The Health Act also sets out several rights and duties that are pertinent in realizing the right to health including reproductive health, emergency treatment, health information, consent, information dissemination and confidentiality<sup>74</sup>.

In addition to the Constitution and the Health Act, other key legal and policy instruments on health in Kenya include the *Public Health Act*<sup>75</sup>; the *Kenya Health Policy 2014-2030*<sup>76</sup> which aims to

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<sup>68</sup> Ibid, S 3

<sup>69</sup> Ibid, S 4

<sup>70</sup> Ibid, S 4

<sup>71</sup> Ibid, S 5 (1)

<sup>72</sup> Ibid, S 5 (2)

<sup>73</sup> Ibid, S 5 (3)

<sup>74</sup> Ibid, Part II

<sup>75</sup> Public Health Act, Cap 242, Laws of Kenya

<sup>76</sup> Kenya Health Policy 2014-2030., Available at

attain the highest standard of health in the country by the year 2030; and the *Kenya Universal Health Coverage Policy 2020-2030*<sup>77</sup> that aims to accelerate attainment of Universal Health Coverage (UHC) in Kenya.

### **3.0 Achieving Good Health and Well-Being for All: Successes and Challenges**

SDG 3 identifies key measures that are vital in fostering the right to health and achieving good health and wellbeing for all<sup>78</sup>. These include reducing the global maternal mortality ratio to less than 70 per 100,000 live births; ending preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births; ending the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combating hepatitis, water-borne diseases and other communicable diseases; reducing by one third premature mortality from non-communicable diseases through prevention and treatment and promoting mental health and well-being; strengthening the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol; reducing global deaths and injuries from road traffic accidents<sup>79</sup>. Further it urges states to ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes; achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all; substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination; support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries; substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries; and strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks<sup>80</sup>.

The United Nations observes that there has been global progress towards meeting some of the targets of SDG 3 towards achieving good health and well-being for all<sup>81</sup>. It notes that 146 out of 200 countries have already met or are on the track to meet the under-5 mortality target; effective HIV treatment has cut global AIDS-related deaths by 52% since 2010 and at least one neglected

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[https://publications.universalhealth2030.org/uploads/kenya\\_health\\_policy\\_2014\\_to\\_2030.pdf](https://publications.universalhealth2030.org/uploads/kenya_health_policy_2014_to_2030.pdf) (Accessed on 02/11/2023)

<sup>77</sup> Kenya Universal Health Coverage Policy 2020-2030., Available at [http://guidelines.health.go.ke:8000/media/Kenya\\_Universal\\_Health\\_Coverage\\_Policy\\_2020\\_2030.pdf](http://guidelines.health.go.ke:8000/media/Kenya_Universal_Health_Coverage_Policy_2020_2030.pdf) (Accessed on 02/11/2023)

<sup>78</sup> United Nations., 'Transforming our World: the 2030 Agenda for Sustainable Development.' SDG 3

<sup>79</sup> Ibid

<sup>80</sup> Ibid

<sup>81</sup> United Nations., 'SDG 3: Ensure Healthy Lives and Promote Well-Being for All at All Ages.' Available at <https://sdgs.un.org/goals/goal3> (Accessed on 02/11/2023)

tropical disease has been eliminated in 47 countries<sup>82</sup>. The UNDP further notes that the world has made great progress against several leading causes of death and disease; life expectancy has increased dramatically; infant and maternal mortality rates have declined; and that AIDS and malaria related deaths have declined<sup>83</sup>. The *Sustainable Development Goals Report*<sup>84</sup> also indicates that gains are evident in many areas of health, including reproductive, maternal and child health, immunization coverage and treatment of communicable diseases, though progress is marred by huge regional disparities<sup>85</sup>.

Progress towards achieving good health and well-being is also evident in some countries including Kenya. A report by the State Department for Economic Planning on the progress made towards achievement of SDG 3 shows that Kenya has made some significant progress in key areas including skilled deliveries at health facilities, improvement in antenatal care coverage, improvement in child immunization coverage, decrease in health diseases and conditions including tuberculosis, malaria and HIV/AIDS, improvement in health infrastructure, increased financing of healthcare and increase in health insurance coverage due to the government policy on Universal Healthcare Coverage which has led to a general increase in the uptake of National Health Insurance Fund (NHIF)<sup>86</sup>. Further, it has been noted that Kenya has made some progress and key reforms towards achieving Universal Health Care including free maternity services in all public health facilities; free primary health care in all public primary healthcare facilities; equipment of major public hospitals across the country with modern diagnostic equipment; adoption of health insurance subsidies through NHIF targeting disadvantaged groups; and the provision of infrastructure and equipment to health facilities across county governments such as new wards, ambulances, and additional health workers among other initiatives<sup>87</sup>.

However, despite this progress, several challenges at the global, regional and national level continue to impede realization of the right to health and achievement of SDG 3 on good health and well-being for all. It has been reported that the outbreak of the COVID-19 pandemic posed and continues to pose challenges to people's health and wellbeing globally and is impeding progress in meeting SDG 3 targets<sup>88</sup>. Before the pandemic, notable gains were evident in many areas of health across the globe, including reproductive, maternal and child health, immunization

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<sup>82</sup> Ibid

<sup>83</sup> Ibid

<sup>84</sup> United Nations., 'The Sustainable Development Goals Report: 2022.' Available at <https://unstats.un.org/sdgs/report/2022/The-Sustainable-Development-Goals-Report-2022.pdf> (Accessed on 02/11/2023)

<sup>85</sup> Ibid

<sup>86</sup> State Department for Economic Planning., 'Is Kenya on Track Towards Achievement of SDG 3? An analysis of Health Indicators in Kenya.' Available at <https://www.planning.go.ke/wp-content/uploads/2022/02/UHC-REPORT-amended-1.pdf> (Accessed on 02/11/2023)

<sup>87</sup> Government of Kenya., 'Beyond The Conference: Kenya's Progress Towards Affordable and Accessible Health Care.' Available at <https://vision2030.go.ke/beyond-the-conference-kenyas-progress-towards-affordable-and-accessible-health-care/> (Accessed on 02/11/2023)

<sup>88</sup> United Nations., 'The Sustainable Development Goals Report: 2022.' Op Cit

coverage and treatment of communicable diseases, though progress was marred by huge regional disparities<sup>89</sup>. However, the outbreak of the pandemic severely disrupted essential health services across the world, triggered an increase in the prevalence of anxiety and depression, lowered global life expectancy, derailed progress towards ending HIV, tuberculosis and malaria, and halted two decades of work towards making health coverage universal<sup>90</sup>. Combating COVID-19 effectively and other global health challenges is essential in achieving good health and well-being for all.

Further, it has been pointed out that developing countries continue to face challenges in achieving good health and well-being for all due to economic hardships<sup>91</sup>. Achieving the targets of SDG 3 requires significant resources to be invested in infrastructure, facilities, personnel and research and development which may be out of reach for developing countries<sup>92</sup>. As a result, the health sector in some countries continues to face challenges including underequipped health facilities; inability of the infrastructure in place to meet existing demands; and inadequate human resource, thereby limiting the ability of citizens to access quality and affordable health care services, among others<sup>93</sup>. Further, incidences of poverty in some countries hinder the realization of SDG 3 by limiting the ability of people to access health services. It has been pointed out that as a result of poverty, children growing up in socioeconomically disadvantaged neighborhoods face greater direct physical challenges to health status and health-promoting behaviours; they also often experience emotional and psychological stressors, such as family conflict and instability arising from chronically inadequate resources<sup>94</sup>.

Further, achieving good health and well-being for all continues to be a challenge especially for women. It has been pointed out that women and men have different health-care needs, but an equal right to live healthily<sup>95</sup>. However, for many women and girls, gender discrimination systematically undermines their access to health care, for reasons that include fewer financial resources and constraints on mobility among others<sup>96</sup>. This is compounded by additional burdens imposed by gender disparities which limit their ability to stay healthy including long hours spent on domestic work, unsafe work environments and gender-based violence, with mechanisms for

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<sup>89</sup> Ibid

<sup>90</sup> Ibid

<sup>91</sup> World Bank., 'Measuring Progress in SDGs.' Available at <https://thedocs.worldbank.org/en/doc/274691605003514448-0050022020/original/12ISSMEASURINGPROGRESSINSBG3HEALTH.pdf> (Accessed on 03/11/2023)

<sup>92</sup> Ibid

<sup>93</sup> Muigua. K., 'Ensuring Healthy Lives and Well-being for All Kenyans.' Available at <https://kmco.co.ke/wp-content/uploads/2020/12/Ensuring-Healthy-Lives-and-Wellbeing-for-All-Kenyans-Kariuki-Muigua-December-2020.pdf> (Accessed on 03/11/2023)

<sup>94</sup> Ibid

<sup>95</sup> United Nations Women., 'SDG 3: Ensure Healthy Lives and Promote Well-Being for All at All Ages.' Available at <https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-3-good-health-well-being> (Accessed on 03/11/2023)

<sup>96</sup> Ibid

prevention and protection often being inadequate<sup>97</sup>. Women face peculiar health concerns as a result of pregnancy and child birth which need to be met in order to foster their good health and well-being<sup>98</sup>.

Finally, environmental challenges including climate change, degradation and pollution continue to pose a risk to the right to health around the world. UNDP posits that climate change and environmental degradation have potentially serious implications for social and economic development, including health<sup>99</sup>. It observes that health systems in many countries are highly vulnerable to the shocks caused by epidemic outbreaks, conflict and climate events<sup>100</sup>. Further climate change could result in poverty a situation that may hinder the ability of people to access health services and further increases susceptibility to health risks including malaria and diarrhea due to global warming<sup>101</sup>. It can also result in water scarcity undermining the ability of people to access clean water and sanitation which is vital in achieving good health and well-being<sup>102</sup>. Further, environmental degradation as a result of air and water pollution as well as poor management of hazardous chemicals and waste can undermine good health and well-being and result in health hazards and diseases<sup>103</sup>. In addition, natural disasters and environmental shocks can have substantial impact on health, including deaths, injuries, diseases, disabilities, psychosocial problems and other indirect effects with damage to health facilities and disruption to the delivery of health services over extended periods of time<sup>104</sup>. It is therefore vital to combat climate change and foster the right to a clean and healthy environment in order to achieve good health and well-being for all.

#### **4.0 Way Forward**

In order to achieve good health and well-being for all, it is important for all countries to foster Universal Health Coverage (UHC). UHC means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship<sup>105</sup>. According to the WHO, UHC covers the full continuum of essential health services, from health

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<sup>97</sup> Ibid

<sup>98</sup> Ibid

<sup>99</sup> United Nations Development Programme., 'UNDP Support to the Implementation of Sustainable Development Goal 3.' Available at <https://www.undp.org/sites/g/files/zskgke326/files/publications/SDG-3%20Health.pdf> (Accessed on 03/11/2023)

<sup>100</sup> Ibid

<sup>101</sup> Ibid

<sup>102</sup> Ibid

<sup>103</sup> United Nations Environment Programme., 'Goal 3: Good Health and Well-Being.' Available at <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-3> (Accessed on 03/11/2023)

<sup>104</sup> Ibid

<sup>105</sup> World Health Organization., 'Universal Health Coverage (UHC).' Available at [https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-\(uhc\)](https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)) (Accessed on 03/11/2023)

promotion to prevention, treatment, rehabilitation, and palliative care across the life course<sup>106</sup>. UHC is vital in fostering the right to health and enhancing the economic and social development of all nations<sup>107</sup>. It has been pointed out that to deliver UHC, opportunities exist to ensure equity in access to health services – everyone who needs services gets them; the quality of health services are good enough to improve the health of those receiving services; people are protected against financial-risk, ensuring that the cost of using services does not put people at risk of financial harm; and accountability to translate commitments relating to access, quality, and financial protection into action through transparency and citizen participation<sup>108</sup>. Countries should therefore pursue UHC including enhancing health insurance coverage in order to achieve good health and well-being for all.

In addition, there is need to improve health infrastructure in all countries. The importance of quality health services, both as a development goal in its own right and a foundation for achieving inclusive growth and other development goals, is widely recognized<sup>109</sup>. It is therefore essential for countries to invest in health infrastructure including health facilities, medicine and modern technology and equipment.

Further, it is also pertinent to enhance human resource development in the health sector. It has correctly been observed that proper management of human resources is critical in providing high quality health care<sup>110</sup>. However, this is often not achieved in most countries including Kenya as evidenced by the frequent cases of strikes by health care providers which are attributed to factors such as limited career opportunities, insufficient workforce, and low remuneration among others<sup>111</sup>. Effective human resources management strategies are greatly needed to achieve better outcomes in the health sector around the world<sup>112</sup>. It is thus important for countries to pursue strategies including recruiting and continuously training more health workers in order to ensure adequate staff in the sector; having a clear policy and guidelines on how to protect and

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<sup>106</sup> Ibid

<sup>107</sup> Ibid

<sup>108</sup> Amref Health Africa., 'Universal Health Coverage (UHC).' Available at <https://amref.org/kenya/our-work/pillar-2-innovative-health-services-solutions/universal-health-coverage/> (Accessed on 03/11/2023)

<sup>109</sup> African Development Bank Group., 'Strategy for Quality Health Infrastructure in Africa 2022-2030.' Available at [https://www.afdb.org/sites/default/files/documents/publications/strategy\\_for\\_quality\\_health\\_infrastructure\\_in\\_africa\\_2022-2030.pdf](https://www.afdb.org/sites/default/files/documents/publications/strategy_for_quality_health_infrastructure_in_africa_2022-2030.pdf) (Accessed on 03/11/2023)

<sup>110</sup> Kabene. S et al., 'The Importance of Human Resources Management in Health Care: A Global Context.' *Human Resources for Health.*, Volume 4, No. 20 (2006)

<sup>111</sup> Muigua. K., 'Ensuring Healthy Lives and Well-being for All Kenyans.' Op Cit

<sup>112</sup> Kabene. S et al., 'The Importance of Human Resources Management in Health Care: A Global Context.' Op Cit

compensate health workers including a specific medical policy given their exposure in the line of duty; and avoid frequent strikes in order to enhance health human resources<sup>113</sup>.

It is also imperative to increase health financing. WHO posits that health financing is a core function of health systems that can enable progress towards universal health coverage by improving effective service coverage and financial protection<sup>114</sup>. Carefully designed and implemented health financing policies can help enhance accessibility, affordability and quality of health services<sup>115</sup>. It has been asserted that there is an urgent need to accelerate health financing in Africa in order to foster the right to health and achieve good health and well-being for all<sup>116</sup>. Under the *Abuja Declaration*<sup>117</sup>, African countries committed themselves to allocate at least 15% of their annual budgets to the improvement of the health sector<sup>118</sup>. It is therefore imperative to realize the target of the Abuja Declaration in order to enhance health financing and improvement of the health sector in Africa. Countries should further embrace health financing through initiatives such as strengthening health financing structures, pursuing Public Private Partnerships and introducing supportive and flexible statutory and regulatory laws to support the health financing reforms and outcomes<sup>119</sup>.

It is also paramount for the world and countries to effectively combat illnesses and diseases. The COVID-19 pandemic posed and continues to pose challenges to people's health and wellbeing globally and is impeding progress in meeting SDG 3 targets<sup>120</sup>. Further, the world has struggled with health issues including HIV, tuberculosis and malaria which hinder achievement of good health and well-being for all<sup>121</sup>. It is therefore important for countries to strengthen preparedness for pandemics and other emergencies<sup>122</sup>. Such measures include ensuring equitable access to safe and effective vaccines; awareness campaigns on healthy living to reduce incidences of non-

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<sup>113</sup> State Department for Economic Planning., 'Is Kenya on Track Towards Achievement of SDG 3? An analysis of Health Indicators in Kenya.' Op Cit

<sup>114</sup> World Health Organization., 'Health Financing.' Available at [https://www.who.int/health-topics/health-financing#tab=tab\\_1](https://www.who.int/health-topics/health-financing#tab=tab_1) (Accessed on 03/11/2023)

<sup>115</sup> Ibid

<sup>116</sup> Munyua. A., & Olalere. N., 'Public Financing for Health in Africa: 15% of an Elephant is not 15% of A Chicken.' Available at <https://www.un.org/africarenewal/magazine/october-2020/public-financing-health-africa-when-15-elephant-not-15-chicken> (Accessed on 03/11/2023)

<sup>117</sup> African Union., 'Abuja Declaration on HIV/AIDS, Tuberculosis and other Related Infectious Diseases.' Available at <https://au.int/sites/default/files/pages/32894-file-2001-abuja-declaration.pdf> (Accessed on 03/11/2023)

<sup>118</sup> Ibid

<sup>119</sup> State Department for Economic Planning., 'Is Kenya on Track Towards Achievement of SDG 3? An analysis of Health Indicators in Kenya.' Op Cit

<sup>120</sup> United Nations., 'The Sustainable Development Goals Report: 2022.' Op Cit

<sup>121</sup> Ibid

<sup>122</sup> World Health Organization., '10 Global Health Issues to Track in 2021.' Available at <https://www.who.int/news-room/spotlight/10-global-health-issues-to-track-in-2021> (Accessed on 03/11/2023)

communicable diseases; and enhancing supportive and synergistic community investments in related sectors such as economic empowerment, water, sanitation and hygiene<sup>123</sup>.

Another key measure in achieving good health and well-being for all is fostering research and development. Health research and development is important to the health sector since it provides health practitioners and health system investors with innovation and associated evidence for prevention interventions, effective treatments and care pathways<sup>124</sup>. It is therefore important to ensure the prioritization and adequate investment in research for health in order to promote technology and innovation in health care delivery<sup>125</sup>. Further, it has been observed that there is need for countries to strengthen and support research in health especially on emerging diseases and support evidence based research that would inform full rollout of UHC strategies<sup>126</sup>.

In addition, it is essential to foster gender equality in the health sector in order to achieve good health and well-being for all especially women and girls. Women face peculiar health concerns as a result of pregnancy and child birth which need to be met in order to foster their good health and well-being<sup>127</sup>. However, for many women and girls, gender discrimination systematically undermines their access to health care, for reasons that include fewer financial resources and constraints on mobility among others<sup>128</sup>. In addition to SDG 3, SDG 5 urges countries to ensure that women have universal access to sexual and reproductive health and reproductive rights<sup>129</sup>. It is therefore vital for countries to foster laws and practices which enhance women's access to sexual and reproductive health-care services in order to realize their good health and well-being<sup>130</sup>.

Finally, is vital to realize the right to a clean, healthy and sustainable environment in order to achieve good health and well-being for all. The United Nations Environment Programme correctly states that a clean environment is essential for human health and well-being<sup>131</sup>. Environmental problems including climate change and environmental degradation as a result of air and water pollution as well as poor management of hazardous chemicals and waste can

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<sup>123</sup> State Department for Economic Planning., 'Is Kenya on Track Towards Achievement of SDG 3? An analysis of Health Indicators in Kenya.' Op Cit

<sup>124</sup> Mallender. J., 'Health Research and Development: An Overview.' Available at <https://www.economicsbydesign.com/health-research-and-development-an-overview/> (Accessed on 03/11/2023)

<sup>125</sup> Muigua. K., 'Ensuring Healthy Lives and Well-being for All Kenyans.' Op Cit

<sup>126</sup> State Department for Economic Planning., 'Is Kenya on Track Towards Achievement of SDG 3? An analysis of Health Indicators in Kenya.' Op Cit

<sup>127</sup> United Nations Women., 'SDG 3: Ensure Healthy Lives and Promote Well-Being for All at All Ages.' Op Cit

<sup>128</sup> Ibid

<sup>129</sup> United Nations., 'Transforming our World: the 2030 Agenda for Sustainable Development.' Op Cit

<sup>130</sup> United Nations Women., 'SDG 3: Ensure Healthy Lives and Promote Well-Being for All at All Ages.' Op Cit

<sup>131</sup> United Nations Environment Programme., 'Goal 3: Good Health and Well-Being.' Op Cit

undermine good health and well-being and result in health hazards and diseases<sup>132</sup>. It is therefore essential for countries to realize the right to a clean, healthy and sustainable environment in order to achieve good health and well-being for all. Countries should therefore address concerns which affect the attainment of the right to a clean, healthy and sustainable environment such as climate change, unsustainable management and use of natural resources, environmental degradation, pollution and poverty<sup>133</sup>. Countries should further pursue Sustainable Development in order to achieve environmental sustainability, economic growth and social progress<sup>134</sup>. Sustainable Development has the ability to strike a balance between anthropocentric and ecocentric approaches towards the right to a clean, healthy and sustainable environment by promoting human rights such as the right to food, the right to clean water and sanitation, the right to affordable and clean energy and the right to health while simultaneously ensuring sound environmental protection and management<sup>135</sup>.

Through the foregoing among other measures, countries will be able to achieve good health and well-being for all.

## **5.0 Conclusion**

Achieving good health and well-being for all is essential to Sustainable Development as reflected under the 2030 Agenda for Sustainable Development<sup>136</sup>. There has been global progress towards meeting some of the targets of SDG 3 towards achieving good health and well-being for all as evidenced by gains in many areas of health, including reproductive, maternal and child health, immunization coverage and treatment of communicable diseases<sup>137</sup>. However, problems such as the COVID-19 pandemic, economic disparities between nations, poverty, gender inequalities and environmental problems including climate change and environmental degradation continue to threaten the achievement of good health and well-being for all<sup>138</sup>. In order to fully achieve good health and well-being for all, there is need for countries to embrace measures including fostering Universal Health Coverage, improving health infrastructure, increasing health financing, combating illnesses and diseases, fostering research and development, promoting gender equality in the health sector and realizing the right to a clean, healthy and sustainable environment<sup>139</sup>. Achieving good health and well-being is an imperative that can be actualized at the national, regional and global level for Sustainable Development.

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<sup>132</sup> Ibid

<sup>133</sup> Muigua. K., 'Realizing the Right to a Clean, Healthy and Sustainable Environment.' Op Cit

<sup>134</sup> Fitzmaurice. M., 'The Principle of Sustainable Development in International Development Law.' International Sustainable Development Law., Vol 1

<sup>135</sup> Muigua.K., 'Nurturing Our Environment for Sustainable Development.' Glenwood Publishers Limited, 2016

<sup>136</sup> United Nations Development Programme., 'Goal 3: Good Health and Well-Being.' Op Cit

<sup>137</sup> United Nations., 'The Sustainable Development Goals Report: 2022.' Op Cit

<sup>138</sup> Ibid

<sup>139</sup> Muigua. K., 'Ensuring Healthy Lives and Well-being for All Kenyans.' Op Cit

### **SECTION III: ACCOUNTABILITY, REMEDIES AND ENVIRONMENTAL HARM**

*This section focuses on legal accountability mechanisms and remedies for environmental harm. It examines dispute resolution, liability frameworks, criminal law responses, and governance tools aimed at preventing environmental degradation, addressing harm, and promoting justice for affected communities.*

## Chapter 10: Protecting the Environment through Criminal Law: Ecocide, Harm and Human Consequences

### Abstract

*This chapter discusses how the environment can be effectively protected through criminal law. The chapter observes that criminal law is an effective tool towards strengthening environmental protection due to the rise of unlawful and harmful acts that are causing widespread and long-term damage to the environment. The chapter examines some of the human consequences that are fuelling widespread and long-term environmental damage. In light of these actions, the chapter notes that criminal law is a viable tool towards strengthening environmental protection for people and planet. In particular, the chapter observes that ecocide has emerged as a key approach towards protecting the environment through criminal law. The chapter defines ecocide and examines how it can bolster environmental governance. It also proposes ways through which ecocide can be effectively embraced in order to bolster environmental protection through criminal law.*

### 1.0 Introduction

The environment is vital for human survival. For instance, a clean and healthy environment provides the resources necessary for human life and well-being now and in the future including clean air, water, energy, fertile soil necessary for food production, and a stable climate<sup>1</sup>. In addition, the environment also supports vital economic activities including agriculture, tourism, mining, fishing, energy production among others which sustain livelihoods and foster economic growth towards human progress and development<sup>2</sup>. Due to the important resources it provides for humanity, it has been observed that a clean, healthy and sustainable environment is necessary for the full enjoyment of a wide range of human rights, including the rights to life, health, food, water and sanitation and development, among others<sup>3</sup>.

The environment is therefore at the heart of human progress and development. However, human activities are causing widespread environmental damage and degradation with grave impacts on people and planet. For example, it has been observed that human activities are fuelling environmental threats including depletion of natural resources, environmental and land degradation, desertification, drought, freshwater scarcity, pollution, loss of biodiversity, and climate change<sup>4</sup>. It has been argued that for many years, human activities have posed a major

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<sup>1</sup> European Environment Agency., 'Caring for the Environment is Caring for Ourselves' Available at <https://www.eea.europa.eu/en/newsroom/editorial/editorial-caring-for-the-environment#:~:text=It%20gives%20us%20clean%20air,harm%20our%20own%20well%2Dbeing> (Accessed on 29/01/2026)

<sup>2</sup> Ibid

<sup>3</sup> United Nations Development Programme., 'What is the Right to a Healthy Environment?' Available at <https://www.undp.org/sites/g/files/zskgke326/files/2023-01/UNDP-UNEP-UNHCHR-What-is-the-Right-to-a-Healthy-Environment.pdf> (Accessed on 29/01/2026)

<sup>4</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at

threat to the planet's natural processes which have been strained beyond limits, causing major environmental crises including the triple planetary crisis of climate change, biodiversity loss and pollution<sup>5</sup>. This is evidenced by damage, overexploitation and degradation of natural resources including land, water, forests, fisheries, minerals and energy sources including fossil fuels such as coal, oil and natural gas<sup>6</sup>.

Human activities therefore undermine environmental sustainability with grave impacts on people and planet. When the environment is damaged or degraded, the availability and quality of ecosystem services and processes such as clean air, water, food production, energy and climate regulation is undermined threatening the attainment of Sustainable Development<sup>7</sup>. Consequently, it has been correctly observed that protecting the environment is necessary towards ensuring a sustainable future for both people and planet<sup>8</sup>.

This chapter discusses how the environment can be effectively protected through criminal law. The chapter observes that criminal law is an effective tool towards strengthening environmental protection due to the rise of unlawful and harmful acts that are causing widespread and long-term damage to the environment. The chapter examines some of the human consequences that are fuelling widespread and long-term environmental damage. In light of these actions, the chapter notes that criminal law is a viable tool towards strengthening environmental protection for people and planet. In particular, the chapter observes that ecocide has emerged as a key approach towards protecting the environment through criminal law. The chapter defines ecocide and examines how it can bolster environmental governance. It also proposes ways through which ecocide can be effectively embraced in order to bolster environmental protection through criminal law.

## **2.0 The need to Strengthen Environmental Protection through Criminal Law**

It has been observed that environmental crimes are on the rise all over the world posing a threat to peace and security, Sustainable Development and environmental rule of law<sup>9</sup>. Environmental crimes encompass a wide range of criminal activities that involve the illegal and illicit of the environment and natural resources. These activities include illegal trade in wildlife; illegal, unregulated and unreported fishing; trade in and dumping of hazardous waste and chemicals;

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<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 29/01/2026)

<sup>5</sup> McClymonds JT, 'Human Right to a Healthy Environment: An International Legal Perspective, The' (1992) 37 *New York Law School Law Review* 583

<sup>6</sup> Muigua. K., 'Utilising Science and Technology for Environmental Management in Kenya.' Available at <http://kmco.co.ke/wp-content/uploads/2020/04/Utilising-Science-and-Technology-for-EnvironmentalManagement-in-Kenya.pdf> (Accessed on 29/01/2026)

<sup>7</sup> European Environment Agency., 'Caring for the Environment is Caring for Ourselves' Op Cit

<sup>8</sup> Ibid

<sup>9</sup> United Nations Environment Programme., 'Environmental Crime' Available at <https://www.unep.org/news-and-stories/story/environmental-crime> (Accessed on 30/01/2026)

and illegal logging<sup>10</sup>. Abuse of the environment has been identified as the fourth largest criminal activity in the world costing the global economy nearly \$258 billion<sup>11</sup>.

The growth of environmental crimes is a major threat to global peace, security and Sustainable Development. It has been observed that these crimes can cause considerable damage to biodiversity and ecosystems, increase the risk of disease and environmental disasters, while also fueling pollution, wildlife degradation, and increased rates of human morbidity<sup>12</sup>. Environmental crimes therefore have adverse effects on human and ecosystem health. For instance, crimes such as illegal mining, unregulated and unreported fishing, illegal trade in wildlife and illegal logging fuel biodiversity loss and depletion and degradation of natural resources impacting ecosystem health and livelihoods of people who depend on these resources<sup>13</sup>. It has been observed that environmental crime in all its forms is a serious and urgent global concern due to its dangerous implications to human health and the environment, including its wider impacts on development, global stability and international security<sup>14</sup>. In addition to impacting human and ecosystem health, environmental crimes lead to loss of revenue thus affecting development while also contributing to peace and security threats since these crimes are linked to other forms of transnational organized crimes<sup>15</sup>. For instance, it has been observed that environmental crimes usually occur hand in hand with other offences such as passport fraud, drug trafficking, corruption, money laundering and even murder<sup>16</sup>.

Due to the growth and adverse impacts of environmental crimes, there have been calls to strengthen environmental protection. The United Nations General Assembly has adopted a *Resolution*<sup>17</sup> which urges member states to prevent and combat crimes that harm the environment. The Resolution notes that crimes that affect the environment may also have a negative impact on economies, public health, human safety, food security, livelihoods and habitats<sup>18</sup>. The Resolution further acknowledges the role of criminal law in protecting the environment in the wake of

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<sup>10</sup> Environmental Compliance Institute., 'Environmental Crimes' Available at <https://www.eci-africa.org/programs/environmental-crimes/> (Accessed on 30/01/2026)

<sup>11</sup> United Nations Environment Programme., 'Environmental Crime' Op Cit

<sup>12</sup> Environmental Crimes., Available at <https://business.esa.int/funding/invitation-to-tender/environmental-crimes> (Accessed on 30/01/2026)

<sup>13</sup> United Nations Office on Drugs and Crime., 'Environmental Crime: A threat to Our Future' Available at [https://www.unodc.org/documents/NGO/EIA\\_Ecocrime\\_report\\_0908\\_final\\_draft\\_low.pdf](https://www.unodc.org/documents/NGO/EIA_Ecocrime_report_0908_final_draft_low.pdf) (Accessed on 30/01/2026)

<sup>14</sup> Environmental Compliance Institute., 'Environmental Crimes' Op Cit

<sup>15</sup> Interpol., 'Environmental Crime' Available at <https://www.interpol.int/Crimes/Environmental-crime#:~:text=Indeed%2C%20environmental%20crime%20often%20occurs,at%20great%20risk%20from%20criminals.> (Accessed on 30/01/2026)

<sup>16</sup> Ibid

<sup>17</sup> United Nations General Assembly., 'Resolution adopted by the General Assembly on 16 December 2021: Preventing and combating crimes that affect the environment' A/RES/76/185., Available at <https://docs.un.org/en/a/res/76/185> (Accessed on 30/01/2026)

<sup>18</sup> Ibid

mounting environmental crimes<sup>19</sup>. It urges member states to strengthen legislation, criminal justice responses and law enforcement measures towards combating environmental crimes and their related offences for people and planet<sup>20</sup>. Strengthening criminal law is therefore crucial towards protecting the environment from growing environmental crimes.

In addition to environmental crimes, it has been observed that armed conflicts and wars are causing widespread and long-term environmental damage and degradation with grave impacts on people and planet<sup>21</sup>. The United Nations notes that while the human cost of war is undeniable and profound, the environment also suffers grave and often-overlooked consequences<sup>22</sup>. Beyond the immediate environmental destruction, armed conflicts disrupt ecosystems, deplete natural resources, pollute the environment, and jeopardize the health of our planet with severe consequences for current and future generations<sup>23</sup>. According to the United Nations Environment Programme (UNEP), the environment continues to be a silent victim of armed conflicts and wars that are happening globally<sup>24</sup>. Armed conflicts and wars cause significant environmental damage and destruction both directly and indirectly. For example, during armed conflicts, atrocities such as attacking industrial sites including nuclear facilities and setting fire to oil fields lead to environmental damage through chemical contamination and release of toxic fumes into the air<sup>25</sup>. Further, it has been observed that parties to armed conflicts and wars often employ tactics such as polluting water resources, torching down crops, destroying forests, poisoning soils, and killing animals in order to gain military advantage<sup>26</sup>. These tactics have profound and negative impacts on the environment leading to environmental pollution, biodiversity loss and environmental degradation with severe consequences now and in the future<sup>27</sup>.

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<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> United Nations Environment Programme., 'Protecting the Environment During Armed Conflict: An Inventory and Analysis of International Law' Available at [https://wedocs.unep.org/bitstream/handle/20.500.11822/7813/-Protecting%20the%20Environment%20During%20Armed%20Conflict\\_An%20Inventory%20and%20Analysis%20of%20International%20Law-2009891.pdf?sequence=3&isAllowed](https://wedocs.unep.org/bitstream/handle/20.500.11822/7813/-Protecting%20the%20Environment%20During%20Armed%20Conflict_An%20Inventory%20and%20Analysis%20of%20International%20Law-2009891.pdf?sequence=3&isAllowed) (Accessed on 30/01/2026)

<sup>22</sup> United Nations., 'How Conflict Impacts our Environment' Available at <https://www.un.org/en/peace-and-security/how-conflict-impacts-our-environment#:~:text=Damage%20to%20chemical%20industrial%20sites,is%20immense%20and%20far%20Dreaching.> (Accessed on 30/01/2026)

<sup>23</sup> Ibid

<sup>24</sup> United Nations Environment Programme., 'Rooting for the environment in times of conflict and war' Available at <https://www.unep.org/news-and-stories/story/rooting-environment-times-conflict-and-war> (Accessed on 30/01/2026)

<sup>25</sup> Ibid

<sup>26</sup> Geneva Environment Network., 'Protecting the Environment in Armed Conflict' Available at <https://www.genevaenvironmentnetwork.org/resources/updates/protecting-the-environment-in-armed-conflict/> (Accessed on 30/01/2026)

<sup>27</sup> Ibid

It has been observed that ongoing armed conflicts and wars disrupt the delicate balance of nature with severe effects for both people and planet. Environmental damage and degradation due to armed conflict brings devastating consequences for natural resources, critical ecosystems, and people's health, livelihoods, and security<sup>28</sup>. Consequently, it has been observed that there is need to strengthen environmental protection during armed conflicts through criminal law<sup>29</sup>.

The activities of corporations are also causing environmental damage and destruction. In particular, it has been observed that unsustainable activities in the extractive sector are a major cause of environmental damage<sup>30</sup>. For instance, unsustainable mining activities may result in environmental harm including deforestation, erosion, contamination and alteration of soil profiles, contamination of local streams and wetlands, and an increase in noise level, dust and emissions<sup>31</sup>. In addition, oil and gas extraction also comes at a cost due to its environmental impacts including climate change as a result of carbon emissions, pollution, and biodiversity loss<sup>32</sup>. Unsustainable extraction of natural resources including minerals, oil and gas can therefore lead to widespread and long-term environmental damage through destruction of habitats, biodiversity loss, environmental pollution and waste, environmental degradation, decrease in soil quality, and reduction of the availability of freshwater for human use<sup>33</sup>.

From the foregoing, it is evident that human activities including environmental crimes, armed conflicts and wars and unsustainable resource extraction are causing widespread and long-term environmental damage with severe consequences for people and planet. Consequently, it is imperative to protect the environment through criminal law for the benefit of current and future generations.

### **3.0 Embracing Ecocide as a Tool of Environmental Protection through Criminal Law**

In wake of widespread and long-term environmental damage and degradation due to human activities, ecocide has been proposed as an effective tool and approach towards strengthening

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<sup>28</sup> United Nations., 'How Conflict Impacts our Environment' Op Cit

<sup>29</sup> United Nations Environment Programme., 'Rooting for the environment in times of conflict and war' Op Cit

<sup>30</sup> Haddaway. N et al., 'Evidence of the impacts of metal mining and the effectiveness of mining mitigation measures on social-ecological systems in Arctic and boreal regions: a systematic map protocol' Available at <https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/s13750-019-0152-8> (Accessed on 30/01/2026)

<sup>31</sup> Ibid

<sup>32</sup> United Nations Environment Programme., 'Why does Extractives Matter?' Available at <https://www.unep.org/explore-topics/extractives/why-does-extractives-matter#:~:text=But%20the%20economic%20benefits%20come,has%20caused%20significant%20water%3B%20pollution.> (Accessed on 30/01/2026)

<sup>33</sup> Resource Extraction., Available at <https://ugc.berkeley.edu/background-content/resource-extraction/#:~:text=The%20effects%20of%20resource%20extraction,biodiversity%2C%20and%20interactions%20between%20organisms.> (Accessed on 30/01/2026)

environmental protection through criminal law<sup>34</sup>. Ecocide refers to unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by such acts<sup>35</sup>. In addition, it has been observed that ecocide involves committing any unlawful, harmful or detrimental act that one is well-aware will cause severe, irreversible long-term damage to the environment<sup>36</sup>. Further, ecocide can refer to extensive destruction, damage to or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished<sup>37</sup>.

Ecocide therefore covers acts that cause deliberate harm to the environment. There have been calls to adopt ecocide as a basis of criminalizing mass damage and destruction to the environment and ecosystems<sup>38</sup>. For instance, at the global level, proposals are being made to amend the Rome Statute in order to recognise ecocide as an international crime<sup>39</sup>. If adopted, ecocide will become the fifth category of crime to be prosecuted under the International Criminal Court (ICC), alongside war crimes, crimes against humanity, genocide, and the crime of aggression<sup>40</sup>. It has been observed that this will be a significant milestone in strengthening environmental protection by criminalizing acts that cause long-term and widespread damage to the environment while also ensuring an independent platform for prosecuting these crimes through ICC<sup>41</sup>. It has been argued that recognizing ecocide under the Rome Statute will create a new and practical legal tool to preserve and protect the planet for current and future generations<sup>42</sup>. Further, it has been observed that given its severity and global implications, ecocide should be a crime subject to universal

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<sup>34</sup> United Nations Environment Programme., 'How new laws could help combat the planetary crisis' Available at <https://www.unep.org/news-and-stories/story/how-new-laws-could-help-combat-planetary-crisis> (Accessed on 30/01/2026)

<sup>35</sup> Stop Ecocide International., 'Developing Ecocide Law' Available at <https://www.stopecocide.earth/legal-definition> (Accessed on 30/01/2026)

<sup>36</sup> Ecocide: Definition and Examples., Available at <https://greenly.earth/en-us/blog/ecology-news/ecocide-definition-and-examples> (Accessed on 30/01/2026)

<sup>37</sup> Mwanza. R., 'Enhancing Accountability for Environmental Damage under International Law: Ecocide as a Legal Fulfilment of Ecological Integrity' *Melbourne Journal of International Law.*, Volume 19 (2), (2018)

<sup>38</sup> World Economic Forum., 'What is ecocide and which countries recognize it in law?' Available at <https://www.weforum.org/stories/2021/08/ecocide-environmental-harm-international-crime/> (Accessed on 30/01/2026)

<sup>39</sup> United Nations Environment Programme., 'Observations on the Scope and Application of Universal Jurisdiction to Environmental Protection' Available at [https://www.un.org/en/ga/sixth/75/universal\\_jurisdiction/unep\\_e.pdf](https://www.un.org/en/ga/sixth/75/universal_jurisdiction/unep_e.pdf) (Accessed on 30/01/2026)

<sup>40</sup> Ibid

<sup>41</sup> Ecocide as the Fifth International Crime., Available at <https://voelkerrechtsblog.org/ecocide-as-the-fifth-international-crime/> (Accessed on 30/01/2026)

<sup>42</sup> Ecocide: A Discussion of Law and Ethics., Available at <https://climate.law.columbia.edu/events/ecocide-discussion-law-and-ethics#:~:text=The%20Independent%20Expert%20Panel%20for%20the%20Legal,tool%20to%20preserve%20and%20protect%20the%20Earth.> (Accessed on 30/01/2026)

jurisdiction<sup>43</sup>. This will provide a practical tool for prosecuting environmental crimes that fall outside national laws therefore strengthening transboundary environmental protection<sup>44</sup>. Ecocide has the potential to expand international accountability for environmental harms including through deterring and prosecuting acts of environmental damage that happen both in conflict situations and in times of peace<sup>45</sup>. It is therefore necessary to fast-track these proposals and amend the Rome Statute towards strengthening environmental protection through criminal law.

In addition to introducing ecocide as the fifth international crime under the Rome Statute, it has been suggested that adopting a global ecocide treaty can strengthen environmental protection by criminalising a wide range of environmental offences and establishing a legal framework to govern international prosecution of intentional conduct resulting in environmental damage and destruction<sup>46</sup>. A global treaty on ecocide will play an important role in codifying the crime of ecocide under international law and laying a foundation for its prosecution through appropriate channels including ICC<sup>47</sup>. It has been correctly noted that the effects of ecocide are often unprecedented and global in nature as evidenced by environmental crises such as climate change, biodiversity loss, pollution and transnational environmental crimes whose impacts transcend beyond national borders<sup>48</sup>. Due to the interconnectedness of the natural world, environmental protection cannot be the sole responsibility of a single state. A global legal framework on ecocide can therefore provide a platform for international cooperation, capacity building, knowledge exchange and prosecution of transboundary environmental harms<sup>49</sup>. At a regional level, the Parliamentary Assembly of the Council of Europe (PACE) recently adopted a resolution endorsing the *Draft Convention on the Protection of the Environment through Criminal Law*<sup>50</sup>. This is the first major step towards an ecocide treaty which establishes a legal binding framework that criminalises and sets out penalties for acts that cause widespread and long-term environmental harm<sup>51</sup>. It is vital for other regions to follow this example and in particular, for the international

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<sup>43</sup> What is Ecocide?., Available at <https://www.endecocide.org/en/what-is-ecocide/> (Accessed on 30/01/2026)

<sup>44</sup> Van Uhm. D., '22 Atrocity Crimes and Ecocide: Interrelations between Armed Conflict, Violence, and Harm to the Environment' Available at <https://academic.oup.com/edited-volume/42558/Article-abstract/357099488?redirectedFrom=fulltext> (Accessed on 30/01/2026)

<sup>45</sup> Ibid

<sup>46</sup> Gillett. M., 'Ecocide, environmental harm and framework integration at the International Criminal Court' Available at <https://www.tandfonline.com/doi/full/10.1080/13642987.2024.2433660#abstract> (Accessed on 30/01/2026)

<sup>47</sup> Ibid

<sup>48</sup> Otunge. D., 'Ecocide Inches Closer to Becoming an International Crime' Available at <https://news.scienceafrica.co.ke/ecocide-inches-closer-to-becoming-an-international-crime/> (Accessed on 30/01/2026)

<sup>49</sup> Ibid

<sup>50</sup> Draft Council of Europe Convention on the Protection of the Environment through Criminal Law., Available at <https://pace.coe.int/en/files/34290/html> (Accessed on 30/01/2026)

<sup>51</sup> Ibid

community to adopt a global treaty on ecocide in order to effectively protect the environment through criminal law.

Through the foregoing efforts, it is possible to bolster environmental protection through ecocide.

#### **4.0 Conclusion**

With human consequences driving widespread and long-term environmental damage, it is imperative to strengthen environmental protection through criminal law. Ecocide provides an effective and practical tool that can enhance efforts to protect the environment including through criminalizing harmful acts, ensuring environmental accountability, and providing a basis for prosecuting environmental harm and damage<sup>52</sup>. It is therefore important to utilise ecocide as a tool of protecting the environment through criminal law. This can be achieved through amending the Rome Statute in order to adopt ecocide as the fifth international crime, adopting a global treaty on ecocide and strengthening national criminal sanctions related to environmental harm and damage<sup>53</sup>. Adopting ecocide is therefore necessary towards protecting the environment through criminal law for posterity.

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<sup>52</sup> Otunge. D., 'Ecocide Inches Closer to Becoming an International Crime' Op Cit

<sup>53</sup> Ibid

## **Chapter 11: Enforcing the Right to Clean and Healthy Environment in Kenya Through the Polluter Pays principle**

### ***Abstract***

*This chapter makes a case for the enforcement of the right to clean and healthy environment in Kenya through the internationally recognised polluter pays principle. The author argues that though this right has been legally recognised, placing the obligation to enforce it solely on the state agencies may delay the full realisation of this right for all persons. Effective enforcement of this principle is also important in reducing the economic cost of environmental restoration on the state agencies and acting as an incentive for inculcating a sense of environmental ethics through the precautionary principle.*

### **1.0 Introduction**

The main goal of the environmental law is to ensure the sustainable use of natural resources in accordance with a set of fundamental principles that have been established through time via both local and global procedures. The use of land and resources derived from it should, in an ideal situation, abide by a number of rules. They include intergenerational equity, the precautionary principle, the polluter pays principle, and public engagement. They also include the principles of sustainability and prevention.<sup>1</sup> This chapter is mainly concerned with the polluter pays principle. The polluter pays principle was the main topic of debate during a symposium on environmental economics sponsored by the Organization for Economic Co-operation and Development in Paris in 1971. This was the first time the polluter pays notion had been brought up in a global setting. The polluter pays concept was formally recommended by the Organization for Economic Co-operation and Development to be the "Guiding Principle Concerning the International Economic Aspects of Environmental Policy" on May 26, 1972.<sup>2</sup>

An important era in the evolution of Kenya's environmental policy was opened with the proclamation of the Constitution in 2010. There are complex provisions in the Constitution that have a big impact on sustainable development. They include the Bill of Rights' guarantee of the right to a clean, safe environment as well as environmental ethics. Land and the environment are the only topics covered in article V of the Constitution. The right to water, food, and shelter are only a few of the many social and economic rights that the Constitution incorporates that are also of an environmental nature.<sup>3</sup>

The preamble of the Constitution states that "We, the People of Kenya... Respectful of the environment, which is our heritage, and determined to sustain it for the benefit of future

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<sup>1</sup> *Amina Said Abdalla & 2 others v County Government of Kilifi & 2 others* [2017] eKLR, ELC Civil Case 283 of 2016, para. 17.

<sup>2</sup> Nanodkar S, 'Polluter Pays Principle: Essential Element of Environmental Law and Policy' (2018) 1 Int'l JL Mgmt. & Human. 77.

<sup>3</sup> *Mohamed Ali Baadi and others v Attorney General & 11 others* [2018] eKLR, Petition 22 of 2012, para. 272.

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generations..." This acknowledges the necessity for cautious handling of environmental issues. Clearly implying respect for sustainable development are these lines from the Constitution's preamble.<sup>4</sup> Today's international environmental law encompasses the idea that whomever pollutes the environment and wastes natural resources is to blame for the harm done and must shoulder the cost. Every producer or consumer who harms a third party is subject to this kind of "social tax."<sup>5</sup>

It is certain that Article 42 of the Constitution, which declares that everyone has the right to a clean and healthy environment, contains a specific environmental right. This includes the rights to: (a) the environment being safeguarded for the benefit of current and future generations by legislative and other actions, including those envisioned in Article 69; and (b) the environment-related duties under Article 70 to be met.<sup>6</sup>

As per Article 69 of the Constitution of Kenya, all persons must work in collaboration with State agencies in upholding environmental rights for all.

This chapter makes a case for the enforcement of the right to clean and healthy environment in Kenya through effectively putting into practice the internationally recognised principle of polluter pays. The author argues that though this right has been legally recognised both domestically and internationally, placing the obligation to enforce it solely on the state agencies may delay the full realisation of this right for all persons. It thus explores how the polluter pays principle can be used to advance the realisation of the right to clean and healthy environment. This is in recognition of the fact that most developing countries have limited financial resources which are necessary in implementation of the right to clean and healthy environment and hence, the need for tapping into resources from the private sector and other persons who interact with the environment and subsequently cause harm to the environment.

### **2.0 The Right to Clean and Healthy Environment: Legal Foundation**

Kenya's main environmental regulating statute is called the Environmental Management and Coordination Act (EMCA). The law contains general requirements (such as environmental management principles) that apply to all environmental sectors and all public and private acts that may have an impact on the environment. The Act defines the "environment" as follows:<sup>7</sup>

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<sup>4</sup> Ibid, para. 273.

<sup>5</sup> 'The Polluter Pays, a Pillar Principle of Stockholm | Green Growth Knowledge Partnership' <<https://www.greengrowthknowledge.org/blog/polluter-pays-pillar-principle-stockholm>> accessed 22 February 2023.

<sup>6</sup> *Mohamed Ali Baadi and others v Attorney General & 11 others* [2018] eKLR, Petition 22 of 2012, para. 274.

<sup>7</sup> *Mohamed Ali Baadi and others v Attorney General & 11 others* [2018] eKLR, Petition 22 of 2012, para. 275.

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*“environment” includes the physical factors of the surroundings of human beings including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and the social factor of aesthetics and includes both the natural and the built environment.*

This definition goes beyond purely ecological concerns. It expressly takes into account components of the environment that go beyond the biophysical ones, such as the relationships between people, the natural environment, and the socioeconomic and cultural foundations of such relationships.<sup>8</sup>

A person who asserts that their rights to a clean and healthy environment have been violated has standing under Article 70 of the Constitution. This means that "the environmental right is sufficiently extensive and all-encompassing to provide 'everyone' with the prospect of seeking legal remedy in the event that any of many conceivable components relating to the right or guarantee derived therefrom is breached. It is undeniable that Kenya's constitution protects environmental preservation."<sup>9</sup>

The State is subject to environmental commitments under Article 69 of the Constitution. The duty to guarantee sustainable exploitation, utilisation, management, and conservation of the environment and natural resources is one of the duties imposed on the State. The State must also make sure that the benefits are distributed fairly. Encouragement of public involvement in environmental management, preservation, and protection is also necessary. Lastly, the State must prevent using processes and engaging in activities that might threaten the environment.<sup>10</sup>

Article 42 states; *“Every person has the right to a clean and healthy environment which includes the right; (a) to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and (b) to have obligations relating to the environment fulfilled under Article 70”.*

The Constitution confers standing upon a person who alleges that a right to a clean and healthy environment has been violated. It provides: -

*70. (1) If a person alleges that a right to a clean and healthy environment recognized and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a Court for redress in addition to any other legal remedies that are available in respect to the same matter.*

*(2) On application under clause (1), the Court may make any order, or give any directions, it considers appropriate –*

*(a) to prevent, stop or discontinue any act or omission that is harmful to the environment;*

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<sup>8</sup> Ibid, para. 276.

<sup>9</sup> Ibid, para. 277.

<sup>10</sup> *Mohamed Ali Baadi and others v Attorney General & 11 others [2018] eKLR, Petition 22 of 2012, para. 278.*

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*(b) to compel any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment; or*

*(c) to provide compensation for any victim of a violation of the right to a clean and healthy environment.*

*(3) For the purposes of this Article, an applicant does not have to demonstrate that any person has incurred loss or suffered injury.*

Section 13 of the Environment and Land Court Act outlines the jurisdiction of the court, stating that it has both original and appellate jurisdiction to hear and resolve all environmental and land-related disputes in accordance with Article 162(2)(b) of the Constitution, the provisions of this Act, and any other Kenyan laws that may be applicable. Subsection (2) provides that in exercise of its jurisdiction under Article 162(2)(b) of the Constitution, the Court shall have power to hear and determine disputes relating to environmental planning and protection, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources; relating to compulsory acquisition of land; relating to land administration and management; relating to public, private and community land and contracts, choses in action or other instruments granting any enforceable interests in land; and any other dispute relating to environment and land.

The ELC also has powers to hear and determine applications for redress of a denial, violation or infringement of, or threat to, rights or fundamental freedom relating to a clean and healthy environment under Articles 42, 69 and 70 of the Constitution.

Regionally and internationally, there are legal instruments that also recognise the right to clean and healthy environment.

Article 12(2)(b) of the *International Covenant on Economic, Social and Cultural Rights (ICESR)*<sup>11</sup> is to the effect that 'The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right (the right of everyone to the enjoyment of the highest attainable standard of physical and mental health) shall include those necessary for: the improvement of all aspects of environmental and industrial hygiene.

Article 24 of the *African Charter on Humans and People's Rights (ACHPR)*<sup>12</sup> states that 'All peoples shall have the right to a general satisfactory environment favourable to their development'.

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<sup>11</sup> UN General Assembly, *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, United Nations, Treaty Series, vol. 993, p. 3.

<sup>12</sup> Organization of African Unity (OAU), *African Charter on Human and Peoples' Rights ("Banjul Charter")*, 27 June 1981, CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982).

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Article 24(1) of the *Convention on the Rights of the Child*<sup>13</sup> is to the effect that ‘States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services’. Article 24 (2) requires that ‘States Parties shall pursue full implementation of this right and, in particular, shall take appropriate measures, *inter alia*:(c) to combat disease and malnutrition, including within the framework of primary health care, through, *inter alia*, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution; (e) to ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, *hygiene and environmental sanitation* and the prevention of accidents (emphasis added).

The *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*<sup>14</sup> under Article 4(2) (c) states that ‘each Party shall take the appropriate measures to: ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment’. Article 4(4) also requires that ‘Each Party shall take appropriate legal, administrative and other measures to implement and enforce the provisions of this Convention, including measures to prevent and punish conduct in contravention of the Convention’.

Article 25 (1) of the *Universal Declaration on Human Rights*<sup>15</sup> states that ‘everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control’.

Principle 1 of the *1992 Rio Declaration on the Environment and Development*<sup>16</sup> states that “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”.

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<sup>13</sup> UN Commission on Human Rights, *Convention on the Rights of the Child.*, 7 March 1990, E/CN.4/RES/1990/74.

<sup>14</sup> United Nations, *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, Basel, 22 March 1989, United Nations, Treaty Series, vol. 1673, p. 57.

<sup>15</sup> UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III).

<sup>16</sup> UN General Assembly, *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992. Volume 1, Resolutions adopted by the Conference: corrigendum*, A/CONF.151/26/Rev.1(Vol.I)/Corr.1.

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It is worth pointing out that most of these international legal instruments captured the right to clean and healthy environment in a very generic manner and was mostly to be implied. However, in 2022, the United Nations General Assembly (UNGA) adopted a resolution declaring a clean, healthy & sustainable environment as a human right.<sup>17</sup> The General Assembly noted that the right to a clean, healthy and sustainable environment is related to other rights and existing international law.<sup>18</sup> It also affirmed that the promotion of the human right to a clean, healthy and sustainable environment requires the full implementation of the multilateral environmental agreements under the principles of international environmental law.<sup>19</sup> Finally, the UNGA called upon States, international organizations, business enterprises and other relevant stakeholders to adopt policies, to enhance international cooperation, strengthen capacity-building and continue to share good practices in order to scale up efforts to ensure a clean, healthy and sustainable environment for all.<sup>20</sup>

It has been noted that some scientists believe that the "triple planetary catastrophe" of human-caused climate change, widespread biodiversity loss, and unchecked pollution currently threatens to cross the planetary boundaries necessary to live securely on Earth. These dangers, as well as air pollution, polluted water, pollution from plastics, and chemical pollutants, can jeopardise the right to life, dignity, and health. Advocates urged that the U.N. should establish a right to a clean, healthy, and sustainable environment as a result.<sup>21</sup> Notwithstanding eight nations' abstentions – Belarus, Cambodia, China, Ethiopia, Iran, Kyrgyzstan, Russia, and Syria – the resolution on the right to a clean, healthy, and sustainable environment was accepted unanimously.<sup>22</sup>

For the 193 UN Member States, the resolution has no official force. Advocates, however, are optimistic that it will have a domino effect, pushing nations to codify the right to a healthy environment in national constitutions and regional accords and incentivizing governments to put

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<sup>17</sup> United Nations General Assembly, *The Human Right to a Clean, Healthy and Sustainable Environment: resolution* / adopted by the General Assembly, UN. General Assembly (76<sup>th</sup> sess.: 2021-2022); 'In Historic Move, UN Declares Healthy Environment a Human Right' (UNEP, 28 July 2022) <<http://www.unep.org/news-and-stories/story/historic-move-un-declares-healthy-environment-human-right>> accessed 22 February 2023; 'UN General Assembly Declares Access to Clean and Healthy Environment a Universal Human Right | UN News' (28 July 2022) <<https://news.un.org/en/story/2022/07/1123482>> accessed 22 February 2023.

<sup>18</sup> United Nations General Assembly, *The Human Right to a Clean, Healthy and Sustainable Environment: resolution* / adopted by the General Assembly, UN. General Assembly (76<sup>th</sup> sess.: 2021-2022), para. 2.

<sup>19</sup> Ibid, para. 3.

<sup>20</sup> Ibid, para. 4.

<sup>21</sup> 'The UN Just Declared a New Human Right' (World Economic Forum, 9 August 2022) <<https://www.weforum.org/agenda/2022/08/the-un-just-declared-a-universal-human-right-to-a-healthy-sustainable-environment-here-s-where-resolutions-like-this-can-lead/>> accessed 22 February 2023.

<sup>22</sup> Ibid.

such laws into action. Advocates claim it would offer environmental activists greater tools to fight against laws and initiatives that harm the environment.<sup>23</sup>

### **3.0 The Polluter Pays Principle: The Scope**

The Polluter Pays Principle is part of the customary law and general principles relating to the environment. Before the Organization for Economic Co-operation and Development (OECD) formally recognised it as a fundamental tenet of environmental law in 1972, the notion of polluter pays already existed.<sup>24</sup> According to OECD, the so-called "Polluter-Pays Principle" should be applied when determining how to distribute the costs of pollution prevention and control measures in order to promote the wise use of finite environmental resources and prevent distortions in global commerce and investment. According to this concept, the cost of implementing the aforementioned actions determined upon by public authorities to guarantee that the environment is in an acceptable state should be borne by the polluter. In other words, the price of goods and services that contribute to pollution through production and/or consumption should reflect the cost of these actions. Subsidies that would significantly distort global commerce and investment should not be used in conjunction with such policies.<sup>25</sup>

The polluter pays concept is a foundational economic tenet that requires the incorporation of environmental costs into decision-making for economic and other development plans, programmes, and initiatives that are likely to have an impact on the environment. Hence, the idea is a mechanism to distribute the costs of pollution. It has received a lot of attention in international law and is now recognised as one of the fundamental concepts of that body of law.<sup>26</sup>

By including the cost of waste disposal into the price of the product, the "polluter pays" principle, also known as "Extended Polluter Responsibility" (EPR), aims to transfer the burden of dealing with pollutants from governments to the organisations that produce them. In order to reduce waste and increase opportunities for reuse and recycling, manufacturers will be encouraged to enhance the waste management profile of their businesses.<sup>27</sup>

The *Rio Declaration* passed 27 principles to guide the protection of the environment for the present and future generations. *Inter alia*, principle 8 and 18 states thus; *Principle 8: To achieve sustainable*

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<sup>23</sup> 'In Historic Move, UN Declares Healthy Environment a Human Right' (UNEP, 28 July 2022) <<http://www.unep.org/news-and-stories/story/historic-move-un-declares-healthy-environment-human-right>> accessed 22 February 2023.

<sup>24</sup> Nanodkar S, 'Polluter Pays Principle: Essential Element of Environmental Law and Policy' (2018) 1 Int'l JL Mgmt. & Human. 77; Misra S and Nanda H, 'A Complete Perusal of Polluter Pays Principle "Incorporation and Application in India"' (2020) 14 *Indian Journal of Forensic Medicine & Toxicology* 419.

<sup>25</sup> OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, OECD/LEGAL/0102 (OECD 1972).

<sup>26</sup> Elvis-Imo G, 'An Analysis of The Polluter Pays Principle In Nigeria' (2017) 1 *Ajayi Crowther University Law Journal* <<https://aculj.acu.edu.ng/index.php/lj/article/view/4>> accessed 22 February 2023.

<sup>27</sup> *Ibid*, p. 3.

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*development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.” The duty is explained in principle 13 which provides thus; “States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction”.*

According to the EMCA, the "polluter-pays concept" states that the person found guilty of polluting under the Act or any other relevant legislation should pay or bear the expense of restoring any aspect of the environment that has been harmed by pollution. The polluter should essentially pay the costs associated with preventing pollution or covering any harm it does. This is what the "polluter pays" idea says.<sup>28</sup>

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 Impresa Construzioni Giuseppe Maltauro SPA & 2 others* [2019] eKLR, Constitutional Petition 1 of 2012, the Court stated as follows:

*64. On the issue, as to who is liable to pay, this court is called upon to apply environmental law principles under Kenyan Law jurisprudence. Environmental law is principally concerned with ensuring sustainable utilization of natural resources according to a number of fundamental principles developed over the years through both domestic and international processes. Ideally, the utilization of land and land-based resources should adhere to the principles of sustainability, intergeneration equity, prevention, precautionary, polluter pays and public participation.*

*65. 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 the 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. In this case, the 1st respondent is held liable as he is the polluter.*

In the Kenyan case of *Dobs Entertainment Limited v National Environment Management Authority* [2021] eKLR, Tribunal Appeal 016 of 2019, the National Environment Tribunal quoted a Ugandan case as follows:

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<sup>28</sup> *Kenya Association of Manufacturers & 3 others v Cabinet secretary, Ministry of Environment and Natural Resources & 3 others* [2018] eKLR, Petition 32 & 35 of 2017 & Judicial Review Application 30 of 2017 (Consolidated), para. 150.

33. In the Supreme Court of Uganda, at Kampala Constitutional Appeal No. 05 Of 2011 Amooti Godfrey Nyakaana and National Environment Management Authority & Attorney General, Advocates Coalition for Development & Environment Alert Vs Greenwatch, Uganda Wildlife Authority Quoting the Environmental Action Network & Attorney General -Vs- Salvatori Abuki Supreme Court Const. App. No. 1/98.

*“The principle applicable is that in determining the Constitutionality of legislation, its purpose and effect must be taken into consideration. Both purpose and effect are relevant in determining Constitutionality of either an unconstitutional purpose or unconstitutional effect animated by an object the legislation intends to achieve. This object is realized through the impact produced by the operation and application of the legislation. Purpose and effect respectively, the sense of the legislation’s object and ultimate impact are clearly linked if not indivisible. Intended and actual effect has been looked up for guidance in assessing the legislation’s object and thus its validity. See THE QUEEN -Vs- BIG DRUG MARK LTD 1996 CLR 332.”*

*The Petitioner is not challenging the Constitutionality of these restrictions. In my view, it is these restrictions which gave the first respondent power to carry out inspection on the petitioner’s property to ascertain whether the activities he was carrying out on the land was in conformity with the provisions of the section – hence the service of the Restoration Order. The restoration order is like a charge sheet that commences the prosecution of a person who is charged with a criminal offence. Normally a Police Officer does not give a hearing to a suspect before charging him or her. The purpose of the Act is to give the first Respondent power to deal with and protect the environment for the benefit of all including the Petitioner. The impugned sections in my view have in built mechanisms for fair hearing as enshrined in Article 28.”*

*In the same case the court went on and stated that; “The Petitioner failed to show that the safeguards contained in the impugned sections are insufficient to accord him or anyone else a fair hearing. I have not been persuaded that the Petitioner’s proprietary rights were infringed by the acts of the first respondent. What was taken away from him was misuse of the land and this was done to protect the environment.” The Court discussed the concept of sustainable development as it has evolved in international law and adopted the definition contained in the report of the **WORLD COMMISSION ON ENVIRONMENT and DEVELOPMENT** (the “Brundtland Report). That Report defined “Sustainable Development” as “Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.” The Court stated thus: -*

*“We have no hesitation in holding that “sustainable Development” as a balancing concept between ecology and development has been accepted as part of the customary international law though its salient features have yet to be finalized by the international law jurists.....*

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*We are, however, of the view that “The Precautionary Principle” and “The Polluter Pays Principle” are essential features of “Sustainable Development.” The “Precautionary Principle” – in the context of municipal law – means:*

*(i) The Environmental measures – by the State Government and the Statutory authorities must anticipate, prevent, and attack the causes of environmental degradation.*

*(ii) Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

*(iii) The “Onus of proof” is on the actor or the developer/industrialist to show that his action is environmentally benign.”*

34. In the same case, on “the Polluter Pays Principle” the court had this to say: -

*“The “Polluter Pays Principle” as interpreted by this Court means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. Remediation of the damaged environment is part of the process of “sustainable Development” and as such the Polluter is liable to pay the cost to the individual sufferers as well as the cost of reversing the damaged ecology.”.*

According to the OECD, there are four aspects that must be considered in the enforcement of the polluter-pays principle, which are: First, is the issue of identifying the polluter. This is crucial to the allocation of costs and making the polluter take responsibility for his pollution, as stipulated by the OECD definition given above; It is necessary to ascertain the extent of damage done to the environment and establish the extent of the polluter’s liability so that precise monetary value can be attached to the degradation; Pollution caused must be identifiable. This is necessary to prove that the polluter is responsible for that resulting pollution; and, there must be a damage that must be compensated. The damage caused must be real and identifiable as compensable under a compensatory regime provided by the relevant laws.<sup>29</sup>

### **4.0 Enforcing the Right to Clean and Healthy Environment in Kenya Through the Polluter Pays principle for Sustainable Development**

Section 3(3) of the Environmental Management and Coordination Act 1999, gives any party who alleges that his right to a clean and healthy environment has been or is likely to be violated to apply to the Environment and Land court for redress.

According to Article 70 of the Constitution, anybody who believes that their right to a clean environment is being denied, violated, threatened, or infringed upon in violation of Article 42 may seek recourse from the court. Kenyans have recourse to the courts under the Constitution even when there are merely implied violations.<sup>30</sup>

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<sup>29</sup> Elvis-Imo G, "An analysis of the polluter pays principle in Nigeria," *Ajayi Crowther University Law Journal* 1, no. 1 (2017), pp. 4-5.

<sup>30</sup> *KM & 9 others v Attorney General & 7 others* [2020] eKLR, *Petition 1 of 2016*, para. 134.

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In *Waweru v. Republic* (2006) eKLR, the applicants – property owners – were accused of violating the Public Health Act's regulations by dumping raw sewage into a public water source. The court agreed with the petitioners, but it then began to consider how the applicants' conduct would affect sustainable development and environmental management on its own. The court determined that Section 71 of the Kenyan Constitution contains the right to life, which also includes the right to a clean and healthy environment.<sup>31</sup>

In the LAPSSET case, also known as the case of Mohamed Ali Baadi and others vs. A.G. & 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, the court ordered the project proponent to include a demonstrably specific consultation plan.<sup>32</sup>

The Court in *KM & 9 others v Attorney General & 7 others [2020] eKLR, Petition 1 of 2016*, cited *Rylands Vs Fletcher* (1861-73) ALL ER REPI case on strict liability as follows:

165. Further the rule of strict liability on the owner of land for damage caused by the escape of substances to his neighbour's land set in the Case of *Rylands Vs Fletcher (1861-73) ALL ER REPI* is in favour of the petitioners' case. The court held thus, **"We think that the true rule of law is that the person who, for his own purposes, brings on his land, and collects and keeps there anything likely to do mischief if it escapes, must keep it at his own peril, and, if he does not do so, he is prima facie answerable for all the damage which is the natural consequence of its escape. He can excuse himself by showing that the escape was owing to the plaintiff's own default, or, perhaps that the escape was a consequence of vis major, or the act of God; but as nothing of this sort exists here, it is unnecessary to inquire what excuse would be sufficient. The general rule, as above stated, seems on principle just. The person whose grass or corn is eaten down by the escaped cattle of his neighbour, or whose mine is flooded by the water from his neighbour's reservoir, or whose cellar is invaded by the filth of his neighbour's privy, or whose habitation is made unhealthy by the fumes and noisome vapours of his reasonable and just that the neighbour who has brought something on his own property but which he knows will be mischievous if it gets on his neighbour's, should be obliged to make good the damage which ensues if he does not succeed in confining it to his own property. But for his act in bringing it there no mischief would have accrued, and it seems just that he should at his peril keep it there, so that no mischief may accrue, or answer for the natural and anticipated consequences."**

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<sup>31</sup> *KM & 9 others v Attorney General & 7 others [2020] eKLR, Petition 1 of 2016, para. 163.*

<sup>32</sup> *KM & 9 others v Attorney General & 7 others [2020] eKLR, Petition 1 of 2016, para. 164.*

**“If it does escape and cause damage, he is responsible, however careful he may have taken to prevent the damage. In considering whether a defendant is liable to a plaintiff for the damage which the plaintiff may have sustained, the question in general is not whether the defendant has acted with due care and caution, but whether his acts have occasioned the damage.”**

166. The Supreme Court of India in *M C Mehta Vs Union of India* (1987) 1 SCC 395 introduced the concept of absolute liability where the defendant is engaged in industrial activities resulting in pollution. The court stated thus,

**“The enterprise must be held to be under an obligation to provide that the hazardous or inherently dangerous activity in which it is engaged must be conducted with the highest standards of safety and if any harm results on account of such activity, the enterprise must be absolutely liable to compensate for such harm and it should be no answer to the enterprise to say that it had taken all reasonable care and that the harm occurred without any negligence on its part. Since the persons harmed on account of the hazardous or inherently dangerous activity carried on by the enterprise would not be in a position to isolate the process of operation from the hazardous preparation of the substance of any other related element that caused the harm, the enterprise must be held strictly liable for causing such harm as part of the social cost of carrying on the hazardous or inherently dangerous activity. If the enterprise is permitted to carry on a hazardous or inherently dangerous activity for its profit, the law must presume that such permission is conditional on the enterprise absorbing the cost of any accident arising on account of such hazardous or inherently dangerous activity as an appropriate item for its overheads. Such hazardous or inherently dangerous activity for private profit can be tolerated on condition that the enterprise engaged in such hazardous or inherently dangerous activity indemnifies all those who suffer on account of carrying on such hazardous or inherently dangerous activity regardless of whether it is carried out carefully or not ... we would therefore hold that where an enterprise is engaged in a hazardous or inherently dangerous activity, resulting for example in escape of toxic gas, the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident and such liability is not subject to any of the exceptions which operate vis-à-vis the tortious principle of strict liability under the rule in Rylands Vs. Fletcher (1868) LR 3 HL 330, (1861 - 73).”**

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In the case of *National Environment Management Authority & 3 others v Maraba Lwatingu Residents Association & 505 others* [2020] eKLR<sup>33</sup>, the Environment and Land Court at Kakamega, while making a determination on whether orders for costs and restoration of the environment issued by the National Environment Tribunal were inordinately too high, harsh and punitive for a public project funded by donors, made the following observation:

In this case it is the 2<sup>nd</sup> appellant who undertook the project and the Tribunal used its discretion judiciously in this matter. 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 SPA & 2 others* (2019) eKLR the court held 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 the 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. In this case, the 1st respondent is held liable as he is the polluter.*

Similarly, in the case of *Mohamed Ali Baadi and others v Attorney General & 11 others*[2018] eKLR<sup>34</sup>, the case underscored the importance of public participation as follows:

227. The involvement of the public in environmental decision and policy making must be regarded as important for various reasons. First, the utilization of the views gathered from the public in governmental decision-making on environmental issues results in better implementation of the goals of environmental protection and sustainable development. This is because the resultant decisions raise an expanded knowledge base on the nature of environmental problems that are to be met by the decision. The decisions help to enrich and cross-fertilize environmental rights.

228. Secondly, developing environmental laws and policies is a very resource-intensive area. Hence, the public input comes in handy, especially in developing countries, in supplementing scarce government resources for developing laws and policies. In addition, at the implementation stage, public vigilance is critical for monitoring,

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<sup>33</sup> *National Environment Management Authority & 3 others v Maraba Lwatingu Residents Association & 505 others* [2020] eKLR, Environment and Land Appeal 5 of 2019.

<sup>34</sup> *Mohamed Ali Baadi and others v Attorney General & 11 others* [2018] eKLR, Petition 22 of 2012.

inspection and enforcement of environmental laws and policies by identifying and raising with appropriate authorities, environmental threats and violations.

229. Thirdly, public participation can help identify and address environmental problems at an early stage. This helps to save reaction-time, energy and the scarce financial resources, at least in the long run. In addition, it improves the reactive and, often, adversarial nature of government action which operates by promising solutions to environmental problems mostly *post-facto*, and only following an actual complaint by a citizen.

254. The importance of being informed of basic facts about the quality of their environment is, therefore, well established in different international conventions. Increasing access to environmental information also allows for competing interests to be balanced. Access to information permits all relevant factors to be taken into account as part of decision making process. Environmental information is a self-standing regulatory instrument and serves to inform the public of environments risks. Citizens must not only have access to information but must also be entitled to participate in decision-making and have access to justice in environmental matters. Only this way will they be able to assert their right to live in a safe environment, and fulfil their duty to protect, and improve the environment for the benefit of future generations. In addition to enhancing the quality and implementation of decisions, improved access to information and public participation contributes to public awareness of environmental issues and provides more opportunities for the public to express their concerns to relevant authorities.

256. In addition, if rights are to be effective, the public must have a way of seeking justice when those rights are accidentally, or deliberately, denied. For purposes of enforcement of environmental rights, Article 70 of the Constitution provides a framework to meet this need. It highlights rights of a citizen to move to Court citing violation of rights to clean and healthy environment. For a citizen to exercise these rights, access to environmental information is a necessity.

Under EMCA, any individual who has harmed the environment or who is still doing so may be subject to an environmental restoration order from the court.<sup>35</sup>

EMCA stipulates various environmental offences which including offences related to *inspection*, offences related to *Environmental Impact Assessment*, offences related to records and standards and offences related to hazardous wastes (emphasis added).<sup>36</sup> The Act also prescribes penalties for these offences.<sup>37</sup> Offences under EMCA relate among other things, failing to submit

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<sup>35</sup> S. 111(1), Act No. 8 of 1999.

<sup>36</sup> EMCA, s. 137-146.

<sup>37</sup> Ibid.

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to inspection<sup>38</sup>, offences relating to Environmental Impact Assessment<sup>39</sup>; offences relating to records<sup>40</sup>; offences relating to standards<sup>41</sup>; offences relating to hazardous waste<sup>42</sup>; offences relating to pollution<sup>43</sup>; and offences relating to restoration orders<sup>44</sup>.

The effectiveness of the polluter pays principle is also captured under Section 108 of EMCA which provides for restoration orders to be issued by the National Environment Management Authority (NEMA) to violators under the Act. Notably, the command and control mechanism involves the 'command' of the law and the legal authority of the State. This entails regulatory law, backed by criminal sanctions.<sup>45</sup> It is based on potential coercion rather than voluntary goodwill and on penalties rather than positive incentives.<sup>46</sup> The command and control mechanism is what has predominantly informed the development of Kenya's natural resources protection regime.<sup>47</sup>

The criminality component of regulation is what makes command and control methods successful.<sup>48</sup> It establishes a form of societal control over the use of natural resources.

Under command and control approaches, criminal law is used as a preventative tool by use of punitive sanction.<sup>49</sup> This is because from an economic perspective, criminal sanctions when effectively enforced raise the cost of certain conduct and therefore encourages compliance with laws.<sup>50</sup> The EMCA proposes further sanctions in addition to fines, including the seizure of used products and the cancellation of licences.<sup>51</sup>

The nexus between sustainable development and the right to clean and healthy environment, as well as the place of the polluter pays principle in enhancing this connection, was captured in the

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<sup>38</sup> Sec. 137, EMCA.

<sup>39</sup> Sec. 138, EMCA.

<sup>40</sup> Sec. 139, EMCA.

<sup>41</sup> Sec. 140, EMCA.

<sup>42</sup> Sec. 141, EMCA.

<sup>43</sup> Sec. 142, EMCA.

<sup>44</sup> Sec. 143, EMCA.

<sup>45</sup> Hutter, B.M., 'Socio-Legal Perspectives on Environmental Law: An Overview,' *op. cit.*, pp.3 & 5.

<sup>46</sup> Davies J.C. & Mazurek, J., *Pollution Control in the United States: Evaluating the System*, *op. cit.*, p.15.

<sup>47</sup> Ochieng', B.O., 'Institutional Arrangements for Environmental Management in Kenya,' in Okidi C.O., *et al*, *Environmental Governance in Kenya: Implementing the Framework Law*, (East African Educational Publishers Ltd, 2008), p.200.

<sup>48</sup> Hutter, B.M., 'Socio-Legal Perspectives on Environmental Law: An Overview,' *op. cit.*, pp. 3 & 5; cf. Ashworth, A., 'Conceptions of Over criminalization,' *Ohio State Journal of Criminal Law*, Vol. 5, 2008. pp. 407-425.

<sup>49</sup> Mbote, P.K. 'The Use of Criminal Law in Enforcing Environmental Law' in Okidi, C.O., *et al*, *Environmental Governance in Kenya: Implementing the Framework Law* (East African Educational Publishers Ltd, 2008) 110, p.112.

<sup>50</sup> *Ibid*, p. 110.

<sup>51</sup> S.146, Act No. 8 of 1999.

case of *John Muthui & 19 others v County Government of Kitui & 7 others* [2020] eKLR<sup>52</sup> in the following excerpt:

83. Indeed, Section 18 of the Environment and Land Court Act and Section 3(5) of the Environmental Management and Co-ordination Act provides that this court should be guided by the principle of *intergenerational equity* while resolving environmental disputes. Section 2 of the Environmental Management and Co-ordination Act defines *intergenerational equity* as follows:

*“intergenerational equity” means that the present generation should ensure that in exercising its rights to beneficial use of the environment the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.”*

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

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

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

105. The right to a clean and healthy environment is bestowed on every person, and has been considered by the courts and eminent authors to be essential for the existence of mankind. In *Adrian Kamotho Njenga vs. Council of Governors & 3 others* [2020] eKLR, it was held that:

*“18. Article 42 of the Constitution guarantees every person the right to a clean and healthy environment and to have the environment protected for the benefit of present and future generations through the measures prescribed by Article 69. The right*

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<sup>52</sup> *John Muthui & 19 others v County Government of Kitui & 7 others* [2020] eKLR, ELC. Petition No. E06 of 2020.

*extends to having the obligations relating to the environment under Article 70 fulfilled.*

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

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

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

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

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

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

*"sustainable development" means development that meets the needs of the present generation without compromising the ability of future generations to*

*meet their needs by maintaining the carrying capacity of the supporting ecosystems."*

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

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

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

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

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

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

*Chapter 11: Enforcing the Right to Clean and Healthy Environment in Kenya Through the Polluter Pays principle*

In the case of *Martin Osano Rabera & another v Municipal Council of Nakuru & 2 others* [2018] eKLR<sup>53</sup>, the Court stated as follows:

48. I have considered the petition, the evidence both in support and opposition to it and the submissions. That a clean and healthy environment is a fundamental prerequisite for life is not a matter that needs belabouring. It is for this reason that the drafters of the Constitution of Kenya, 2010 saw it fit to provide for the right to a clean and healthy environment at **Article 42** within the Bill of Rights. Needless to state, Kenyans voted overwhelmingly in favour of the draft, thus giving their seal of approval to its provisions. **Article 42** states as follows:

*Every person has the right to a clean and healthy environment, which includes the right—*

*(a) to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and*

*(b) to have obligations relating to the environment fulfilled under Article 70.*

49. A duty to have the environment protected for the benefit of present and future generations is imposed on both the State and every person under **Article 69** which among others requires the state to ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits; to establish systems of environmental impact assessment, environmental audit and monitoring of the environment and to eliminate processes and activities that are likely to endanger the environment. Under the same article, every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. In short, the obligation to ensure a clean and healthy environment imposed on everybody - from the state to all persons be they natural, juridical, association or other group of persons whether incorporated or not.

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

51. Provisions similar to those at **Article 42** are found at **Section 3** of the **Environmental Management and Co-ordination Act, 1999** (EMCA). Under **Section 3 (3)** of EMCA, if a person alleges that the right to a clean and healthy environment has been, is being or is

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

## *Chapter 11: Enforcing the Right to Clean and Healthy Environment in Kenya Through the Polluter Pays principle*

likely to be denied, violated, infringed or threatened, in relation to him, then without prejudice to any other action with respect to the same matter which is lawfully available, that person may on his behalf or on behalf of a group or class of persons, members of an association or in the public interest may apply to this court and this court may make such orders, among others, to prevent, stop or discontinue any act or omission deleterious to the environment; to compel the persons responsible for the environmental degradation to restore the degraded environment as far as practicable to its immediate condition prior to the damage; and to provide compensation for any victim of pollution and the cost of beneficial uses lost as a result of an act of pollution and other connected losses.

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

It is thus recommended that the country and courts actively enforces the polluter-pays principle as a way to not only restore the environmental areas that have been degraded but also as an incentive to curb environmental degradation.

### **5.0 Conclusion**

While the Rio Declaration which in Principle 16 embodies the polluter pays principle, does not impose any obligation on states to enforce those principles, Kenya, under section 3 (5) of EMCA and other various laws have incorporated this principle as part of the guiding principles that must be considered in enforcement of environmental law in Kenya. What is now required is for the Courts to strictly enforce it and hold more violators of environmental law culpable in order to enforce positive change towards environmental protection and conservation. Making violators bear the cost of environmental restoration will go a long way in not only guaranteeing the right to clean environment but also in achieving sustainable development.

## **Section IV: Protection Gaps, Human Mobility and Global Futures**

*This section interrogates the limitations of existing legal protection regimes in responding to climate-induced mobility and advances justice-centred, future-oriented approaches to human mobility governance. It moves from doctrinal critique to normative reconstruction, positioning human mobility as a central concern of environmental justice and sustainable global futures.*

## Chapter 12: The Limits of Refugee Law in Addressing Climate-Induced Mobility

### *Abstract*

*This chapter critically examines the limits of international and regional refugee law in addressing climate-induced mobility. The chapter observes that while climate change has emerged as a major driver of displacement and migration, international and regional refugee law is yet to evolve to address this growing trend. It discusses some of the key concerns in refugee law and explores why international and regional refugee law excludes climate and environmental related harm from refugee protection. The chapter observes that failure to accord adequate protection for climate-induced mobility under refugee law fuels injustices, inequalities and human right violations against vulnerable people and communities further exposing them to worsening impacts of climate change. In light of these concerns, the chapter posits that there is need to rethink protection in cases of climate-induced mobility for justice and human rights. It suggests proposals towards strengthening protection in instances of climate-induced mobility towards peace, justice, human rights and development.*

### **1.0 Introduction**

Climate-induced mobility refers to the temporal or permanent movement of people and communities within and across states driven by adverse impacts of climate change. It has been observed that climate-induced mobility occurs due to displacement, migration and planned relocation driven by droughts, floods, sea-level rise, desertification, and ecosystem collapse among other extreme climatic and weather events<sup>1</sup>. The International Organization for Migration notes that millions of people are forced to migrate or are displaced globally due to adverse changes in climate that are degrading ecosystems, reducing crop yields, destroying livelihoods and habitable areas and damaging basic infrastructure<sup>2</sup>.

It has been argued that climate change is no longer a distant threat, but a daily reality particularly in the Global South<sup>3</sup>. For example, it has been observed that despite its little

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<sup>1</sup> Intergovernmental Panel on Climate Change., 'Climate Change 2022: Impacts, Adaptation and Vulnerability' Available at <https://www.ipcc.ch/report/ar6/wg2/> (Accessed on 02/02/2026)

<sup>2</sup> International Organization for Migration., 'Climate induced Mobility on the Agenda, as Kenya hosts Africa Climate Summit' Available at <https://kenya.iom.int/news/climate-induced-mobility-agenda-kenya-hosts-africa-climate-summit#:~:text=Climate%2Dinduced%20mobility%20has%20become%20increasingly%20evident%20in,nexus%20between%20human%20mobility%20and%20climate%20change>. (Accessed on 02/02/2026)

<sup>3</sup> Intergovernmental Authority on Development., 'Climate Change and Human Mobility in the IGAD Region: A Growing Challenge, A Coordinated Response' Available at <https://igad.int/climate-change-and-human-mobility-in-the-igad-region-a-growing-challenge-a-coordinated->

contribution to climate change, Africa faces disproportionate impacts from the climate crisis<sup>4</sup>. From prolonged droughts and flash floods to erratic weather patterns, the effects of climate change are displacing millions of people all over Africa and placing tremendous strain on already vulnerable communities<sup>5</sup>.

Climate-induced mobility is therefore a major global challenge with impacts on peace, security and development. For instance, it has been observed that displacement due to climate change is a major source of conflicts over vital natural resources including water, food and arable land<sup>6</sup>. Protection of people and communities displaced by climate change is also a major challenge at the global, regional and national levels. For instance, it has been observed that they face challenges in accessing basic and essential services such as food, water, education, health and decent work opportunities leading to injustices, inequalities and human right violations<sup>7</sup>. In particular, it has been observed that failure to accord adequate protection to climate refugees under international and regional refugee laws contributes to injustices and human right abuses while worsening the vulnerability of individuals and communities adversely impacted by climate change<sup>8</sup>. In light of these concerns, there is need to effectively protect people and communities impacted by climate-induced mobility for justice, human rights and development.

This chapter critically examines the limits of international and regional refugee law in addressing climate-induced mobility. The chapter observes that while climate change has emerged as a major driver of displacement and migration, international and regional refugee law is yet to evolve to address this growing trend. It discusses some of the key concerns in refugee law and explores why international and regional refugee law

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[response/#:~:text=Regional%20context%20climate%20change%20and,human%20mobility%20in%20the%20region.](#) (Accessed on 02/02/2026)

<sup>4</sup> United Nations Environment Programme., 'Responding to Climate Change' Available at <https://www.unep.org/regions/africa/regional-initiatives/responding-climate-change> (Accessed on 02/02/2026)

<sup>5</sup> Intergovernmental Authority on Development., 'Climate Change and Human Mobility in the IGAD Region: A Growing Challenge, A Coordinated Response' Op Cit

<sup>6</sup> United Nations Climate Change., 'Technical guide on integrating human mobility and climate change linkages into relevant national climate change planning processes' Available at [https://unfccc.int/sites/default/files/resource/WIM\\_ExCom\\_human-mobility\\_TFD\\_2024.pdf](https://unfccc.int/sites/default/files/resource/WIM_ExCom_human-mobility_TFD_2024.pdf) (Accessed on 02/02/2026)

<sup>7</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Available at [https://www.iom.int/sites/g/files/tmzbd1486/files/migrated\\_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf](https://www.iom.int/sites/g/files/tmzbd1486/files/migrated_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf) (Accessed on 02/02/2026)

<sup>8</sup> Harvey. C., 'Time for Reform? Refugees, Asylum-seekers, and Protection under International Human Rights Law.' *Refugee Survey Quarterly*, No. 35 of 2015, pp 43-60

excludes climate and environmental related harm from refugee protection. The chapter observes that failure to accord adequate protection for climate-induced mobility under refugee law fuels injustices, inequalities and human right violations against vulnerable people and communities further exposing them to worsening impacts of climate change. In light of these concerns, the chapter posits that there is need to rethink protection in cases of climate-induced mobility for justice and human rights. It suggests proposals towards strengthening protection in instances of climate-induced mobility towards peace, justice, human rights and development.

## **2.0 Refugee Law and Climate-Induced Mobility: Current Status and Challenges**

Protection of refugees is a vital agenda at both global and regional levels. It has been observed that millions of people are forcibly displaced all over the world as a result of persecution, conflict, violence, human rights violations or other events seriously disturbing public order<sup>9</sup>. According to the Office of the United Nations High Commissioner for Human Rights (OHCHR), refugees are entitled to all the rights and fundamental freedoms that are spelled out in international human rights instruments<sup>10</sup>. As a result, it has been observed that the protection of the refugee should be viewed in the broader context of the protection of human rights<sup>11</sup>. Under international human right instruments, states are primarily responsible for protecting the fundamental rights and freedoms of their citizens<sup>12</sup>. However, it has been observed that the problem of refugees arise when states are unable or unwilling to protect the rights and freedoms of their citizens often for political reasons, based on discrimination, or due to conflict, violence and other circumstances seriously disturbing public order, causing individual and communities to suffer such serious violations of their human rights that they must leave their homes, their families and their communities to find sanctuary in another country<sup>13</sup>.

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<sup>9</sup> United Nations High Commissioner for Refugees., 'Figures at Glance.' Available at <https://www.unhcr.org/us/about-unhcr/who-we-are/figuresglance#:~:text=How%20many%20refugees%20are%20there,under%20the%20age%20of%202018.> (Accessed on 03/02/2026)

<sup>10</sup> Office of the United Nations High Commissioner for Human Rights., 'Fact Sheet No.20: Human Rights and Refugees.' Available at <https://www.ohchr.org/sites/default/files/Documents/Publications/FactSheet20en.pdf> (Accessed on 03/02/2026)

<sup>11</sup> Ibid

<sup>12</sup> United Nations High Commissioner for Refugees., 'The 1951 Refugee Convention.' Available at <https://www.unhcr.org/about-unhcr/who-we-are/1951-refugee-convention> (Accessed on 03/02/2026)

<sup>13</sup> Ibid

Refugee law therefore developed to ensure protection of people forced to leave their countries due to persecution, conflict, violence, human rights violations or events seriously disturbing public order<sup>14</sup>. It has been observed that international refugee law emerged in the aftermath of the 2<sup>nd</sup> World War and was shaped by the experience of political persecution, statelessness, and mass displacement particularly in Europe<sup>15</sup>. In response to forced displacements occasioned during the 1<sup>st</sup> World War (1914-1918) and the 2<sup>nd</sup> World War (1939-1945), the international community developed a set of guidelines, laws and conventions aimed at protecting the basic human rights and treatment of people forced to flee conflict and persecution. It has been observed that this process which began under the League of Nations in 1921, culminated in the adoption of the *Convention Relating to the Status of Refugee*<sup>16</sup> (1951 Refugee Convention) which consolidated and expanded on previous international instruments relating to refugees and continues to provide the most comprehensive codification of the rights of refugees at the international level<sup>17</sup>.

The 1951 Refugee Convention therefore establishes the international legal framework for the protection of refugees. The Convention defines a refugee as a person who flees their country because of a well-founded fear of persecution on the grounds of race, religion, nationality, membership in a particular social group, or political opinion<sup>18</sup>. It also sets out a category of persons who do not qualify for protection as refugees including a person who has committed a crime against peace, a war crime, a crime against humanity, a serious non-political crime outside the country of refuge prior to his admission to that country as a refugee or has been guilty of acts contrary to the purposes and principles of the United Nations<sup>19</sup>. The Convention sets out the fundamental principles governing the international protection of refugees including the principle of *non-refoulement* which provides that which asserts that a refugee should not be returned to a country where they face serious threats to their life or freedom; the principle of *non-discrimination* to the effect that protection must be extended to all refugees without discrimination on grounds such as race, religion or country of origin; the principle of *international cooperation* towards achieving a satisfactory solution to the problems of refugee; and the principle that

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<sup>14</sup> United Nations High Commissioner for Refugees., 'Figures at Glance.' Op Cit

<sup>15</sup> United Nations High Commissioner for Refugees., 'The 1951 Refugee Convention' Available at <https://www.unhcr.org/about-unhcr/overview/1951-refugee-convention> (Accessed on 03/02/2026)

<sup>16</sup> United Nations General Assembly, *1951 Convention Relating to the Status of Refugees*, United Nations, Treaty Series, vol. 189, p. 137, 28 July 1951

<sup>17</sup> United Nations High Commissioner for Refugees., 'The 1951 Refugee Convention' Op Cit

<sup>18</sup> 1951 Refugee Convention, Article 1 (A) (2)

<sup>19</sup> Ibid, Article 1 (F)

protection applies to all refugees within the territories of contracting states whether they are there legally or illegally<sup>20</sup>. The 1951 Refugee Convention also establishes basic minimum standards for the treatment of refugees including access to housing, work and education while displaced so they can lead a dignified and independent life<sup>21</sup>.

The 1951 Refugee Convention is supplemented by the 1967 *Protocol Relating to the Status of Refugees*<sup>22</sup>. It has been observed that the Protocol was adopted out of the realization that new refugee situations had arisen since the adoption of the 1951 Refugee Convention which only covers those persons who have become refugees as a result of events occurring before 1<sup>st</sup> January 1951<sup>23</sup>. According to the Protocol, equal status should be enjoyed by all refugees covered by the definition in the 1951 Refugee Convention irrespective of the dateline 1<sup>st</sup> January 1951<sup>24</sup>. The 1951 Refugee Convention and its 1967 Protocol Relating to the Status of Refugees provide the cornerstone of international refugee law.

Protection of refugees is also a fundamental agenda in Africa. It has been observed that Africa hosts more than 26 percent of the global refugee population with this figure expected to rise due to ongoing crises in several African countries<sup>25</sup>. Factors such as conflicts, civil unrest, environmental disasters, oppressive regimes, human right abuses are forcing many Africans to leave their home countries and seek safety in neighbouring states<sup>26</sup>. It has been observed that the countries with the highest refugee burden in Africa include Ethiopia, Kenya, Chad, Uganda, Cameroon and South Sudan<sup>27</sup>. In light of this situation, the *Convention Governing the Specific Aspects of Refugee Problems in Africa*<sup>28</sup>, sets out the legal framework on protection of refugees in the continent. It adopts the definition of a refugee as set out in the 1951 Refugee Convention<sup>29</sup>. It also upholds the fundamental

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<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> United Nations General Assembly., 1967 Protocol Relating to the Status of Refugees, United Nations, Treaty Series, vol. 606, p. 267, 31 January 1967,

<sup>23</sup> Ibid

<sup>24</sup> Ibid

<sup>25</sup> United Nations., 'Migration Dynamics, Refugees and Internally Displaced Persons in Africa' Available at <https://www.un.org/en/academic-impact/migration-dynamics-refugees-and-internally-displaced-persons-africa> (Accessed on 03/02/2026)

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> African Union., 'Convention Governing the Specific Aspects of Refugee Problems in Africa.' Available at [https://au.int/sites/default/files/treaties/36400-treaty-0005\\_-\\_oau\\_convention\\_governing\\_the\\_specific\\_aspects\\_of\\_refugee\\_problems\\_in\\_africa\\_e.pdf](https://au.int/sites/default/files/treaties/36400-treaty-0005_-_oau_convention_governing_the_specific_aspects_of_refugee_problems_in_africa_e.pdf) (Accessed on 03/02/2026)

<sup>29</sup> Ibid, Article 1

principles stipulated under the 1951 Refugee Convention including the principles of non-refoulement, non-discrimination, voluntary repatriation and state cooperation<sup>30</sup>.

At a national level, the *Refugees Act*<sup>31</sup> of Kenya is an Act of Parliament to provide for the recognition, protection and management of refugees; to give effect to the 1951 United Nations Convention Relating to the Status of Refugees, the 1967 Protocol Relating to the Status of Refugees and the 1969 Convention Governing the Specific Aspects of Refugee Problems in Africa<sup>32</sup>. The Act has been described as fundamental legislation since protection of refugees in Kenya is a critical issue given the fact that the country is home to over half a million refugees and hosts the Dadaab and Kakuma refugee camps which are among the largest refugee camps in the world<sup>33</sup>.

Protection of refugees is therefore a key agenda both globally and at regional and national levels. However, the current refugee law raises several concerns especially in the era of climate-induced mobility. In particular, it has been observed that the definition of a refugee under the 1951 Refugee Convention does not include Internally Displaced Persons (IDPs) and individuals fleeing natural disasters<sup>34</sup>. In the current era, refugee flows have been more likely due to civil wars, ethnic and communal conflicts and generalized violence, adverse climatic events including natural disasters or famine, usually in combinations, than individually targeted persecution by an oppressive regime as envisaged under refugee law<sup>35</sup>. Further, it has been argued that most climate-related displacement is within countries, whereas the 1951 Refugee Convention offers protection only to those fleeing war, violence, conflict or persecution who have crossed an international border to find safety<sup>36</sup>. Refugee law may thus not provide effective protection in the context of climate-induced mobility.

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<sup>30</sup> Ibid

<sup>31</sup> Refugees Act, No. 10 of 2021, Laws of Kenya

<sup>32</sup> Ibid

<sup>33</sup> World Food Programme., 'Refugees in Kenya.' Available at [https://cdn.wfp.org/wfp.org/publications/Refugee\\_Factsheet.pdf?\\_ga=2.101754305.1983826268.1568740478-1446946390.1568740478](https://cdn.wfp.org/wfp.org/publications/Refugee_Factsheet.pdf?_ga=2.101754305.1983826268.1568740478-1446946390.1568740478) (Accessed on 03/02/2026)

<sup>34</sup> International Justice Resource Center., 'Asylum & the Rights of Refugees.' Available at <https://ijrcenter.org/refugee-law/> (Accessed on 03/02/2026)

<sup>35</sup> Worster. W., 'The Evolving Definition of the Refugee In Contemporary International Law.' *Berkeley Journal of International Law*, Volume 30, No.1

<sup>36</sup> United Nations High Commissioner for Refugees., 'Climate change and displacement: the myths and the facts' Available at <https://www.unhcr.org/news/stories/climate-change-and-displacement-myths-and-facts> (Accessed on 03/02/2026)

In light of the foregoing concerns, there is need to rethink refugee law in order to address the issue of climate-induced mobility.

### **3.0 Addressing Climate-Induced Mobility: The need to Reform Refugee Law?**

Climate change is a major cause of displacement and migration in the modern era. Adverse climatic events including rising sea-levels, extreme drought, floods and heatwaves affect the livelihoods and well-being of vulnerable individuals and communities creating conditions for displacement and migration<sup>37</sup>. It has been observed that due to its impacts on food security, water availability, livelihoods, human and ecosystem health, climate change is increasingly driving human mobility as people search for better and safe conditions<sup>38</sup>.

Despite climate change causing displacements both within and across state boundaries, refugee law is yet to develop to address climate-induced mobility. It has been observed that this is largely due to the persecution framework of refugee law which was developed to protect those fleeing war, violence, conflict or persecution who have crossed an international border to find safety<sup>39</sup>. It has been argued that climate-related harm may not fall within this description since adverse climatic events are often diffuse, slow-onset, and not attributable to a single actor<sup>40</sup>. In addition, it has been observed that most climate-related displacement is within countries thus not falling under the strict confines of refugee law<sup>41</sup>.

In light of the foregoing, there is need to rethink protection in cases of climate-induced mobility towards justice and human rights. There have been proposals to reform international and regional refugee law in order to take into account current concerns such as the emergence of climate refugees towards effectively protecting all category of people

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<sup>37</sup> Human Mobility in the Context of Climate Change., Available at [https://www.giz.de/de/downloads/GIZ\\_Broschuere\\_Human\\_Mobility\\_20230814.pdf](https://www.giz.de/de/downloads/GIZ_Broschuere_Human_Mobility_20230814.pdf) (Accessed on 03/02/2026)

<sup>38</sup> Ibid

<sup>39</sup> United Nations High Commissioner for Refugees., 'Climate change and displacement: the myths and the facts' Op Cit

<sup>40</sup> United Nations High Commissioner for Refugees., ' Legal Considerations regarding Claims for International Protection made in the Context of the Adverse Effects of Climate Change and Disasters' Available at <https://www.unhcr.org/publications/legal/5f75f2734/legal-considerations-claims-international-protection-made-context.html> (Accessed on 03/02/2026)

<sup>41</sup> United Nations High Commissioner for Refugees., 'Climate change and displacement: the myths and the facts' Op Cit

forced to flee from their homes<sup>42</sup>. In particular, it has been argued that the principle of non-refoulement extends to climate refugees to prevent them from being forcibly returned to their home countries where they may be adversely impacted by climate change<sup>43</sup>. For example, in the case of *Teitiota v New Zealand*<sup>44</sup>, the United Nations Human Rights Committee decided that New Zealand had an obligation under the International Covenant on Civil and Political Rights (ICCPR) not to deport or remove an individual to a country where their right to life is at risk. In the case, the applicant had sought refugee status in New Zealand since he feared returning to Kiribati, a Pacific island that is becoming uninhabitable due to rising sea levels<sup>45</sup>. In light of this decision, it has been argued that even without an explicit legal framework providing protection to climate refugees, countries should uphold their legal commitments to the principle of non-refoulement by avoiding deportations or forced returns to countries adversely affected by climate change in order to uphold human rights<sup>46</sup>.

In addition to limited protection under refugee law through the principle of non-refoulement, countries have been urged to strengthen the protection of climate refugees under human rights laws<sup>47</sup>. For instance, it has been suggested that strengthening general humanitarian principles by providing protection in form of basic minimum standards such as food, water, housing and healthcare can ensure that climate refugees are adequately protected<sup>48</sup>. Further, it has been observed that agreements between countries can ensure sound protection of climate refugees even in absence of a binding international legal framework<sup>49</sup>. For instance, an agreement between Australia and Tuvalu for the provision of climate migration visas to residents of Tuvalu who are

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<sup>42</sup> Harvey. C., 'Time for Reform? Refugees, Asylum-seekers, and Protection under International Human Rights Law.' Op Cit

<sup>43</sup> The 1951 Refugee Convention: Displacement Caused by Climate Change., Available at <https://refugees.org/the-1951-refugee-convention-displacement-caused-by-climate-change/> (Accessed on 03/02/2026)

<sup>44</sup> Ioane Teitiota v New Zealand (Communication No 2728/2016) UN Doc CCPR/C/127/D/2728/2016 (7 January 2020).. Available at <https://www.ohchr.org/en/documents/views-adopted-under-article-5-optional-protocol/teitiota-v-new-zealand> (Accessed on 03/02/2026)

<sup>45</sup> Ibid

<sup>46</sup> The 1951 Refugee Convention: Displacement Caused by Climate Change., Op Cit

<sup>47</sup> Ibid

<sup>48</sup> Harvey. C., 'Time for Reform? Refugees, Asylum-seekers, and Protection under International Human Rights Law.' Op Cit

<sup>49</sup> Woodford. J., 'Nearly a third of Tuvaluans have applied for climate migration visa' Available at <https://www.newscientist.com/article/2485970-nearly-a-third-of-tuvaluans-have-applied-for-climate-migration-visa/> (Accessed on 03/02/2026)

adversely impacted by sea-level rise has been hailed as a viable approach that can ensure the protection of climate migrants beyond the confines of refugee law<sup>50</sup>.

Through the foregoing, it is possible to ensure adequate protection in cases of climate-induced mobility.

#### **4.0 Conclusion**

Due to its nature and history, refugee law may not be effective in addressing climate-induced mobility. However, with climate change increasingly driving human mobility, in some cases across states, there is need to rethink protection of climate refugees for justice and human rights. Extending general protection under refugee law through the principle of non-refoulement is vital in preventing climate refugees from being forcibly returned to their home countries where they face threats to their lives, livelihoods, security and well-being<sup>51</sup>. Further, complementary protection mechanisms grounded in human rights law can ensure effective protection of climate refugees including through access to basic minimum standards such as food, water, housing and healthcare<sup>52</sup>. Agreements between states such as the provision of climate migration visas can ensure sound protection of climate migrants beyond the limits of refugee law<sup>53</sup>. Addressing climate-induced mobility is a vital agenda for peace, justice and human rights in the 21<sup>st</sup> Century. It is imperative to rethink and extend protection beyond the limits of refugee law towards achieving this agenda for Sustainable Development.

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<sup>50</sup> Ibid

<sup>51</sup> Ioane Teitiota v New Zealand (Communication No 2728/2016) UN Doc CCPR/C/127/D/2728/2016 (7 January 2020).. Op Cit

<sup>52</sup> Harvey. C., 'Time for Reform? Refugees, Asylum-seekers, and Protection under International Human Rights Law.' Op Cit

<sup>53</sup> Woodford. J., 'Nearly a third of Tuvaluans have applied for climate migration visa' Op Cit

## Chapter 13: Towards Human Mobility Justice: Rethinking Protection beyond Borders

### Abstract

*This chapter discusses how the ideal of human mobility justice can be attained. The chapter defines human mobility justice. It argues that fostering human mobility justice is an urgent and important global agenda in light of the inequalities, discrimination, exclusion and human right violations faced by migrants, asylum seekers, refugees and internally displaced persons. The chapter discusses some of the current human mobility injustices in the world. In light of such injustices, it argues that there is need to rethink protection beyond borders in order to protect vulnerable populations. The chapter discusses how human mobility justice can be realised for peace, human rights, equality and development.*

### 1.0 Introduction

Human mobility has become a common and widespread phenomenon in the 21<sup>st</sup> century with impacts on peace, security, stability and development at all levels. It has been observed that human mobility includes the temporal or permanent movement of people within a state or across different states<sup>1</sup>. It ranges from daily movement of people from location to another within a country to international movement across states<sup>2</sup>.

The increase in global human mobility is influenced by several factors. For example, it has been observed that people move within and across countries in search of better opportunities including well-paying employment, education and healthcare<sup>3</sup>. Conflicts and wars are also a major cause of human mobility with negative impacts on international peace and security. It has been observed that ongoing wars and conflicts in the world are fueling the loss of civilian lives, the displacement of populations, resulting in loss of livelihoods, increased poverty, and social fragmentation<sup>4</sup>. In particular, conflicts and wars result in displacement of populations leading to a growth of refugees and internally displaced persons<sup>5</sup>.

Environmental factors have also become a major cause of human mobility in the current era. For example, it has been observed that climate change, environmental disasters, and environmental degradation are key drivers of human mobility, leading to increased displacement at national,

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<sup>1</sup> United Nations Development Programme., 'Human Mobility' Available at <https://www.undp.org/humanmobility> (Accessed on 02/02/2026)

<sup>2</sup> Ibid

<sup>3</sup> Human Mobility., Available at <https://www.unilim.fr/trahs/4372&file=1/#:~:text=Human%20mobility%20includes%20asylum%20seekers,the%20most%20significant%20human%20mobility.> (Accessed on 02/02/2026)

<sup>4</sup> Gray Group International., 'Peace and Sustainable Development: Synergies for Global Prosperity' Available at <https://www.graygroupintl.com/blog/peace-and-sustainable-development> (Accessed on 02/02/2025)

<sup>5</sup> Ibid

regional and global levels<sup>6</sup>. Natural hazards including earthquakes, floods, volcanic eruptions and tsunamis lead to severe humanitarian crises including loss of lives, livelihoods and destruction of homes and vital infrastructure<sup>7</sup>. Due to such disasters, people are forced to move to safer and more secure locations resulting in increased human mobility<sup>8</sup>.

In particular, climate change is driving human mobility all over the world. The world is currently witnessing a climate emergency with adverse climatic events including intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity being on the rise globally undermining development efforts<sup>9</sup>. These events are driving human mobility including through displacement, migration and planned relocation<sup>10</sup>. It has been observed that adverse climatic events including rising sea-levels, extreme drought, floods and heatwaves affect the livelihoods and well-being of vulnerable communities creating conditions for displacement and migration<sup>11</sup>. Climate change leads to loss of livelihoods, water insecurity, food shortages, destruction of homes and social amenities, and disease outbreaks thus increasingly driving human mobility as people search for better conditions<sup>12</sup>.

Human mobility can be a positive phenomenon that can spur growth, development and prosperity. In particular, it has been observed that international migration can bring knowledge, support, networks, resources, diversity and skills in countries of origin, transit and destination therefore aiding in building more diverse and prosperous societies<sup>13</sup>. However, human mobility also creates injustices. For example, it has been observed that migrants, refugees and internally displaced persons usually experience discrimination, exclusion and human right violations including inadequate access to food, water, education, health and decent work opportunities<sup>14</sup>.

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<sup>6</sup> Intergovernmental Authority on Development., 'Human mobility in the context of climate change, Disasters, and Environmental Degradation' Available at <https://www.icpac.net/our-projects/human-mobility-in-the-context-of-climate-change-disasters-and-environmental-degradation/#:~:text=Addressing%20climate%2Dinduced%20mobility%20challenges,%2C%20and%20socio%2Deconomic%20factors>. (Accessed on 02/02/2026)

<sup>7</sup> United Nations Educational, Scientific and Cultural Organization., 'Disaster Risk Reduction' Available at <https://www.unesco.org/en/disaster-risk-reduction> (Accessed on 02/02/2026)

<sup>8</sup> United Nations., 'International Day for Disaster Risk Reduction' Available at <https://www.un.org/en/observances/disaster-reduction-day> (Accessed on 02/02/2026)

<sup>9</sup> United Nations., 'What is Climate Change?' Available at <https://www.un.org/en/climatechange/what-is-climate-change> (Accessed on 02/02/2023)

<sup>10</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Available at [https://www.iom.int/sites/g/files/tmzbd1486/files/migrated\\_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf](https://www.iom.int/sites/g/files/tmzbd1486/files/migrated_files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf) (Accessed on 02/02/2026)

<sup>11</sup> Human Mobility in the Context of Climate Change., Available at [https://www.giz.de/de/downloads/GIZ\\_Broschuere\\_Human\\_Mobility\\_20230814.pdf](https://www.giz.de/de/downloads/GIZ_Broschuere_Human_Mobility_20230814.pdf) (Accessed on 02/02/2026)

<sup>12</sup> Ibid

<sup>13</sup> United Nations Development Programme., 'Human Mobility' Op Cit

<sup>14</sup> Ibid

In light of these concerns, it is imperative to foster human mobility justice for peace, human rights and development.

This chapter discusses how the ideal of human mobility justice can be attained. The chapter defines human mobility justice. It argues that fostering human mobility justice is an urgent and important global agenda in light of the inequalities, discrimination, exclusion and human right violations faced by migrants, asylum seekers, refugees and internally displaced persons. The chapter discusses some of the current human mobility injustices in the world. In light of such injustices, it argues that there is need to rethink protection beyond borders in order to protect vulnerable populations. The chapter discusses how human mobility justice can be realised for peace, human rights, equality and development.

## **2.0 Human Mobility: Current Status and Challenges**

Human mobility has become a major global issue that requires urgent attention towards tackling its causes and effects. It has been observed that over the past decades, the world has witnessed an increase in refugees, internally displaced persons, asylum seekers and people forced to move for other reasons including environmental threats, catastrophes, wars and conflicts<sup>15</sup>. The United Nations High Commissioner for Refugees (UNHCR) estimates that currently, there are over 117 million people all over the world forcibly displaced due to various reasons including persecution, conflict, violence, human rights violations and other events seriously disturbing public order<sup>16</sup>.

In particular, environmental factors such as climate change are a major cause of displacements. It is estimated that weather-related disasters have caused over 220 million internal displacements globally over the past decade<sup>17</sup>. Further, it has been observed that the number of countries facing extreme climate-related hazards is expected to rise, a situation that will trigger more displacements both within and across state borders<sup>18</sup>. According to UNHCR, the climate crisis is deeply connected with human displacement. For instance, climate related disasters are responsible for most of the reported displacements happening globally<sup>19</sup>. In addition, it has been observed that most of the refugees and internally displaced people live in countries that are highly vulnerable to climate change exposing them to severe risks<sup>20</sup>.

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<sup>15</sup> Human Mobility., Op Cit

<sup>16</sup> United Nations High Commissioner for Refugees., 'Refugee Data Finder' Available at <https://www.unhcr.org/refugee-statistics> (Accessed on 02/02/2026)

<sup>17</sup> How climate change impacts refugees and displaced communities., Available at <https://www.unrefugees.org/news/how-climate-change-impacts-refugees-and-displaced-communities/> (Accessed on 02/02/2026)

<sup>18</sup> Ibid

<sup>19</sup> United Nations High Commissioner for Refugees., 'Climate change and displacement: the myths and the facts' Available at <https://www.unhcr.org/news/stories/climate-change-and-displacement-myths-and-facts> (Accessed on 02/02/2026)

<sup>20</sup> Ibid

The rise in human mobility has become a major cause of injustices particularly against refugees and internally displaced people. For instance, it has observed that refugees generate different forms of reaction in host states ranging from support to extreme rejection, discrimination and human right abuses<sup>21</sup>. In most cases, citizens in host states deem refugees as a disturbance to their way of live leading to various form of discrimination such as xenophobia and aporophobia<sup>22</sup>. Further, it has been observed that climate change amplifies injustices, inequalities and discrimination against those forced to flee its extreme impacts<sup>23</sup>. Extreme weather events due to climate change create multiple and overlapping crises, threatening human rights, increasing poverty and loss of livelihoods, straining peaceful relations between neighbouring communities, and fuelling conditions for further forced displacement<sup>24</sup>. In most instance, those displaced by environmental factors including climate change have no choice but to live in remote locations, in overcrowded camps or informal settlements<sup>25</sup>. It has been observed that people displaced by climate change face challenges in accessing basic services including food, water, adequate shelter and healthcare while also being exposed and vulnerable to climate hazards like floods, drought, storms and heatwaves due to inadequate infrastructure, resources and support to cope with these events<sup>26</sup>.

Further, it has been observed that human security challenges related to climate change including the destruction of livelihoods can comprise peoples' culture and identity. In particular, it has been pointed out that adverse climatic events including sea-level rise, ocean acidification and coastal erosion pose existential threats to small island developing states threatening their population with displacements and even potential statelessness<sup>27</sup>. It has been argued that human mobility in such contexts can fuel disputes over territorial and maritime claims thus threatening international peace and security<sup>28</sup>. Further, by disrupting livelihoods, climate change makes it difficult for displaced people to be self-sufficient exposing them to injustices, inequalities and human rights violations in host communities and states<sup>29</sup>. In addition, it has been pointed out that climate

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<sup>21</sup> Human Mobility., Op Cit

<sup>22</sup> Ibid

<sup>23</sup> United Nations High Commissioner for Refugees., 'Climate Change and Displacement' Available at <https://www.unhcr.org/what-we-do/build-better-futures/climate-change-and-displacement> (Accessed on 02/02/2026)

<sup>24</sup> Ibid

<sup>25</sup> Ibid

<sup>26</sup> Ibid

<sup>27</sup> Global Forum on Migration & Development., 'The impact of climate change on human mobility: preventive action, humanitarian action and development' Available at [https://www.gfmd.org/sites/g/files/tmzbd11801/files/documents/france2023/roundtables/GFMD%20GRT%201%20-%20Background%20paper%20Final\\_EN.pdf?EN#:~:text=People%20have%20always%20moved%20in,wit hin%20their%20lifetime](https://www.gfmd.org/sites/g/files/tmzbd11801/files/documents/france2023/roundtables/GFMD%20GRT%201%20-%20Background%20paper%20Final_EN.pdf?EN#:~:text=People%20have%20always%20moved%20in,wit hin%20their%20lifetime). (Accessed on 02/02/2026)

<sup>28</sup> Ibid

<sup>29</sup> United Nations High Commissioner for Refugees., 'Climate Change and Displacement' Op Cit

change escalates tensions and conflicts over vital resources including food, water, fuel and arable land, threatening peaceful coexistence between displaced populations and host communities<sup>30</sup>.

In light of the foregoing injustices, it is imperative to rethink protection both within and beyond borders towards human mobility justice.

### **3.0 Towards Human Mobility Justice**

Human mobility, driven by factors such as conflicts, wars, human right violations, political persecution and environmental factors including climate change, has become one of the defining issues of our time. Despite its potential to spur prosperous and inclusive societies due to exchange knowledge, cultures, networks, skills and resources, human mobility has become a major cause of injustices and inequalities<sup>31</sup>. For instance, migrants face discrimination, exclusion, human right violations and difficulties in accessing essential services including healthcare, education and employment opportunities<sup>32</sup>. In particular, human mobility due to climate change is a major cause of injustices which impact vulnerable people and communities further exposing them to worsening impacts of the climate crisis<sup>33</sup>. Climate change makes individuals and communities to lose their homes and livelihoods while also exposing them to food and water insecurity and disease outbreaks triggering human mobility in form of displacement, migration and planned relocation<sup>34</sup>. Human mobility in the context of climate change especially in cases of migration and displacement exposes individuals and communities to injustices including loss of livelihoods, increased poverty, inadequate access to vital services including food, water, shelter and healthcare, and loss of culture and identity<sup>35</sup>. In light of these concerns, it is imperative to rethink protection both within and beyond borders towards human mobility justice.

Human mobility justice has been described as an intersectional approach that seeks to tackle injustices that persist when people move voluntarily are forced to move both within and across state boundaries<sup>36</sup>. It seeks to ensure equality, fairness, and justice not only in the context of freedom of movement but also in upholding human rights during and after movement<sup>37</sup>. Human mobility justice recognises how vulnerable groups impacted by climate change face exclusion and

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<sup>30</sup> Ibid

<sup>31</sup> United Nations Development Programme., 'Human Mobility' Op Cit

<sup>32</sup> Ibid

<sup>33</sup> United Nations High Commissioner for Refugees., 'Climate Change and Displacement' Op Cit

<sup>34</sup> International Organization for Migration., 'Human Mobility in the Context of Climate Change' Op Cit

<sup>35</sup> United Nations High Commissioner for Refugees., 'Climate Change and Displacement' Op Cit

<sup>36</sup> Harada.T., 'Mobility Justice and Sustainable Futures' Available at [https://www.tandfonline.com/doi/full/10.1080/00049182.2023.2271615#:~:text=Mobility%20justice%20is%20therefore%20an,and%20inequality%20\(Sheller%202020\)](https://www.tandfonline.com/doi/full/10.1080/00049182.2023.2271615#:~:text=Mobility%20justice%20is%20therefore%20an,and%20inequality%20(Sheller%202020).). (Accessed on 02/02/2026)

<sup>37</sup> Ibid

discrimination and have limited resilience and adaptation capacities in host communities and countries<sup>38</sup>. It therefore seeks to uphold justice, equity and human rights<sup>39</sup>.

Fostering human mobility justice is therefore important towards protecting vulnerable individuals and communities especially in the context of climate-induced displacement and migration. In order to achieve this goal, there is need to rethink protection both within and beyond borders. This involves supporting safe and regular migration for displaced persons and affected communities<sup>40</sup>. It has been observed that when people and communities affected by climate change are allowed to move freely within and across countries without restrictions, they can be able to protect themselves against the worsening impacts of climate change for justice and human rights<sup>41</sup>. It is also necessary to strengthen the international protection of people forced to flee from their homes due to climate change among other environmental threats. It has been observed that the *Convention Relating to the Status of Refugees*<sup>42</sup> does not cover climate refugees since it only offers protection to those fleeing war, violence, conflict or persecution who have crossed an international border to find safety<sup>43</sup>. Consequently, it has been argued that there is need to reform international refugee law in order to take into account current concerns such as the emergence of climate refugees towards effectively protecting all category of people forced to flee from their homes<sup>44</sup>. Through this, refugee protection can be extended to persons displaced by climate change and natural hazards including through access to basic minimum standards such as food, housing, work and education while displaced so they can lead a dignified and independent life<sup>45</sup>.

Further, there is need to put equity and human rights at the core of decision-making processes and action on climate change and human mobility<sup>46</sup>. It has been argued that the participation of the whole society especially those vulnerable to climate change can ensure inclusive policies and decision-making processes that identify and address inequalities including through reducing the vulnerability of people to climate change while allowing them free movement in cases of adverse

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<sup>38</sup> International Organization for Migration., 'Climate Justice and Human Mobility: Challenges and Solutions' Available at <https://environmentalmigration.iom.int/events/climate-justice-and-human-mobility-challenges-and-solutions> (Accessed on 02/02/2026)

<sup>39</sup> Ibid

<sup>40</sup> Ibid

<sup>41</sup> Ibid

<sup>42</sup> United Nations General Assembly, 1951 *Convention Relating to the Status of Refugees*, United Nations, Treaty Series, vol. 189, p. 137, 28 July 1951,

<sup>43</sup> United Nations High Commissioner for Refugees., 'Climate change and displacement: the myths and the facts' Op Cit

<sup>44</sup> Harvey. C., 'Time for Reform? Refugees, Asylum-seekers, and Protection under International Human Rights Law.' *Refugee Survey Quarterly*, No. 35 of 2015, pp 43-60

<sup>45</sup> *Convention Relating to the Status of Refugees.*, Op Cit

<sup>46</sup> International Organization for Migration., 'Climate Justice and Human Mobility: Challenges and Solutions' Op Cit

climatic events<sup>47</sup>. Involving vulnerable groups including indigenous peoples, local communities, persons with disabilities, women and the youth is therefore key towards achieving human mobility justice.

#### **4.0 Conclusion**

Achieving human mobility justice is vital in light of the inequalities, discrimination and human rights violations fuelled by climate change among other causes of human mobility. It is therefore vital to foster human mobility justice by strengthening international protection of climate refugees, supporting safe and regular migration for displaced persons and affected communities, and ensuring the adequate participation of vulnerable groups in decision-making processes and action on climate change and human mobility<sup>48</sup>. Achieving human mobility justice is therefore vital towards strengthening protection of vulnerable individuals and communities within and beyond borders for equity, fairness and human rights.

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<sup>47</sup> Ibid

<sup>48</sup> Ibid

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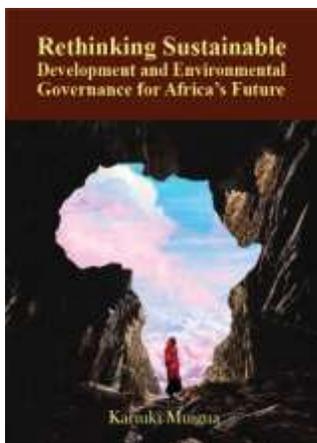
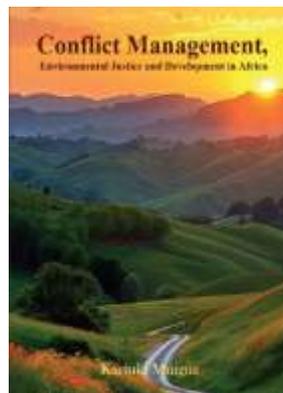
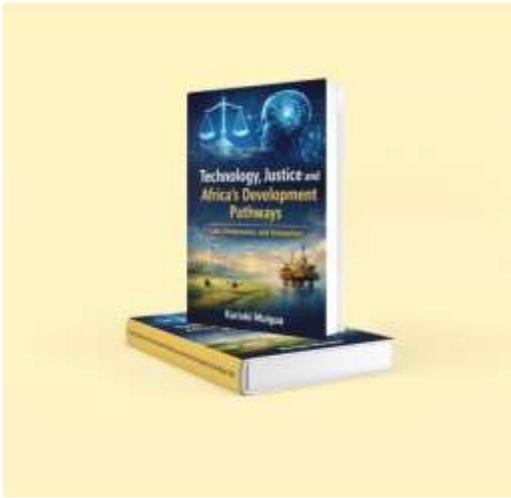
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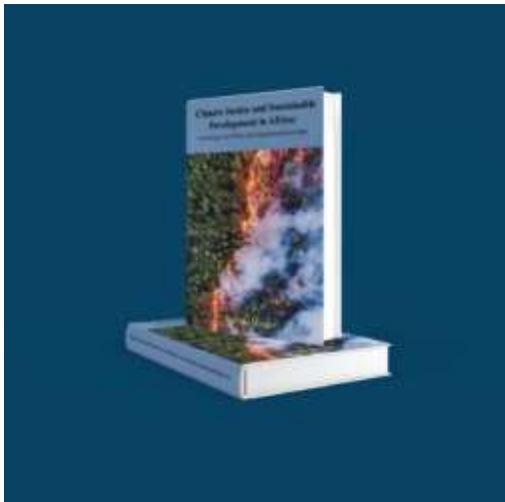
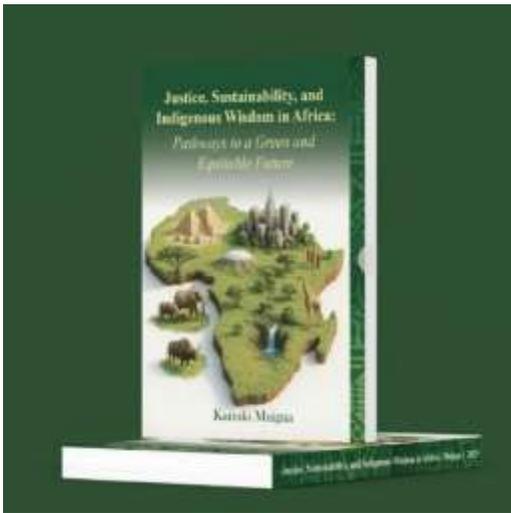
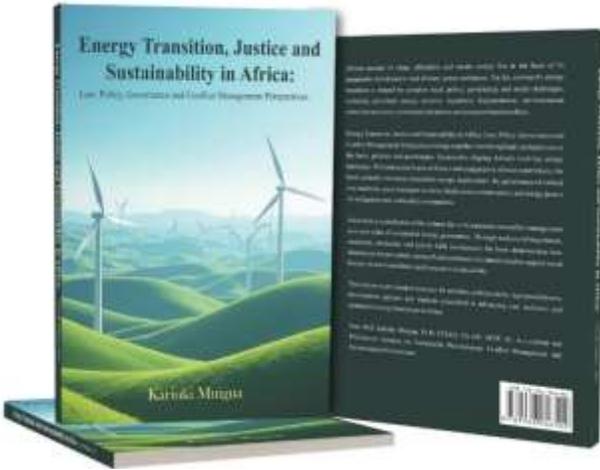
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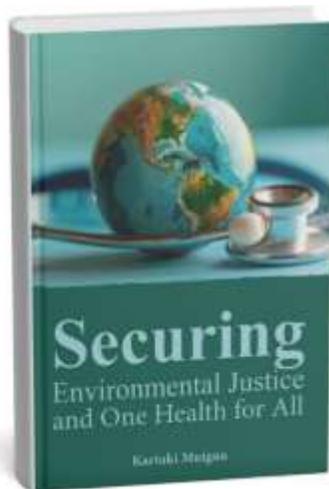
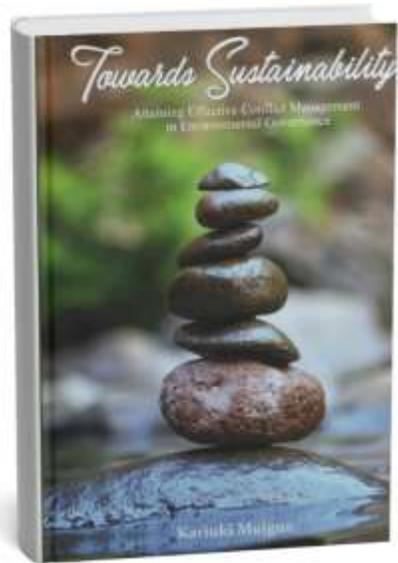
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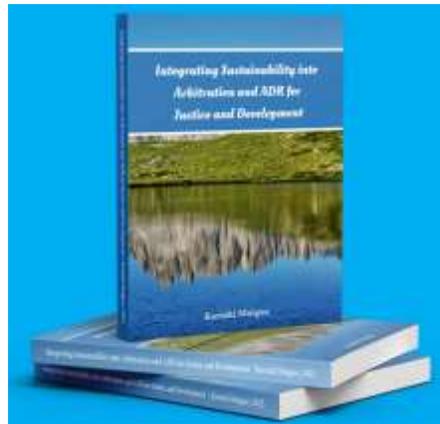
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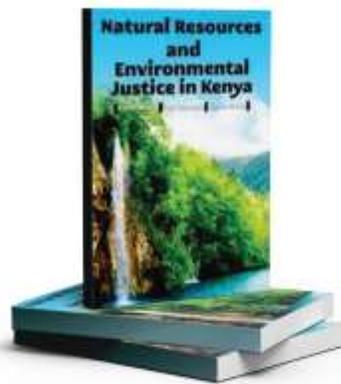
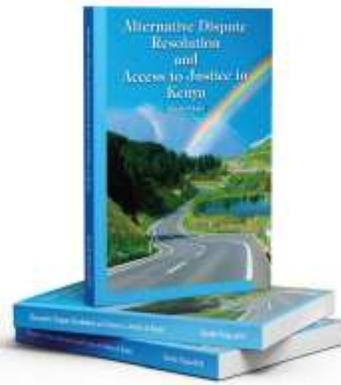
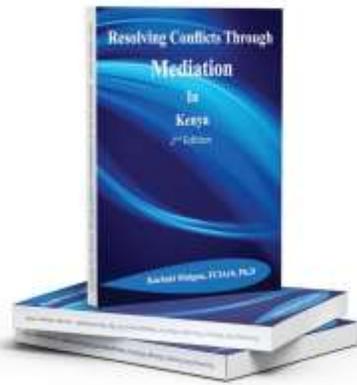
## Other books by Kariuki Muigua

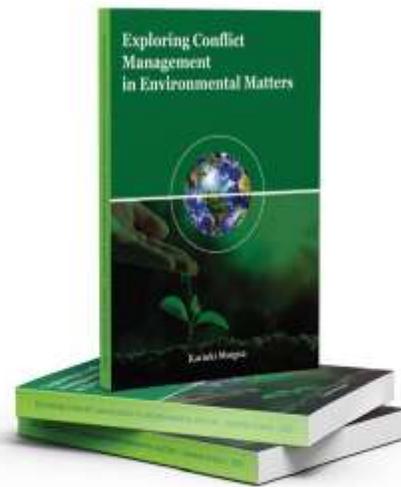
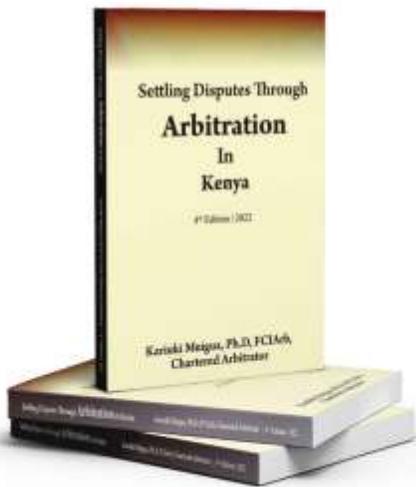
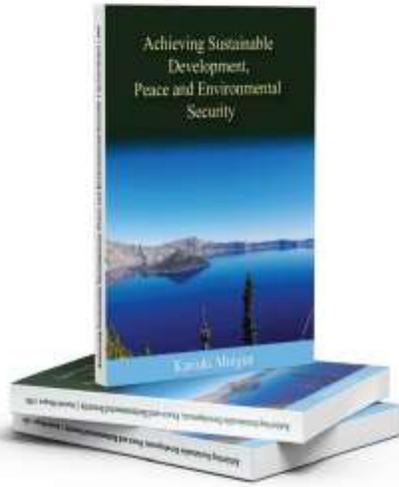
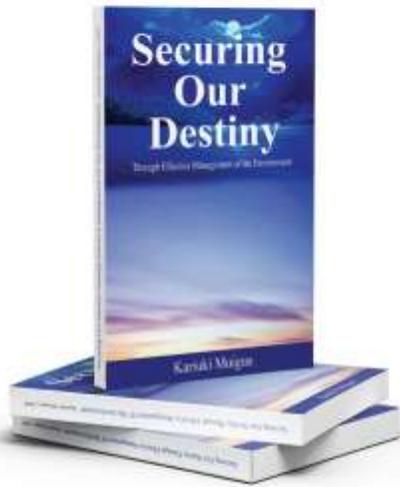


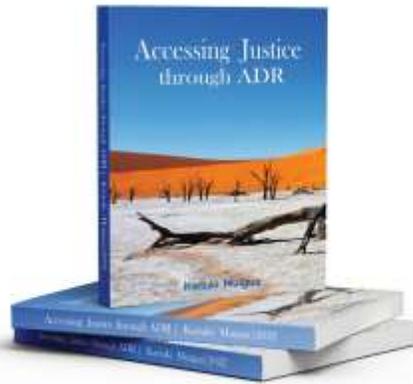
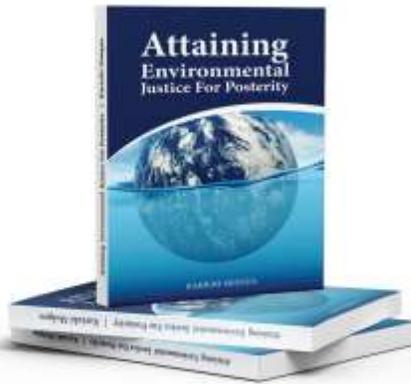
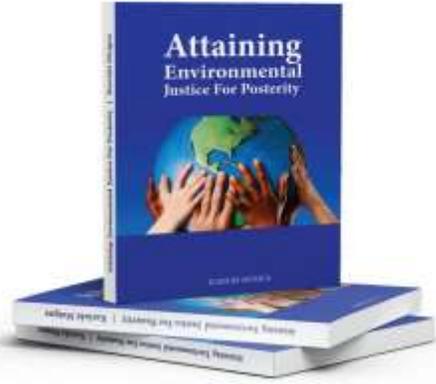
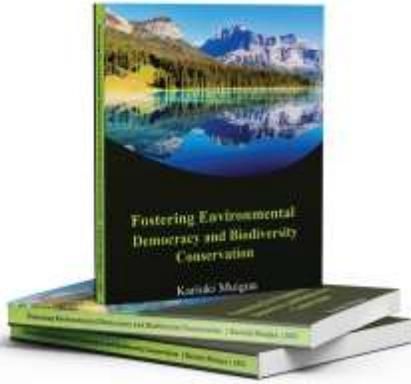


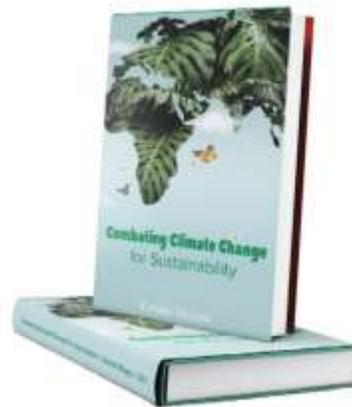
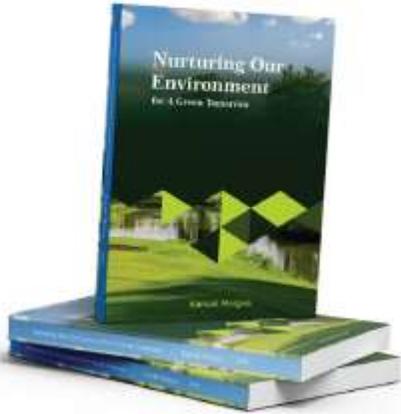


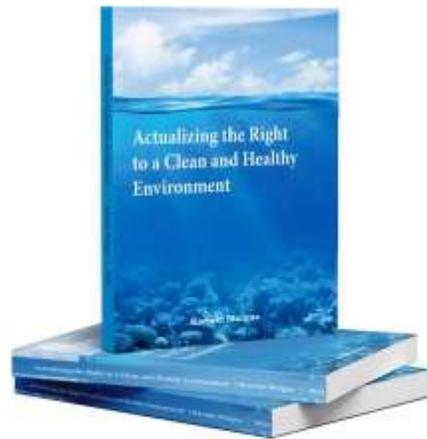
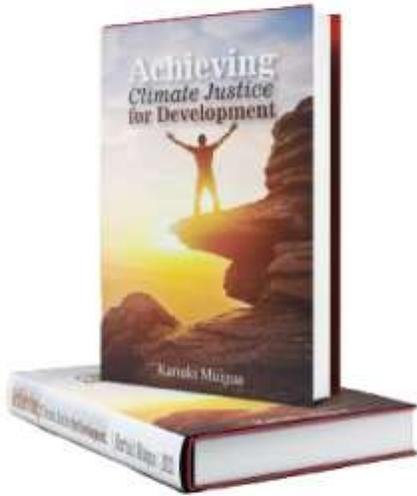


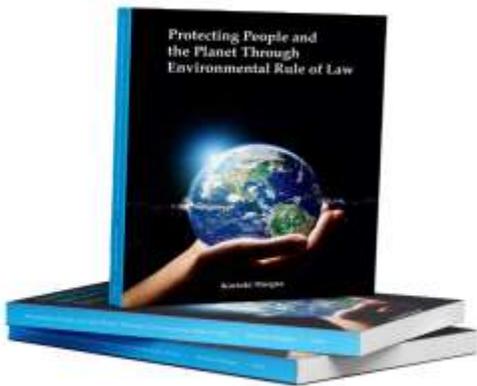
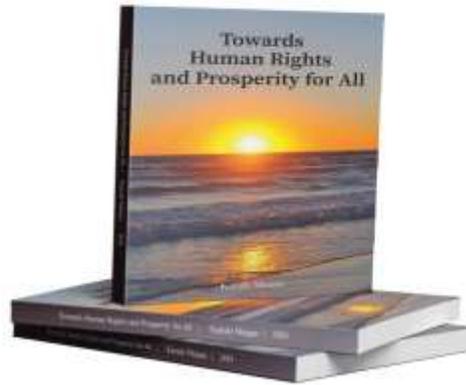
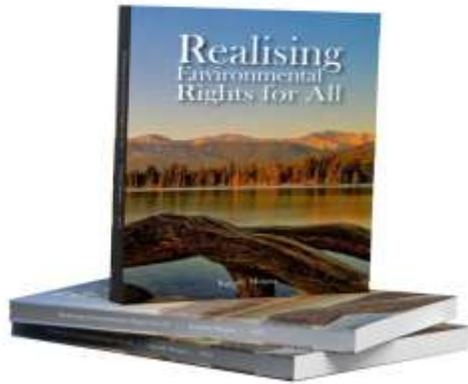












Climate change has become a defining justice challenge of the twenty-first century, reshaping patterns of human vulnerability, mobility, and legal protection. Environmental degradation, extreme weather events, and resource scarcity increasingly compel communities to move, often beyond the reach of existing legal frameworks.

In *Environmental Justice, Climate Change and Human Mobility: Law, Sustainability and Global Futures*, Kariuki Muigua examines the intersections between environmental justice, climate change, and human mobility through the lens of law, governance, and sustainability. The book critically evaluates the adequacy of refugee law, human rights law, and environmental law in responding to climate-induced mobility, while exposing the structural inequities that underpin responsibility and risk. It advances a justice centred, future-oriented framework for rethinking protection beyond borders, recognising human mobility as both a consequence of environmental harm and an adaptive response.

**Prof. Kariuki Muigua, PhD, SC, C.Arb, OGW**

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