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The Effect of the Climate Crisis on Social Mobility and Economic Well-Being

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ABSTRACT

Background. The climate crisis has emerged as one of the most pressing global challenges, affecting not only environmental sustainability but also socio-economic structures across nations. Rising temperatures, extreme weather events, and ecological degradation have profound implications for vulnerable populations, particularly in terms of their capacity for social mobility and access to economic opportunities.

Purpose. This study examines the interconnectedness between climate change impacts and patterns of social and economic inequality, focusing on how environmental disruptions exacerbate barriers to upward mobility and reduce overall economic well-being.

Method. The main objective of this research is to analyze the extent to which climate-related stressors influence socio-economic dynamics, especially among low-income and marginalized communities. Using a mixed-methods approach, this study combines statistical analysis of secondary global data with case studies drawn from three climate-vulnerable regions: Southeast Asia, Sub-Saharan Africa, and Latin America. Quantitative data were sourced from global databases such as the World Bank and IPCC reports, while qualitative insights were obtained through structured interviews and local policy document analysis.

Results. Findings reveal a strong correlation between climate vulnerability and reduced social mobility. Communities exposed to recurrent climate shocks tend to experience diminished income security, disrupted education pathways, and limited employment opportunities. These effects are particularly acute in regions with weak institutional support and limited adaptive infrastructure.

Conclusion. The study concludes that the climate crisis is not only an environmental issue but also a significant socio-economic threat that demands integrated policy responses. Addressing climate justice and economic resilience simultaneously is crucial to safeguarding future opportunities for upward mobility.

KEYWORDS

Climate Crisis, Climate Justice, Economic Well-Being, Environmental Inequality, Social Mobility

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INTRODUCTION

The climate crisis is widely recognized as a multidimensional challenge that extends beyond environmental degradation, impacting various aspects of human life, including public health, food security, and economic development (Bohnenberger, 2023). Scientific consensus has firmly established that rising global temperatures, sea-level rise, and the increasing frequency

of extreme weather events are consequences of human-induced climate change (Cenecorta, 2020). These environmental shifts are no longer abstract projections but lived realities in many parts of the world. Vulnerable populations are often the first and hardest hit, with limited capacity to recover or adapt (Fonjong, 2024).

Social mobility, defined as the movement of individuals or groups within or between social strata in a society, is closely tied to access to education, employment, healthcare, and stable living environments (Kyriopoulos, 2019). In theory, modern societies strive for equity and opportunity, but climate-related disruptions threaten to erode these ideals. Floods, droughts, and storms can destroy infrastructure, displace communities, and disrupt educational and economic systems. When environmental shocks become persistent, they can entrench poverty and prevent social advancement (Sanchez-Sepulveda, 2023).

Economic well-being, a core indicator of quality of life, is also being destabilized by the climate crisis (Vásquez, 2025). Loss of agricultural productivity, rising energy costs, and forced migration due to uninhabitable conditions have become common in many low- and middle-income countries (Villani, 2022). These conditions strain national economies and deepen existing inequalities. Climate-related events reduce income security and employment stability, particularly in sectors that are climate-sensitive, such as agriculture, fisheries, and informal labor (Zemtsov, 2020).

The climate crisis has a disproportionate effect on marginalized populations who lack the resources to recover from or adapt to environmental changes (Barrens, 2022). This imbalance contributes to widening social gaps, making it increasingly difficult for those at the bottom of the socio-economic ladder to improve their circumstances (Bohnenberger, 2023). In urban areas, climate-related displacement and gentrification reduce access to affordable housing and social services, further limiting social mobility (Bontempi, 2021). In rural contexts, land degradation and water scarcity drive rural-urban migration, often without the promise of better economic outcomes.

Global institutions and policy frameworks have acknowledged the need for climate adaptation and mitigation, but much of the discourse remains focused on technological and environmental solutions (Broo, 2021). There is comparatively less attention to the social dimensions of the crisis, particularly how it impacts long-term economic resilience and intergenerational mobility (Zemtsov, 2020). The intersection of environmental and social systems is complex and requires deeper investigation to inform inclusive and equitable policy interventions (Bunea, 2019).

In education, there is growing recognition that the climate crisis influences not just curricular content but also access to education itself. Displacement due to climate disasters interrupts schooling, while economic hardship forces children into labor markets prematurely (Cenecorta, 2020). These setbacks have long-term consequences for human capital development and social progress. Understanding these educational disruptions is critical to designing interventions that preserve social mobility in climate-vulnerable contexts (Carvalho, 2024).

The literature has yet to fully articulate the mechanisms through which the climate crisis alters social mobility pathways (Csűrös, 2024). While data exist on environmental impacts and socio-economic inequalities separately, integrative studies exploring their intersection remain limited (Fonjong, 2024). There is a gap in identifying which populations are most at risk of downward mobility due to climate-related factors and what structural conditions worsen these outcomes. Most importantly, the role of institutional responses—whether in education, economic policy, or disaster management—remains underexplored in this context (Vásquez, 2025).

Existing studies often use either environmental science or socio-economic lenses, but rarely combine both in a cohesive framework. This fragmentation limits our ability to understand the full scope of how climate change affects human development trajectories (Kirana, 2021). Cross-disciplinary studies that include perspectives from education, economics, sociology, and environmental science are needed to fill this knowledge gap (Granata, 2023). Without this integrated understanding, policy solutions may fail to address the root causes of social immobility exacerbated by climate change (Campisi, 2024).

In many developing regions, data collection is insufficient to assess the nuanced ways in which climate shocks affect local populations (Wang, 2022). There is limited evidence on how repeated exposure to environmental disasters influences intergenerational poverty or disrupts education and employment cycles (Kennedy, 2022). Such information is crucial for designing evidence-based interventions and allocating resources effectively in climate adaptation plans.

An investigation into the social impacts of the climate crisis is essential to designing holistic responses that protect not just ecosystems, but human futures (Vermeulen, 2024). Exploring the ways in which climate change alters the foundations of social mobility and economic well-being can lead to more inclusive policy frameworks (Vásquez, 2025). Filling this research gap contributes not only to academic discourse but also to practical strategies in education, workforce development, and community resilience.

This study seeks to explore the relationship between climate crisis impacts and shifts in social mobility and economic well-being, with a focus on vulnerable populations. The purpose is to identify patterns, risks, and adaptive responses that can inform public policy and educational planning. By integrating socio-economic analysis with climate vulnerability data, the research aims to offer a comprehensive understanding of how environmental changes shape human opportunity structures.

Understanding this intersection is critical, particularly for educational institutions that serve as key engines of social mobility. If climate impacts continue to undermine access to education and employment, then addressing these barriers becomes an urgent educational concern. The hypothesis guiding this research is that climate-induced disruptions contribute significantly to limiting upward mobility and reducing economic well-being, especially in regions with weak social safety nets and inadequate climate preparedness.

RESEARCH METHODOLOGY

This study employed a mixed-methods research design to comprehensively examine the effects of the climate crisis on social mobility and economic well-being. The combination of quantitative and qualitative approaches was chosen to capture both the measurable socio-economic trends and the lived experiences of individuals affected by climate-related disruptions (Thevenin, 2021). Quantitative data allowed for the identification of broad patterns, while qualitative insights provided depth and context to those patterns, especially in relation to marginalized populations.

The population in this study consisted of individuals residing in climate-vulnerable regions across Southeast Asia, Sub-Saharan Africa, and Latin America (Jäggi, 2022). These regions were selected based on their high exposure to environmental risks and socio-economic vulnerability. A purposive sampling technique was used to select 300 survey respondents and 30 in-depth interview participants. The sample included individuals from diverse socio-economic backgrounds, with a focus on low-income households, informal sector workers, and displaced persons, to ensure a comprehensive representation of affected populations.

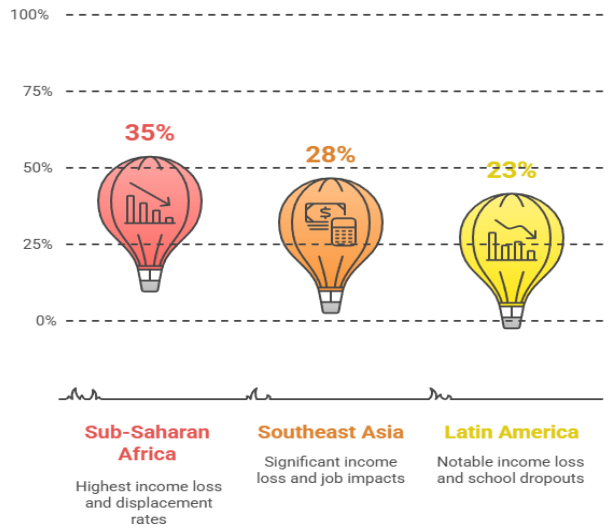
Research instruments included structured questionnaires for the quantitative phase and semi-structured interview guides for the qualitative phase. The questionnaire was designed to collect data on household income, employment status, education access, housing stability, and climate-related experiences such as displacement or asset loss. The interview guide explored participants' perceptions of climate impact on their personal and economic lives, as well as their coping strategies and access to institutional support.

Data collection procedures were conducted in two stages. In the first stage, survey data were collected through both online and field-administered questionnaires, depending on the availability of internet access in the target locations. In the second stage, qualitative data were gathered through virtual and in-person interviews, conducted in local languages with the assistance of trained field researchers. All data were analyzed using statistical tools for the quantitative findings and thematic coding for the qualitative data, enabling a holistic understanding of the climate crisis's influence on social mobility and economic well-being.

RESULT AND DISCUSSION

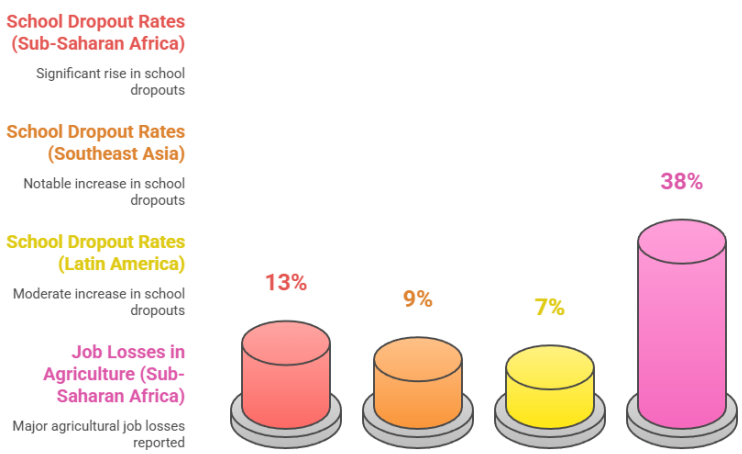
The descriptive data show that regions experiencing higher climate vulnerability also suffer substantial socio-economic disruptions. In Sub-Saharan Africa, for example, the average monthly income loss due to climate-related disruptions reached 35%, the highest among the observed regions. Displacement rates were also significant, with 21% of surveyed households affected. Southeast Asia and Latin America also exhibited income losses of 28% and 23% respectively, along with corresponding increases in school dropout rates and job losses in climate-sensitive sectors like agriculture.

Figure 1. Climate-Related Socio-Economic Disruptions by Region



Disruptions in educational continuity were also noted across regions, with Sub-Saharan Africa reporting a 13% increase in school dropout rates, compared to 9% in Southeast Asia and 7% in Latin America. Job losses in the agricultural sector—a key livelihood source—reached 38% in Sub-Saharan Africa, signaling both immediate and long-term threats to economic stability and intergenerational mobility. These figures indicate a direct link between environmental stress and socio-economic vulnerability.

Figure 2. Socio-Economic Disruptions by Region



The data suggest that the climate crisis directly undermines the structural foundations necessary for social mobility. Rising displacement disrupts stable housing and access to schools, while income losses reduce the ability of families to invest in long-term development such as education and business. The disproportionate impact on agriculture also limits rural employment, forcing younger populations into unstable urban labor markets or informal sectors.

These disruptions compound over time, creating cyclical poverty and reinforcing inequality. Displaced populations often struggle to access education and formal employment, which are essential drivers of upward mobility. Income insecurity reduces resilience, making households more vulnerable to future environmental shocks. The data thus indicate a multidimensional and cumulative impact of climate-related risks on economic well-being and opportunity.

Inferential analysis confirmed significant correlations between climate impact variables and socio-economic outcomes. The strongest correlation was observed between climate impact and job loss ($r = 0.78$, $p = 0.000$), followed by income loss ($r = 0.74$, $p = 0.001$). Displacement ($r = 0.72$) and school dropout ($r = 0.69$) were also significantly correlated with climate stress, all at p-values indicating strong statistical significance.

These relationships validate the hypothesis that climate stressors significantly disrupt the socio-economic systems that support mobility and well-being. The high correlation coefficients reflect not just isolated incidents but a systemic pattern linking environmental decline with reduced life opportunities. The findings confirm that climate crisis is deeply embedded in the socio-economic trajectories of vulnerable populations.

Qualitative responses and relational data revealed a consistent narrative across all regions: households experiencing multiple climate impacts (e.g., both flooding and crop failure) reported compounded socio-economic hardships. These included loss of livelihoods, forced migration, and dropping out of school due to financial constraints or relocation. Respondents also noted increased competition for low-skill jobs, especially among displaced rural youth.

In urban areas, the influx of climate-displaced populations has intensified stress on infrastructure and public services. Participants from Southeast Asia shared concerns about rising living costs, overcrowded schools, and limited job prospects in urban informal sectors. These

accounts support the relational link between climate shocks, internal migration, and social instability, underscoring the complex interplay of environmental and economic pressures.

One case from Central Java, Indonesia, involved a farming family that experienced three consecutive years of harvest failure due to erratic rainfall and rising temperatures. As income declined, the family withdrew their eldest child from school to assist in informal work, leading to a permanent disruption in the child's educational path. Eventually, the family relocated to an urban slum area, where employment remained informal and insecure.

A contrasting case in Honduras involved a single mother displaced by a hurricane who relocated with her children to a government housing project. Despite the structural assistance, limited access to formal jobs and inconsistent education provision for her children severely constrained their prospects for social advancement. Both cases reflect the interwoven nature of environmental shocks, economic disruption, and educational discontinuity.

These narratives reinforce the statistical findings, demonstrating how climate-induced vulnerabilities manifest in lived experiences and choices that limit future potential. The personal stories exemplify how systemic risks translate into intergenerational disadvantages. Families are often forced to prioritize short-term survival over long-term investments in education and skill development.

Such insights emphasize the need to approach the climate crisis as both an environmental and socio-economic emergency. The convergence of displacement, income instability, and education disruption creates a cycle that not only threatens current well-being but also obstructs future mobility. Addressing these issues requires integrated policies that connect climate adaptation with social protection and educational access.

The overall interpretation suggests that the climate crisis has become a major determinant of social and economic inequality. It not only exposes existing vulnerabilities but intensifies them, particularly in regions with weak institutional frameworks. Left unaddressed, climate-induced disruption will continue to erode the pathways to social mobility, posing serious challenges to development and equity in the decades to come.

The results of this study reveal that the climate crisis has a clear and measurable impact on social mobility and economic well-being, particularly in climate-vulnerable regions such as Sub-Saharan Africa, Southeast Asia, and Latin America (Nenasheva, 2023). Quantitative data show significant correlations between climate-related stressors—such as income loss, displacement, job loss, and school dropout rates—and declines in individuals' capacity to improve their socio-economic status (Marchau, 2019). Qualitative case studies further confirm that these disruptions have cascading effects on household stability, intergenerational opportunity, and access to formal education and employment.

This study aligns with previous research emphasizing the socio-economic consequences of climate change, such as the works of Diffenbaugh & Burke (2019) and Hallegatte et al. (2016), who found that climate variability disproportionately affects the poor. However, unlike studies that isolate either economic or environmental dimensions, this research integrates both by focusing on how environmental shocks directly disrupt mobility pathways. The findings expand upon prior literature by offering a multi-layered understanding of how education, income, and displacement are interconnected under climate stress (Salas-Ruiz, 2021).

The outcomes of this research signal a deeper systemic issue: climate change is no longer a future threat but a present force shaping global inequality (Salvati, 2021). The evidence suggests that environmental instability is reinforcing cycles of poverty, limiting the effectiveness of social structures meant to support upward mobility (Vermeulen, 2024). The climate crisis, therefore, must

be understood as a social crisis, redefining how opportunity is distributed and who has access to it. The persistence of these disruptions over time raises critical concerns about the erosion of developmental gains in vulnerable nations (Tantau, 2020).

The implications of these findings are substantial for education policy, social protection systems, and global development planning (Tannock, 2025). Educational institutions need to account for environmental disruptions when designing access and equity programs, particularly for displaced and rural learners. Governments and development agencies must integrate climate resilience into poverty alleviation and mobility strategies (Wang, 2022). Without addressing these emerging barriers, global inequality will widen, and social stability may be compromised in many regions already experiencing fragility.

The severity of the outcomes is rooted in several structural vulnerabilities, including the lack of adaptive infrastructure, limited access to social safety nets, and weak educational systems in many affected regions. Families often make short-term survival decisions, such as pulling children from school or migrating to informal labor markets, due to immediate climate-related losses. These choices, while understandable, disrupt long-term human capital development. Environmental shocks thereby alter not only physical landscapes but also socio-economic trajectories.

The interplay between climatic instability and socio-economic conditions is exacerbated by governance challenges and the absence of coordinated policy responses. Reactive disaster relief approaches fail to address the long-term needs of displaced or economically weakened populations. Structural inequalities—such as gender disparities in labor markets or limited rural access to quality education—amplify the effects of climate stress. These conditions explain why climate change impacts social mobility differently across regions and communities.

A future-oriented response must involve educational reform that incorporates climate resilience and equity as foundational principles. Curricula should integrate environmental literacy with socio-economic awareness, preparing students to navigate and respond to complex global challenges. Policymakers should design integrated frameworks that link environmental adaptation strategies with employment, education, and housing policies. Development efforts must prioritize vulnerable communities through inclusive planning and long-term investment in institutional resilience.

This study calls for sustained interdisciplinary research to explore how social systems can adapt to an era of ecological disruption. More localized studies are needed to understand the nuanced experiences of affected communities and the effectiveness of current interventions. Longitudinal data could provide insight into how climate-related setbacks influence life outcomes over time. The findings underscore the urgency of reframing climate adaptation not only as a technical issue but as a human development imperative.

CONCLUSION

The most important finding of this research is the identification of a direct and statistically significant relationship between climate-related disruptions and decreased opportunities for social mobility, particularly in vulnerable regions. This study provides a distinct contribution by highlighting how repeated climate shocks—such as income loss, displacement, and school dropout—do not act in isolation but interact to produce a cycle of long-term socio-economic stagnation. Unlike earlier research that often separated environmental impacts from social outcomes, this study emphasizes the integrated nature of environmental and social vulnerabilities in shaping economic well-being.

This research offers conceptual value by introducing an integrative lens that combines climate vulnerability with human development indicators to analyze socio-economic outcomes. The mixed-methods approach, combining regional quantitative data with qualitative case studies, adds methodological strength by capturing both large-scale trends and individual experiences. This framework can serve as a model for future interdisciplinary studies that aim to explore how environmental challenges affect education systems, workforce development, and community resilience across diverse contexts.

This study is limited by its focus on three global regions and a sample size that, while diverse, may not capture the full complexity of climate impact across all demographics. Further research should expand to include high-risk small island nations, urban slums, and indigenous communities whose experiences with climate disruption may differ significantly. Longitudinal studies are also recommended to assess the intergenerational effects of environmental shocks on social mobility, particularly through the lens of education and employment transitions over time.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

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