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**SEX FOR WATER – KENYAN WOMEN IN THE SHADOW
OF CLIMATE CHANGE**

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LIST OF ABBREVIATIONS

COP	Conference of Parties
FAO	Food and Agriculture Organization
ICSLIAPL	Integrated & Climate Smart Innovation for Agropastoralist Economies and Landscapes
IFRC	International Federation of Red Cross and Red Crescent Societies
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
MDG	United Nations Millennium Development Goals
OHCHR	Office of the High Commissioner for Human Rights
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNEP	United Nations Environment Programme
GHG	Greenhouse gases

Abstract

Climate change is a global challenge that affects all of humanity in all parts of the world, but not equally. Gender inequality coupled with the climate crisis is one of the biggest problems of today. It puts at risk women's and girls' safety, security, and means of subsistence all over the world. Investigating the question from a multidisciplinary perspective, using social sciences, gender studies and environmental studies, relying on legal instruments and case studies, considering key factors such as women's health, their education and the water crisis of Kenya, this work seeks to show how women are the most vulnerable to the effects of anthropogenic climate change. Thus, by the end of reading this article, the reader will know that the answer to the question of whether or not climate change strengthens the gender inequality, and results in the deterioration of women's rights in Kenya is yes.

1. Introduction

The biggest and most severe threat to the environment and human rights in our era is anthropogenic climate change. Wide-ranging environmental repercussions of climate change have already started to manifest, including many negative effects on species, natural resources, and the ecological systems that enable access to clean water, meals and other necessities of life. Temperatures are rising, droughts and wildfires are becoming more frequent, rainfall patterns are changing, glaciers and snow are melting, and the average global sea level is rising. Climate change is merging with demographic trends, migration, and increased urbanization, putting those who are most vulnerable at an increased risk. Some consequences happen unexpectedly, such as when an unprecedentedly powerful typhoon wipes out an entire village, while others develop gradually. It has been happening for a while now, but it is only now that us humans are starting to open our eyes up. Now, we have realized that climate change is one of, if not the biggest challenges we have ever had to face.

Who suffers the most due to this? Who really faces the consequences of our actions? As J. Cole's famous quote says, "It always rains hardest on those who deserve the sun."¹, this exactly captures the idea of what really happens. Climate justice demands that current human rights agreements, commitments, norms, and principles be respected in climate action. Unjustly and

¹ Author – Best Life Quotes Viewed: 2022.10.08. Available at: <https://allauthor.com/quotes/16623/>

unfairly, those who have made the smallest contributions to climate change experience its negative effects. The most vulnerable and disadvantaged people, such as women, children, ethnic minorities, poor communities, migrants or displaced people, elderly populations, and those with underlying health issues are disproportionately affected by the effects of climate change, while they are not necessarily the ones who are the most responsible for the whole issue. Apart from them, those who live in developing nations, and in areas with water scarcity, desertification, land degradation, and drought are also highly affected. For these individuals, among other human rights, the right to self-determination, cultural rights, the right to health, education and the right to life are violated.²

More so than anyone else, females face severe disadvantages. The fear of verbal abuse, physical assault, or sexual assault has always existed for ladies living in these conditions as they go to collect water for their homes. The threat has increased significantly as a result of dwindling incomes, poor governance, and heavy demands on the limited resources of the government. Due to their low-income communities' lack of access to services for water, sanitation, and hygiene, the women and girls are often at the mercy of offenders, and the absence of sextortion legislation presents the biggest obstacle to apprehending those responsible for these crimes.³ This is a particular challenge in Kenya where, as extreme climatic events damage ecosystems, the burden on women and girls increases, limiting education and income generation opportunities and increasing exposure to violence, including sexual assault.

There has been discussion over the nature of the connections between the environment and human rights for many years. However, it has long been understood that the enjoyment of human rights, such as the rights to life, health, food, and an appropriate quality of living, depends on a clean, healthy, and functional environment. Over the past few decades, there has been considerable discussion about this connection, supported by UNEP, OHCHR, and the Special Rapporteur on Human Rights appointed by the Human Rights Council.⁴ Quoting what was stated at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, “Climate change impacts, directly and indirectly, an array of internationally

² OHCHR - The impact of climate change on the rights of people in vulnerable situations Viewed: 2022.08.01. Available at: <https://www.ohchr.org/en/climate-change/impact-climate-change-rights-people-vulnerable-situations>

³ The Star - Lobby draws attention to 'sex for water' trend in Nairobi informal settlements Viewed: 2022.08.01. Available at: <https://www.the-star.co.ke/news/2021-12-10-lobby-draws-attention-to-sex-for-water-trend-in-nairobi-informal-settlements/>

⁴ United Nations Environment Programme – Climate Change and Human Rights Viewed: 2022.08.01. Available at: https://web.law.columbia.edu/sites/default/files/microsites/climatechange/climate_change_and_human_rights.pdf

guaranteed human rights. States have an affirmative obligation to take effective measures to prevent and redress these climate impacts, and therefore, to mitigate climate change, and to ensure that all human beings have the necessary capacity to adapt to the climate crisis. Climate justice requires that climate action is consistent with existing human rights agreements, obligations, standards and principles. Those who have contributed the least to climate change unjustly and disproportionately suffer its harms. They must be meaningful participants in and primary beneficiaries of climate action, and they must have access to effective remedies.⁵ There have been many countries of whom the governments have realized the issue. Canada stated that “Canada understands the impacts of climate change can have destabilizing effects on societies. For instance, more frequent drought-induced food insecurity will have an effect on the protection of human rights. Climate change can worsen existing situations of poverty and fragility and create new vulnerabilities for women, children, indigenous groups and persons with disabilities.”⁶ However, while national governments and United Nations organizations have publicly stated that climate change and its reactions may jeopardize human rights, there has been less consensus over the responsibility that governments and corporate actors have to address this issue, and the question remains unsettled.

This paper is divided into 4 sections, which is preceded by a chapter reviewing the basic concepts of my research topic, these being ‘human rights, ‘climate change’ and ‘women’s rights’. The first main section, chapter 4 outlines the linkages between human rights and climate change in general, while the next section, chapter 5 offers a more detailed explanation of how women’s rights in particular are affected by the current environmental crisis. The third section offers an overview of Kenya, mentioning the country’s sectors that are affected by climate change, highlighting the main vulnerabilities. This is followed by an in-depth examination of how women in Kenya are the most at risk. The fourth section considers the claim that women are not only the victims, but also but also effective agents and promoters of adaptation and mitigation, turning their knowledge into action, and playing a very important role in the fight against climate change.

⁵ OHCHR - Understanding Human Rights and Climate Change Viewed: 2022.08.02. Available at: <https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/COP21.pdf>

⁶ Government of Canada - Climate change and human rights Viewed: 2022.08.02. Available at: https://www.international.gc.ca/world-monde/issues_developpement-enjeux_developpement/human_rights-droits_homme/climate_rights-droits_climat.aspx?lang=eng

2. Method

Using qualitative deep-interview analysis, relying on interviews with Kenyan women living in different parts of the examined country, this paper wishes to examine whether or not human rights, and in particular, the rights of women are affected, and to what extent they are affected by climate change. In the first part of the paper, a theoretical framework, based on relevant literature will be established, followed by the process of detecting the main target areas, seeking to find out whether the three inspected human rights, the right to water, to education and to health are affected by anthropogenic climate change. Mostly using sources in English, I researched academic papers, the core international human rights instruments, as well as case studies to create my analysis. To prove that even though the impacts of climate change are globally experienced, they are also felt unevenly by different groups, like women, this thesis will prove that women are indeed more vulnerable. In order to gain in-depth insight into the connection between climate change and human rights, the question will be investigated from a multidisciplinary perspective, using social sciences, gender studies and environmental studies to provide the reader a complex picture of the local impacts of the most important global problem of our time, and to show that despite their vulnerability, women are not only victims of climate change, but also effective agents and promoters of adaptation and mitigation.

3. Basic Concepts

In order to efficiently examine this research topic, it is crucial to understand the main terms that will be used throughout the whole thesis.

Climate change - according to the United Nations Framework Convention on Climate Change - means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. Adverse effects of climate change means change in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.⁷ With a very high degree of confidence, the Intergovernmental Panel on Climate

⁷ United Nations Framework Convention on Climate Change Viewed: 2022.09.05. Available at: <https://unfccc.int/resource/ccsites/zimbab/conven/text/art01.htm>

Change (IPCC) asserts that "Climate change currently contributes to the global burden of disease and premature deaths."⁸ The same study also states that climate change will „increase the number of people suffering from death, disease and injury from heatwaves, floods, storms, fires and droughts”.⁹

In the journal entitled *Critical Review of International Social and Political Philosophy*, Derek Bell examines the linkages between climate change and human rights, stating that in the past, the debate about said issue only included economists, but recently, analytical liberal political philosophers have joined. The author mentions that philosophical discussion of climate justice remains in its early stages, but that the paper „considers one promising approach based on human rights, which has been advocated recently by several theorists, including Simon Caney, Henry Shue and Tim Hayward. A basic argument supporting the claim that anthropogenic climate change violates human rights is presented.”¹⁰ He follows up with the thought of human rights having to be superior to maximizing welfare. „On the human rights approach, we do not try to calculate the economic costs of death, injury, malnutrition, water stress or illness and then weigh them against the opportunity costs of reducing greenhouse gas emissions. Instead, we recognize human rights to life, physical security, subsistence, and health that should be protected from violation by human action.”¹¹

Human rights – according to the United Nations Office of the High Commissioner for Human Rights - are rights we have simply because we exist as human beings. They are not granted by any state. These universal rights are inherent to us all, regardless of nationality, sex, national or ethnic origin, color, religion, language, or any other status. They range from the most fundamental - the right to life - to those that make life worth living, such as the rights to food, education, work, health, and liberty.¹² States are required to uphold the commitments outlined in international human rights legislation. States take on obligations and duties under international law to respect, preserve, and uphold human rights when they ratify international treaties. States are required to respect human rights by abstaining from interfering with or

⁸ Confalonieri, U., B. Menne, R. Akhtar, K.L. Ebi, M. Hauengue, R.S. Kovats, B. Revich and A. Woodward, 2007: Human health. *Climate Change 2007: Impacts, Adaptation and Vulnerability* Viewed: 2022.09.27. Available at: <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-chapter8-1.pdf>

⁹ Ibidem

¹⁰ Derek Bell (2011) - Does anthropogenic climate change violate human rights? - *Critical Review of International Social and Political Philosophy* Viewed: 2022.09.29. Available at: <https://www.tandfonline.com/doi/pdf/10.1080/13698230.2011.529703?needAccess=true>

¹¹ Ibidem

¹² OHCHR – What are human rights? Viewed: 2022.09.05. Available at: <https://www.ohchr.org/en/what-are-human-rights>

restricting the exercise of those rights. States are required under the duty to protect to defend persons and groups from violations of human rights. States must take proactive measures to make it easier for people to exercise their fundamental human rights in order to fulfill their commitment.¹³ Human rights frequently arise from complaints of individuals experiencing injustice before they are codified into legal documents. As a result, they are founded on moral sensibility and are culturally shaped by contextualized moral and religious belief systems.¹⁴ According to John Stuart Mill, “When we call anything a person’s right, we mean that he has a valid claim on society to protect him in the possession of it, either by the force of law, or by that of education and opinion.”¹⁵ As far as the characteristics of human rights are concerned, they are universal, meaning they apply equally to all people everywhere in the world, they are inalienable, or in other words, humans cannot lose them, because they are linked to human existence, and they are also indivisible, interdependent and interrelated, so they cannot be viewed in isolation from each other.¹⁶

Women’s rights are the rights and privileges demanded by women and girls across the world. They served as the inspiration for both the feminist movements of the 20th and 21st centuries as well as the women's rights movement in the 19th century. These rights are institutionalized or supported by legislation, local tradition, and conduct in some nations, but are disregarded and suppressed in others. They differ from more general ideas of human rights in that they contend that there is an innate historical and customary prejudice against women and girls using their rights in favor of males and boys.

The United Nations Convention on the Elimination of All Forms of Discrimination Against Women is the most significant international legislation for women. This document is examined by Catherine Tinker in her article entitled “The U.N. Convention on the Elimination of All Forms of Discrimination Against Women”, where the writer states that “Its comprehensiveness touches every aspect of women's lives, in the political, economic, legal and health/family spheres.”¹⁷ The article of Fran P. Hoske, entitled „Toward a Definition of Women's Human

¹³ OCHR - International Human Rights Law Viewed: 2022.09.21. Available at:

<https://www.ohchr.org/en/instruments-and-mechanisms/international-human-rights-law>

¹⁴ Stephen P. Marks - Human Rights: A Brief Introduction Viewed: 2022.10.02. Available at:

<https://cdn1.sph.harvard.edu/wp-content/uploads/sites/134/2016/07/Human-Rights-A-brief-intro-2016.pdf>

¹⁵ Council of Europe – What are human rights Viewed: 2022.10.02. Available at:

<https://www.coe.int/en/web/compass/what-are-human-rights->

¹⁶ Ibidem

¹⁷ Catherine Tinker - Human Rights for Women: The U.N. Convention on the Elimination of All Forms of Discrimination Against Women Viewed: 2022.09.28. Available at:

https://heinonline.org/HOL/Page?collection=journals&handle=hein.journals/hurq3&id=174&men_tab=srchresults

Right” was created with the intent of defining women's human rights. it states the following: „The purpose of this issue of Human Rights Quarterly with a special symposium on Women and International Human Rights is to define women's human rights. It should not be necessary to do so. The very term human rights is inclusive with no discriminatory meaning implied. However, practice does not always comply with principle.”¹⁸ Hoske mentions how women's rights are hardly ever included in worldwide human rights efforts, despite the fact that human rights are a topic of discussion everywhere, adding that in most countries, women are still not involved in making political decisions, also mentioning how it is now time for a change : „We live in a world with a large body of national and international legislation too often made by men ...it is time that those human rights which affect, define, and limit the lives of women receive the same concern that civil and political rights do, which are emphasized by men.”¹⁹

Gender equality, in addition to being a fundamental human right, is also a precondition for a society that is stable, affluent, and sustainable. Equality does not imply that men and women will become equal, but rather that each gender's rights, obligations, and opportunities will be independent of the other's gender at birth. Gender equality should involve and concern both men and women equally. It is not only a women's issue. Therefore, gender equality is the equal value placed by society on the similarities and differences between men and women, as well as the roles they play. It is predicated on the notion of men and women as equal participants in the family, community, and society.²⁰ Support for gender equality remains strong all around the world, 25 years after the United Nations' Beijing Declaration and Platform for Action vowed to take the necessary actions to "eliminate all impediments to gender equality and the progress and empowerment of women." In the 34 nations that the Pew Research Center questioned, 94% of people believe it is critical for women to have the same rights as men, with 74% saying it is extremely crucial.²¹ On the opposite, *gender inequality* is any discrimination based on gender, including privilege and priority. Nearly all human rights treaties forbid gender discrimination. This includes international laws that guarantee equal rights for men and women, as well as those that are especially focused on achieving women's rights, such the Convention on the

¹⁸ Fran P. Hosken - Toward a Definition of Women's Human Rights Viewed: 2022.09.28. Available at: <https://www.jstor.org/stable/pdf/761853.pdf>

¹⁹ Ibidem

²⁰ European Institute for Gender Equality – Gender Equality Viewed: 2022.10.01. Available at: <https://eige.europa.eu/thesaurus/terms/1168>

²¹ Pew Research Center - Worldwide Optimism About Future of Gender Equality, Even as Many See Advantages for Men Viewed: 2022.10.11. Available at: <https://www.pewresearch.org/global/2020/04/30/worldwide-optimism-about-future-of-gender-equality-even-as-many-see-advantages-for-men/>

Elimination of Discrimination Against Women, which is regarded as the global declaration of women's rights.²² When investigating rates of gender inequality across the globe, in four areas—economic participation and opportunity, educational attainment, health and survival, and political empowerment—the Global Gender Gap Index measures gender-based disparities. According to a World Economic Forum poll, Kenya scored 0.73 on the gender gap index, which indicates that women there are around 27% less likely to enjoy the same chances as men.²³ The majority of African governments have advanced during the 1990s in terms of gender equality, although several still maintain significant levels of gender inequality.²⁴

After defining the main terms relevant in this topic, the next chapter will investigate the effects of climate change, as well as give an overview of the linkages between climate change and human rights, as well as the connection between climate change and women's rights.

4. Effects of climate change

In the previous chapter, the phenomenon of climate change has been elaborated on, mentioning how the biggest and most severe threat to the environment and human rights in our era is anthropogenic climate change. However, there is a great debate over the nature of the connections between the environment and human rights, and this has been the instance for many years. In sections 4.1, as well as 4.2, the linkages between climate change and human rights, as well as between climate change and gender will be clarified, and supported with examples, as well as legal instruments concerning human rights.

4.1 Overview of the connection between climate change and human rights

In order to examine how climate change poses a threat on the right of women, it is must to examine how it poses a threat on human rights in general. A key document in the development of human rights is the Universal Declaration of Human Rights (UDHR), which was adopted by the UN General Assembly on December 10, 1948, in Paris, France, at its 183rd plenary session. This milestone document was written by delegates from many corners of the globe, each with their own legal and cultural perspectives, and it was the first document to call for the protection of basic human rights everywhere. This will be the basis of this paper, as it will be examining

²² Save The Children – Gender Discrimination Causes Inequality Viewed: 2022.10.01. Available at: <https://www.savethechildren.org/us/charity-stories/how-gender-discrimination-impacts-boys-and-girls>

²³ Statista - Gender gap index in Kenya from 2017 to 2022 Viewed: 2022.10.11. Available at: <https://www.statista.com/statistics/1220570/gender-gap-index-in-kenya/>

²⁴ Ibidem

whether or not climate change harms the rights listed in this document, specifically examining whether the rights of women are at risk more so than those of men. Other treaties include The International Convention on the Elimination of Racial Discrimination (1965), The International Covenant on Economic, Social and Cultural Rights (1966), The International Covenant on Civil and Political Rights (1966), The Convention on the Elimination of All Forms of Discrimination Against Women (1979), The Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984) and The Convention on the Rights of the Child (1989).²⁵

Another important document is The Climate Change and Human Rights publication, which was developed by the United Nations Environment Programme (UNEP) in cooperation with the Sabin Center for Climate Change Law at Columbia University in the City of New York.²⁶ The study offers several suggestions for how governments and other parties might deal with climate change. Among them is the requirement that all procedures and actions relating to climate change acknowledge the connection between human rights and climate change. The report also emphasizes the need for increased mitigation ambition, human rights protections for global climate finance mechanisms, financial support for developing nations dealing with adaptation, and the creation of an international mechanism on migration and displacement brought on by climate change.²⁷

Hundreds of millions of people may experience starvation, malnutrition, water shortages, heat stress, illnesses brought on by extreme weather events, loss of livelihood, and permanent relocation as a result of global warming. Indeed, a number of widely acknowledged fundamental rights, including the rights to life, food, appropriate shelter, health, and water, are directly threatened by climate change. In the following paragraphs, the way that some of the basic human rights are violated by the effects of climate change will be demonstrated.

²⁵ OHCHR - The Core International Human Rights Instruments and their monitoring bodies Viewed: 2022.09.10. Available at: <https://www.ohchr.org/en/core-international-human-rights-instruments-and-their-monitoring-bodies>

²⁶ United Nations Environment Programme – Climate Change and Human Rights Viewed: 2022.08.01. Available at: https://web.law.columbia.edu/sites/default/files/microsites/climatechange/climate_change_and_human_rights.pdf

²⁷ Ibidem

a. Freshwater Resources

The majority of dry subtropical regions' surface and groundwater resources will be significantly depleted as a result of climate change, according to IPCC projections.²⁸ This will increase competition for water among agriculture, ecosystems, settlements, industry, and energy production, and affect regional water, energy, and food security.

Due to this, the following rights are affected: right to water and sanitation, right to health, right to life, right to food, right to an adequate standard of living.

b. Terrestrial Ecosystems

There is a high danger that climate change will result in abrupt and permanent regional-scale change in the composition, structure, and function of terrestrial and freshwater ecosystems in this century, even under the intermediate emissions scenarios. Many plant and animal species have already altered their ranges and behavior, but many more will be unable to relocate rapidly enough or otherwise adapt to shifting climatic circumstances.²⁹

Due to this, the following rights are affected: right to food, right to an adequate standard of living, right to health.

c. Ocean systems

Scientists have already noted significant shifts in species distribution and altered ecosystem composition as a result of ocean warming (for example, the distribution of many fish and invertebrates has shifted poleward and/or to deeper, cooler waters). Climate change is changing the physical, chemical, and biological properties of the ocean.³⁰

Due to this, the following rights are affected: right to food, right to an adequate standard of living, right to health.

d. Food Security and Production Systems

In various parts of the world, the impacts of climate change on agricultural and terrestrial food production are already noticeable, and variations in temperature and rainfall have a detrimental impact on the output of wheat and corn as well. Low-latitude regions will have the highest

²⁸ IPCC - Climate change: a threat to human wellbeing and health of the planet Viewed: 2022.09.02. Available: <https://www.ipcc.ch/2022/02/28/pr-wgii-ar6/>

²⁹ IPCC - Extremes, Abrupt Changes and Managing Risks Viewed: 2022.10.10. Available at: <https://www.ipcc.ch/srocc/chapter/chapter-6/>

³⁰ Adriana Vergés, Christopher Doropoulos - Long-term empirical evidence of ocean warming leading to tropicalization of fish communities, increased herbivory, and loss of kelp Viewed: 2022.10.10. Available at: <https://www.pnas.org/doi/full/10.1073/pnas.1610725113>

danger to food security, where there is a firm belief that climate change will consistently and negatively affect agricultural output, also causing fishery production to decline.³¹

Due to this, the following rights are affected: right to food, right to health, right to life, right to an adequate standard of living.

e. Key Economic Sectors and Services

Numerous economic sectors and services, including energy, water services, transportation, agriculture and cattle, forestry, fishing, tourism, and insurance, will be impacted by climate change.³² Additionally, electric systems will be impacted, both directly (higher temperatures, less water supply) and indirectly (greater demand for electricity).

Due to this, the following rights are affected: right to health, right to an adequate standard of living, right to food, right to water.

f. Human Health

There is evidence that climate change has already contributed to health issues in some areas³³, and if climate change continues as projected under possible scenarios, the main health impacts will include: increased risk of injury, disease, and death due to more intense heat waves and fires; increased risk of undernutrition due to decreased food production in underdeveloped areas; health consequences resulting from lost work capacity and decreased labor productivity in underdeveloped areas.

Due to this, the following rights are affected: right to health, right to life.

g. Human Security

Human security will be threatened by the increasing scarcity of essential resources (such as water, food, land, and other natural resources), the destruction of livelihoods, the erosion of culture and identity, an increase in migration and displacement, and difficulties for states in providing the conditions necessary for human security. Each of these effects has the potential to directly harm human security and to fuel political unrest and armed conflict.³⁴

Due to this, the following rights are affected: right to health, right to life.

³¹ FAO - Climate change and food security: risks and responses Viewed: 2022.09.04. Available at: <https://www.fao.org/3/i5188e/I5188E.pdf>

³² Columbia Climate School - How Climate Change Impacts the Economy Viewed: 2022.09.10. Available at: <https://news.climate.columbia.edu/2019/06/20/climate-change-economy-impacts/>

³³ WHO – Climate Change and Health Viewed: 2022.10.10. Available at: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

³⁴ United Nations - Climate Change ‘Biggest Threat Modern Humans Have Ever Faced’, World-Renowned Naturalist Tells Security Council, Calls for Greater Global Cooperation Viewed: 2022.09.02. Available at: <https://press.un.org/en/2021/sc14445.doc.htm>

In the above-written paragraphs, the main affected human rights are demonstrated, and it is visible that the rights which are most at risk are the right to water and sanitation, the right to health, the right to life, the right to food as well as the right to an adequate standard of living. For this reason, when examining the situation in Kenya this paper will focus on three rights in connection to the previous list, these being the right to health, to education and to water. After providing an overview of Kenya to get a better understanding of the sectors of vulnerability of the country, the linkage between the before-mentioned human rights and climate change, as well as how they affect the women of Kenya will be elaborated on in Chapter 6.

4.2. Overview of linkages between gender and climate change

In the previous paragraphs, how the effects of climate change put the full enjoyment of human rights at a great risk have been shown. Moving on to the topic, in this chapter, the linkages between gender and climate will be examined, demonstrating how women's rights are being harmed by climate change. "The IPCC found that gender inequalities are further exaggerated by climate-related hazards, and they result in higher workloads for women, occupational hazards indoors and outdoors, psychological and emotional stress, and higher mortality compared to men," – according to Verona Collantes, a UN Women international expert, in an interview she gave to Global Citizen. She also added that "Gender inequality hampers women's capacity and potential to be actors of climate action. These gender inequalities - access to and control over resources, access to education and information, and equal rights and access to decision-making processes - define what women and men can do and cannot do in a particular context of climate change."³⁵ The human rights, political and economic standing, land ownership, living circumstances, exposure to violence, education, and health of women are often discriminated against in developing nations. The vulnerability of women will be made worse by an additional stressor, which is climate change. Women are more vulnerable to the consequences of climate change than males in many scenarios, partly because they make up the majority of the world's poor and are more reliant on natural resources for survival, which are currently in danger due to climate change. This vulnerability stems from a number of social, economic, and cultural factors. Women make about 70% of the 1.3 billion individuals who live in poverty worldwide. 40% of the poorest households in metropolitan areas are led by women.

³⁵ Global Citizen – How climate change affects woman Viewed: 2022,08.20. Available at: <https://www.globalcitizen.org/en/content/how-climate-change-affects-women/>

Though they produce between 50 and 80 percent of the world's food, women possess less than 10 percent of the land.³⁶ In rural areas all across the world, women and girls predominately do the labor-intensive tasks of obtaining food, water, and home energy resources. Women must go farther and farther to gather water - so they may use it for gardening, cooking, and cleaning - when sources are dried up by droughts and high heat. Due of this, they have less time to explore other revenue opportunities, which keeps them from achieving economic independence. At the University of Arizona, Stephanie Buechler, researcher of gender and women's studies, focuses on the relationship between women's rights and water shortages along the US-Mexico border. She discovered that when water became less accessible, women were less able to invest in their professions. Furthermore, "Gender-based violence and exploitation rise as resources dwindle, land becomes increasingly unlivable, and climate change increases", - as stated by the International Union for the Conservation of Nature (IUCN).³⁷ As known, climate change impacts the availability of resources, and these environmental pressures have contributed to the growth of groups that engage in severe labor exploitation and human trafficking. The most prone populations to these abuses of human rights are women and underprivileged communities. In these circumstances, violence against women is frequently used to maintain control over scarce resources and to promote gender disparities. Adding on, globally, the number of people displaced due to the effects of climate change is increasing, and according to the UN, most of these people are women. Women are less equipped to recover from a disaster than males are, and they are more likely to live in poverty. Girls and women who are displaced frequently find themselves unable to finish their education or pursue employment prospects. In 2021, while 72.2 percent of males in Africa were literate, the share among females was measured at 58.9 percent.³⁸ Compared to immigrant males, female refugees are half as likely to attend school. Due to climate change, child marriage, domestic violence, sexual assault, and human trafficking are all more common among women and girls. According to Mayesha Alam, an expert on climate, women's rights, and conflict at Yale University, "As climate change exerts economic pressure on families, and leads to loss of land, livelihoods, and homes, thereby overall security and stability, the risk of child marriage goes up,".

³⁶ United Nations- Women... in the shadow of climate change Viewed: 2022.08.20. Available at: <https://www.un.org/en/chronicle/article/womenin-shadow-climate-change>

³⁷ Global Citizen - Understanding Why Climate Change Impacts Women More Than Men Viewed: 2022.09.27 Available at: <https://www.globalcitizen.org/en/content/how-climate-change-affects-women/>

³⁸ Statista - Adult literacy rate in Sub-Saharan Africa from 2000 to 2019, by gender Viewed: 2022.09.17. Available at: <https://www.statista.com/statistics/1233102/adult-literacy-rate-in-sub-saharan-africa/>

5. Overview of Kenya

Although Kenya is not the only country where due to their vulnerability, women are the biggest victims of climate change, this paper will investigate the topic from the perspective of Kenyan women. With more than 500 kilometers of coastline and direct access to the Indian Ocean, Kenya is a country in East Africa. The nation shares borders with Somalia to the east, Tanzania to the south, South Sudan to the northwest, Uganda to the west, and Ethiopia to the north. By 2050, there are expected to be 91 million people living there, a large increase from the current population of 51 million. This growth is estimated to occur at a rate of 2.3% a year.³⁹ Kenya's population has more than tripled over the past 30 years, adding to the strain on its natural resources. Given that Kenya is home to one of the biggest refugee populations in Africa, the climate crisis has the potential to amplify current health risks and generate new ones. The warm, tropical climate of Kenya, which is located on the equator, is impacted by a number of variables, including altitude, but there are significant regional climatic variations as well. Kenya's daily highs range from 20°C (68°F) to 28°C (82°F), while the coast experiences higher temperatures. The equator is too close to Kenya for there to be a true winter and summer, and there are dry and wet seasons as well. The air temperature of the country is expected to increase by 1.2 to 3.2 °C (a very likely range) by 2080 compared to the year 1876 as a result of rising greenhouse gas (GHG) concentrations. The number of very hot days (days with a daily maximum temperature above 35 °C) is anticipated to increase significantly and with high certainty over central and eastern Kenya, in accordance with rising mean annual temperatures.⁴⁰ The water level off the coast of Kenya is expected to rise as a result of globally rising temperatures. It is expected that sea levels would rise by 10 cm in 2030, 21 cm in 2050, and 40 cm in 2080 in comparison to levels in the year 2000.⁴¹ This poses a hazard to Kenya's coastal towns and may result in saline intrusion in groundwater reservoirs and coastal waterways. Kenya is susceptible to a variety of climate-related natural hazards, including coastal storms, flooding, droughts, extremely hot weather, and powerful winds/windstorms, all of which have the potential to be fatal. The main hazards to Kenyan communities are floods, droughts, and rising temperatures.⁴² Significant crop failures and higher food costs have resulted from the large droughts that Kenya

³⁹ The World Bank - Demographic Transition and Growth in Kenya Viewed: 2022.09.27. Available at: <https://www.worldbank.org/en/news/opinion/2010/04/28/demographic-transition-growth-kenya>

⁴⁰ Federal Ministry for Economic Cooperation and Development – Climate Risk Profile: Kenya Viewed: 2022.09.13. Available at: https://www.adaptationcommunity.net/wp-content/uploads/2021/01/GIZ_Climate-risk-profile-Kenya_EN.pdf

⁴¹ Ibidem

⁴² IFRC – Climate Change Impacts on Health: Kenya Assessment Viewed: 2022.09.13. Available at: https://www.adaptationcommunity.net/wp-content/uploads/2021/01/GIZ_Climate-risk-profile-Kenya_EN.pdf

endures every three to four years. Kenya also suffers from severe riverine and flash floods, especially during the rainy seasons, which is the other extreme. Both have detrimental effects on people's lives, livelihoods, and infrastructure. When asked “We can clearly see that the effects of climate change are now starting to be unstoppable. In Kenya, has the situation been getting worse in the past few years? “, Nyandoro Omuria, one of the interviewees replied with the following: ‘The situation is getting worse with time. There have been depressed rains for four years now, which is unprecedented. This means the harvests have been inadequate in most parts of the country. The drought situation has also seen death in thousands of animals and exposed around 5 million people in dire need of food. Malnutrition among children under the age of 5 has grown exponentially. The mortality rate of children under 5 years has also increased.’⁴³

5.1 Sector Impacts and Vulnerabilities

Agriculture

The growing temperatures, shifting rainfall patterns, and extreme weather events make the agriculture sector, which is one of the most significant economic sectors in Kenya, particularly sensitive to climate change. Kenyan agriculture, which depends mostly on rain, is particularly prone to fluctuations in temperature and precipitation. 60% of Kenyans rely mostly on agriculture, which contributes more than 30% of the country's GDP. For the vast majority of Kenyans, it is the primary source of income when it comes to food security, economic growth, job creation, off-farm work, and foreign exchange revenues. The industry is extremely vulnerable to climate change. One of the main stressors is the case of rising temperatures and evaporation rate. Due to the heat and water stress, the amount and the quality of yields decreases, and the heat stress in livestock leads to reduces reproduction. Furthermore, another significant stressor is the increased interseasonal variability in rainfall, leading to crop damage and degraded crop and pastureland. Next, there is the case of increased frequency and intensity of heavy rainfall, and the sea level rise, which causes saltwater intrusion and storm surges, and impacts coastal production. Quoting the 2013-2018 National Business Agenda II of Kepsa, “There is low preparation, response capacity and coping mechanisms in the event of disasters such as droughts, floods, fires, diseases and pests. Early warning and response systems need to be strengthened; as does the provision of affordable, accessible, weather-based insurance

⁴³ Interview conducted with Nyandoro Omuria on 10.02.2022., Available at: Annex

products. The emergence of extreme weather patterns of drought and floods due to climate change is also affecting agriculture. Meanwhile the opportunities that can be tapped from carbon credit funds through the implementation of climate change is not being adequately utilized.”⁴⁴ From this, it is clear that the country, and in particular, the agriculture sector of the country is truly vulnerable.

Water

Kenya is one of the most water-scarce nations in the world, and the situation is getting worse day-by-day.⁴⁵ Water shortage has resulted in inadequate sanitation and hygiene, which together pose serious health concerns, especially in low-income areas, and eventually helped some diseases originate.⁴⁶ The majority of the nation's water supply comes from surface sources, but important rivers and lakes are extremely vulnerable to climate change. Kenya's annual water availability in 2010 was 586 m³, much below the 1,000 m³ standard that is considered to be acceptable globally; by 2050, it is anticipated that this number will be as low as 293 m³. As of 2022, 41 percent of Kenyans lack access to even the most basic sanitation options, while 15 percent of Kenyans rely on unimproved water sources such ponds, shallow wells, and rivers.⁴⁷ Looking at the population, 15 million people in Kenya lack access to safe water and 22 million people lack access to improved sanitation. Within this sector, the stressors include rising temperatures & evaporation rate, increased rainfall variability, increased frequency and intensity of heavy rainfall as well as the sea level rise. Due to this, there is accelerated glacial loss, and reduced river flows from Mount Kenya. Furthermore, there is increased flood damage to water supply and sanitation infrastructure, decreased water quality, as well as the case of saltwater intrusion into coastal aquifers, which supplies a population of 3 million.⁴⁸

Human Health

Due to an increase in temperature, and the case of a warmer, wetter climate, malaria is expected to increase. Climate change has made Highland Malaria, which was formerly uncommon in the

⁴⁴ KEPSA (2013), The National Business Agenda II (2013-2018) Viewed: 2022.09.13. Available at: <https://admin.kepsa.or.ke/public/files/docs/16579593042.pdf>

⁴⁵ Scientific Research - Water Scarcity in Kenya: Current Status, Challenges and Future Solutions Viewed: 2022.09.13. Available at: <https://www.scirp.org/journal/paperinformation.aspx?paperid=106638>

⁴⁶ Ibidem

⁴⁷ Water.org - Kenya's water and sanitation crisis Viewed: 2022.09.14. Available at: <https://water.org/our-impact/where-we-work/kenya/>

⁴⁸ Federal Ministry for Economic Cooperation and Development – Climate Risk Profile: Kenya Viewed: 2022.09.13. Available at: https://www.adaptationcommunity.net/wp-content/uploads/2021/01/GIZ_Climate-risk-profile-Kenya_EN.pdf

nation, more common during the past 20 years. Significant epidemics of malaria are linked to unusually wet and warm weather, according to scientists. According to recent studies, 50.6–62.1 million individuals in eastern Africa will be at risk of endemic transmission by 2030 as a result of the altering seasonality of malaria transmission, which is expected to move from the customary 2-3 months to 4-6 months due to longer high temperature seasons.⁴⁹ Due to climate change, there are other vector-borne diseases of which the cases will increase, these being dengue fever, yellow fever and chikungunya (a virus spread to people by the bite of an infected mosquito).

Furthermore, heat stress also threatens the health and well-being of Kenya's population. The elderly and people living in crowded metropolitan areas, like as Nairobi's and Mombasa's informal settlements, where temperatures can rise substantially due to the urban heat island effect, would be most affected by heat stress. The number of senior fatalities attributable to heat is expected to rise from 2 per 100,000 persons per year in 1990 to 45 by 2080.⁵⁰

6. Vulnerability of women

It is undeniable that climate change threatens the full enjoyment of human rights, but it is also undeniable, that climate change is a global challenge that burdens all of humanity, but not equally. In the interview I conducted with women from Kenya, one of the questions posed was the following: “Do you, as a woman living in Kenya, experience any disadvantages because of climate change?”. They were also asked whether or not they believed that women and girls experience disproportionate impacts from climate change at the global level and are affected more than men. Peris Wangari, born and currently living in Nakuru City, tour operator by profession and also a finance student at St. Paul's University in Kenya, replied with the following words: “Unfortunately in Kenya there is already existing gender inequality and climate change is definitely amplifying it.”. She also brought up UNWOMEN, the UN agency for gender equality & women's empowerment, mentioning how they have termed climate change as a “Threat Multiplier” in the way it escalates pre-existing inequalities. She ended her response by stating that she thinks that the fact that women are more affected by climate change than men is one of the main reasons why “women and girls are at the forefront of addressing the climate crisis. Laureate Wangari Maathai, Elizabeth Wathuti, and Greta Thunberg are some of the amazing women I look up to on matters of the environment and climate change.” – Peris

⁴⁹ IFRC – Climate Change Impacts on Health: Kenya Assessment Viewed: 2022.09.13. Available at: https://www.adaptationcommunity.net/wp-content/uploads/2021/01/GIZ_Climate-risk-profile-Kenya_EN.pdf

⁵⁰ Ibidem

said.⁵¹ Expressing her views on my belief that gender inequality coupled with the climate crisis is one of the greatest challenges of our time, and that climate change and gender inequality are interconnected, she said the following: “Right now, it’s quite impossible to not see how the two are interconnected. The scarcity of water in affected areas means that girls are unable to practice good menstrual hygiene. Women and girls now have to travel further to search for food and water and this makes them vulnerable to sexual assault, kidnappings, and human trafficking while on these journeys. In Kenya, the pre-existing gender disparity automatically means that when resources are more scarce women will keep on being disadvantaged as they already had prior challenges accessing these resources. This also puts them at risk of labor exploitation. Malnutrition in women translates to them being unable to practice quality postnatal care, and this is the genesis of the vicious cycle of a dwindling quality of life for affected communities.”⁵² Replying to the same questions, Diana Saaya, from the Ogiek Community in Narok County, believes that „women and girls experience more impacts from climate change at the global level, more than men.”⁵³ She says that this is due to the facts that „most activities are performed by women and girls in many communities globally”.⁵⁴ Jane Karanja, a Kenyan woman from Nakuru county, working in areas of sustainable agriculture, environmental conservation and responsible tourism, also stated that she truly believes that climate change and gender inequality are interconnected, adding that „The two most important economic sectors in Kenya are agriculture and tourism, in these sectors we find many women involved especially the small holder farmers who are really experiencing the effects due to extreme weathers, reduced production, water scarcity, high cost of products with reduced incomes.”⁵⁵

Apart from the conducted interviews, many case studies have come to the conclusion that women in Kenya are less equipped to combat climate change than men, due to their lower socioeconomic status. The Ellen Johnson Sirleaf Presidential Center for Women and Development stated that women are more likely than men to live in poverty, have fewer access to fundamental rights like the freedom to move around and own land, and experience frequent violence that worsens during unstable times.⁵⁶

⁵¹ Interview conducted with Peris Wangari on 08.22.2022., Available at: Annex

⁵² Ibidem

⁵³ Interview conducted with Diana Saaya on 08.24.2022. Available at: Annex

⁵⁴ Ibidem

⁵⁵ Interview conducted with Jane Karanja on 08.24.2022. Available at: Annex

⁵⁶ Ellen Johnson Sirleaf Presidential Center for Women and Development - Why the voices of African women are so important in the fight against climate change Viewed: 2022.09.17 Available at: <https://www.ejscenter.org/news/why-the-voices-of-african-women-are-so-important-in-the-fight-against-climate-change/>

In the following, the way how Kenyan women's rights are put at a great risk due to climate change will be demonstrated. Several different aspects, including the long walks due to the scarcity of water, the illiteracy rate due to the fact that girls are often forced to leave school to provide for their families in hard times, domestic violence, the health of women, the poverty rates of woman, as well as missed opportunities to pursue employment prospects will be elaborated on.

6.1 Right to water at risk

As mentioned in section 5.1, Kenya is one of the most water-scarce nations in the world, and the situation is getting worse day-by-day. Water is recognized as a human right under international human rights legislation. It was not specifically recognized as a human right in the 1948 Universal Declaration of Human Rights, the 1966 International Covenant on Economic, Social, and Cultural Rights, or the 1966 International Covenant on Civil and Political Rights, however, it was implied through other human rights, such as the right to life, the right to a healthy life, and the right to an adequate quality of living. The United Nations legally declared access to water as a human right in 2002. "The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible, and reasonably priced water for personal and household needs," according to General Comment 15 of the International Covenant on Economic, Social, and Cultural Rights. As a result, the 145 nations that have ratified the International Covenant on Economic, Social, and Cultural Rights, including Kenya, are required to guarantee that everyone has fair and equal access to clean drinking water.⁵⁷ Furthermore, On 28 July 2010, the United Nations General Assembly adopted a historical resolution recognizing "the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights" (A/RES/64/292).⁵⁸ Access to clean water however remains a challenge in many parts of the world. Looking specifically at the examined country, water is a basic human right guaranteed to Kenyan citizens under the Kenyan Constitution. Quoting the Constitution, "Every person has the right to clean and safe water in adequate quantities".⁵⁹

⁵⁷ United Nations Treaty Collection - International Covenant on Economic, Social and Cultural Rights Viewed: 2022.09.18. Available at: https://treaties.un.org/pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-3&chapter=4&clang=en

⁵⁸ UN General Assembly - Resolution adopted by the General Assembly on 28 July 2010 Viewed: 2022.09.17. Available at: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N09/479/35/PDF/N0947935.pdf?OpenElement>

⁵⁹ Kenya's Constitution of 2010 Viewed: 2022.09.16. Available at: https://www.constituteproject.org/constitution/Kenya_2010.pdf

As known, Kenya is struggling with severe water shortage and sanitation issues. Rainfall in the country has dramatically dropped over the last five years, according to the International Livestock Research Institute, as desertification spreads across the semi-arid terrain of the nation.⁶⁰ The Horn of Africa is experiencing a record drought, which has primarily affected rural women and girls who must go up to tens of kilometers to gather potable water, endangering their lives. Next, there are more and more places that can't support animals or grow plants. Due of this, rural families have been pushed towards the metropolis, where it is predicted that by 2050, 50% of Kenya's population would reside.⁶¹ Women who were once able to cultivate land and possibly make a small living now reside in urban slums where they are unable to work at the limited jobs that are available. The country's soil erosion and desertification harm women financially.⁶² In Kenya, women face a paradoxical situation where they must provide water for their families yet are less likely than males to have safe access to it. Due to their needs during times of increased vulnerability to infection around menstruation and reproduction as well as the fact that women and girls also play a larger role relative to men in water, sanitation, and hygiene activities, including agriculture and domestic labor, it has been correctly argued that women and girls are disproportionately affected by the lack of access to basic water, sanitation, and hygiene facilities. The vital task of gathering, managing, transporting, and storing water is carried out by women in Kenya. Without access to running water, a woman must travel many kilometers by foot to the nearest natural water source; in Africa, a woman must travel on average six kilometers to collect water. She must then carry the bulky water all the way back, occasionally while carrying a baby on her back. When they return from the water source, women in Africa typically carry 20 kg of water on their heads.⁶³ These women put their health and safety in danger in order to collect contaminated water. Diana Saaya, one of my interviewees said the following concerning the water crisis: "As a woman living in Kenya, I really experience a lot of challenges due to climate change e.g., fetching water from long distances and carrying water on my back, using donkeys which is very tiresome."⁶⁴ Additionally, it has been correctly claimed that women and girls' obligations for fetching water

⁶⁰ OCHA Services - Kenya: Drought Viewed: 2022.10.01. Available at: <https://reliefweb.int/disaster/dr-2014-000131-ken>

⁶¹ World Bank Blogs - What will Kenya's urban future look like for newborns James and Maureen? Viewed: 2022.09.20. Available at: <https://blogs.worldbank.org/african/what-will-kenyas-urban-future-look-like-for-newborns-james-and-maureen>

⁶² The Water Project - Water In Crisis: Women In Kenya Viewed: 2022.09.17. Available at: <https://thewaterproject.org/water-crisis/water-in-crisis-kenya-women>

⁶³ United Nations Office for the Coordination of Humanitarian Affairs - Women and Water in Kenya Viewed: 2022.09.17. Available at: <https://reliefweb.int/report/kenya/women-and-water-kenya>

⁶⁴ Interview conducted with Diana Saaya on 08.24.2022. Available at: Annex

increase the amount of unpaid domestic work, take away time from other activities that generate cash, and reduce time for leisure and non-essential activities.

Apart from the access to clean water remaining a challenge, violence also has to be mentioned. In Kenya, women frequently encounter assault when performing household tasks like fetching water or while relieving themselves in public. Gender-based violence is a significant issue in Nairobi's slums, which keeps women away from public water sources. Multiple homes may utilize pit latrines, which are holes in the ground that collect waste. The women's one-room homes are far from these public 'restrooms', and they are mistreated while walking to use these, especially at night. Kenyan women and girls have reported trading sexual favors for water and dealing with other physically offensive and aggressive behavior when traveling great distances to gather water or use sanitary facilities, among other testimonies. “What is this dignity we keep talking about? You see us looking clean, healthy and fed but you have no idea how much sex we have traded to look dignified in front of you”. At the Sex for Water kick-off gathering in September in Kibera, Nairobi, Kenya's biggest informal community, a member of the local assembly spoke these stirring remarks.⁶⁵ Most people react to any notion of sex in exchange for water with skepticism, disbelief, and outright rejection. However, the testimony gathered from women in some of Nairobi's major informal settlements, Kibera and Mukuru Kwa Njenga, over the past five years indicate to an unseen, unsaid, and dark result of corruption in the water sector: sextortion, a form of corruption in which sex, rather than money, is the currency of the bribe.⁶⁶ When speaking to the Kenyan women, one of my interview questions was the following: “I have read many articles about how as climate change drives conflict across the country, women and girls face increased vulnerabilities to all forms of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of violence. Is this true?”. Peris Wangari replied with these distressing words: “Sadly yes. The scarcity of resources caused by climate change has shown the direct correlation between climate change and Gender-Based violence. Where men control resources susceptible to climate change such as land and fishing zones, women will sometimes try to negotiate to provide labor in exchange for food, and some of these negotiations are sometimes rejected and these men will insist on sex instead. The scarcity of resources has forced women and girls to travel longer distances in search of food and water and therefore increasing their chances of sexual assault.”⁶⁷ She also added that

⁶⁵ Water Integrity Network - “I do not want to tell you what we endured, what we had to go through to get that water” Viewed: 2022.09.18. Available at: <https://www.waterintegritynetwork.net/2019/12/09/sex-for-water/>

⁶⁶ Ibidem

⁶⁷ Interview conducted with Peris Wangari on 08.23.2022. Available at: Annex

climate change has made it harder for both women and men to provide for their families, making many fathers to turn to alcohol, which this also increases domestic violence. “In most Kenyan communities, men are seen as the providers and when they are unable to do so because of the scarcity of resources, most of them turn to alcohol to cope and in turn get more aggressive with their wives and families. Also, in these families where the women have been traveling far to look for food and are too tired for sex, this is sometimes met with violence from their husbands and cases of marital rape.”⁶⁸ For more evidence, The Stockholm International Water Institute and the African Civil Society Network on Water and Sanitation (ANEW) jointly displayed a film during World Water Week 2018 at the event "Sex for Water: a women's right's violation" in which women from Kenya discussed being solicited to pay for water with sex. In it, the following words are heard. “There are even tanks labeled ‘Water for Sex’, and often, women would rather commit adultery to have water in their houses.”⁶⁹ There is also a testimony of Marry, a resident of Kibera, who was attacked by water merchants when she went to get water. “Before the ladies who had me yelling arrived, the two guys who were in my clothing had already started the process”, according to Marry.⁷⁰

It is undeniable, that the supply of fresh water utilized for home and economic purposes is significantly impacted by climate change. The effects of more frequent floods and droughts are severe, especially for the most vulnerable population, women, who are in charge of managing water consumption in their households. Their basic human right is not being fulfilled.

6.2 Right to education at risk

A human right, the right to education is necessary for the enjoyment of all other rights. The goal of a good education is to promote the growth of a well-rounded individual, and it is one of the most effective methods for bringing individuals and children who are socially excluded out of poverty and into society. Education is a fundamental human right for everyone, as stated in the Universal Declaration of Human Rights, and this right was further outlined in the Convention against Discrimination in Education.⁷¹ As stated in article 26 of the Universal Declaration of Human Rights, "Everyone has the right to education. Education shall be free, at least in the

⁶⁸ Ibidem

⁶⁹ Kewasnet – Sex For Water Viewed: 2022.09.18 Available at:

<https://www.youtube.com/watch?v=c4AkG0h83gg>

⁷⁰ Opera News - Sex For Water: Why Kenya Women Pay The Price Viewed: 2022.09.19. Available at:

<https://ke.opera.news/ke/en/society/97efc3a767b2b3a2ddfbbb8af6952c1b>

⁷¹ UNESCO - What you need to know about the right to education Viewed: 2022.09.04. Available at:

<https://en.unesco.org/news/what-you-need-know-about-right-education>

elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit. Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace. Parents have a prior right to choose the kind of education that shall be given to their children."⁷²

Looking at Kenya specifically, the 2010 Constitution of Kenya also mentions this basic human right. Article 43, which concerns economic and social rights, states that “Every person has the right to education.”⁷³

Without immediate action, the effects of climate change will make it harder for students to receive a quality education, particularly underprivileged girls, and young women. Climate change has a disproportionately negative impact on young females in Kenya. Particularly in light of the financial losses and other instability brought on by climate change, many low-income families reduce that expense by having their daughters skip school. According to UNESCO, 15 million girls of primary school age—half of whom live in sub-Saharan Africa—will never set foot inside a classroom. Between the ages of 6 and 17, there are an estimated 130 million females who are not in school. Typically, poverty, cultural norms and behaviors, subpar infrastructure, violence, and fragility are cited as causes of such numbers; all of these factors are made worse by climate change.⁷⁴ One of the reasons which lead to girls not being able to take part in education, is the before-mentioned task of women, to fetch supplies for their families. According to UNICEF, over 200 million hours a day are spent by girls and women fetching water across the world.⁷⁵ „Just imagine: 200 million hours is 8.3 million days, or over 22,800 years. It would be as if a woman started with her empty bucket in the Stone Age and didn't arrive home with water until 2016. Think how much the world advanced in that time. Think how much women could have achieved in that time.” – said Sanjay Wijesekera, UNICEF

⁷² Universal Declaration of Human Rights Viewed: 2022.09.05. Available at: https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf

⁷³ Constitution of Kenya, 2010 Viewed: 2022.09.05. Available at: <http://kenyalaw.org/lex/actview.xql?actid=Const2010>

⁷⁴ World Bank - Girls' Education Viewed: 2022.09.05 Available at: <https://www.worldbank.org/en/topic/girlseducation>

⁷⁵ UNICEF – The Water Burden Viewed: 2022.09.05. Available at: <https://www.unicefusa.org/mission/survival/water/water-burden>

Director of Program Division and former UNICEF Chief of the Water, Sanitation and Hygiene Section.⁷⁶ Due to the decreased availability of water and fuel, women in Kenya will have to spend more time each day merely obtaining essentials, which will prevent the girls from attending school. Spending time away from school deprives girls of the opportunity to pursue better futures. Peris Wangari, one of the interviewees had the following words to share concerning girls' education: "Older women with families have the challenge of providing for their families despite the scarcity, while younger schoolgirls face the challenge of having to drop out of school to ease the burden on their mothers. Sadly, these young girls will grow to face bigger challenges like their mothers if the climate crisis is not mitigated. Inheriting challenges through generations is a vicious cycle that needs to be stopped."⁷⁷ Another interviewee, Margaret Nailader mentioned that "...women have a low level of illiteracy due to missing out on school, lack of income, because they cannot work in certain fields...they experience unemployment and gender discrimination, so there is a lack of women in many important sectors."⁷⁸ The fact that girls have to drop out of school, or in some cases, cannot even start school is not only dangerous, because it stops them from developing academically, but also because the information, abilities, and behaviors that girls need to adapt to climate change must be developed through education. Quoting Forget Shareka, a member of the CAMFED Association and founder of Chasi Foods, a company tackling food waste in Zimbabwe, "When we are looking at the most vulnerable people when it comes to climate disasters, especially in developing countries, the most affected people are women. If we educate those girls, they will become women one day, and they can contribute to tangible solutions."⁷⁹ Education makes things simpler, according to a study titled "Effects of Educational Attainment on Climate Risk Vulnerability". The authors evaluated two sub-Saharan African model scenarios, one in which 30% of women had completed a secondary education by 2050 and the other in which 70% had. According to their estimate, between 2040 and 2050, a higher proportion (70%) of educated women can reduce the mortality tolls from extreme events including floods, droughts, wildfires, and high temperatures by 60%.⁸⁰

⁷⁶ Ibidem

⁷⁷ Interview conducted with Peris Wangari on 08.23.2022. Available at: Annex

⁷⁸ Interview conducted with on Margaret Nailader on 02.10.2022. Available at: Annex

⁷⁹ Global Citizen - How Can Girls' Education Help Fight Climate Change? Viewed: 2022.09.06. Available at: <https://www.globalcitizen.org/en/content/how-girls-education-fights-climate-change/>

⁸⁰ Ecology and Society - Effects of Educational Attainment on Climate Risk Vulnerability Viewed: 2022.09.06. Available at: <https://www.ecologyandsociety.org/vol18/iss1/art16/>

Furthermore, apart from the fact that young girls miss the opportunity to sit in school and listen to classes because instead, they have to complete chores, they also miss it due to the fact that girls in the country are unfortunately fighting period poverty. According to Alyazeera, one million Kenyan girls miss school every month due to financial hardship causing them not to be able to afford sanitary products, and some even share shared sanitary pads.⁸¹ Alyazeera also conducted an interview with Mary Asigi, a 17-year-old student at Damascus Primary School in the Dandora slum on the outskirts of Nairobi, who typically misses a few days of class each month because of this. “I wish I was a boy”, says Mary, adding that “When I was 15 in class 6, I used to share used pads with fellow classmates before my class teacher warned against it because it was unhygienic,”. Sharing pads is particularly risky because, according to study, 12 percent of residents of Nairobi's slums have HIV, compared to 5 percent of the overall population. Mary, like the other girls in her village, must decide between jeopardizing her health and jeopardizing her education. She is still in primary school at the age of 17 as a result of poverty, which has already affected her education like it has for many others in her neighborhood.⁸²

Without immediate action, the effects of climate change will make it harder for students to receive a quality education, particularly underprivileged girls and young women, depriving them of a basic human right, the right to education.

6.3 Right to health at risk

As stated in section 5.1, the right to health of Kenyan women is also at risk due to climate change. The WHO Constitution, which was written in 1946, was the first document to express the right to health, states the following: “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being...”. The preamble of the Constitution provides the next definition of health: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.⁸³ It was also recognized as a human right in 1966 in the International Covenant on Economic, Social and Cultural Rights,

⁸¹ Alyazeera - ‘I wish I was a boy’: The Kenyan girls fighting period poverty Viewed: 2022.09.19. Available at: <https://www.aljazeera.com/features/2020/2/24/i-wish-i-was-a-boy-the-kenyan-girls-fighting-period-poverty>

⁸² Ibidem

⁸³ Constitution of the World Health Organization Viewed: 2022.09.19. Available at: <https://www.who.int/publications/m/item/constitution-of-the-world-health-organization>

in Article 12: “The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.”⁸⁴

Looking at Kenya specifically, the 2010 Constitution of Kenya also mentions this basic human right. Article 43, which concerns economic and social rights, states that “Every person has the right to the highest attainable standard of health, which includes the right to health care services, including reproductive health care.”⁸⁵

Numerous studies have established the link between climate change and health, emphasizing that the negative effects of climate change are exacerbated by poverty, food insecurity, isolation from other people, and deteriorating social norms. According to WHO, Climate change is predicted to result in an additional 250 000 deaths per year between 2030 and 2050, mostly from starvation, malaria, diarrhea, and heat stress. They added that the areas least equipped to manage without support to plan and respond to this phenomenon, will be those with limited health infrastructure, which is largely in developing countries, such as Kenya.⁸⁶ The linkage between health and climate change has also been supported by the Intergovernmental Panel on Climate Change (IPCC), according to whom the global temperature rise must be kept to 1.5°C in order to avoid catastrophic health effects and millions of fatalities brought on by climate change.⁸⁷ When replying to my question concerning the vulnerability of different regions, Peris Wangari, one of the interviewees replied with the following words concerning the most vulnerable areas: “The death of inhabitants of these areas because of drought is a heartbreaking and gut-wrenching occurrence that harshly reminds us that things shouldn’t have gotten this extreme and mitigation measures are needed urgently.”⁸⁸

It is well backed up that climate change is one of the major global health threats to the world's population, but do the effects disproportionately affect the most vulnerable, these being the women in Kenya? According to many studies, evidence, and testimonies, they do. Early in 2016, the American College of Obstetricians and Gynecologists (ACOG) formalized their stance on

⁸⁴ International Covenant on Economic, Social and Cultural Rights Viewed: 2022.09.19. Available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights>

⁸⁵ Constitution of Kenya, 2010 Viewed: 2022.09.19. Available at: <http://kenyalaw.org/lex/actview.xql?actid=Const2010>

⁸⁶ WHO – Climate Change and Health Viewed: 2022.09.27. Available at: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

⁸⁷ IPCC - SPECIAL REPORT: GLOBAL WARMING OF 1.5 °C Viewed: 2022.09.27. Available at: <https://www.ipcc.ch/sr15/chapter/chapter-1/>

⁸⁸ Interview conducted with Peris Wangari on 08.22.2023. Available at: Annex

the link between women's health and climate change, stating that environmental exposures can disproportionately impact women and increase their already existing health issues.⁸⁹ “The effects of climate change include food and water insecurity, civil conflicts, extreme weather events, and spread of disease—all of which put women at elevated risk of disease, malnutrition, sexual violence, poor mental health, lack of reproductive control, negative obstetric outcomes and death,” – they stated.⁹⁰ In Kenya, women experience greater rates of anemia and malnutrition, which are mostly caused by the threat of food insecurity brought on by a changing climate. This is due to the fact that during child- birth and menstruation, a woman’s nutritional needs increase. Additionally, the majority of small-scale farmers in Kenya are women, which puts their ability to support themselves at risk owing to repeated crop failures brought on by unpredictable climate change, as mentioned in section 5.1. Women, who are constantly at the forefront of making sure that provisions for the family are available, even if it means depriving themselves for the sake of the other family members, are more at risk. Furthermore, pregnancy-related food insecurity can cause a variety of health problems for women, including gestational diabetes, an iron shortage, and low birth weight. Negative pregnancy outcomes are also directly linked to air pollution, which has an impact on maternal and child health and is typically linked to stillbirth, fetal growth restriction, and congenital abnormalities.⁹¹ Also, when it comes to pregnancy, pregnant women are particularly vulnerable to the effects of extended exposure to high temperatures, and the most likely outcomes include stillbirths, congenital abnormalities. The hygiene of Kenyan woman is also at a risk due to one of the most serious effects of climate change in this country, the heavy and long droughts, as there is already a scarcity of clean water for drinking and cooking, resulting in improper sanitation. As far as droughts are concerned, due to the lengthy and dangerous treks required to find water in Kenya during times of water scarcity, women and girls who engage in this type of manual labor are more likely to sustain injuries to their spines, shoulders, and backs, which could lead to chronic muscular pain. Long journeys in search of water, particularly during drought seasons also put them at danger for heat exhaustion and heat strokes.⁹² When asked the question of “Do you believe that the loss of women's rights in Kenya can be partly because of climate change? Do you believe women and girls experience disproportionate impacts from climate change at the global level, and are

⁸⁹ Motherly - It's Science: Climate change is a women's health issue Viewed: 2022.09.27. Available at: <https://www.mother.ly/health-wellness/womens-health/climate-change-womens-health/>

⁹⁰ Ibidem

⁹¹ Aditi Nidhi, Dr. Mwirigi Charles - Climate Change Impacts on Women's Health in Kenya: Issues and Challenges Viewed: 2022.09.26. Available at: <https://www.jetir.org/papers/JETIR2011174.pdf>

⁹² Elizabeth M. Allen, Leso Munala, Julie R. Henderson - Kenyan Women Bearing the Cost of Climate Change Viewed: 2022.09.27. Available at: <https://www.mdpi.com/1660-4601/18/23/12697>

affected more than men?”, one of the interviewees, Peris Wangari gave a detailed answer: “Women and girls are definitely more affected than men. Let’s use the climate change effect on rising water levels to explain this scenario. With the rising water levels which have flooded nearing villages and caused a sanitation crisis, women are now more susceptible to vector borne diseases such as Malaria, zika virus, and dengue fever which are a threat to their maternal health. Extreme heat has also been linked to an increased likelihood of stillbirth. This is one clear piece of research on just how dire the effects of climate change are on women”.⁹³

7. Agents and promoters of adaptation and mitigation

In the previous chapter, the loss of women’s rights has been demonstrated, however, it is also of great significance to elaborate on how women, apart from being the victims of this environmental crisis, are also the solution to it, therefore, should be at the heart of climate action. Women from Kenya and other parts of Africa who have been attentively observing climate patterns for decades are being bypassed as global scientific specialists are given more and more resources to research and analyze the effects of climate change globally. There is no denying that data and assessment are critical components in the dynamic area of climate-watch technology today, but where are the women?

The global human social structure naturally places women at the center of all spheres of existence, including homemaking, leadership, business, education, technology, and food system production. It is impossible to overstate the capacity of women to contribute to sustainable and human development. However, in Sub-Saharan Africa, this potential is still untapped since women are not allowed to own productive assets or participate in decision-making.⁹⁴ Women's participation in decision-making processes is essential for effective climate action since they have unique expertise and experience, particularly at the local level. According to a 2019 study conducted by Astghik Mavisakalyan and Yashar Tarverdi, in their paper entitled “Gender and climate change: Do female parliamentarians make difference?”⁹⁵, having more women in national parliaments results in the implementation of stricter climate change regulations, which

⁹³ Interview conducted with Peris Wagari on 08.23.2022. Available at: Annex

⁹⁴ SNV - Women promote climate smart agriculture practices in Kenya Viewed: 2022.10.03. Available at: <https://snv.org/update/women-promote-climate-smart-agriculture-practices-kenya>

⁹⁵ Astghik Mavisakalyan and Yashar Tarverdi - Gender and climate change: Do female parliamentarians make difference? Viewed: 2022.10.03. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0176268017304500>

reduces emissions. At the local level, the participation of women in natural resource management is associated with better resource governance and conservation outcomes.

A terrific example of women working together to achieve great results is the ICSIAPL Project of Kenya. The SNV Netherlands Development Organization and the Kenya Agricultural and Livestock Research Organization (KALRO) received funding from the European Union to carry out the three-year project in the counties of Taita Taveta, Kajiado, and Narok.⁹⁶ Through climate smart innovations and sustainable landscape management that emphasizes raising incomes, gender inclusion in the forage development and livestock value chain, as well as reducing the effects of climate change and landscape degradation, the program seeks to develop more resilient and market-based solutions for improved forage production and farming methods. Being a part of this program, Elizabeth is one of many women providing training and recruiting farmers across the project. When asked about one of her trainings, she had the following to say: „I am generally passionate about farming, and I keep close contacts with the agriculture department of the county. I was part of an association of farmers in Narok town, through which I was trained on growing Napier grass, and I collected a split from the site, and I have kept on multiplying it over the years... After attending the training on improved forage varieties, I realized the difference it will make in our lives as farmers. Through the training, they explained to us how these grasses and legumes contribute to cows' nutrition and milk production and allow bulls to grow fat. After planting the sugar graze, I fed them to my own cows, and I got double the usual amount of milk per day'.⁹⁷ She now has many trainings, and helps other women adapt the same method, helping them to truly maximize their amount of production in a sustainable way. Apart from this Kenyan case, examples of women taking initiative to address the consequences of climate change have been seen all around the world. Women in Bangladesh built the foundations for their communities' wind- and flood-resistant homes.⁹⁸ In order to increase food security in their communities, which were suffering from hunger and drought, a group of women in rural Sudan established the first-ever Women's Farmers Union. Indigenous women in Nicaragua were inspired to start seed banks to preserve biodiversity and build sustainable livelihoods independent of industrialized agriculture when storms became more severe and frequent. After Hurricane Maria tore through Puerto Rico, architect Carla Gautier

⁹⁶ SNV – ICSAPL Viewed: 2022.10.02. Available at: <https://snv.org/project/icsiapl>

⁹⁷ SNV - Women promote climate smart agriculture practices in Kenya Viewed: 2022.10.03. Available at: <https://snv.org/update/women-promote-climate-smart-agriculture-practices-kenya>

⁹⁸ One World - Why women are key to solving the climate crisis Viewed: 2022.10.03. Available at: <https://www.oneearth.org/why-women-are-key-to-solving-the-climate-crisis/>

teamed up with her friend Maria Gabriela Velasco to use shipping containers to reconstruct the more than 300,000 homes that were badly destroyed around the island. Additionally, native women in the Pacific Islands have started media networks and monitoring organizations to inform the outside world about the effects of climate change in Fiji. Furthermore, after years of desertification and overgrazing, which left wide swathes of land barren and depleted, indigenous women are employing sustainable agricultural production and landscape management to restore the delicate ecosystem to health in the páramo habitat of the Ecuadorian Andes.⁹⁹ According to UN Women Representative in Ecuador Bibiana Aido, "the páramo initiative teaches us that without women, it's not viable to talk about solutions to climate change and sustainable development."¹⁰⁰ All of these examples showcase that women are great leaders in times of crisis. In the crisis of today, the climate crisis, women are needed. Women exhibit a special knowledge and skill set when given the opportunity to actively engage in emergency preparation and response. This enables communities to recover more rapidly and more efficiently.

Furthermore, it cannot be forgotten that in some respects, women were responsible for launching the environmental movement as we know it today. To provide a few instances, a foundational work by Rachel Carson, *Silent Spring*, sparked a generation of environmental activism that eventually resulted in the formation of Earth Day and the US Environmental Protection Agency.¹⁰¹ Another great woman, Sylvia Earle is an oceanographer, marine biologist, and adventurer who served as the first female head scientist of the US National Oceanic and Atmospheric Administration, continuing to motivate people to take action to stop ocean pollution and overfishing.¹⁰² Next, Jane Goodall's seminal work in the field over the course of 60 years exposed the world to the intricate family dynamics of wild chimpanzees and raised public awareness of the need to safeguard primates and their critically crucial ecosystems.¹⁰³

The above-mentioned examples highlight that a critical step of climate action is empowering women. Climate change, according to Annabell Waititu, a founding member of the Nairobi-

⁹⁹ UN Women - Why women need to be at the heart of climate action Viewed: 2022.10.03. Available at: <https://www.unwomen.org/en/news-stories/explainer/2022/03/explainer-why-women-need-to-be-at-the-heart-of-climate-action>

¹⁰⁰ Ibidem

¹⁰¹ Permaculture Research Institute - 'Silent Spring' Triggered an Environmental Movement Viewed: 2022.10.03. Available at: <https://www.permaculturenews.org/2016/06/20/silent-spring-environmental-movement/>

¹⁰² National Geographic - Oceanographer Sylvia Earle Viewed: 2022.10.03. Available at: <https://education.nationalgeographic.org/resource/real-world-geography-sylvia-earle>

¹⁰³ National Geographic - How Jane Goodall Changed What We Know About Chimps Viewed: 2022.10.03. Available at: <https://www.nationalgeographic.com/magazine/article/becoming-jane-goodall>

based Institute of Environment and Water Management, is no longer merely a problem for the environment. “The impacts of climate change will definitely affect the MDGs (UN Millennium Development Goals) and to deal with it gender equality must be addressed,” - she also states.¹⁰⁴ According to research by Kari Norgaard and Richard York, governments that have more women in parliament are more likely to approve environmental accords.¹⁰⁵ Therefore, in order to combat current challenges, it is crucial to include women in the development of environmental protection policies and tactics, such as disaster response, resilience building, ensuring land and inheritance rights, battling food insecurity, and eradicating energy poverty. It is vital to ensure that women, notably indigenous women and grassroots organizations, are involved in resource management and climate change talks. It is essential to invest in technology and programs to improve renewable and sustainable energy sources that take into account the knowledge, demands, and responsibilities of women while embracing indigenous knowledge and customs. Finally, it is a must to create policies to combat climate change that take gender-sensitive effects into account, offer women access to resources, and give them chances to take part in the processes of mitigation and adaptation. Evidence also demonstrates that women use resources sustainably when they have safe rights and access to land. According to estimates, women make up between 60 and 80 percent of members of environmental groups¹⁰⁶, and even greater percentages exist in grass-roots movements. Increased participation of women in government may have an impact on how nations behave with regard to the environment, with women being more likely than males to support the environmental movement. By including women in the fight against climate change, we can ensure that future generations will have better access to clean air, safe drinking water, enough food, and safe housing.¹⁰⁷

8. Conclusion

As more and more data and study demonstrate their evident correlation, it's truly important to discuss the uneven effects of climate change and the connections between women's empowerment and effective, global climate action. The purpose of the previous chapters was to find an answer to the research question of whether or not climate change strengthens the

¹⁰⁴ Third World Network - Climate change in Kenya is changing women's lives Viewed: 2022.10.08. Available at: <https://www.twn.my/title2/resurgence/2013/274/women1.htm>

¹⁰⁵ Kari Norgaard and Richard York - Gender Equality and State Environmentalism Viewed: 2022.10.08. Available at: https://www.jstor.org/stable/30044614#metadata_info_tab_contents

¹⁰⁶ Ibidem

¹⁰⁷ Women Deliver - Invest in Women to Tackle Climate Change and Conserve the Environment Viewed: 2022.10.08. Available at: <https://womendeliver.org/investment/invest-women-tackle-climate-change-conserve-environment/>

gender inequality, and results in the deterioration of women's rights in Kenya, and from the findings, it is clear that the answer is yes. Women throughout Kenya are more reliant on but have less access to natural resources. They are disproportionately responsible for procuring fuel, water, and food in many areas of the country. Agriculture is the most significant area of employment for women in the country, and during droughts and seasons of irregular rainfall, women labor even harder as agricultural workers and primary procurers to provide supplies and money for their family. Girls are under much more strain since they sometimes have to drop out of school to assist their mothers in carrying the heavier load. A country's competitiveness in the long run "depends considerably on whether and how it educates and employs its women" and if they have "the same rights, responsibilities, and opportunities as males" according to the 2013 Global Gender Gap Report from the World Economic Forum.¹⁰⁸ Therefore, the violation of the human right mentioned in section 6.2, the right to education is a key element of the fight against climate change. In summary, of all the human rights that are violated to the effects of climate change in Kenya, this paper has focused on three in particular, these being the right to water, the right to health, and the right to education. As expressed in sections 6.1, 6.2, and 6.3, these three rights are interconnected, and together, they result in a poor quality of life for women in Kenya, strengthening the already existing gender inequality of the country.

To conclude, it is clear that all of humanity is affected by the worsening effects of climate change, but the way we are affected is not equal. Women around the world, especially in Africa, are drastically affected, and they are truly more vulnerable. Their vulnerability stems from unequal rights and access to resources, restricted mobility, limited economic opportunities, and other sociocultural barriers that limit their capacity. However, it must be noted that women are also significant change agents who can contribute to adaptation and mitigation. In order to ensure better climate actions and food security around the globe - as women produce the majority of the world's staple crops - a gender-responsive climate policy, which empowers women is needed. The process in gender equality needs to be accelerated, and women's leadership needs to be showcased in climate action. The best way to help women respond to climate change is by empowering them.

¹⁰⁸ World Economic Forum - The Global Gender Gap Report 2013 Viewed: 2022.10.04. Available at: https://www3.weforum.org/docs/WEF_GenderGap_Report_2013.pdf

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Interviews

Interview conducted with Peris Wangari on 08.23.2022, Annex

Interview conducted with Diana Saaya on 08.24.2022, Annex

Interview conducted with Jane Karanja on 08.24.2022, Annex

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ANNEX

Interview conducted with Peris Wangari

Method: online interview

Date of Interview: 2022.08.23.

First of all, please introduce yourself, tell me a bit about who you are, what you do for a living, where you come from etc.

I am Peris Wangari, Tour operator by profession and also a Finance student at St Paul's University in Kenya. Born and currently living in Nakuru City although raised in different parts of Kenya as my parents kept moving from one city to the other for work reasons. I am passionate about travelling, I appreciate nature and environment, just like you, as tour operators of Kenya we took the initiative of being ambassadors of climate change in our country, we encourage green tourism that is sustainable to our environment. As a Kenyan lady privileged to get education, I take part in educating girls from different communities about the importance of having education, condemn dropping out of schools and forced marriages since it's still an issue in some of the communities in our country.

I recently had a trip to Kenya, where, as part of a humanitarian mission, we learned about how devastating the situation is in the country due to climate change. Please tell me about this briefly. How big of a problem is climate change in Kenya?

Unfortunately, due to a lack of awareness, notable changes in weather patterns have been brushed off as "having a bad year" and what most citizens don't realize is just how drastic the effects of climate change are. The prolonged droughts, heavier rainfall, livestock loss, increased food insecurity, and rising water body levels are just a few indications of how serious the situation is.

Kenya can be divided into different regions based on its vulnerability in connection to climate change. From someone who lives there, please give me your own opinion on this topic. Does climate change affect different parts of Kenya differently? Are there territories where the people suffer more?

Yes, Arid and Semi-Arid regions are already vulnerable regions and their conditions have been grossly worsened by climate change. These areas have now been experiencing extreme drought e.g., in Turkana, these conditions have seen the decline of cattle by about 27% and this number could increase up to about 52% if measures are not taken. The death of inhabitants of these areas because of drought is a heartbreaking and gut-wrenching occurrence that harshly reminds us that things shouldn't have gotten this extreme and mitigation measures are needed urgently.

We can clearly see that the effects of climate change are now starting to be unstoppable. In Kenya, has the situation been getting worse in the past few years?

Unfortunately, yes. Even hearing from the older generation on how the current weather patterns are becoming more and more unpredictable. From delayed rains to prolonged and extreme cold seasons, these are just a few indications that the situation has been getting worse. Increased food insecurity has hit hard and caused a surge in food prices, and this is one major effect that has been felt nationwide. Tourism, which is one of the highest income earners, has also witnessed adverse effects of climate change. The changing weather patterns have in turn changed animal patterns, for example, some lakes in the rift valley region which were known to be filled with beautiful flamingos now have little to show. This translates to lesser tourist visits. The economic impact of climate change is quite impossible to ignore.

Do you, as a woman living in Kenya, experience any disadvantages because of climate change? Does it affect different generations differently?

As a woman who is responsible for providing my family's meals, surging food prices has been a blow to my pockets because trying to maintain a healthy diet in the face of food scarcity has grown to be really expensive. Financial constraint is a challenge I believe many other women, just like me, are going through by trying to provide healthy meals for our families. Older women with families have the challenge of providing for their families despite the scarcity, while younger schoolgirls face the challenge of having to drop out of school to ease the burden on their mothers. Sadly, these young girls will grow to face bigger challenges like their mothers if the climate crisis is not mitigated. Inheriting challenges through generations is a vicious cycle that needs to be stopped.

Do you believe that the loss of women's rights in Kenya can be partly because of climate change? Do you believe women and girls experience disproportionate impacts from climate change at the global level, and are affected more than men?

Absolutely. Unfortunately, in Kenya there is already existing gender inequality and climate change is definitely amplifying it. UNWOMEN has termed climate change as a "Threat Multiplier" in the way it escalates pre-existing inequalities. For example, in many regions in Kenya, women are already responsible for securing food, and with the harsh effects of climate change on agricultural output, this means that the burden of securing food has again increased which in turn will force girls to leave school and help alleviate their mother's burden while sadly they forego their right to education. Women and girls are definitely more affected than men. Let's use the climate change effect on rising water levels to explain this scenario. With the rising water levels which have flooded nearing villages and caused a sanitation crisis, women are now more susceptible to vector borne diseases such as Malaria, zika virus, and dengue fever which are a threat to their maternal health. Extreme heat has also been linked to an increased likelihood of stillbirth. This is one clear piece of research on just how dire the effects of climate change are on women. I also believe that this is one of the reasons why women and girls are at the forefront of addressing the climate crisis. Laureate Wangari Maathai, Elizabeth Wathuti, and Greta Thunberg are some of the amazing women I look up to on matters of the environment and climate change.

In my thesis, I write about how gender inequality coupled with the climate crisis is one of the greatest challenges of our time, mentioning how it poses threats to ways of life, livelihoods, health, safety and security for women and girls around the world. Do you believe that climate change and gender inequality are interconnected?

Absolutely, and right now it's quite impossible to not see how the two are interconnected. The scarcity of water in affected areas means that girls are unable to practice good menstrual hygiene. Women and girls now have to travel further to search for food and water and this makes them vulnerable to sexual assault, kidnappings, and human trafficking while on these journeys. In Kenya, the pre-existing gender disparity automatically means that when resources are more scarce women will keep on being disadvantaged as they already had prior challenges accessing these resources. This also puts them at risk of labor exploitation. Malnutrition in women translates to them being unable to practice quality postnatal care, and this is the genesis of the vicious cycle of a dwindling quality of life for affected communities.

I have read many articles about how as climate change drives conflict across the country, women and girls face increased vulnerabilities to all forms of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of violence. Is this true?

Sadly yes. The scarcity of resources caused by climate change has shown the direct correlation between climate change and Gender-Based violence. Where men control resources susceptible to climate change such as land and fishing zones, women will sometimes try to negotiate to provide labor in exchange for food, and some of these negotiations are sometimes rejected and these men will insist on sex instead. The scarcity of resources has forced

women and girls to travel longer distances in search of food and water and therefore increasing their chances of sexual assault. This is also after young girls have had to drop out of school to help their mothers.

Child marriage has also increased in the face of drought as some family's resort to forcefully marrying off their daughters to better cope with food scarcity within their families. In other cases, dowry obtained from marrying off these children has been used to alleviate the effects of resource scarcity. In most Kenyan communities, men are seen as the providers and when they are unable to do so because of the scarcity of resources, most of them turn to alcohol to cope and in turn get more aggressive with their wives and families. Also in these families where the women have been traveling far to look for food and are too tired for sex, this is sometimes met with violence from their husbands and cases of marital rape.

Interview conducted with Diana Saaya

Method: online interview

Date of Interview: 2022.08.24.

First of all, please introduce yourself, tell me a bit about who you are, what you do for a living, where you come from etc.

My name is Diana Saaya from the Ogiek Community in Narok County – Kenya. I am from this minority group known as the “Ogiek” or the forest dwellers. We are based on hunting and gathering. As for me as a woman in these community, I'm running a small business, selling honey and herbal medicine for my basic need as part of living.

I recently had a trip to Kenya, where as part of humanitarian mission, we learned about how devastating the situation is in the country due to climate change. Please tell me about this briefly. How big of a problem is climate change in Kenya?

In Kenya, climate change is one of the major problem here. With the following problems:

- i) Lack of water for domestic use: You find that people really suffer and struggle in search of water in long distances, in order to get water for domestic use.
- ii) Shortage of food: This is also another serious major problem – due to shortage of rains where people have done a lot of deforestation in the forest which brings rain for crops to be grown. These also cause deaths if there is no food for human consumption.
- iii) Outbreak of diseases: Due to effects of climate change, diseases like Typhoid, Cholera, Rickets and Marasmus arise.
- iv) Intercommunity conflicts for pasture and water e.g., Northern Kenya i.e., Turkana and Garissa, these communities fight over pasture.
- v) It leads to death of livestock and wild animals because of climate change. vi) Deterioration of economic activities due to climate change e.g., Crop farming and livestock keeping.
- vii) It leads to the destruction of forest to get source of income e.g., charcoal burning and plumbing that is cutting of trees into timber and these leads to desertification. viii) Destruction of habitat of wildlife and the environment e.g., water table.

Kenya can be divided into different regions based on its vulnerability in connection to climate change. Opinion on this topic. Does climate change effect different parts of Kenya differently? Are there territories where the people suffer more?

Yes. It affects parts of Kenya differently due to economic activities/situation found on those areas in my opinion, Kenya is divided into different regions namely, Northern Kenya, Central Kenya and Southern Kenya.

i. Northern Kenya: In Northern Kenya, people are normally pastoralists. They keep cattle, sheep, goats, and camels. Normally during prolonged drought, the livestock die due to lack of enough water and pasture. It is a great loss to the people since they depend on livestock.

ii. Central Kenya: In Central Kenya people normally mixed farmers e.g keep animals as well as growing of crops. During the drought, many animals die as well as crop don't yield well, and people face shortage of food due to these climate change. It also leads to outbreak of diseases to both animals and human beings. It also affects the economic activities of the people.

iii. Southern Kenya: Most parts of Southern Kenya occupied by pastoralists e.g the Maasai, Ogiek and the Kalenjins. Most parts of these areas are game reserves occupied by wild animals e.g Maasai Mara, Mau Forest, Tsavo east in Eastern province of Kenya. Because of climate change most rivers have dried hence leads to shortage of water both human beings and wild animals, also lead to shortage of food and death in both human beings and wild animals. It also leads to migration of wild animals from Maasai Mara to Serengeti in Tanzania where they can get water and pasture. The situation has really changed for the last 10 years, and it seems to be continuing.

We can clearly see that the effects of climate change are now starting to be unstoppable. In Kenya has the situation been getting worse in the past few years?

The effects of climate change in Kenya is extremely expanding from northern Kenya to Southern part unlikely in previous years. It was only northern and southern parts experiencing climate change. It is almost covering the whole of Kenya.

Do you as a woman living in Kenya, experience any disadvantages because of climate change? Does it affect different generations differently?

Yes. As a woman living in Kenya, I really experience a lot of challenges due to climate change e.g fetching water from long distances and carrying water on my back, using donkeys which is very tiresome, search of firewood in long distance places. Going to the market to look for food for the family of which sometimes very little money to purchase the food. Climate change affects all generations differently e.g., economically, socially, psychologically which is viewed in different opinions.

Do you believe that the loss of women's rights in Kenya can partly because of climate change? Do you believe women and girls experience disproportionate impacts from climate change at the global level and are affected more than men?

Yes. This is because women's rights have been neglected by some communities to perform men's duties during climate change e.g., working for long distances, looking for food for the family, looking for the livestock which is a role of men and young boys. Women are compelled to look for business outside their regions as family source of income e.g people in Southern Kenya sell secondhand clothes, beads and foodstuffs in different markets, which are roles of men and not roles of women. Due to the above points, the loss of women rights has been contributed by climate change.

I believe women and girls experience more impacts from climate change at the global level, more than men. This is due to most activities are performed by women and girls in many communities globally.

In my thesis, I write about how gender inequality coupled with the climate crisis is one of the greatest challenges of our time. mentioning how it poses threats to ways of life, livelihoods, health, safety and security for women and girls around the world. Do you believe that climate change and gender inequality are interconnected?

Yes. I believe gender inequality are interconnected due to climate change. In that I have found out, more responsibilities are carried by women and girls than men. So, this brings inequality of roles.

I have read many articles about how as climate change drives conflict across the country, women and girls face increase vulnerabilities to all forms of gender-based violence, including conflict – related sexual violence, human trafficking, child marriage and other forms of violence. Is this true?

Yes. There have been a lot of conflicts across the country where women and girls face challenges such as sexual violence, early marriages for both pupils and young girls at home. - A lot of divorce because of hardships, due to climate change. Many school dropouts lead to street children, poor performance in schools and any other learning institution. Lack of faithfulness in many families which leads to place of comfort for their lives, early pregnancies due to indiscipline cases, poverty nature in different families. Of all the above reasons, it is true these one's have a lot of impacts to women and girls due to climate change.

Interview conducted with Jane Karanja
Method: online interview
Date of Interview: 2022.08.24.

First of all, please introduce yourself, tell me a bit about who you are, what you do for a living, where you come from etc.

My name is Jane Karanja, I live in Nakuru County, Kenya. I work with local communities in areas of Sustainable agriculture, environmental conservation and responsible tourism.

I recently had a trip to Kenya, where, as part of a humanitarian mission, we learned about how devastating the situation is in the country due to climate change. Please tell me about this briefly. How big of a problem is climate change in Kenya?

Climate change has become a big issue in Kenya as it affects livelihoods and natural resources, it has led to more frequent extreme weather events like droughts, irregular and unpredictable rainfall, flooding and increasing temperatures which have led to water insecurity, food insecurity for Many households.

Kenya can be divided into different regions based on its vulnerability in connection to climate change. From someone who lives there, please give me your own opinion on this topic. Does climate change effect different parts of Kenya differently? Are there territories where the people suffer more?

Climate change affects diferent regions differently, depending if they are on the highlands, arid and semi arid areas, causing new crop and livestock diseases and pests, increased droughts and floods and reduced food production.

We can clearly see that the effects of climate change are now starting to be unstoppable. In Kenya, has the situation been getting worse in the past few years?

Yes, the effects have increased with time due to unfavourable production systems, defforestation and degradation of ecosystems.

Do you, as a woman living in Kenya, experience any disadvantages because of climate change? Does it affect different generations differently?

Yes, my daily life is affected by the effects of climate change in terms of diets, health, favourable living conditions due to the extreme weather conditions, and different generations have been affected differently.

Do you believe that the loss of women's rights in Kenya can partly be because of climate change? Do you believe women and girls experience disproportionate impacts from climate change at the global level and are affected more than men?

The two most important economic sectors in Kenya are agriculture and tourism, in these sectors we find many women involved especially the small holder farmers who are really experiencing the effects due to extreme weathers, reduced production, water scarcity, high cost of products with reduced incomes.

In my thesis, I write about how gender inequality coupled with the climate crisis is one of the greatest challenges of our time, mentioning how it poses threats to ways of life, livelihoods, health, safety and security for women and girls around the world. Do you believe that climate change and gender inequality are interconnected?

Yes, they are interconnected, as climate change exacerbates existing gender inequalities, with women displaced on the frontlines of its impacts bearing the heaviest consequences.

I have read many articles about how as climate change drives conflict across the country, women and girls face increased vulnerabilities to all forms of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of violence. Is this true?

It is true to some extent especially where displacement occurs and people have to be in displacement camps, the women and girls suffer most from sexual exploitation, extra labour and childcare.

Interview conducted with Saruni Saaya
Method: online interview
Date of Interview: 2022.09.10.

First of all, please introduce yourself, tell me a bit about who you are, what you do for a living, where you come from, etc.

My name is Wilson Saruni Saaya from Narok, Kenya. From one of the smallest communities found in Kenya where the majority of our people are found in Mau Forest. I play a very big role in the community. I am a human rights defender, monitor, paralegal, youth leader, and chairman of the community-based organization called Ogiek People Empowerment Project (OPEP). The majority deals with honey trading and also work as a government official under the Ministry of Trade, Industrialization, and cooperative

I recently had a trip to Kenya, where, as part of a humanitarian mission, we learned about how devastating the situation is in the country due to climate change. Please tell me about this briefly. How big of a problem is climate change in Kenya?

This problem is very big due to illegal logging, degradation of land, charcoal burning, and deforestation mainly experienced in our ecosystem i.e., Mau Forest. It has really caused us a lot, but we thank the government of Kenya for intervening and removing people in the forest and water catchment areas. At least we are now improving, and changes have started to be experienced.

Kenya can be divided into different regions based on its vulnerability in connection to climate change. From someone who lives there, please give me your own opinion on this topic. Does climate change affect different parts of Kenya differently? Are there territories where the people suffer more?

Yes. Mostly climate change has majorly affected the Northern and Eastern part of Kenya leading to human, wild, and domestic animals' death. To some extent, international communities intervene to give them donations. The most affected counties are Turkana, baringo, Marsabit, Elgeyo Markwet, Garissa, Samburu, Wajir, and Isiolo

We can clearly see that the effects of climate change are now starting to be unstoppable. Has the situation been worsening in Kenya in the past few years?

Yes, we can definitely see a worsening tendency in the past 3-5 years.

Do you, as a woman living in Kenya, experience any disadvantages because of climate change? Does it affect different generations differently?

Yes. Climate change has really affected women in rural areas. Some walk for long distances to collect firewood due to deforestation caused by charcoal burning and illegal logging.

Do you believe that the loss of women's rights in Kenya can be partly because of climate change? Do you believe women and girls experience disproportionate impacts from climate change at the global level and are affected more than men?

To some extent, I might say yes because women are the majority affected in drought seasons because they walk a long distance in search of water, and firewood and take care of the domestic animals. Along the way, they encounter many challenges i.e rape, being killed by illegal groups like Al shabaab, and wildlife animals

In my thesis, I write about how gender inequality coupled with the climate crisis is one of the greatest challenges of our time, mentioning how it poses threats to ways of life, livelihoods, health, safety, and security for women and girls around the world. Do you believe that climate change and gender inequality are interconnected?

Yes. Very interconnected.

I have read many articles about how as climate change drives conflict across the country, women and girls face increased vulnerabilities to all forms of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of violence. Is this true?

Absolutely true.

Interview conducted with Nyandoro Omuria

Method: online interview

Date of Interview: 2022.10.02.

First of all, please introduce yourself, tell me a bit about who you are, what you do for a living, where you come from etc.

My name is Nyandoro Omuria. I come from Nakuru county. I am a researcher and consultant by profession.

I recently had a trip to Kenya, where, as part of a humanitarian mission, we learned about how bad the situation is in the country due to climate change. Please tell me about this briefly. How big of a problem is climate change in Kenya?

Climate change has become a big challenge in the country. Kenya is largely an agricultural country and climate change has really affected production of food as well as consumption of food. This has affected the quality of living standards and skewed them negatively.

We can clearly see that the effects of climate change are now starting to be unstoppable. In Kenya, has the situation been getting worse in the past few years?

The situation is getting worse with time. There have been depressed rains for four years now, which is unprecedented. This means the harvests have been inadequate in most parts of the country. The drought situation has also seen death in thousands of animals and exposed around 5 million people in dire need of food. Malnutrition among children under the age of 5 has grown exponentially. The mortality rate of children under 5 years has also increased.

Do you believe that women living in Kenya experience disadvantages because of climate change? Do you believe women are affected more than men?

Everyone is affected by climate change. However, women have been affected by a large extent. This is because of gender roles in the society. They are normally left to tend for the family as men move to towns to seek for employment.

In my thesis, I write about how gender inequality coupled with the climate crisis is one of the greatest challenges of our time, mentioning how it poses threats to ways of life, livelihoods, health, safety and security for women and girls around the world. Do you believe that climate change and gender inequality are interconnected?

To some extent they are connected. As I said women are mostly family custodians. As they are left behind for childcare and such, they are exposed to the vagaries of climate change. They look for food and water which are becoming scarce and thus the claim of being affected more.

I have read many articles about how as climate change drives conflict across the country, women and girls face increased vulnerabilities to all forms of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of violence. Is this true?

Yes, it is true. The vulnerability comes from the fact that they can be preyed upon as they try to make ends meet.

Interview conducted with Margaret Nailader

Method: online interview

Date of Interview: 2022.10.02.

First of all, please introduce yourself, tell me a bit about who you are, what you do for a living, where you come from, etc.

I am Margaret Nailader, I am a married woman, mother of one, and I come from a Kenyan county called Narok. I used to live in Mao Forest. I started university, but I could not get my degree due to financial reasons. Now, I am a businesswoman, and my side job is farming.

I recently had a trip to Kenya, where, as part of a humanitarian mission, we learned about how devastating the situation is in the country due to climate change. Please tell me about this briefly. How big of a problem is climate change in Kenya?

Due to deforestation, people suffer a lot. There are a variety of problems, including lack of rain, lack of food, lack of drinking water. Women and girls have to walk long distances to search for water and search for food, and there is a great risk. They risk their lives. There is also the problem of great floods, and the rise of sea level, and high temperatures and heavy precipitation.

Kenya can be divided into different regions based on its vulnerability in connection to climate change. From someone who lives there, please give me your own opinion on this topic. Does climate change affect different parts of Kenya differently? Are there territories where the people suffer more?

Yes, there are some places which are a lot more affected than others. Some receive more rainfall, while others experience more droughts, especially in the north part of Kenya. Temperature also changes among the regions, and rising temperatures have harsh impacts on people.

We can clearly see that the effects of climate change are now starting to be unstoppable. Has the situation been worsening in Kenya in the past few years?

Yes, climate change in Kenya is increasing a lot more now. We have been having droughts which are lasting longer than usual, as well as flooding and very high temperatures.

Do you, as a woman living in Kenya, experience any disadvantages because of climate change? Does it affect different generations differently?

Yes, of course. The crisis leaves women in many facilities living in poverty, with less food, less clean water, and worsening health. These women and girls suffer a lot. When going long distances to get water and food, it is very dangerous, even may lead to death, due to dangerous animals, and bandits. They are sometimes forced to marry early, and have early pregnancies, as well as female genital mutilation. They are very often forced to experience gender-based violence.

Do you believe that the loss of women's rights in Kenya can be partly because of climate change? Do you believe women and girls experience disproportionate impacts from climate change at the global level and are affected more than men?

Yes, women and young girls in Kenya are particularly vulnerable, and because of the existing norms, they also benefit disproportionately from resources, yet they are the ones who have to gather them, putting their life in danger.

In my thesis, I write about how gender inequality coupled with the climate crisis is one of the greatest challenges of our time, mentioning how it poses threats to ways of life, livelihoods, health, safety, and security for women and girls around the world. Do you believe that climate change and gender inequality are interconnected?

Yes, since women have a low level of illiteracy due to missing out on school, lack of income, because they cannot work in certain fields. They depend very much on agriculture and natural resources due to their role in their family. They experience unemployment and gender discrimination, so there is a lack of women in many important sectors.

I have read many articles about how as climate change drives conflict across the country, women and girls face increased vulnerabilities to all forms of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of violence. Is this true?

Yes. There are many linkages between gender, climate, and security. They experience everyday violence, against women and girls. There are also discriminatory practices when it comes to gender. Furthermore, women are typically excluded from decision making, therefore cannot engage in dialogue and mediation. It would be important to recognize the benefits of women's empowerment in the topic of climate resilience.