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Gendered Impacts and Empowerment Strategies: Analyzing the Intersection of Climate Change and Women's Lives

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ABSTRACT

Climate change is a global challenge with far-reaching implications, and its effects are not gender-neutral. This research aims to investigate the specific impacts of climate change on women and explore strategies for empowering women in the face of these challenges. The study will encompass a comprehensive analysis of the social, economic, and health-related dimensions of climate change that disproportionately affect women, and will propose actionable measures to enhance resilience and foster gender equality in the context of climate change adaptation and mitigation efforts. Research indicates that women's role as primary makers of food for the household results in a lop-sided burden of climate change for women, who leverage uncountable strategies to adapt to changing conditions. The paper therefore calls for mitigation and adaptation strategies that confirm preemptive empowerment of women. Justifiable progress can be realized if women empowerment is crucial in developmental issues such as climate change. Women are not groomed to plan and make decisions concerning the interventions as these are imposed. They are steeped not to replicate on the tactics, thus worsening to carry on women empowerment. Interventions used also focus on giving women increased access to practical gender needs such as education in the face of climate change.

Key Words: *Climate change, gender, women's empowerment, resilience, adaptation, mitigation, sustainable livelihoods, policy advocacy*

Introduction

Climate change is one of the most pressing challenges facing our planet, with far-reaching consequences for ecosystems, communities, and human well-being. While the impacts of climate change are felt globally, research has increasingly recognized that these effects are not uniform across different demographic groups. One critical dimension that has gained attention is the gendered nature of climate change impacts, highlighting the differentiated vulnerabilities and capacities of women and men in the face of environmental changes. Existing gender-based inequalities such as access to land and other assets limit the ability of women to respond to the effects of climate change. A recent study by the World Bank, for example, indicates that 103 of 141 countries have legal distinctions between men and women that may hinder women's economic opportunities. Sociocultural barriers that manifest themselves in gender roles and social status may also inhibit women from effectively responding to climatic risk. Women set up the biggest fraction of the world's deprived people and are most pretentious by these changes. Females are more unprotected to climatic menace not just because they denote the mainstream of the world's poor – and consequently lack the means to cope with hostile impacts of the altering climate – but also they are more reliant on the livelihoods and natural resources that incline to be more delicate to these changes.

Background of the Study

Gendered Impacts and Empowerment Strategies: Analyzing the Intersection of Climate Change and Women's Lives" stems from the recognition that women often experience climate change impacts in unique and disproportionate ways due to existing gender inequalities, roles, and responsibilities. These gendered impacts cut across various sectors, influencing health, economic well-being, social dynamics, and cultural practices. In terms of health, women are often more vulnerable to the health risks associated with climate change, including increased prevalence of waterborne diseases, maternal health issues during extreme weather events, and mental health challenges linked to climate-related stressors. Economic disparities also emerge, as women, particularly in developing countries, are frequently engaged in climate-sensitive sectors such as agriculture. Climate variability can disrupt agricultural activities, affecting women's livelihoods and food security.

During disasters, such as drought or floods, women are also more vulnerable to organized criminal traffickers as a result of communities being scattered, and protective patterns in families and society become disrupted: a point underlined by INTERPOL and non-governmental organizations in this report and a pattern of exploitation known from armed conflicts and other disasters. Governments have a accountability to make gender deliberations part of the retort and UNEP expects this statement will play a part in providing a focus for applicable agencies operating across the gamut of development and climate support to put women at the center of their tactics. The effects of climate alteration are far from unvarying. Climate change further intersects with geography, race, political context, socioeconomic status, access to opportunity, and right to own assets or capital.

Literature Review

All facets of existence are impacted by climate change. In every nation where we operate, it raises health risks, impedes the rights and health of sexual and reproductive organs, exacerbates food and water shortages, and deepens already-existing disparities. These detrimental effects do not discriminate based on gender; women and girls are frequently disproportionately impacted. In climate resilience programming, we prioritize women since their investment leads to fairer, healthier, and sustainable communities in the long run, as well as long-lasting improvements to important outcomes and the continuation of services and programs.

This paper provides an overview of gender research that was conducted in four different approaches. Every one of these approaches has advantages and disadvantages of its own. A more comprehensive picture of the gendered aspects of climate change may be obtained by combining findings from all of these methodologies into a single review rather than relying just on one. In a previous paper (Alston, 2012), I discussed the intricate connections between gender-based violence and climate change and made the case for giving gender more weight in discussions, policies, strategies, and actions related to climate change. This essay expands on the idea by arguing that gender mainstreaming ought to be incorporated into newly developing climate change policy domains. It would be foolish, nonetheless, to envision a straightforward procedure that applies a gender perspective to all climate measures, addressing gender vulnerability and achieving gender equality in the process. This essay explores gender mainstreaming in detail, including its origins, evolution, and applications. It also explores how gender mainstreaming might pave the way for radical shifts in gender power dynamics in post-disaster contexts.

The increase in catastrophic and slow-onset climatic disasters that the world has seen in the twenty-first century is mostly due to climate change. There is unquestionable evidence that disaster experiences are gendered and that women are more vulnerable before, during, and after climate events in locations subject to climate variability and catastrophes (Enarson, 2009, Lambrou and Piana, 2006, Lambrou and Sibyl, 2010, Neumayer and Pluemper, 2007). I urge on governments to recommit to gender mainstreaming in the policies, institutional structures, and legal frameworks created to address climate challenges. In this article, I highlight the gendered experiences of women in regard to climate change. Understanding how national, local, and international organizations could effectively handle climate concerns with gender sensitivity requires an investigation of gender mainstreaming. Because of the underlying presumptions that govern responses to climatic catastrophes and the naturally unequal power and resource allocations, failing to do this runs the danger of solidifying gender inequities in post-disaster and rebuilding efforts. On the other hand, the experience of climate change provides the framework and ability to reexamine gender mainstreaming and its revolutionary potential to bring about revolutionary changes in gender relations in the developing and unstable environment and post-disaster space.

The Intergovernmental Panel on Climate Change (IPCC) chairman, Dr. Hoesung Lee, received a letter on May 19, 2023, from a group of 98 organizations and individuals expressing their deep concern over “the potential influence of the meat industry’s years-long campaign of interference on any climate recommendations that include plant-based diets as a solution.”

The letter made particular reference to the IPCC report draft that had been leaked to media just prior to COP26 in Glasgow in 2021. The British Broadcasting Corporation (BBC) reported on the leak and said that the majority of the 32,000 comments made by different countries, businesses, and interested parties on the leaked draft were helpful and intended to make the final report better. Some, though, were more self-centered. For instance, the two largest producers of beef products and animal feed in the world, Brazil and Argentina, fought against mentioning how reducing meat consumption would lower greenhouse gas emissions. The most recent IPCC Assessment Report (AR6), which was published in March 2023, clearly shows the influence of Brazil and Argentina's (as well as other stakeholders'?) interest on the IPCC wording. Although the entire report is not yet accessible, twelve references to "diet" or "dietary" are found in a "longer" 85-page draft, most of which are in the context of phrases like "balanced, sustainable healthy diets." A footnote offers more explanation of this type of diet as follows: According to SRCCL, "balanced diets refer to diets that feature animal-sourced food produced in resilient, sustainable, and low-GHG emission systems, as well as plant-based foods, such as those based on coarse grains, legumes, fruits and vegetables, nuts, and seeds." The IPCC's Special Report on Climate Change and Land is known as the SRCCL issued in 2019.] Put otherwise, the IPCC report from 2023 advises against reducing carbon emissions by adopting a plant-based diet. However, the most recent recommendation's wording is less explicit.

The impact of animal husbandry on environmental sustainability is still a hotly debated topic. 18% of the global greenhouse gas warming was attributed to animal agriculture, according to the first FAO assessment, *Livestock's Long Shadow*, published in 2006. But in a subsequent 2013 report, the FAO changed that percentage to 14.5%. Richard Twine of Edgemoor University in the UK came to the conclusion that 16.5% was the new minimum figure for animal agriculture's contribution to global warming after carefully examining the data used for the two opposing estimations and the different statements regarding the climatic impact of

animal agriculture. Even while livestock contributes intangibly to human livelihoods that are not included in GDP, the livestock business makes up less than 2% of the global GDP. Livestock will contribute 37 percent of the permitted emissions by 2030 if present consumption trends persist, assuming global warming is to be contained at less than 2⁰C.

There are other environmental effects of agriculture than climate change. According to a 2019 International Monetary Fund article by Nicoletta Batini, the agro-food industry utilizes three-quarters of the world's fresh water and half of the world's territory that is free of ice and deserts, aside from its effects on climate change. As per the 2019 study of the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES), agriculture is the primary reason for the present mass extinction of animals on Earth and the worldwide deforestation that occurs. The world's mammalian biomass is made up of people and farm animals to the tune of 96%, with only 4% coming from all wild mammals.

According to a Batini report from the International Monetary Fund, "it is difficult to overstate the planetary benefits of greening the agro-food sector." According to the IPCC's 2019 report, by 2050, changes to crop and livestock practices as well as agroforestry could reduce greenhouse gas emissions by up to 33%. Production and consumption of plant-based foods would stop deforestation and allow for the preservation of important ecosystems. According to Oxford University's Our World in Data, a shift to a plant-based diet would free up 75% of agricultural land for rewilding while still providing adequate food for 10 billion people.

Investment money has flowed into alternative proteins and cultured meat products. For example, China recently signed a \$300 million deal to buy artificial meat from several Israeli cultured meat companies. Despite recent news that demand for alternative proteins and cultured meat products is falling, Guardian columnist George Monbiot said the deal with China "signals the beginning of the end for animal agriculture".

As with the world's energy supply, the changes needed in agriculture and food supplies will be economically disruptive, but with planning and new technology, they will ultimately improve people's health. This could be a win-win for animals (reducing animal numbers) and animals (reducing animal numbers). Livestock (livestock imprisoned and suffering) and the environment (less land used for agriculture, more land left for rewilding, biodiversity, endangered animals and carbon sequestration). It is inevitable that some companies and individuals will resist and push back against such changes. But for a sustainable and healthy world, we all need to work together to change our diets and drive initiatives that support biodiversity and a healthy environment.

Research Question

This research raises few other questions. Such as:

- a. What does gender have to do with climate change?
- b. What factors exacerbate the impacts of climate change?
- c. Why should we consider gender equality when taking action on climate change?
- d. How do climate change impacts affect women differently?

The Objectives of Study

The primary objectives of this research are two-fold. Firstly, to comprehensively analyze the gendered impacts of climate change on various dimensions of women's lives, including health, economic well-being, and social dynamics. Secondly, to identify and assess empowerment strategies that can enhance women's resilience and adaptive capacities in the

context of a changing climate. Through these objectives, the research seeks to contribute insights that can inform policy, practice, and community initiatives.

- Understand the overall gender dimensions of climate change.
- Identify specific gender-based inequalities that contribute towards the disproportionate exposure and vulnerability of women to the effects of climate change, and the role of women as key agents of change in climate responses.
- Identify responses that support the complementary goals of gender equality, women's empowerment, and climate change adaptation and mitigation.
- Understand the basics of climate change science, the imperatives of mitigation and adaptation as well as climate change linkages with sustainable development.
- Identify gender dynamics associated with climate change, including specific gender-based inequities that contribute to women's disproportionate exposure and vulnerability to the adverse effects of climate change as well as women's positive contribution to the climate effort.
- Identify policy and programming responses that support the monetary goals of gender equality, women's empowerment and climate change adaptation and mitigation.

Rationale for the Study

The rationale for investigating the gendered impacts of climate change is rooted in a commitment to social justice and equity. By understanding how climate change intersects with gender, this research aims to inform targeted interventions that address the unique needs and challenges faced by women. Additionally, recognizing the agency of women in climate action is crucial for building sustainable and resilient communities.

Structure of the Research

The subsequent sections of this research will delve into the health, economic, and social dimensions of the gendered impacts of climate change. It will explore empowerment strategies, including education, sustainable livelihoods, and policy advocacy, with the aim of providing actionable recommendations for fostering gender equality and resilience. By undertaking this exploration, the research seeks to contribute to a more nuanced understanding of the intersection of climate change and women's lives, ultimately advancing efforts toward a more equitable and sustainable future.

Sources and Collection of Data

The task of data collection begins after the research problems have been defined and research design is chalked out. In this research work two types of sources of data will be used. Details are as follows:

i) Primary Sources of Data

Primary data collected afresh and used for the first time and thus it is original in character. Researcher will collect data from primary sources through survey method and Observation method. Necessary interview schedules will also be prepared to collect primary data from the stakeholders and expert.

ii) Secondary Sources of Data

When the data are collected from the sources that have been collected and used earlier are called secondary sources. Secondary data will be collected from previous research works, reports, books, journals, periodicals, newspapers, seminar papers, other publications etc.

Contextualizing Climate Change as a Social Issue

Climate change, marked by rising temperatures, extreme weather events, and shifting climatic patterns, is fundamentally altering the dynamics of ecosystems and societies. Its impacts reverberate across communities, exacerbating existing vulnerabilities and introducing new complexities. Recognizing climate change as a social issue underscores the need to understand how diverse populations, particularly women, navigate and respond to its multifaceted challenges.

The Gendered Lens

Central to this research is the understanding that climate change does not affect individuals uniformly; it interacts with existing societal structures and inequalities. Women, comprising approximately half of the global population, often experience unique vulnerabilities due to historical, cultural, and socio-economic factors. As such, adopting a gendered lens is essential to unravel the differentiated impacts and responses to climate change.

Climate Change and Gendered Livelihoods Impacts:

The influences of climate change are already being felt around the world. Nevertheless, these penalties are not being felt evenly. People are excessively affected by climate change. These entities incline to face social, economic, cultural, and political inequalities such as shore regions that are severely impacted by disasters related to climate change. While climate change is a danger for everyone, it does not distress everyone equally. The impacts of climate change prolong and boost structural inequalities, such as those between women and men. This is especially true in many parts of the world where women rely on climate-sensitive work like agriculture and manual labor to make a living capacity to adapt to these impacts. The following discussion centers on examples in several livelihoods areas like agriculture, forests, fisheries, water resources, energy, urban livelihoods, and migration.

Climate change is affecting the ability of women and men around the world to earn a living, particularly in developing countries, and particularly among individuals who rely on the use and/or sale of natural resources as a primary livelihood strategy.

It also means increased liability, as women experience lower entrée to information about cropping patterns, and climate events. Women access to resources can lessen vulnerability and generate more buoyant households and communities. Women involvement in decision-making can help drive the adoption of climate change policies and strengthen mitigation and adaptation efforts by ensuring they benefit the needs of women.

But often, women's participation in decision-making and their climate leadership potential is hindered by their unpaid care responsibilities. Around the world, women carry out more than 75 percent of unpaid care work, or 3.2 times more than men. While disasters hit, this figure only surges as women take on additional burdens to help their households and communities recover and rebuild.

Climate stressors can also impact access to education and the labor market for women, over the time they must spend on household chores and spreading a cycle of disempowerment. Climate-induced disasters, women can be more susceptible to gender-based violence and they need access to quality services essential for their safety and recovery and seats at the decision-making table.

How does climate change impact women?

The climate disaster is not gender impartial. Women experience the extreme influences of climate change, which strengthens prevailing gender inequalities and poses unique threats to their livelihoods, health, and safety. In numerous areas, women tolerate unequal responsibility for securing food, water, and fuel. Agriculture is the most important employment sector for women in low and lower-middle income countries, during periods of drought and inconsistent rainfall. Agricultural workers work harder to secure income and resources for their families. This imposes pressure on girls, who often have to leave school to help their mothers manage the amplified burden. Climate change is a threat multiplier, meaning it spirals social, political and economic tensions in fragile. Climate change pushes conflict over the world; women surface increased vulnerabilities to all types of gender-based violence containing conflict-related sexual violence, human trafficking and child marriage. When adversities incurs, women are less likely to survive and more likely to be injured due to long standing gender inequalities that have created disparities in information, mobility, decision-making, and access to resources and training. Women are less able to access relief and support, further threatening their livelihoods, wellbeing and recovery. Women health is endangered by climate change. Research specifies that extreme heat surges incidence of stillbirth. Climate change is spreading vector-borne illnesses such as malaria, dengue fever and Zika virus.

How does climate change transect with other inequalities for women lives?

While women experience disproportionate impacts from climate change the effects are not uniform. Observing at climate change through the lens of feminism it is clear that climate change risks are acute for indigenous and Afro-descendent women and girls, older women, LGBTIQ+ people, women with disabilities, migrant women, and those living in rural, remote, conflict and disaster-prone areas. “If you are imperceptible in everyday life, your needs will not be thought of, let alone talked, in a crisis situation,” says Matcha Phorn-In, a lesbian feminist human-rights defender who works to empower stateless and landless Indigenous women, girls and young LGBTIQ+ people in Thailand’s Chiang Mai, Mae Hong Son, and Tak provinces. “Humanitarian program tend to be heteronormative as well as reinforce the patriarchal structure of society if they do not take into account sexual and gender diversity,” Phorn-in explains.

Gender discrepancies make women more vulnerable to climate change:

Outdated gender roles decree that women are accountable for managing household duties and resources. This comprises household chores like collecting water and firewood, preparing meals, caring for the children. Climate change primes to poorer yields, less accessibility of resources, food insecurity and makes the tasks of women more puzzling for them. This shakes the overall safety of women. Women in pastoral areas take a lot of time and energy execution native and farm tasks, so they often have heavier capabilities than men. Obligating less time affects women’s capability to adapt to climate change. It averts them from appealing in other income-generating activities. Segregation from forecasting and decision-making also weakens women’s capability to adjust. Men entirely have access to markets and decide how to spend household income. Eventually, this can decline the economic progress of the women. Regrettably, due to the male-controlled nature of some rural communities, women are omitted from leadership roles at the community level. This not only asphyxiates women’s capability to benefit from the services of these organizations but also foils them from causative to their development.

Refining impartiality and pliability to climate change:

Gender inequalities increase the impacts of climate change on women these reducing their capacity to build their pliability to climate stresses and shocks. Though, these gender disparities can be talked through an amalgamation of tactics. Here are some of the ways for making a change.

a) Encouraging Gender Equality at the Household Level:

Across the world, families are on the front lines of the struggle for gender equality and can be “make or break” for women when it comes to realizing their rights. They can be places of love and support, but too often are spaces where women’s rights are dishonored. From reveling positive masculinity and sharing care work to having open and honest debates about existing inequalities and gender-based violence.

b) Vesting Households with Time-saving Technologies:

Technologies need to be assessed based on their dimensions to support rural women’s work in terms of their labor-saving potential and impact on employment. Tactics and arrangements that address the restraints women face in assuming technologies are more effective at household, service and policy levels. Labor and time-use calculations in production systems highlight women’s work and analyze their access to technologies.

c) Reassuring Women’s Involvement in Leadership Roles:

Women in leadership positions reinforce and upsurge the growth of companies and organizations. Evidence specifies that more women in the workplace, including directive boards, benefit group dynamics and give more variety to decision-making processes. The outcome is more prolific companies and organizations, with better risk management, more innovation and ability to retain talent. Uncertainty leadership of farmer organizations, women can also positively stimulus and affect policies so that more women become members and partake in activities and training on climate-smart practices.

Recommendations:

- a) Adaptation packages in food security, agriculture, rangelands and managing natural resources in ways that are penetrating and responsive to the different and multiple roles women and men play in various spheres of natural resource management and as their households, communities, livelihoods, and customary and statutory institutions. The programs should have a strong focus on gender impartiality to ensure successful execution and that satisfactory resources are allotted to translate this vision into palpable action.
- b) Confirm that education, training, awareness raising and information programs discourse the defenselessness and risk of gender-based violence, sexual abuse and transferring in the context of mountain regions, but especially in high-risk flood, drought and disaster prone areas.
- c) Capitalize in gender delicate and culturally appropriate labor- saving green technologies, water harvesting, storage, irrigation systems, and substitutes for fuel wood. These kind of investments in association with women to reflect their needs and concerns. Safeguard that physical, cultural, social, economic and practical elements are well-matched with their livelihood practices within diverse ecosystems supporting agriculture, pastures, forests, watersheds, households and communities.
- d) There must be a discrete focus on women’s needs, primacies, constraints, impacts, local strategies, knowledge and partaking that defines their local responses in the context of often inadequate gender relations.

- e) Progress women's livelihoods and reinforce adaptation by ensuring women's access, control and ownership of resources and access to development resources such as credit, information, training and outreach, and culturally appropriate and labor-saving technology.
- f) Bearing a systematic analysis of climate change from environmental, development and gender equity viewpoints to fill crucial gaps in research, knowledge and data. Disaggregate data by gender and other domains of difference like class, age, marital status, lifespan positioning, ethnicity, caste, profession, and ensure they are understood within the context of power relations emanating from these differences. Investigation should focus on the distinguished experiences of women and men in terms of adaptation, impacts, responses, vulnerabilities and opportunities provided by climate change.

Conclusion

Climate change stretches a converted urgency to the need to reenter and invigorate gender mainstreaming in policy and actions designed to support those affected by climate devastations. Swelling evidence is evolving that women are especially helpless during and after climate adversities. Because post-disaster policies and actions are so essential to building pliability in individuals and communities, this paper proposes the need for a critical reassessment of these policies. In conclusion, climate change has multifaceted impacts on women smallholders. It is very essential to identify and discourse these impacts to ensure that climate change policies and interventions are gender-responsive and support the needs and priorities of women smallholders. Endowing women smallholders with access to technology, markets, and decision-making processes will help them acclimate to climate change and build more robust communities.

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