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Ethical And Moral Dimension of Climate Change; A Path to Climate Justice Case Study: Susan Bay's Community, Freetown

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ABSTRACT: 2023 has been recorded as the hottest year ever. Sierra Leone is ranked among the 10% of countries that are prone and most vulnerable to climate impacts globally and Susan Bay is bearing the brunt of climate change impacts, including rising sea levels and flooding. Biodiversity is being impacted by human unethical behavior, wrong perceptions, and unhealthy activities. This has resulted to global surface temperatures reached 1.1°C. However, to address the situation UNESCO and COMEST proposed guidelines for Governments in their mitigation and adaptation strategies an ethical tool to achieve climate justice.
An integrative review was employed to examine existing literatures. Also, key words were used to search popular databases, including Web of Science, Google Scholar, and PubMed, from the years 2010 to 2023 with a total of 53 articles. We argued that the most affected population should receive financial compensation from G20 countries responsible for majority of the Green House Gas Emissions. Therefore, the paper proposed for the Government of Sierra Leone to ensure policy regulation and enforcement, community development and empowerment, and community protection and resilience in their actions, missions, and visions from our analytical framework.
The paper recommends for the GoSL to integrate ethical and moral values into climate mitigation and adaptation strategies, in line with UNESCO and COMEST recommendations with emphasis on: Prevention of harm; scientific integrity; and justice and equity. Inadequate financial resources and technical expertise hinders the GoSL in implementing these recommendations. To address these challenges, the study suggests that G20 nations should provide climate finance and scientific support to help the GoSL efficiently develop and execute its climate mitigation and adaptation strategies a path to climate justice.

KEYWORDS: Climate change; Climate justice, Ethical and moral dimension; Susan's Bay; Social Justice; Sustainable Development.

1.0 INTRODUCTION

Do you know that 2023 has been confirmed as the hottest year on record? Therefore our moral and ethical behavior is critical in addressing climate change which is imperative in achieving climate justice. Climate change has been affecting the entire world recently, wreaking devastation and upsetting nearly every element of both human and nonhuman existence. Today's population intentionally destroys biodiversity and the environment through a variety of unhealthy human activities, including burning fossil fuels, overgrazing and overstocking farm animals, carbon emissions, bush burning, gas flaring, inappropriate and harmful agricultural practices, etc. These actions seriously damage the atmosphere (global warming) and cause persistent climate change(Parmesan et al., 2022). It is extremely concerning when people or groups of people start to change their morality, attitudes, or behaviors in response to climate-related challenges(Muttitt & Kartha, 2020).
Global population increase is unprecedented, undeveloped land and forest loss is happening quickly, and the extraction of natural resources to meet 21st-century social demands is reaching tipping points. Massive changes to the planet and its atmosphere have resulted from human activity since the 18th century when industrialization began. The greenhouse effect, which raises global temperatures, has been brought about by a 30% increase in greenhouse gas (GHG) emissions from human activity over the previous 150 years (Follingstad, 2023). Global surface temperatures reached 1.1°C above 1850–1900 levels in 2011–2020, as reported in the

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Sixth Assessment Report, AR6 Synthesis Report: Climate Change 2023, of the International Panel on Climate Change (IPCC). This indicates that human activities, primarily through emissions of greenhouse gases, have caused global warming(Follingstad, 2023).

Climate justice refers to the process of removing the structural factors that contribute to disparate social, economic, environmental, and public health outcomes as well as the disproportionate impact that marginalized, BIPOC, and underprivileged groups suffer from climate change, it should be noted that not everyone is equally affected by climate change, (Sultana, 2022). This emphasizes that climate change is not just a physical and atmospheric scientific concern, but also a social, ethical, and political one. The core ideas of environmental justice meaningful public participation, clarity in the definition and application of distributive justice, and substantial obligations for resolving distributional disparities are expanded upon by climate justice(Ulibarri et al., 2022). Justice essentially addresses the unequal and disproportionate effects of climate change in a responsible manner(Sultana, 2022).

The ethical and moral dimensions of climate change are increasingly recognized as critical aspects of the issue, with implications for cooperation and decision-making(Pearson et al., 2021).This recognition has led to a shift in public discourse towards climate justice, which emphasizes the need to address the disproportionate impacts of climate change and redress resulting injustices(Sultana, 2022).The concept of climate justice is complex, involving intragenerational, intergenerational, and international justice, and is informed by a range of perspectives, including those of states, NGOs, and experts(Pottier et al., 2017).The multidisciplinary nature of climate ethics is also highlighted, with scholars from various fields contributing to the exploration of its ethical dimensions(Grasso & Markowitz, 2015).

According to the Global Adaptation Index (2019), Sierra Leone is ranked among the 10% of countries that are prone and most vulnerable to climate impacts globally. Susan Bay a coastal community in Freetown, Sierra Leone, is facing the brunt of climate change impacts, including rising sea levels, floods, and erosion. The residents of Susan's Bay, predominantly low-income and vulnerable, are disproportionately affected by these environmental disasters, which exacerbate social inequalities and injustice. Therefore, addressing the ethical and moral dimensions of climate change in Susan's Bay is critical to promoting climate justice and ensuring the rights and well-being of the community members(Chen et al., 2015).It is extremely concerning when people or groups of people start to change their morality, attitudes, or behaviors in response to climate-related challenges(Corvino & Andina). Many stakeholders, including governments, businesses, NGOs, groups, and even individuals, are now taking concrete action to solve climate change challenges by considering the moral implications in light of the excesses and negative effects of climate change(Bridge, 2022).

The innocent people who do not contribute to climate change bear the consequences instead of the individuals or groups responsible for its inception. That is to say, those who stand to lose the most from climate change may not be those who bear the greatest responsibility for it(Grasso & Markowitz, 2015). Several techniques are being developed to reduce carbon emissions that cause pollution by taking ethical issues into account. An ethical approach to climate change can help us understand the nature of the problem and the limitations of possible solutions. Actions taken to address ethical concerns related to climate change frequently raise significant queries about justice, equity, and fairness as well as how these fundamental principles are impacted by the phenomenon (Ganesh et al., 2020). Nonetheless, given the effects of climate change, the 2018 IPCC Special Report on Global Warming at 1.5 °C generated a lot of discussion and controversy. To avoid disastrous consequences, the research suggests that global warming be limited to 1.5 °C cover pre-industrial levels(Allen et al., 2018).But there is still work to be done to reach this goal globally. Scientists have recommended a dramatic behavioral adjustment to accomplish this worldwide aim, but this requires a profound mental transformation as well. The slogan of UNESCO's 2018–2021 Strategy for Action on Climate Change, "Changing the Mind, not the Climate," serves as the focal point of its public awareness campaign(Greenwood & Warren, 2022).

This important concept is supported by both the 2015 Paris Agreement (COP21) and the 2030 Agenda for Sustainable Development of the United Nations. It describes a broad range of initiatives in many areas, such as the Cultural and Scientific Updates on Climate Change, the Intergovernmental Oceanographic Commission (IOC) for Ocean Management, the International Hydrological Program (IHP) for Water Security, and Education for Sustainable Development (ESD)(Greenwood & Warren, 2022).

In light of the above, the ethical and moral dimensions of climate change have not been fully explored, informing the rationale of this study. Though several studies on climate change have been conducted across the world, there is no study in the study area. The moral complexity of climate change and the need for a multidisciplinary approach to climate ethics were studied by Grasso and Markowitz (Grasso & Markowitz, 2015) conducted a thorough literature review and investigated the ethics of climate change(Bridge, 2022) examine ethics, morality, and the psychology of climate justice(Pearson et al., 2021). The introduction of climate change and

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the moral, legal, and health challenges facing the public health and healthcare systems were examined by Chandra et al(Ganesh et al., 2020).

Ultimately, of the above studies, none seek to examine the ethical and moral dimensions of climate change; a path to climate justice, this creates a knowledge gap, illustrating the significance and justification of the research. Without taking into account the negative effects of climate change, this study attempted to investigate the attitudes, behaviors, and morals of individuals or groups of individuals causing it. The findings of this research can inform policy-making processes, advocacy efforts, and community resilience-building initiatives aimed at promoting climate justice and sustainability in Susan's Bay and beyond.

2.0 LITERATURE REVIEW

2.1. Understanding Climate Justice

Since the main focus of this essay is climate justice, let's start with defining the term and its historical context. The larger environmental justice movements gave rise to climate justice, which saw the "merger of the environmental and civil rights movements"(Bryant & Mohai, 2019) and, crucially, understood justice as extending beyond environmental protection to include the protection of the people whose lives and livelihoods depend on the very environment that is under threat(Bryant & Mohai, 2019). The idea of climate justice first came into use in the early 2000s. The first Climate Justice Summit took place at COP6 in 2001, and the Environmental Justice and Climate Change Initiative was the outcome. It stated that those least accountable for greenhouse gas (GHG) emissions and most vulnerable to its effects will bear the brunt of climate change's effects, which will have a greater impact on the economy and communities' health because of rising temperatures and pollution(Bryant & Mohai, 2019).

But when the idea of common but differentiated responsibilities (CBDR) and corresponding capacities was outlined in Principle 7 of the Rio Declaration "Given the different contributions to global environmental degradation, States have common but differentiated responsibilities" climate justice was codified into the global climate regime back in 1992. Given the demands their civilizations impose on the environment worldwide and the access to resources in terms of technology and money, the industrialized nations recognize their share of responsibility in the global goal of sustainable development(Documentation et al., 1992). When 100,000 protestors marched on the Bella Conference Center during COP15 in Copenhagen to express their rage, the idea of climate justice gained notoriety(Chatterton et al., 2013).

Climate justice acknowledges that the nations most impacted by the effects of climate change are frequently those who bear the least responsibility for it. The historical worldwide disparities that resulted from centuries of colonization and exploitation are the source of this structural injustice. Whether they live in Flint, Michigan, USA, or Beira, Mozambique, the poorest members of society continue to bear a disproportionate amount of the consequences of environmental degradation and climate change. Demonstrators in Copenhagen expressed their rage at these injustices by using climate debt as a means of expressing that climate justice is a multifaceted issue that must be understood in the context of centuries of resource exploitation(Chatterton et al., 2013).

Scholars, policymakers, and activists have examined climate justice from a variety of angles, including how loss and damage (L&D) is defined in negotiations, how justice shapes norms, the regulations that emerge from the global climate regime, (Calliari et al., 2020) and how it is integrated with technological fixes like carbon credits(Pettit, 2004).

Since the early 1990s, when the global climate regime was established, CBDR has been associated with climate justice within the framework of the COP procedures. The initial focus of the conversation was greenhouse gases and melting ice caps, with the idea that wealthy nations should finance the development of low-carbon infrastructure and invest in low-carbon paths for developing nations as part of a mitigation stimulus package(Lohmann, 2008). However, the trading of carbon within financial markets is only one facet of climate justice, and it may even obstruct or mask real behavioral and technical shifts that are necessary to properly combat global warming. For instance, the effects of climate change on land and land tenure are now a problem for gender and human rights(Ali et al., 2014).

Due to their shared themes of exploitation and dominance, the civil rights movement and the climate justice discourse have recently merged. Many have realized that there is an intergenerational unfairness component to climate change as a result of the hundreds of young people who have recently participated in marches, strikes, and rallies around the world. Young people are now acknowledged as the ones who create opportunities and carry out the implementation of the change(Calmon et al., 2021). The IPCC Working Group III published its addition to the Sixth Assessment Report (AR6) in April 2022. The research emphasizes the need to move away from fossil fuels and examines the need to reconsider energy demands, living standards, and necessities for housing, health

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care, education, and mobility, among other aspects of basic human well-being. As shown in Fig. 1, the truth is that climate justice is at the core of the impact and goes beyond lowering emissions and participating in the carbon market method to combating climate change. IPCC Working Group II. IPCC AR6 Working Group II: summary for policymakers: climate change 2022, impacts, adaptation, and vulnerability(Parry et al., 2015).

Accelerating funding and fostering healthy communities are necessary for addressing climate change fairly. The funding contributes to an increased ability to safeguard marginalized populations, which are important to climate goals for healthy societies and reducing global poverty but are not usually apparent. The idea of the "tree of life" is not new, but it makes sense in many ways: a tree suffers when its roots die for lack of water. Climate justice safeguards all communities and produces positive climate outcomes. It also involves implementing efficient decarbonization strategies while permitting long-term socioeconomic growth and a "right to exist" in a fair and healthy society where individuals can access healthcare, clean water, adequate housing and clothing, and food security(Barma & Vogel, 2021).

2.2. Climate as a context for justice

The concept of "climate justice" addresses how the benefits and drawbacks of climate change should be fairly divided, shared, and distributed, as well as who is responsible for solving it. In politics and negotiations, the terms "justice," "fairness," and "equity" are commonly used interchangeably, even though they are not completely synonymous. By using these categories, the issue of climate change is not only environmental or physical, but also moral, legal, and political. Relating the causes and effects of climate change to concepts of justice, especially social justice and environmental justice, can help address climate challenges(Schunz, 2023).

Climate justice approaches these concepts in terms of equality, human rights, collective rights, and historical accountability for climate change. In a nutshell, distributive justice emphasizes who bears the consequences of climate change and the actions taken to combat it, while procedural justice encourages inclusive, transparent, and equitable decision-making. These are the two fundamental categories of climate justice. "Recognition" is now a third category of climate justice principles established by the IPCC's Working Group II. This category covers basic decency, active engagement with, and fair treatment of other cultures and opinions(Parmesan et al., 2022).

According to philosophical viewpoints, a lot of moral disputes concerning what constitutes justice center on three occasionally at-odds goals: maximizing welfare and prosperity, honoring individual autonomy, and confirming common values like supporting greed, shielding the weak, or sacrificing for the good of the group(Sandel, 2011). The pursuit of addressing climate change may arouse each of these motivations. For example, the world's poorest nations have seen a 25% decline in wealth since 1961 due to climate change, as warmer latitudes result in lower agricultural and economic productivity(Diffenbaugh & Burke, 2019). People who have the least responsibility for causing it are disproportionately affected by it. Women, people of color, low-income individuals, indigenous groups, and other vulnerable communities suffer a double danger within nations since they are more likely to be exposed to climate hazards and have a reduced ability to adapt to those hazards(Morello-Frosch & Shenassa, 2006; Thomas et al., 2019).

Inequality can potentially be exacerbated by the interaction of climate change with current social and economic factors. Carrico et al. [23] discovered after analyzing more than 20 years' worth of survey and demographic data that heat waves and drought force Bangladeshi families to marry off their daughters sooner and accept less ideal marriage proposals. In addition, women who were married during dry spells wed less educated males who encouraged more violence against intimate partners. However, efforts to adapt to and mitigate the effects of climate change may also be seen as a danger to people's prosperity and sense of autonomy(Ballew et al., 2020). In addition, the dispersed spatial and temporal aspects of climate change present special difficulties for fair decision-making. Questions of ecological justice and intergenerational equity are raised by disproportionate impacts on other species and future generations(Opotow & Clayton, 1994; Sabbagh & Schmitt, 2016).

Disparities may also surface in the advantages arising from climate adaptation and mitigation. Rich regions in the United States, for example, have easier access to federal aid to avoid flooding and other climate-related disasters(Mach et al., 2019). Similarly, initiatives aimed at reducing energy use—like raising rates during periods of high demand disproportionately burden the old and disabled financially, with the result that their health suffers(White & Sintov, 2020). As a result, both the effects of and responses to climate change can give rise to inequality.

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2.3. The Ethical Principles of Climate Change

In addition to endangering our ecosystems, climate change increases inequality, erodes the basis of our fundamental rights, and creates new forms of injustice. More than simply political will and scientific understanding are needed to confront climate change and mitigate its effects. It also calls for tackling complex climate issues with a more all-encompassing strategy(Caney, 2005).

To support member states and other stakeholders in making wise decisions and putting into practice successful policies for sustainable development, adaptation to climate change, and the mitigation of its negative effects, UNESCO adopted the Declaration of Ethical Principles Concerning Climate Change(Blomfield, 2019).

Ethics must be the cornerstone of every commitment. Ethics can serve as a motivating force to guide behavior, facilitate arbitration, balance conflicting interests, and establish priorities. Ethics has the power to unite theory and practice, inspire big ideas and political will, and inspire both local and global actions(Mochizuki & Bryan, 2015).

The UNESCO Declaration is based on six ethical tenets: harm reduction; improving climate change forecasting and adaptation through responsible and effective policy implementation, especially through low greenhouse gas emissions and climate resilience programs. Don't let the lack of solid scientific evidence deter you from taking action to prevent or mitigate the harmful effects of climate change. Respond to climate change in a way that benefits all parties by including justice and fairness that is consistent with equity and fairness. Permit those who are unjustly affected by climate change (because of inadequate measures or bad policies) to seek legal and administrative procedures, including redress and remedies(Smith et al., 2021).

Given that the humanitarian effects of climate change can be more severe in the food, energy, water insecurity, ocean, desertification, land degradation, and natural disaster sectors, extra attention needs to be paid to these areas. solidarity; helping people who are most vulnerable to natural disasters and climate change, both individually and collectively, particularly in the Small Island Developing States (SIDS) and Least Developed Countries (LDCs)(Gardiner, 2010).

By creating prompt cooperative action in multiple areas, including information sharing, capacity building, and technology invention and transfers, climate change could be lessened. Strengthening the interaction between science and policy is the greatest way to support decision-making and the implementation of relevant long-term initiatives, including risk prediction. Integrity in decision-making and scientific understanding are used to achieve this. Once more defending the objectivity of research and widely disseminating its findings for the good of all. The World Commission on Ethics of Scientific Knowledge and Technology (WCESKT), which was established in 1998, has assisted UNESCO in accomplishing its aims and objectives, particularly in the area of environmental ethics(Reid, 2019).

2.4. What Is the Moral Case for Climate Change and When Does It Emerge?

Several things can make people less aware of the moral and ethical implications of climate change(Jamieson, 2010). A classic moral dilemma occurs when a known criminal intentionally does injury to a known victim who is in near temporal and physical proximity. Since climate change does not fall into this conventional category, it might not raise the moral questions that usually lead to action(Ferguson & Branscombe, 2010; Harth et al., 2013).

Moral intuitions regarding climate change and social responses to it can also be dulled by belief in natural (as opposed to human) causes, ambiguity about its causes and effects, low sensed temporal or spatial proximity, and sentiments of low efficacy or responsibility(Markowitz & Shariff, 2012; Swim & Bloodhart, 2018).

Through "moral piggybacking," or the process of connecting a problem to preexisting moral ideas, climate change may become moralized(Feinberg et al., 2020). Climate skeptics, for example, demonstrated better pro-environmental intents in a series of studies when they believed tackling climate action would lead to a more compassionate society(Bain et al., 2012). The moralization of climate beliefs can also be influenced by one's ideological values(Feinberg & Willer, 2013). liberals are more inclined than conservatives to see environmental challenges in terms of the moral concepts of harm/care, which are heavily utilized by environmental organizations in their persuasive messaging(Markowitz & Shariff, 2012).

Politicians on the left may find greater support for policies that prioritize safeguarding vulnerable groups and decreasing inequality because they are perceived as socially and politically liberal (Clayton et al., 2013; Sabbagh & Schmitt, 2016; Whitmarsh & Corner, 2017).

On the other hand, conservatives' pro-climate attitudes and activities have been demonstrated to be strengthened by "binding" moral arguments (to authority, purity, and loyalty), particularly when these appeals originate from inside their group (Hurst & Stern, 2020; Wolsko, 2017; Wolsko et al., 2016).

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2.5. Addressing Ethical and Moral Dimensions of Climate Change

The joint initiative on the ethical dimensions of climate change was formally launched in December 2004 during the 10th Conference of Parties to the United Nations Framework Convention on Climate Change in Buenos Aires, Argentina. The principal product of this conference was the Buenos Aires Declaration on the Ethical Dimensions of Climate Change(Mochizuki & Bryan, 2015; Reid, 2019).

The program's objectives are as follows:

- Encourage candid conversation regarding the moral ramifications of climate change, particularly as it relates to issues brought up by particular positions taken on climate change policy by governmental bodies, businesses, non-governmental organizations, associations, or individuals;
- Ensure that everyone takes part in any ethical investigation of solutions to climate change, particularly those who are most at risk from it.
- Take an interdisciplinary approach to researching the moral implications of climate change.
- Provide support to publications that investigate the moral implications of climate change and publish their findings.
- Other groups working on climate change policy, like the Conference of the Parties and the Intergovernmental Program on Climate Change, should incorporate ethical analysis into their work.

Because the natural processes involved in climate change are complex and unpredictable, COMEST posed the question in its 2010 Report on The Ethical Implications of Global Climate Change, "whether it is at all possible to take ethical action in response to climate change." Due to the interdependence of living systems and their environments, as well as the positive and negative effects of human activity on the environment, unexpected outcomes can occur. These outcomes include the emergence of new organisms (like bacteria and viruses), the migration of species, and the destruction of ecosystems as a result of the interaction of various elements of the socio-techno-ecological systems(Palm, 2016).

Additionally, COMEST contended in this report that "adaptation to the effects is clearly within the sphere of human agency, even if the contribution of humanity to climate change is denied." By highlighting the necessity of adopting global policies to address the most vulnerable pressing needs in the face of significant uncertainties and the demands of international cooperation, the 2013 Report reaffirmed COMEST's commitment to addressing the plight of society's most vulnerable groups. It also stressed the urgency of determining universal ethical principles to guide responses to such challenges, given the nature and extent of the scientific, social, and human challenges of global climate change.

The 2013 Report went on to list six moral guidelines for adapting to climate change and specified particular obligations that interested parties could take on:

(1) Keeping the environment and people safe from harm caused by either not responding to climate change at all or responding to it carelessly;

(ii) Fairness: providing the poorest nations and people with extra consideration given their increased susceptibility to and direct exposure to climate change, for which they are frequently the least responsible;

(iii) Equitable access to actions that improve capabilities and resilience;

(iv) The moral and intellectual solidarity of humanity recognized in the UNESCO Constitution;

(v) Environmental sustainability, understood as embracing the preservation of biodiversity and the integrity of ecosystems as the very basis of life on Earth; and

(v) The Rio Declaration on the Environment and Development (Principle 7) and the United Nations Framework Convention on Climate Change (UNFCCC) (Article 3) both outline common but distinct duties(Santha, 2020).

3.0 RESEARCH METHODOLOGY

In this analytical and descriptive research study, they researchers used secondary data and to get this data they consulted internet websites and reports of the Environmental Protection Agency (EPA, SL), Ministry of Environment, Ministry of Planning, Ministry of Health as well as the Climate Change Adaptation and Mitigation Strategies of Sierra Leone.

The researcher also uses keywords such as “climate justice,” “ethical and moral dimension,” and “climate change,” to search Web of Science and Google Scholar including SCI and SSCI-indexed papers, research reports, and works from 1990 to 2024.

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Furthermore, an analytical framework has been developed that should be adopted by the Government of Sierra Leone and other development partners as a road map to foster and enhance climate justice for vulnerable communities, especially Susan's Bay Community.

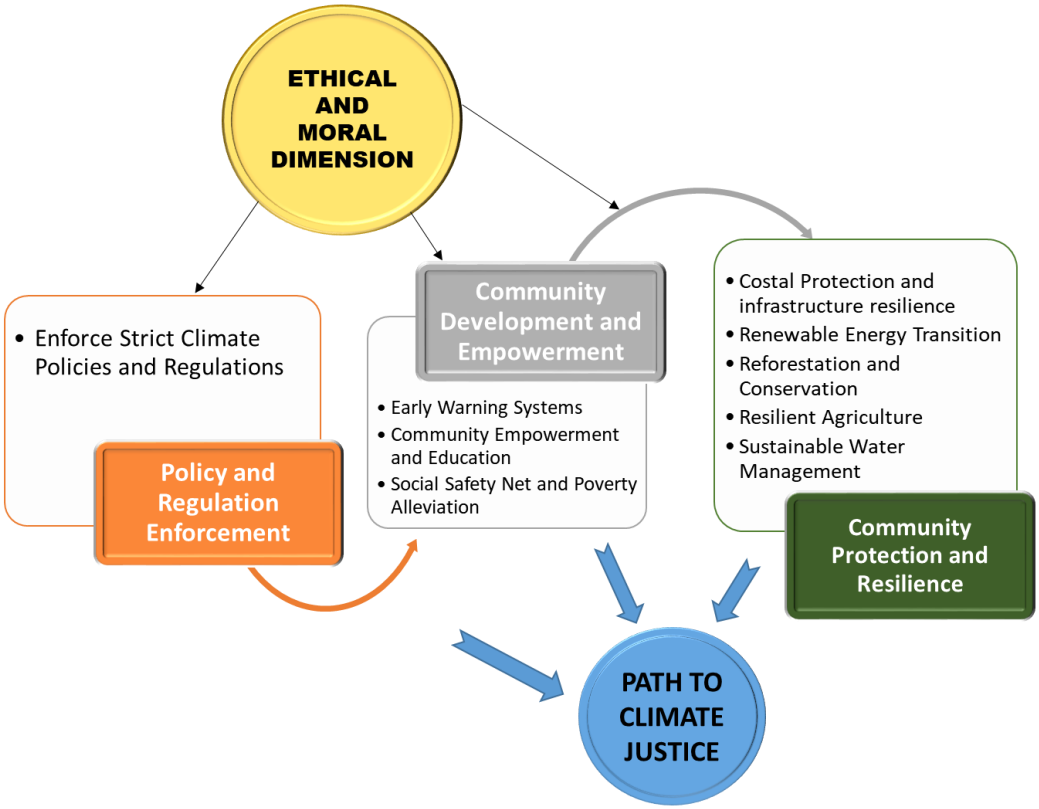

Figure 1. Analytical framework

3.1 Analytical Framework Analysis

3.1.1 Policy and Regulations of Climate Change

3.1.1.1 Enforce strict climate policy and regulations

The moral imperative of taking immediate action to stop climate change may be addressed by Sierra Leonean policymakers and practitioners by enforcing strict climate laws and regulations and advocating for climate justice in Susan Bay. This entails admitting that it is ethically correct to defend vulnerable populations like Susan Bay and future generations from the ravages of climate change and to push for justice, equity, and fairness when developing climate policy. It is ethically and practically imperative that climate rules and regulations be strictly enforced in order to save the environment and provide a sustainable future for all people. This may be achieved by implementing the polluters pay principle, switching to renewable energy sources, cutting greenhouse gas emissions, and starting ecological and environmental preservation projects.

3.1.2 Community Development and Empowerment

3.1.2.1 Early Warning Systems:

By incorporating early warning systems into government plans for mitigation and adaptation strategies, decision-makers and practitioners in Sierra Leone can reduce the probability of disasters, increase the resilience of vulnerable communities—particularly Susan Bay—to the effects of climate change, and advance climate justice. This means assisting community-based adaptation plans that serve as an addition to government alert systems, promoting inclusive decision-making procedures, and raising awareness among the general public of the risks connected to climate change. Social networks, regional traditions, and traditional knowledge are all incorporated into early warning systems, which helps communities better withstand the consequences of climate change.

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This necessitates increasing collaboration and coordination between government agencies, civil society organizations, and other development organizations in addition to calling for local, national, and regional investments in technology, infrastructure, and capacity-building initiatives.

3.1.2.2 Community Empowerment and Education:

Through the integration of community empowerment and education into government laws, plans, and vision, policymakers and practitioners in climate adaptation may ensure that responses to climate change are socially inclusive, contextually appropriate, and influenced by local knowledge and aspirations. Promoting alliances and cooperation between governmental organizations, civil society organizations, academic institutions, and grassroots communities is necessary to collaboratively design and implement climate action plans that reflect a variety of opinions and ideas. Consequently, strengthening adaptive capacity, developing social capital, and achieving climate justice locally depend heavily on community investments in education and empowerment.

The foundation of government policies, especially those of the Ministry of Environment and EPA SL, should be this in order to facilitate the provision of information and resources to underdeveloped coastal regions like Susan Bay's by organizations involved in disaster preparedness.

3.1.2.3 Social safety net

3.1.3 Community protection and resilient

Poverty reduction programs are essential for advancing social justice and addressing the root causes of climate change vulnerability. This calls for targeted programs to assist individuals in escaping poverty, broadening their range of employment opportunities, and improving their access to basic services like clean water, healthcare, and education. Sustainable poverty reduction strategies take climate resilience into account, empowering underprivileged communities to withstand environmental shocks and seek sustainable development avenues.

The Ministries of Environment, Social Welfare, and EPA SL should have plans and strategies for reducing poverty and implementing the social safety net. By using this strategy, practitioners and policymakers in Sierra Leone may adopt a more thorough understanding of climate justice, ensuring that Susan Bay, one of the most underprivileged areas, is not left behind in the transition to a more resilient and sustainable future.

3.1.3.1 Coastal Protection and Infrastructure Resilience:

Rising sea levels, storm surges, erosion, and other consequences of climate change are particularly dangerous for Susan Bay and other coastal areas. Building seawalls and levees, recovering mangroves, and maintaining beaches are some strategies for coastal protection and infrastructure resilience that will help maintain coastal inhabitants and infrastructure. These programs lessen physical risks while preserving livelihoods, cultural legacy, and the ecological benefits that coastal ecosystems offer.

Moreover, by including coastal protection and infrastructure resilience into the government's visions and plans, policymakers and practitioners working in the Ministry of Environment, National Disaster Management, EPA SL, and other agencies can better address the particular challenges faced by Susan Bay and other slum coastal communities in adapting to climate change.

This entails embracing integrated coastal management strategies that strike a balance between environmental preservation and the objectives of sustainable development, as well as acknowledging the interdependence of socioeconomic and ecological processes in coastal areas.

3.1.3.2 Renewable Energy Transition:

To reduce greenhouse gas emissions and combat climate change, a transition toward renewable energy sources including geothermal, hydroelectric, solar, and wind power is essential. These technologies provide fewer carbon-footprint, ecologically friendly alternatives. Countries may improve energy security and independence, reduce their dependency on finite resources, and decarbonize their economies. The transition is being facilitated by financial incentives, technological innovation, public awareness, and legal and regulatory frameworks. Government goals for renewable energy, feed-in tariffs, tax benefits, and research funding all contribute significantly to the acceleration of the transition. International cooperation is essential to boosting the usage of renewable energy sources and overcoming barriers like trade restrictions and financial shortfalls.

However, connecting energy policy with climate objectives, offering incentives for investments in renewable energy, and promoting innovation may help Sierra Leone accelerate its transition to a low-carbon and resilient energy future. The GoSL has recently made district-level investments in renewable energy, and putting this into practice in slum areas like Susan Bay will help to advance climate justice in the area by lowering carbon emissions and mitigating the effects of climate change there.

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3.1.3.3 Reforestation and Conservation:

Reforestation and conservation efforts are essential to maintain biodiversity, enhance carbon storage, and mitigate the consequences of deforestation and land degradation. These initiatives support the preservation of natural regions, the restoration of harmed ecosystems, and sustainable forest management practices. Reforestation initiatives might be carried out in Sierra Leone to prevent deforestation and enhance carbon sequestration. Natural ecosystems, biodiversity, and ecosystem services would all be preserved as a result.

Replanting and conservation can be incorporated into government actions, missions, and visions by policymakers and practitioners in Sierra Leone's ministries and agencies to support sustainable land use, biodiversity conservation, and ecosystem resilience. This is one way to address the ethical aspects of climate change. In terms of lessening the negative effects of climate change, Susan Bay and other impoverished areas will benefit more from this.

3.1.3.4 Climate-Resilient Agriculture:

Climate change poses a major danger to rural lives, agricultural productivity, and global food security. Therefore, the primary objective of climate-resilient agriculture should be to increase the resilience of agricultural systems to climatic fluctuation and change while concurrently enhancing equitable and sustainable food production. In order to do this, tools and techniques that improve farmers' capacity to respond to climate-related risks, protect the environment, and increase agricultural output must be applied. Among the several strategies and techniques it employs are conservation agriculture, agroforestry, crop diversification, soil and water conservation, and climate-smart crop varieties.

These techniques help farmers become more resilient to extreme weather events like droughts and floods, adapt to a changing climate, and sustainably maintain or increase agricultural output. Indigenous agricultural practices and traditional knowledge can also help local adaptation efforts and increase the resilience of farming systems.

Sustainable agriculture policies and investments are essential for the advancement of climate-resilient agriculture in Sierra Leone and the preservation of food security in an ever-changing setting. This can only be accomplished by allocating monies for value chain growth, market access, rural infrastructure development, and agricultural research and extension services. Also receiving assistance are smallholder farmers. In Susan Bay and beyond, policymakers can uphold food sovereignty, reduce poverty and malnutrition, and promote social justice and environmental sustainability by supporting Sierra Leone's "Feed Salone Project," which places a strong emphasis on climate-resilient agriculture.

3.1.3.5 Sustainable Water Management:

Sustainable water management is crucial to reducing vulnerabilities in Susan Bay, ensuring equitable access to clean water, and mitigating the effects of climate change on water resources. Water scarcity, droughts, floods, and issues with water quality in Susan Bay and elsewhere are made worse by climate change. Therefore, some of the tactics to be used to lessen the effects of climate change in Susan Bay include water conservation, integrated management, governance, and infrastructure development. Furthermore, implementing water-saving technologies in Susan Bay and other Sierra Leonean places, promoting reuse and recycling, and investing in water infrastructure may all be excellent steps toward achieving climate justice.

Policymakers and practitioners in Sierra Leone and other areas may support climate justice by including sustainable water management into their plans and objectives for addressing climate change. This means prioritizing water security and resilience in efforts to reduce and adapt to climate change, and considering water as a fundamental human right. In the end, sustainable water management will benefit the present and future well-being of people who live in slum communities, especially Susan Bay. It will also help the area become more resilient to climate change, reduce poverty, enhance public health, and restore the ecosystem.

4.0 Site specific (A Susan Bay's Community, Freetown)

The country of Sierra Leone is located on Africa's west coast, roughly between latitudes 7 and 10 degrees north and 10.5 and 13 degrees west. The country's 400 kilometers of coastline and its location inside the upper Guinean rainforest give it a total land area of 71,620 km2 (surface area 71,740 km2). The country is home to about 7,541,641 inhabitants (Statistics SL MTPHC, 2021). https://www.statistics.sl/index.php/census/mid-term-population-census.html

Its boundaries are to the north and south respectively, formed by Guinea, Liberia, and the Atlantic Ocean. Sierra Leone has a tropical environment with a diverse topography encompassing savannahs and rainforests. Its boundaries are to the north and south respectively, formed by Guinea, Liberia, and the Atlantic Ocean. Sierra Leone has a tropical environment with a diverse topography encompassing savannahs and rainforests.

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Susan‟s Bay slum Community is situated on the East Coast of Freetown very close to the Atlantic Ocean. It is located in wards 377 and 378 and constituency 107. The landscape of the community is steep-slope towards the sea. Susan‟s Bay is bounded by Nicole creek stream and Mabella Community; the most dominant inhabitant tribes found in this community are the Limba, fullah, Susu, Loko and Temnes who are mostly Islamic by religion. A British Governor established this settlement and named it Susan‟s Bay after his wife, hence the name of the settlement. Their main economic activities among the Susan‟s Bay community are Charcoal production, wood selling and other petty trading. The members culturally practice Bondo society and socially participate in Japan Adele and Airy Big Wharf societies. The community is prone to seasonal flooding due to the Nicole Creek and the swelling from the sea. Susan‟s Bay is governed by a parliamentarian, a councillor, community chief and a ward. It is one of the largest slums in the city, with a population of at least 20,000 people.

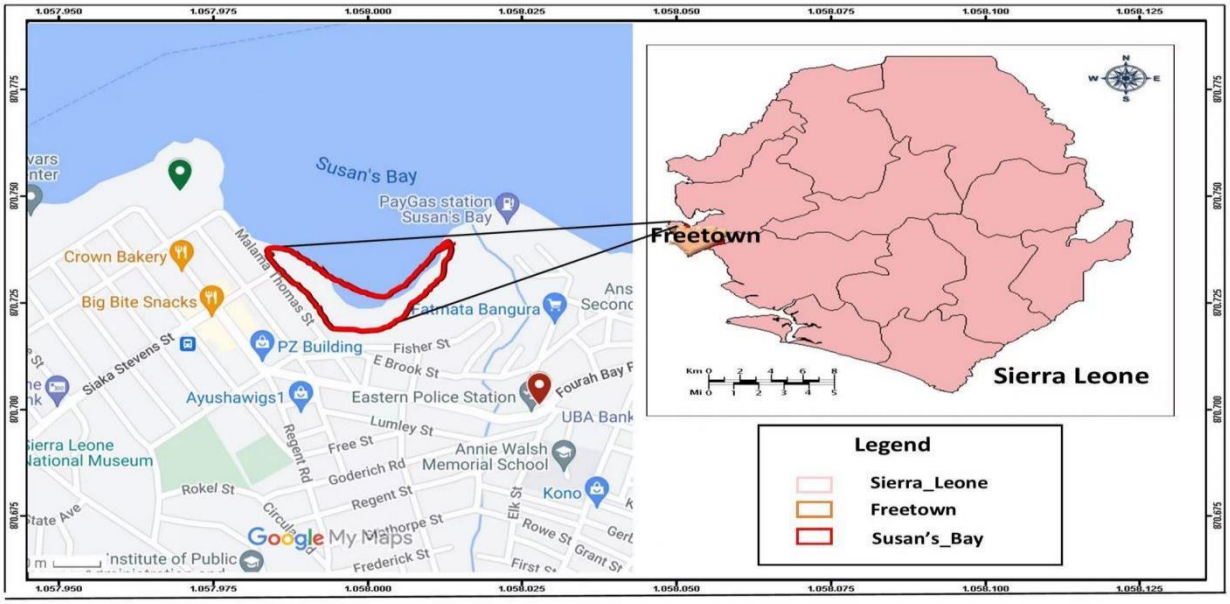

Figure 2: sierra leone and freetown (Susan's Bay)

5.0 DISCUSSION

5.1 Climate Change Negotiations

Climate justice is the simple idea that those who have done the most to cause the climate crisis and who have the most resources must also do the most to fix it. In global terms, this means that wealthy countries like the US must lead by example when it comes to climate action by undertaking urgent emissions reductions whilst also providing not only financial support but also technical and technological support for climate action in poorer countries like Sierra Leone.

This catastrophic events underscore why it is necessary to address the ethical and moral dimensions of climate change by focusing on policy-making and public engagement. Sierra Leone is a signatory to the United Nation for Climate Change (UNFCC).

Therefore, from the chart below (Fig. 4); there has been a lot of ratification to cut down GHG emissions over the past 30 years, which leads to the concept of climate justice. The intergovernmental Panel on Climate Change released the first report that said 'emissions resulting from human activities are substantially increasing the atmospheric concentration of greenhouse gases'', leading to calls for a global treaty to seek climate justice for the most vulnerable. In this regard, negotiations happened in Bonn, Germany where all nations agreed except the USA on the implementation of the Kyoto Protocol as a result of this 154 countries adopted the UN Framework Convention on Climate Change to stabilize concentration in the atmosphere at a level that would prevent dangerous interference with the climate system.

In 2002, the parties held the Delhi Ministerial Declaration that among other things, calls for the developed world to transfer technology to the Global South.

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In 2005, another COP was held in Montreal, Canada, the first Kyoto Protocol annual meetings, this led to the Copenhagen, Denmark COP 2009, where leaders from China, Brazil, India, Indonesia, and South Africa agreed to limit global temperature rise to 2 degrees Celsius.

Another coup happened in 2012 in Doha, Qatar, where parties agreed to extend the expiring Kyoto Protocol.

Moreover, commitment continues to fight for climate justice as in 2015 notably the Paris Agreement parties finally adopted by 195 countries to combat climate change to 1.5 degrees Celsius global temperature by 2030 and most countries have agreed by 2050 to achieve zero carbon emissions as a way to accelerate environmental sustainability.

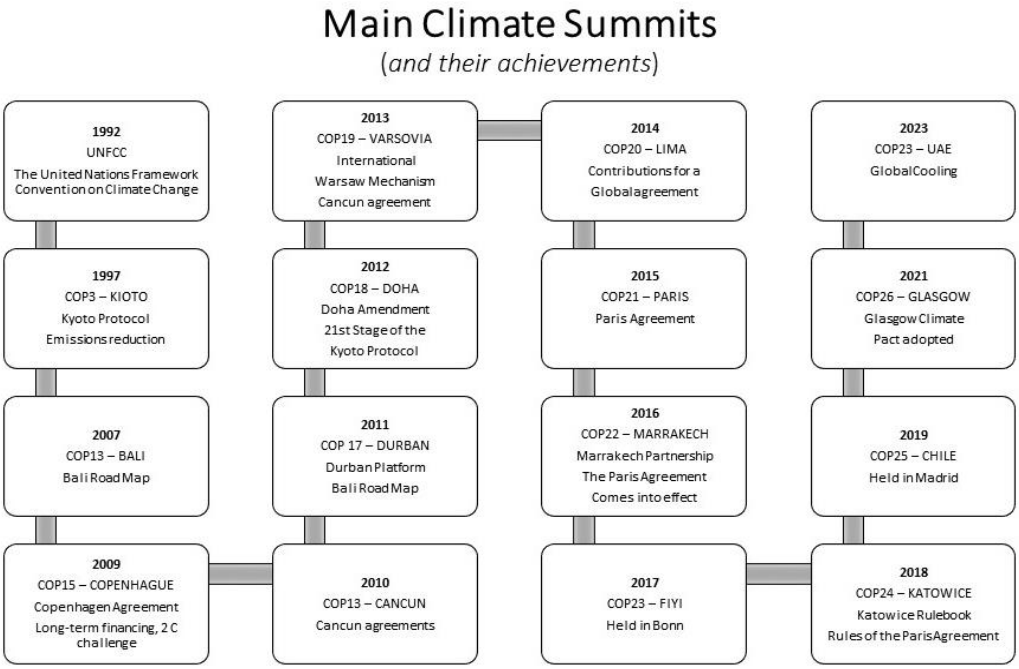

Figure 3: climate justice treaties (UNC)

Therefore, the climate crisis is a manifestation of the pervasive injustice that has brought the less developing countries economic inequality, oppression, subjugation, and exploitation. Pursuing climate justice therefore allows us to get to the fundamental root and truth of the human condition. The climate crisis profoundly threatens real lives and livelihoods. It is a real, clear, and present danger to the realization of basic human rights.

5.2 Why addressing ethical and moral dimensions of climate change is urgent in Susan Bay?

On August 14, 2017, Sierra Leone was hit by the deadliest mudslide at Motem, Freetown of which more than 400 loss of lives and 600 were still missing. The Susan Bay community in 2023 was affected by a devastating fire that left more than 7,000 people homeless. The fire destroyed 70% of the settlement's infrastructure, and many families are still living in makeshift shelters. The government and charities have been providing emergency shelters, but many people are still without adequate housing. UNOPS is working with the government of Japan to help the largest informal settlement in Freetown, Sierra Leone build back better after devastating fires.

In addition, climate change threatened their economic activities as a result of flooding it causes forced migration as inhabitants have to dwell in the streets or marketplaces. In this light, a key element of climate justice is for high emitters to reduce carbon emissions rapidly. By doing so, those that are less privileged like Susan Bay community inhabitants will have a better life to live.

Therefore, Climate justice matters both for its own sake because it is morally right, but also instrumentally. Without attention to it, government policy on climate change may face backlash from groups in society that can ill afford the changes. There is a risk that the costs of decarbonizing, particularly home heating and transport, may fall disproportionately on the poor. Therefore, there should be no climate delay.

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Moreover, Climate change has no borders, and emissions contributed by one country or group have global consequences. Climate justice underscores the unfairness of countries and groups that have contributed the least to climate change being most at risk. The study area, Susan Bay a slum island community collectively contributes less than 1% of emissions that drive climate change but is already suffering significant impacts and faces existential risks as global temperatures rise.

However, every year, Susan Bay experiences severe flooding leading to significant economic losses. The health of the people has also been negatively impacted due to flash floods during the rainy season. The inhabitants have not been able to leave the settlement simply because of the skyrocketed land prices rendering housing increasingly unavailable, especially for low-income families. As cited by Carrico et al., (2020) heat waves and drought cause families in Bangladesh to marry off their daughters sooner and to accept less ideal marriage proposals. In addition, women who were married during dry spells wed less educated males who encouraged more violence against intimate partners(Carrico et al., 2020). This raises a question as to whether developing countries can survive the costly effects of climate change. Because it has to do with climate finance, especially for communities and individuals who are vulnerable to the happening, this point is further underscored by Mach KJ et al., that policy bundles that incorporate measures aim at reducing inequality by increasing access to affordable housing or raising the minimum wage. It can be understood from Mach KJ et al., 's assertion that service delivery and fair distribution of wealth are critically important in the fight against climate change as it helps to raise the resilience capabilities of vulnerable individuals and communities(Mach et al., 2019). This is similar in the case of Susan Bay as teenage girls marry at an early age instead of schooling just to relocate from the slum communities and mostly married men that are with no education background.

The National Disaster Management Agency (NDMA) was established to help proffer solutions to people living in hazard-prone communities by the Government of Sierra Leone; it represents a step in the right direction, but there remains a pressing need for institutional guidelines. As earlier discussed, moral feelings can induce ethical actions and activities. This, however, places an onus on government institutions charged with ethical mandates to take proactive measures to ensure the safety of the people. In the US for example, the resettlement of Isle de Jean Charles in Louisiana, a climate-driven voluntary community resettlement. Building codes have been introduced in earthquake-prone regions like Japan and California to ensure structures can withstand seismic activity. This shows that a state should not only wait to react when a climate-related disaster strikes, but rather put preventive measures in place.

Therefore, the ethical and moral guidelines will be, promoting the interests of present and future generations, protecting human rights, equitable access to medical, scientific, and technological developments, ensuring rapid knowledge sharing, promoting sustainable development, and addressing the needs of developing countries,(Hattingh, 2010).

The idea of climate justice, and ethical and moral dimensions is relatively new as there is little empirical data available. However, as noted by Jamieson, connecting the problems with pre-existing moral precepts is one way climate change might be moralized. Therefore, if properly handle in Susan Bay can have range of benefits as shown in Figure 5.

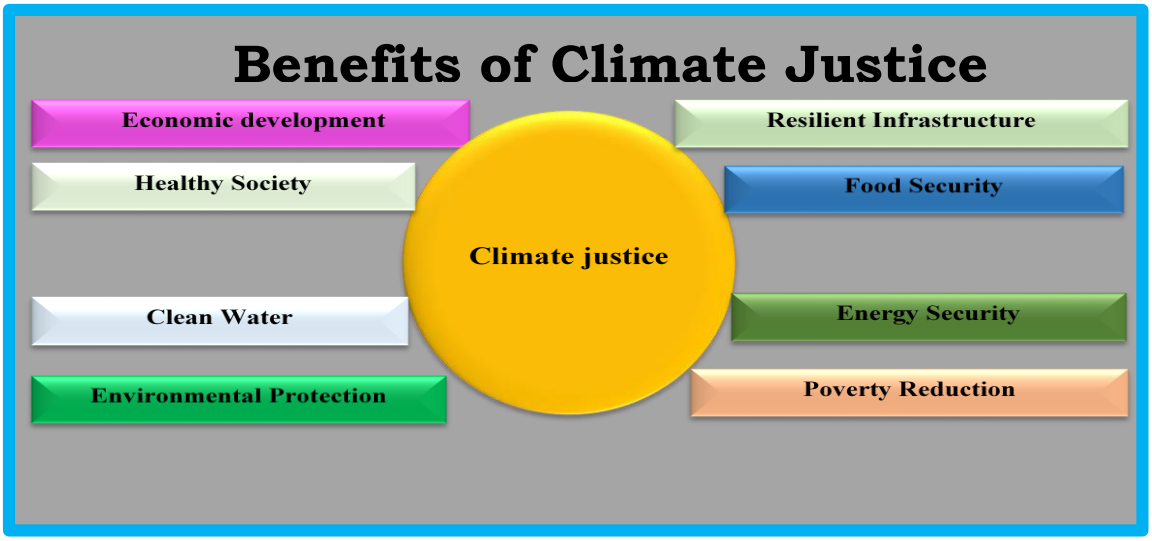

Figure 4: Climate Justice Benefits

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6.0. CONCLUSION

The findings reported in this work highlight the vital need to address the ethical and moral components of climate change to achieve climate justice, particularly in vulnerable areas such as Susan Bay in Freetown, Sierra Leone. With 2023 being the warmest year ever recorded and the disastrous effects of climate change becoming more apparent, immediate action is required.

The report emphasizes the disproportionate cost put on populations that are least responsible for greenhouse gas emissions yet are the most vulnerable to climate change. Flooding and other climate-related catastrophes threaten vulnerable people, including those in Susan Bay, with major economic losses, forced relocation, and hazards to health and livelihoods. Furthermore, a shortage of cheap housing exacerbates their vulnerability, resulting in undesirable social outcomes such as early marriage and increased violence.

Efforts to address climate justice must promote fairness, equity, and human rights. This involves holding high-emitting nations accountable for their contributions to the climate problem, as well as offering assistance to vulnerable regions with adaptation and mitigation measures. The formation of organizations such as Sierra Leone's National Disaster Management Agency (NDMA) is a step forward, but more comprehensive institutional standards and proactive actions are required to avoid and respond to climate-related catastrophes successfully.

The research stresses the relationship between climate justice and larger concerns such as economic injustice, social justice, and sustainable development. It advocates for a comprehensive approach that combines climate action with initiatives to combat poverty, inequality, and resource access. This involves supporting sustainable development methods, providing fair access to technologies and resources, and protecting the well-being of current and future generations.

The suggested methodological framework offers a road map for the government and development partners to promote climate justice in vulnerable areas like Susan Bay. Key components include supporting the interests of current and future generations, safeguarding human rights, ensuring equal access to resources, and implementing sustainable development techniques. Adopting such a paradigm allows decision-makers to emphasize climate justice in policy making and resource allocation, increasing resilience and decreasing vulnerability in at-risk populations.

Finally, the research emphasizes the moral importance of approaching climate change through a lens of justice and equality. Climate justice is not merely an issue of ethical obligation; it is also critical to protecting human rights, fostering sustainable development, and preserving the well-being of vulnerable people. Governments, organizations, and individuals can work together to create a more equitable and sustainable future for everyone by emphasizing climate justice in policy and practice.

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