The Role of Climate Change in Environmental Conflicts

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Abstract

The impacts of Climate Change have been felt across many dimensions of society, including the environment, economy, politics, and even society's social fabric. It has also brought about disputes and conflicts that have been related with Climate Change, both directly and indirectly, since it is considered as a conflict multiplier. These disputes and conflicts have been brought about by Climate Change. In this paper, the author analyses the disagreements that arise from the consequences of Climate Change and how such disagreements may be resolved via the implementation of efficient climate change mitigation strategies. The author contends that it is essential to address the climate change-related incentives that may lead to an increase in conflict in order to successfully mitigate the effects of Climate Change via strategies such as adaptation and the construction of resilience.

1. Introduction

Changes in rainfall patterns, droughts, changes in the flora, and a general lack of resources have all contributed to a number of violent wars. Conflicts involving pastoralists and these other bloody conflicts are clearly related. However, not every violent conflict is caused by climate change; often, the political, social, and economic backdrop play a significant role.[1] Since a major portion of the local population relies on rain-fed agriculture and pastoralism, the negative consequences of climate change on people's livelihoods may be severe. Additionally, when environmental changes are paired with other socioeconomic pressures like political

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[1] Mobjörk, Malin. *"Exploring the climate–conflict link: The case of East Africa."* Stockholm International Peace Research Institute, SIPRI yearbook 2017: Armaments, disarmament and international security *(2017): 287-299, at pp. 292-93.*

marginalisation, communities may be more inclined to turn to violence to resolve conflicts or get access to resources.[2]

This paper critically discusses the place of Climate Change in the rise and trends in environmental conflicts.

2. Causes of Climate Change: Natural and Human-Induced Factors

There are two broad categories that may be applied to the factors that contribute to Climate Change:- both naturally occurring and induced by human activity.[3] Natural processes, such as ocean currents, volcanic eruptions, shifts in the earth's orbit around the sun, and fluctuations in solar radiation, have a significant impact on and may profoundly alter the climate of the world.[4] Burning fossil fuels for power, vehicles, trains, aircraft and residences, as well as the flaring of petrol at oil fields and other activities, among other things, has been proved to be a major contributor to the production of man-made greenhouse gases, which are also implicated in the current change in climate. In addition, the way land is used and the rate of deforestation both contribute to Climate Change.[5]

Increased carbon emissions as a result of the intensive use of fossil fuels are one of the most prominent triggers of human-induced Climate Change. Other key triggers include the conversion of forested areas into agricultural land to fulfil the rising demand of consumers and the improper use of freshwater reservoirs. The issues posed by Climate Change have been made worse as a result of these variables.[6]

Although changes in average temperatures have been recorded at various times throughout history, it has been pointed out that vulnerable groups with less consumption, both at the level of countries and among social groups, suffer more than others. This is true both at the level of countries and among social groups.[7]

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[2] Ibid, p. 293; see also Scheffran, J.; Brzoska, M.; Kominek, J.; Link, P. M.; Schilling, J. Disentangling the Climate-Conflict Nexus: Empirical and Theoretical Assessment of Vulnerabilities and Pathways. *Rev. Eur. Stud. 2012, 4, 1.*

[3] Onoja, U. S.; Dibua, U. M. E.; Enete, A. A. Climate Change: Causes, Effects and Mitigation Measures-a Review. *Global Journal of Pure and Applied Sciences* 2011, 17 (4), 469–479.

[4] *Ibid.*

[5] *Ibid*.

[6] AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah.* https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news (accessed 2023-06-03).

[7] *Ibid.*

Over 75 percent of the world's greenhouse gas emissions and almost 90 percent of all carbon dioxide emissions are attributed to fossil fuels, which include coal, oil, and gas. This makes fossil fuels the single greatest source of pollution that contributes to global warming.[8] When greenhouse gases are emitted into the atmosphere, they create a blanket that covers the Earth and traps the heat of the sun. This contributes to increased temperatures throughout the world and a shifting environment. At this moment in time, the rate of global warming is accelerating at a rate that has never been seen before in human history. The gradual rise in temperature is causing noticeable shifts in weather patterns and upsetting the delicate equilibrium that normally exists in the natural world. This places a significant threat not just on humans but also on every other type of life that exists on our planet.[9]

3. Effects of Climate Change on Livelihoods

Climate change has become a worldwide concern throughout time as a result of the harm it does to the environment and human lives. Climate Change is a significant issue that has an impact on many facets of the environment and human existence.[10] The objective of Sustainable Development and the eradication of poverty are intertwined with the battle against climate change.[11]

One of the most important aspects of human growth is working towards a state of overall enhanced and maintained well-being for all people. The way in which Climate Change and its related stresses support or destabilize livelihood systems is a significant factor in human development. This is

8 United Nations, *Causes and Effects of Climate Change*. United Nations. https://www.un.org/en/climatechange/science/causes-effects-climate-change (accessed 2023-06-03).

9 Ibid.

10 Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016; Muigua, K., Kariuki, F., Wamukoya, D., *Natural Resources and Environmental Justice in Kenya*, Glenwood Publishers, Nairobi – 2015.

11 United Nations, Support Sustainable Development and Climate Action. United Nations. https://www.un.org/en/our-work/support-sustainable-development-and-climate-action (accessed 2023-06-04); Poverty-Environment Action for Sustainable Development Goals. UNEP - UN Environment Programme. http://www.unep.org/regions/asia-and-pacific/regional-initiatives/poverty-environment-action-sustainable-development (accessed 2023-06-04); 170 actions to combat climate change - act now! https://sites.ungeneva.org/170actions/climate/ (accessed 2023-06-04); Carbon emissions anywhere threaten development everywhere | UNCTAD. https://unctad.org/news/carbon-emissions-anywhere-threaten-development-everywhere (accessed 2023-06-04).

especially true for the livelihood systems of individuals who are economically disadvantaged and highly vulnerable.[12]

Due to factors like poverty, location, and social discrimination, vulnerable groups are exposed to serious environmental risks; however, they lack the resources necessary to deal with and combat the negative effects of climate change, which exacerbates social injustices and structural injustices.[13]

It is possible to draw a connection between the changing environment and many forms of discrimination, including those on the levels of class, ethnicity, and the global community. This discrimination is not just a sort of emotional response; rather, it is a strategy that assures the replication of inequality in its background and facilitates the reproduction of inequality within the group.[14]

Women are more likely to be responsible for duties such as the production of food, the preparation of food, and the transportation of water, all of which may be directly influenced by climate-related occurrences such as droughts. As a result, women are more likely to be negatively impacted by Climate Change than males.[15]

There is a growing consensus that climate change constitutes a "threat multiplier" because of its involvement in aggravating the root causes of conflicts in its conventional forms. The most glaring example is the manner in which alterations in climate change affect competition for ever-decreasing supplies of resources. According to studies conducted on the so-called "heat-aggression relationship," there is a 10–20 percentage point increase in the likelihood of armed conflict connected with each 0.5-degree Celsius rise in the temperature of the surrounding environment.[16] According to the findings of a research that was published in 2021, there are normally more occurrences of violence in regions that are next to communities of herders that travel periodically. Second, the research indicates that the likelihood of a dispute occurring on farmlands that are in

[12] UNDP, Climate Change. "Human Development: towards Building a Climate Resilient Nation." *Zimbabwe Human Development Report* (2017).

[13] AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah*. https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news (accessed 2023-06-03).

[14] AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah*. https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news (accessed 2023-06-03).

[15] *Ibid.*

[16] How is climate change driving conflict in Africa? - World | ReliefWeb. https://reliefweb.int/report/world/how-climate-change-driving-conflict-africa (accessed 2023-06-04).

close proximity to a herding community is increased by a factor of 35% whenever a usual and unfavourable decrease in rainfall is observed by the herding community. The researchers come to the conclusion that there is no influence on conflict when a group that does not herd animals has the same decrease in rainfall.[17]

4. Climate Change as a Catalyst for Environmental Conflicts

One of the most significant challenges that the world is now confronted with is climate change, which is caused by human activity. Vulnerable members of society, such as the elderly, children, and women, as well as immigrants, and nations with shaky economies, are particularly at risk from the effects of Climate Change.[18]

Even though it is generally agreed that there is only an indirect correlation between climate change and conflicts, some analysts in both industrialized and developing nations have made this connection anyhow.[19] The connection between Climate change and conflict is made more complex by the consequences of Climate Change on issues such as poverty, mental health, food security, and migration.[20] As a consequence of this, the objectives of the twenty-sixth session of the Conference of the Parties (COP 26), which took place in Glasgow from the 31st of October to the 13th of November 2021, were as follows: achieve global net zero by the middle of the century and keep warming below 1.5 degrees Celsius within reach; adapt to protect communities and natural habitats; mobilise finance; and work together to deliver,[21] where countries were expected to, among other things, accelerate action to combat the climate crisis through collaboration between governments.[22] In order to accomplish these goals, it is going to be necessary for the leadership of each country, as well as many other stakeholders, to make certain modifications. It

[17] Does climate change cause conflict? *International Growth Centre.* https://www.theigc.org/blogs/does-climate-change-cause-conflict (accessed 2023-06-04).
[18] AA, D. S. with. "Human-induced climate change causes global environmental injustice." *Daily Sabah*. https://www.dailysabah.com/turkiye/human-induced-climate-change-causes-global-environmental-injustice/news (accessed 2023-06-03).
[19] 'Does Climate Change Cause Conflict?' (IGC, 2 June 2021) <https://www.theigc.org/blog/does-climate-change-cause-conflict/> accessed 3 June 2023; see also Gleditsch, N. P. Whither the Weather? Climate Change and Conflict. *Journal of Peace Research,* 2012, 49, 3–9.
[20] *Ibid.*
[21] 'COP26 Goals' (UN Climate Change Conference (COP26) at the SEC – Glasgow 2021) <https://ukcop26.org/cop26-goals/> accessed 3 June 2023.
[22] *Ibid.*

is arguable that Climate Change brings with it a great number of conflicts and/or disputes that call for environmentally responsible strategies of resolving them.[23]

There is no one single criterion that can be agreed upon for what constitutes a disagreement on Climate Change.[24] Some writers have made the observation that Climate Change is a "threat multiplier," meaning that it may raise human security concerns such as a lack of food and water while also contributing to (violent) conflict in nations that are particularly sensitive to the effects of climate change.[25] This is due to the fact that the negative implications of Climate Change, such as a lack of water, failed crops, food poverty, economic shocks, migration, and displacement, may heighten the likelihood of conflict and violence.[26] Environmental conflicts and disputes can be broken down into two categories: first, conflicts over access to environmental resources as a source of livelihood and as a foundation for economic activity; and second, conflicts over what are known as the "side effects" of economic activity, such as the loss of biodiversity and pollution. Both of these categories can be broken down further into subcategories.[27]

The public's level of worry over Climate Change has steadily increased over the course of the years, along with a growing awareness of the potential influence that climate may have on the outcomes of economic activity.[28] The word "climate" refers to measurements of climatic parameters such as temperature, rainfall, and water availability, in addition to climate indices that serve as proxy measures for these variables.[29] These climatic factors include temperature, precipitation, and water availability. Even if the weather does not directly cause conflict, it may

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[23] See Vally Koubi, 'Climate Change and Conflict' (2019) 22 *Annual Review of Political Science* 343 <https://www.annualreviews.org/doi/10.1146/annurev-polisci-050317-070830> accessed 3 June 2023.

[24] C. Mark Baker, Cara Dowling, Dylan McKimmie, Tamlyn Mills, Kevin O'Gorman, Holly Stebbing, Martin Valasek, "What are climate change and sustainability disputes? Key arbitration examples (Part 1 contractual disputes)", in James Rogers, London; Cara Dowling, Vancouver (eds), *International arbitration report, Norton Rose Fulbright* – Issue 16 – June 2021, p. 40. < https://www.nortonrosefulbright.com/-/media/files/nrf/nrfweb/publications/international-arbitration-report-issue-16.pdf?revision=40c8a703-6e1d-413c-8c7e-ac1201697383&revision=40c8a703-6e1d-413c-8c7e-ac1201697383> accessed 3 June 2023.

[25] Froese, Rebecca, and Janpeter Schilling, *"The Nexus of Climate Change, Land Use, and Conflicts." (2019).*

[26] 'Tackling the Intersecting Challenges of Climate Change, Fragility and Conflict' <https://blogs.worldbank.org/dev4peace/tackling-intersecting-challenges-climate-change-fragility-and-conflict> accessed 3 June 2023.

[27] Arild Vatn, *Environmental Governance: Institutions, Policies and Actions* (Paperback edition, Edward Elgar Publishing 2016) 2.

[28] Marshall Burke, Solomon M Hsiang and Edward Miguel, 'Climate and Conflict' (2015) *7 Annual Review of Economics* 577, 578 <https://www.annualreviews.org/doi/10.1146/annurev-economics-080614-115430> accessed 3 June 2023.

[29] Marshall Burke, Solomon M Hsiang and Edward Miguel, 'Climate and Conflict' (2015) 7 *Annual Review of Economics* 577, 578 <https://www.annualreviews.org/doi/10.1146/annurev-economics-080614-115430> accessed 3 June 2023.

change the conditions under which certain social interactions take place, which in turn might affect the likelihood that they will result in a violent exchange.[30]

Recent years have seen the emergence of the concept "Climate Security" as a catch-all phrase for a wide variety of problems that seem to be linked to global environmental change. These problems include conflicts, vulnerabilities, and other types of insecurity.[31]

The manner in which Climate Security is framed is important because it directs the formulation, scope, and speed of climate solutions, in addition to determining who should benefit. After 2007, the concept of 'Climate Security' began to acquire traction within the context of four pre-existing frames: national (or state) security, international security, human security, and ecological security.[32] In the field of peace and conflict studies, these frames are considered to be standard, with the first three being referred to as "vertical security frames" and the last frame being referred to as a "horizontal security frame." Whose safety is in jeopardy serves as the primary topic of interest in each of these frames.[33]

It has been noticed that three consequences of Climate Change (natural catastrophes, rising sea levels, and growing scarcity of resources) are widely anticipated to lead to loss of livelihood, economic decline, and increased insecurity either directly or via forced migration. This is despite the fact that there is no conclusive evidence to support these assumptions. These variables, in turn, may contribute to political and economic instability, social disintegration, migration, and incorrect responses from governments. This is because these issues interact with weak governance, societal inequities, and a terrible neighbourhood. In the long run, this leads to a rise in both the incentive for inciting violence and the chances for mobilisation.[34]

Several statistical studies of conflict in Africa have revealed that communal and social violence are more likely to occur during or immediately after rainy times. However, some of the studies have also showed that there is some increased risk after very dry periods. As a result, there are conflicting opinions on the scarcity scenario.[35]

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[30] *Ibid*, 579.

[31] Dalby, S. *Climate Change and Environmental Conflicts. In Routledge handbook of environmental conflict and peacebuilding;* Routledge, 2018; pp 42–53.

[32] Lamain, C. *Conflicting Securities: Contributions to a Critical Research Agenda on Climate Security. Globalizations* 2022, 19 (8), 1257–1272.

[33] *Ibid.*

[34] Theisen, O. M.; Gleditsch, N. P.; Buhaug, H. *Is Climate Change a Driver of Armed Conflict? Climatic change* 2013, 117, 613–625.

[35] *Ibid,* p. 620.

The consequences of Climate Change are not primary predictors of conflict as politics and a history of conflict are. Instead, politics and a history of conflict are primary predictors of conflict. However, they are seen as "threat multipliers" because of their ability to exacerbate preexisting patterns of conflict, such as those that occur between nomadic herders and farmers. Shocks to the environment, such as variations in precipitation and temperature, may make it more probable that conflicts and acts of violence will occur, as well as make them more severe when they do.[36]

In addition, it has been observed that the implications of Climate Change on poverty, mental health, food security, and migration complicate the link between climate change and conflict. This has been highlighted both empirically and conceptually. Even though there is some evidence starting to surface, much more investigation is required in these areas. The function of climate adaptation in mitigating the negative consequences of Climate Change on conflict is another significant topic that should be investigated in the future. For instance, social protection and agricultural technology show a great deal of promise in terms of assisting nations in adapting to the effects of Climate Change and, possibly, in lessening conflicts that are caused by climate change.[37]

5. Addressing Climate Change for Peace and Sustainability

The Intergovernmental Panel on Climate Change (IPCC) recommends that global CO2 emissions should reach net zero by the year 2050 after a gradual decline over the following ten years to a level that is about half of what they were in 2010. According to the Intergovernmental Panel on Climate Change (IPCC), in order to limit the rise in global temperature to 1.5 degrees Celsius, all aspects of civilization will need to undergo transformations that are drastic, unprecedented, and urgently necessary.[38]

The process of adapting to new conditions is one of the most important factors in lowering people's susceptibility to the effects of climate change. In ecological systems, adaptation refers to the process of autonomously adjusting to new conditions via ecological and evolutionary processes. When it comes to human systems, adaptation may be anticipatory or reactive, gradual

[36] *Does climate change cause conflict?* International Growth Centre. https://www.theigc.org/blogs/does-climate-change-cause-conflict (accessed 2023-06-04).

[37] *Ibid.*

[38] McGregor D, Whitaker S and Sritharan M, 'Indigenous Environmental Justice and Sustainability' (2020) 43 *Current Opinion in Environmental Sustainability* 35, p.35.

or radical, and all of these things simultaneously. The latter modifies the underlying characteristics of a social-ecological system in preparation for the effects that climate change is going to have. The capacity for adaptation is constrained by both rigid and malleable boundaries.[39]

Understanding and assessing climate adaptation processes and measures to lower risks caused by human-induced climate change requires a recognition of the value of a variety of types of knowledge, including scientific knowledge, indigenous knowledge, and local knowledge. This is necessary in order to fulfil the requirement that the worth of these many forms of knowledge be acknowledged.[40]

Goal 12.2 of the Sustainable Development Goals (SDG) specifies that all states shall achieve sustainable management and efficient use of natural resources by the year 2030. This is intended to ensure sustainable consumption and production patterns. The aim is to stop the world from deteriorating, which may be accomplished by practising sustainable production and consumption, practising responsible management of the planet's natural resources, and taking prompt action to counteract Climate Change. This will allow the world to meet the needs of both the current generation and the generations to come in the future.[41]

The Sustainable Development Goals (SDGs) offer the groundwork that is necessary to improve living conditions around the globe and to mitigate the potentially catastrophic effects of climate change brought on by human activity. The Sustainable Development Goal (SDG) 13 "Climate Action" encourages the integration of initiatives for limiting the effects of climate change into frameworks for economic growth. The Sustainable Development Goals (SDGs) 14 and 15, which focus, respectively, on life in the ocean and on life on land, call for the implementation of practices that are less harmful to the environment while extracting the natural resources of the planet.[42]

As a step towards fulfilling socio-economic rights of communities and other associated rights as envisioned under Sustainable Development Goals, there is a need for rapid adoption of

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[39] IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–33, doi:10.1017/9781009325844.001.

[40] Pörtner, Hans-Otto, et al. "IPCC, 2022: Summary for policymakers." (2022): 3-33.

[41] United Nations, Preamble, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1.

[42] United Nations, 'Sustainability' (United Nations) <https://www.un.org/en/academic-impact/sustainability> accessed 14 February 2023.

nature-based ways to mitigating climate change and conserving biodiversity. This is a need due to the fact that nature-based approaches have been shown to be effective in the past. Once they are put into place, the finance mechanisms that were recommended at COP 27 should be used effectively as a means of establishing communities and ecosystems that are more resilient. Efforts to achieve the Sustainable Development Goals will be given a significant boost as a result of this action.[43]

Research has shown that oceans and seas are an essential component of any solution to the climate change problem. This is due to the fact that they store the carbon that is the primary cause of climate change and provide major benefits for climate adaptation. To protect the ocean, it is necessary to take action both on land and at sea. This involves decreasing the direct impacts that people have on the ocean, cleaning up polluted rivers, restoring polluted wetlands, and developing a circular economy in which potential pollutants are utilised for as long as is practically possible before being disposed of in an acceptable manner when they have reached the end of their useful life.[44]

The pressing need to find solutions to environmental issues has resulted in increased push for more stringent legislative measures. It has been argued persuasively that environmental goals cannot be achieved solely by environmental policies or in protected areas. Rather, transformative change requires a fundamental, system-wide reorganization across technological, economic, and social factors, including paradigms, goals, and values.[45] However, in order for environmental sustainability to be achieved, it is essential that individuals who are currently on the periphery and in a precarious situation not be left behind by the necessary revolutionary changes.[46]

Environmental problems such as Climate Change, the loss of biodiversity, water shortages, air and water pollution, and soil degradation, amongst others, are contributing factors in the rise

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[43] Sachs, J.; Kroll, C.; Lafortune, G.; Fuller, G.; Woelm, F. *Sustainable Development Report 2022*; Cambridge University Press, 2022; UNEP, *UN Environment Assembly concludes with 14 resolutions to curb pollution, protect and restore nature worldwide*. UN Environment. http://www.unep.org/news-and-stories/press-release/un-environment-assembly-concludes-14-resolutions-curb-pollution (accessed 2023-06-04); Sarkki, S.; Pihlajamäki, M.; Rasmus, S.; Eronen, J. T. "Rights for Life" Scenario to Reach Biodiversity Targets and Social Equity for Indigenous Peoples and Local Communities. *Biological Conservation* 2023, 280, 109958. https://doi.org/10.1016/j.biocon.2023.109958.

[44] 'Why Protecting the Ocean and Wetlands Can Help Fight the Climate Crisis' (UNEP, 11 November 2022) <http://www.unep.org/news-and-stories/story/why-protecting-ocean-and-wetlands-can-help-fight-climate-crisis> accessed 2 June 2023.

[45] Dalby, S. Climate Change and Environmental Conflicts. In *Routledge Handbook of Environmental Conflict and Peacebuilding;* Routledge, 2018.

[46] *Ibid.*

of poverty and social inequality.[47] Environmental governance must explicitly involve a greater variety of environmental actors, organisations, and institutions and become more adaptive, responsive, and innovative in order to cope with pressures such as climate change, economic instability, and sociopolitical or ideological upheavals.[48] This is required in order for environmental governance to be able to deal with these stresses. There is a critical need for more collaboration between governmental and private-sector stakeholders in the decision-making and enforcement processes pertaining to the environment.

Climate change now necessitates not only protecting and reconstructing the system, but also changing the system itself, as well as transforming landscapes, ecosystems, cities, and trading arrangements, so that they are both less vulnerable to obvious hazards and flexible enough to reinvent themselves when unexpected crises occur. Governance is important when it comes to adjusting to changing times, whether in terms of alterations in the environment or changes in the global economy. In the context of the conversation on climate security, this is the most important issue that has to be reinforced in policy discussions. Instead of focusing on local environmental circumstances and straightforward scarcity tales as a potential mechanism for conflict, this should be the primary area of attention.[49]

6. Conclusion

Africa is classified as one of the continents highly vulnerable to climate change due to several reasons: high poverty level, high dependence on rain-fed agriculture, poor management of natural resources, capacity/technology limitations, weak infrastructure, and less efficient governance/institutional setup.[50] Arguably, Kenya's challenges as far as combating climate change is concerned are not any different from the ones identified above.

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[47] Environment UN, 'Environmental Rule of Law' (UNEP - UN Environment Programme, 5 October 2017) <http://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law-0> accessed 2 June 2023.

[48] DeCaro, D. A., Chaffin, B. C., Schlager, E., Garmestani, A. S., & Ruhl, J. B., "Legal and Institutional Foundations of Adaptive Environmental Governance," Ecology and Society: A Journal of Integrative Science for Resilience and Sustainability, 22, no. 1 (2017): 1.

[49] Dalby, S. Climate Change and Environmental Conflicts. In *Routledge Handbook of Environmental Conflict and Peacebuilding;* Routledge, 2018.

[50]Kimaro, Didas N., Alfred N. Gichu, HezronMogaka, Brian E. Isabirye, and KifleWoldearegay. "Climate Change Mitigation and Adaptation in ECA/SADC/COMESA region: Opportunities and Challenges."<https://www.researchgate.net/publication/346628199_Climate_Change_Mitigation_and_Adaptation_in_ECASADCCOMESA_region_Opportunities_and_Challenges> accessed 4 June 2023.

Climate change impacts and the associated socio-economic losses on Kenya have been exacerbated by the country's high dependence on climate sensitive natural resources.[51]

It is crucial to act swiftly since a disproportionate number of people are impacted by Climate Change, including women, youth, coastal populations, local communities, indigenous populations, fishermen, the underprivileged, and the elderly. Indigenous peoples, local communities, and those affected by Climate Change are also not included in international attempts to counteract it. This is true despite the fact that local economies that depend on natural resources and food sovereignty are also threatened by the consequences of Climate Change. Additionally, they have the potential to pose a threat to the wellbeing of communities all over the globe, especially those who are vulnerable and powerless, including children and the elderly.[52]

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

[52] Muigua, *Securing Our Destiny through Effective Management of the Environment*, Glenwood Publishers Limited (2020), ISBN: 978-9966-046-06-1.

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