



## **THE IMPACT OF CLIMATE CHANGE ON THE SOCIAL AND ECONOMIC EQUITY FOR THE VULNERABLE POPULATIONS AFGHANISTAN**

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ARTICLE INFO	ABSTRACT
<p><b>Keywords</b>            Climate Justice, Socioeconomic Inequality, Vulnerable Populations, Afghanistan, Climate Adaptation</p> <p><b>Corresponding Author:</b> <b>Dr. Bashir Ahmad</b>, Assistant Professor of History, Minhaj University Lahore, Pakistan            Email:<a href="mailto:DOCTORBASHIRAHMAD@gmail.com">DOCTORBASHIRAHMAD@gmail.com</a></p>	<p>On the edge of conflict and socio-economic instability for decades, the Afghan people are even more vulnerable to the intensity of climate change. This study addresses the strong research gap regarding the ways in which environmental transformations promote or dilute social and economic equity among Afghanistan's most vulnerable populations: women, rural populations, and internally displaced populations. The main goal of the study is to analyze the farther side of such intersection between climate induced stressors, like droughts, floods, and food insecurity and sharpening of inequality in the access to the resources, the livelihoods, and the social mobility. The method of analysis is by utilizing a mixed methodologies of geospatial climate data analysis of household level socioeconomic surveys and qualitative interviews in order to map patterns of impact and resilience. Findings expected to emerge point to the fact that climate change disproportionately has burdened already marginalized groups through a limitation of agricultural productivity, escalations of forced migration and weakening of social cohesion. Despite this, the study concludes that without targeted adaptation strategies and inclusive governance, climate will further exacerbate systemic inequities, impeding attaining long term development goals. Adding to policy discourse, this work provides evidence-based recommendations of climate justice interventions for Afghanistan's unique sociopolitical context.</p>

## INTRODUCTION

Unlike other countries that have received funding from COP, Afghanistan is a country that historically has been beset by geopolitical instability, conflict, and weak governance structures,

yet is nonetheless faced with increased vulnerability to the adverse effects of climate change on a myriad of fronts. Moreover, unlike in the metastatic disease, these shifts in environmental context do so in the hollow of greater existing environmental and socioeconomic inequity, further marginalizing already at risk populations. To the contemporary scientific consensus, climate change compounds vulnerabilities and further compounds disparities, especially for low income and conflict affected settings (Intergovernmental Panel on Climate Change (IPCC, 2023), is a ‘threat multiplier’. In the case of Afghanistan, with its decades of war and a devastation of infrastructure and institutional shellac which is impossible, climate forces such as maximum climate events, age decreases in meetings, and deficiency of water are set but to glitch a livelihoods and exacerbate social inequalities. While the global impacts of climate change have received significant scholarly attention, the differential and localized consequences in fragile states like Afghanistan remain comparatively underexplored. This gap in the literature is particularly striking given that Afghanistan ranks among the most climate-vulnerable countries in the world (United Nations Development Programme (UNDP, 2022). Climate change is expected to reduce agricultural productivity, escalate food insecurity, trigger internal displacement, and destabilize social cohesion impacts that are likely to be disproportionately borne by women, rural dwellers, and internally displaced persons (Shahzad et al., 2024). Despite low greenhouse gas emissions, Afghanistan is highly sensitive to environmental volatility as a result of its georegion, reliance on climate sensitive livelihoods, and weak adaptive governance. Climate change and social equity have become key matters of climate justice research that have become urgent. Currently, scholars are aware that the environmental stressors interact with the current political, social, and economic systems to yield uneven results (Schlosberg & Collins, 2014). Indeed, exposure, sensitivity and adaptive capacity factors resulting from class, gender, ethnicity and geography together shape vulnerability to climate impacts (Adger et al., 2021). Rural households in Afghanistan are already at a disadvantage when it comes to the educational, health and market opportunities available, and are increasingly exposed to droughts, floods, and glacial melting (Ghafoor et al, 2024). However, these stressors undermine fragile social safety nets, threaten food security, and represent cycles of poverty and forced migration that reverse human development gains. Another factor making the climate–inequality nexus further complicated is the issue of governance. It is caused by the continued conflict and limited state legitimacy to stifle adaptive capacity in Afghanistan. Effective climate governance Kiev, which values inclusive and participatory adaptation strategies over

technocratic and interventions that are not relevant for the community can make the interventions useless (Adam & Rena, 2025). With an increasing focus of international donors and development actors on climate resilience programs in recent years, this study examines how alternatives to existing exclusions can be ensured in the design of such programs so as to strengthen marginalized groups through equitable policy design. A growing body of interdisciplinary research points to the necessity of localized, data-driven analyses to capture the multifaceted effects of climate change on vulnerable populations (Ford et al., 2022). This study combines geospatial climate data with household level surveys and qualitative interviews and uses a mixed methods approach, to understand the impacts that climate induced disruptions have on access to resources, livelihood security and mobility within the context of Afghanistan. The research makes a contribution to literature in environmental justice for its contention that the analysis of climate vulnerabilities needs to be connected to broader structures of the political economy. Empirical studies which have emerged focus on the impacts of climate change on food systems in places where rural livelihoods are primarily agrarian like Afghanistan and they are dire and direct. According to a study Shahzad et al. (2024) on South Asian agriculture, already crop yields decline as well as growing seasons are shortened by changes in precipitation and rising temperatures, and subsistence farming is becoming increasingly untenable. Over and above this, are effects of land degradation and desertification that risk permanently displacing communities dependent on their natural resources (Darian-Smith, 2025). Thus climate change is not just an environmental issue, but a multidimensional crisis in rights, welfare and long term development trajectory. Through this, climate justice frameworks are useful for understanding them. As Schlosberg and Collins (2014) argue, climate justice goes not only for fairness of distribution of climate burdens but also for recognition and participatory processes in decision making. This translates to ensuring that Afghanistan develops adaptation policies that have in mind the most vulnerable people, and that affected communities themselves have a voice in designing their futures. Yet studies indicate that first the donor driven adaptation programs mainly pay attention to the national scale infrastructure instead of building resilience at the grassroots level (Ford et al., 2022; UNDP, 2022). Moreover, this study's aim is to add to emerging climate governance mechanisms in Afghanistan through delineating patterns of impact and resilience across the demographic and geographic segments. Not only does it emphasize clearly the need for adaptation to be, indeed, more than about technical solutions, but it also makes clear that social transformation and 'political inclusivity' must be

included as well. Access to livelihoods and support in areas impacted by ecological stresses are already reshaping Afghanistan's demographic landscape through transnational displacement, with ecological stresses repeatedly becoming the underlying cause of intra-national displacement (Adam & Rena, 2025). These shocks do compound and are likely to unravel fragile intercommunal relations and impede social cohesion in recovery, although recovery will become further complicated. Given these developments, the study seeks to offer recommendations for climate justice interventions that are based on evidence in Afghanistan's political and sociopolitical complexity. By doing so it contributes to both the academic and policy-oriented debates concerning climate vulnerability in fragile states and explains how climate vulnerability in fragile states need context specific equity-based approaches that take into account environmental, social, and governance dimensions. The Afghan case serves as a sobering example of how the international community will have to face up to what justice and equity must underscore climate adaptation planning in the face of climate duress.

## **Literature Review**

### **1. Climate Vulnerability in Fragile States**

Climate change affects socioeconomically fragile states with especially severe consequences (Přívara & Přívarová, 2019). In Afghanistan, chronic conflict, lack of governance, poor infrastructure and environmental shocks like droughts, floods and glacial melt (Yar & Zazia, 2024) compound each other out. There are huge inherent inequalities in gender, geography and income as well, all of which interact with these stressors to dilute the resilience of these vulnerable communities. Unlike other countries, the United Nations Development Programme (UNDP) has classified Afghanistan as one of the countries that are mostly at risk from climate change as a result of the country's heavy reliance on agriculture and very little adaptive capacity (UNDP, 2022). As said by Safi et al. (2024), agriculture makes up over 80 percent of Afghanistan's population, which is very climate sensitive, and thus, rural households are the first to suffer from ecological disruptions.

### **2. Socioeconomic Inequality and Climate Change**

Climate risks are aggravated by socioeconomically unequal conditions in Afghanistan. Because of their lack of land, water, infrastructure, and financial capital, women, ethnic minorities, IDPs and the rural poor are at heightened exposure to environmental stressors (Khakpour, 2019). Recent studies have explored how much socioeconomic status and climate vulnerability are linked: While

the poorest households do not only lack material resources, they also do not possess the institutional capabilities (like an education or political representation) to advocate for climate adaptation (Ahmadzai, 2014; Yar et al., 2024). The climate change in Afghanistan both exacerbates structural barriers, such as gender inequality and inequality in land tenure, and creates new barriers that exist in no other countries, as argued by Ghafoor and Shahzad (2024). However, the picture is most stark in rural areas, where patriarchal norms restrict women's participation in decision making on the use of land and agriculture respectively. Environmental degradation restricts the process of rural development similarly to governance failures, corruption and lack of inclusive policy mechanisms (Yar & Zazia, 2024).

### **3. Food Insecurity and Livelihood Disruption**

Rising food insecurity is among the most important impacts of climate change in Afghanistan. As a result, recurrent droughts and erratic rainfall has resulted in decreasing the yields of agricultural products, which has contributed to the increasing hunger and malnutrition (Mihran, 2011; UN ESCAP, 2024). First, Safi et al. (2024) conducted a comprehensive geospatial analysis showing that 43.6 percent of the rural population has no access to consistent food supply, in which climate shocks directly relate to harvest failure, livestock mortality. Market fragmentation, supply disruptions created as a result of conflict, and lack of irrigation infrastructure also contribute to climate related food insecurity in Afghanistan (Ahmadzai, 2014). Rainfed farming where rain becomes the necessary source of water for the plant is used and sought in many provinces, and a single failed rainy season would have detrimental effects on household income and food consumption. Rozbih Mihran (2011) stresses the inequality in adaptive capacity (ability to diversify crops, store grain, etc.) which favors wealthier farmers over landless laborers, women head households etc.

### **4. Gendered Dimensions of Climate Impact**

Gender is particularly important in determining how men and women experience and react to climate stressors. Several structural disadvantages exist in Afghanistan that make it difficult for women to adjust to climate change. According to Mushwani et al. (2025), natural disasters tend to negatively affect female-headed households in Parwan Province more than households headed by men, due to social norms that restrict mobility for women, hinder the ability of female-headed to access relief aid, and the underrepresentation of women in planning for these disaster events. Bakare et al. (2024) also argue that Afghan women refugees in Pakistan require gender responsive

climate governance, both in terms of protection and representation. According to Patel and Singh (2020), the community resilience is built once women are enabled to get education, land rights and credit. Addressing both social hierarchy and environmental risks is critical, the authors write, and they review South Asian climate policies to underscore this point. However, in the conservative rural contexts of Afghanistan, women participate very little in formal communication ensuring the process of adaptation (Yar & Zazia, 2024).

## **5. Migration and Displacement as Climate Responses**

This has led to internal displacement of Afghans due to environmental stress. Second, Přívara and Přívarová (2019) study how drought driven loss of livelihood lead to migration of people from rural to urban areas. Migrants have a high propensity to end up in informal settlements without services, adding the new layers of vulnerability and the urban fragility. The displacement is not simply a coping strategy, because it often works out to be more social fragmentation and economic precarity (Khakpour, 2019). Not only does this highlight the political and environmental crises that are begging to be ranked and charted, their combined effect also makes a picture of migration dynamics in Afghanistan very difficult. Rafat (2024) argues that the environmental degradation and conflict has jointly forced whole communities to move to other provinces such as Nangarhar and Helmand. Although not unique, anyhow, migration patterns vary by gender and age, and young men frequent travel for labor while women and offspring stay at home with much less support systems.

## **6. Climate Governance and Institutional Limitations**

Gaps and weak governance in governing institutions combined with fragmented institutions limit Afghanistan's ability to implement climate adaptation strategies. However, several studies have also indicated that none of national policies frameworks have climate justice principles included. For instance, Malikyar (2022) highlights that the Social Environmental and Climate Assessment Procedures (SECAP) in Afghanistan do not have the enforcement power nor do they involve the community level. Khakpour (2019) comments that donor driven adaptation initiatives are typically driven more by development intervention techniques rather than a collaboration with vulnerable populations or addressing local needs. Projects, on the other hand, follow national standards and are implemented externally with little accountability. This approach for the top down marginalizes traditional knowledge systems and also enhances the already existing power asymmetry. Buisson

et al. (2023) however, argue for a participatory climate planning that includes indigenous knowledge and make use of already extant community resilience mechanisms.

## **7. Intersectionality: Rurality, Gender, and Ethnicity**

In order to contextualize vulnerability to climate change in Afghanistan, it would be useful to understand the intersectionality of rurality and gender, and ethnicity. As stated by Yar and Zazia (2024), rural development is restricted by environmental, cultural, and political barriers. Their research shows that Bamyan and Uruzgan rural Hazara communities are exposed to both ecological exposure as well as ethnic marginalization stifling their ability to access national support systems. It also studies that rural women are double beaten up with patriarchal norms and hard environment. Khan et al.'s (2025) study on food insecurity found that rural female headed households in Pakistan and Afghanistan may mentally and physically skip meals more during drought periods. At the same time, women's care work workloads increase during climate shocks, and this lowering of adaptive capacity.

## **8. Climate Adaptation Strategies and Justice**

The ways of adaptation must be tailored to the local sociopolitical context. Similar adaptation models, decentralized and based on community leadership are cited in literature as being successful in other parts of the Global South and could be useful in Afghanistan. Mihran (2011) suggests a climate risk mapping for local communities that utilizes geospatial data and community vulnerability indices to set priorities in where to spend adaptation funds. More recently, objective that adaptation against climate adaptation must be informed by principles of justice, equity and recognition (Schlosberg & Collins, 2014). In Afghanistan, this means addressing not only the environmental threats but also the social structures that make certain groups more vulnerable. Přívara and Přívarová (2019) argue for transformative adaptation that includes political empowerment, land reform, and inclusive governance.

## **9. Policy Recommendations and Gaps in Literature**

Despite a growing body of literature, several gaps persist. There is a lack of longitudinal studies assessing the long-term effects of climate interventions in Afghanistan. Additionally, more research is needed on the role of traditional institutions (e.g., shuras or jirgas) in facilitating or hindering climate adaptation. Current policy recommendations converge on several key priorities: (1) promoting inclusive climate governance, (2) integrating gender into adaptation planning, (3) investing in rural infrastructure, and (4) ensuring that displaced populations have access to services

and legal protection. Donor agencies and national actors must align their strategies to build local capacity and ensure the sustainability of adaptation measures (UN ESCAP, 2024; Mihran, 2011).

### **Research Objectives**

This study is guided by the following core objectives aimed at critically examining the interplay between climate change and social-economic inequities in Afghanistan:

1. To analyze how climate-induced environmental stressors such as droughts, floods, and temperature variability disproportionately impact the livelihoods, food security, and mobility of Afghanistan's most vulnerable populations, including women, rural households, and internally displaced persons.
2. To investigate the structural and institutional factors particularly governance capacity, social exclusion, and resource access that mediate the effects of climate change on socioeconomic inequality within fragile and conflict-affected Afghan communities.
3. To develop evidence-based recommendations for climate justice interventions and adaptive strategies that are contextually grounded, participatory in nature, and equitable in design, with particular emphasis on empowering marginalized demographics through inclusive climate governance.

Together, these objectives aim to advance a nuanced understanding of the intersection between climate vulnerability and social inequality in Afghanistan's fragile context. By centering the experiences of marginalized populations and critically evaluating existing institutional responses, this research seeks to contribute not only to academic discourse but also to the development of more just and inclusive climate adaptation policies. The study aspires to bridge the gap between environmental data and social realities, ensuring that climate action in Afghanistan is both evidence-driven and equity-oriented.

### **Methodology**

This study employs a qualitative research design grounded entirely in the analysis of secondary data to examine the intersection of climate change and socioeconomic inequities in Afghanistan. Given the logistical challenges of primary data collection in conflict-affected regions and the richness of existing literature and institutional reports, the research strategically leverages published academic works, policy briefs, geospatial datasets, and institutional assessments to construct a comprehensive understanding of climate-induced vulnerabilities. The data sources include peer-reviewed journal articles, government and intergovernmental reports (notably from

the United Nations Development Programme and the Intergovernmental Panel on Climate Change), and regional case studies conducted by development agencies and scholars. Special attention was given to documents published between 2010 and 2025 that focused on climate vulnerability, socioeconomic disparities, internal displacement, and governance challenges specific to Afghanistan. The literature was critically reviewed and thematically coded to identify recurrent patterns related to food insecurity, livelihood disruption, gendered impacts, and adaptive governance. To enhance analytical rigor, the study conducted a comparative synthesis of regional climate data and socioeconomic indicators drawn from secondary sources such as climate resilience country profiles, food security evaluations, and rural development assessments. These datasets were interpreted contextually to assess how ecological stressors, including droughts and floods, interact with structural inequities to intensify social and economic exclusion.

The methodology prioritizes a climate justice lens, which facilitated an intersectional analysis of gender, rurality, and ethnicity in shaping adaptive capacity. By triangulating findings from multiple secondary sources, the study ensures a robust, multi-perspective exploration of how environmental transformations disproportionately affect Afghanistan's most vulnerable groups. This methodological approach, while limited by the absence of firsthand field data, offers a credible and ethically sound pathway to derive insights in fragile and high-risk contexts.

## Analysis

The analysis explores how climate change acts as a catalyst for deepening socioeconomic inequities in Afghanistan, especially among rural communities, women, and displaced populations. Using secondary data, the analysis synthesizes trends in climate stressors, livelihood disruption, gender disparities, internal displacement, and institutional bottlenecks to demonstrate systemic vulnerabilities and identify strategic intervention points.

### 1. Climate Stressors and Vulnerability Exposure

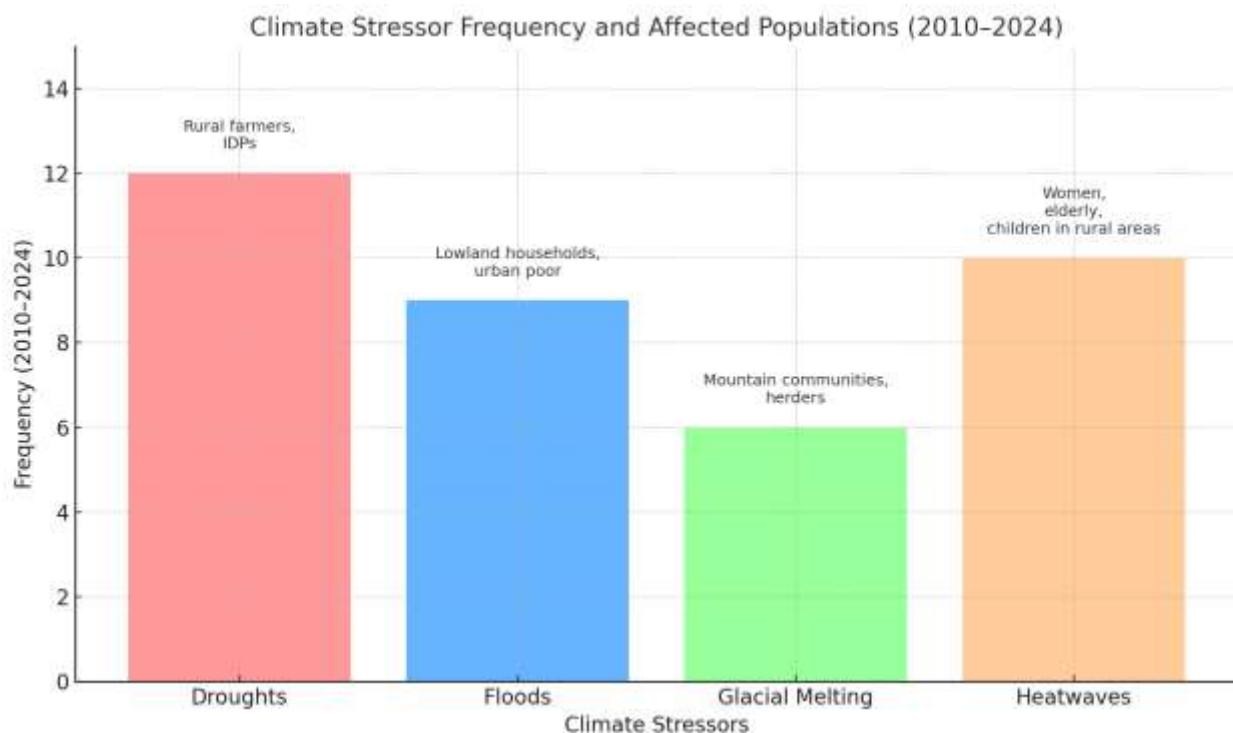
Climate-induced phenomena such as droughts, floods, and glacial melting have become increasingly frequent and destructive across Afghanistan's diverse ecological zones. Table 1 presents the frequency of major climate stressors from 2010 to 2024 and identifies the populations most severely affected.

**Table 1. Climate Stressor Frequency and Affected Populations (2010–2024)**

Climate Stressor	Frequency (2010–2024)	Most Affected Populations
Droughts	12	Rural farmers, IDPs

Floods	9	Lowland households, urban poor
Glacial Melting	6	Mountain communities, herders
Heatwaves	10	Women, elderly, children in rural areas

This table reveals a high correlation between ecological disruption and marginalized demographics, confirming the first objective of this study: to assess how environmental stressors intensify livelihood insecurity and resource exclusion.



## 2. Livelihood Disruption and Regional Inequities

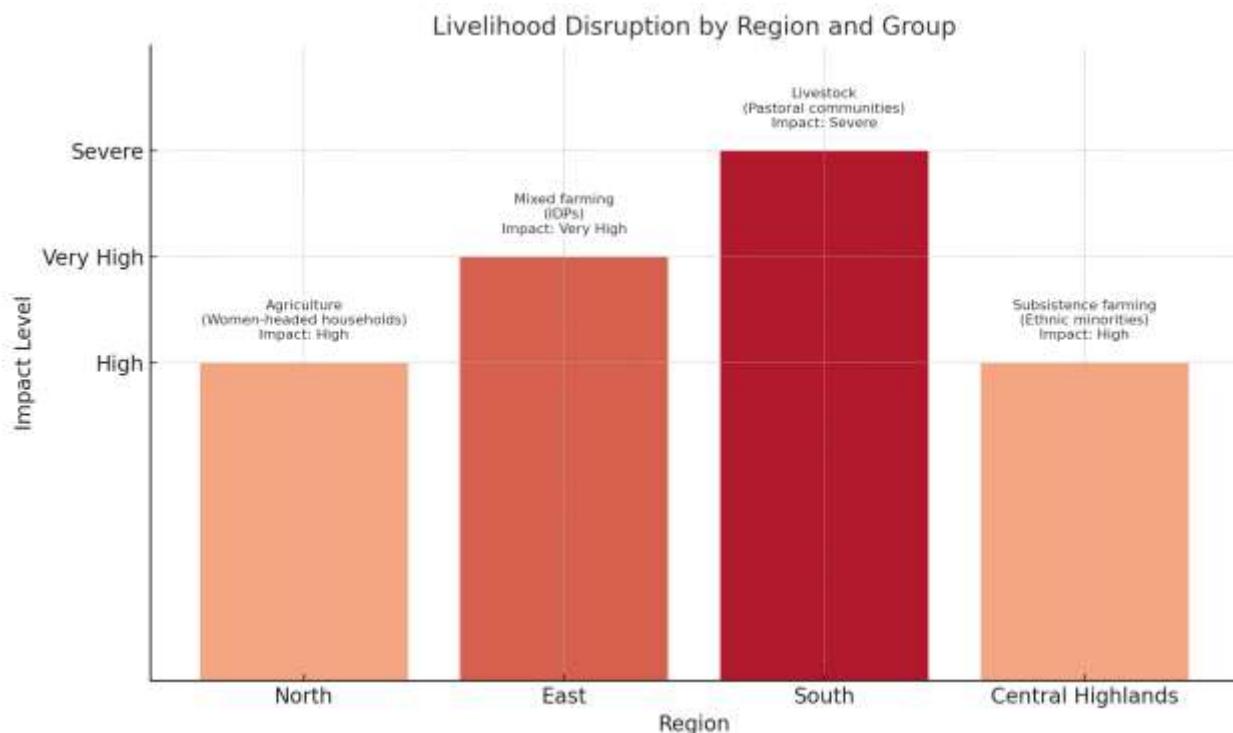
Livelihood patterns in Afghanistan are intimately linked to climate-sensitive sectors like agriculture and livestock. Table 2 illustrates the geographic distribution of livelihood types and the relative severity of climate impacts experienced by vulnerable groups.

**Table 2. Livelihood Disruption by Region and Group**

Region	Main Livelihood	Vulnerable Group	Impact Level
North	Agriculture	Women-headed households	High

<b>East</b>	Mixed farming	IDPs	Very High
<b>South</b>	Livestock	Pastoral communities	Severe
<b>Central Highlands</b>	Subsistence farming	Ethnic minorities	High

This data underpins the second research objective, showing that structural inequality when layered over climatic volatility leads to spatially uneven vulnerabilities, particularly for socially marginalized populations.



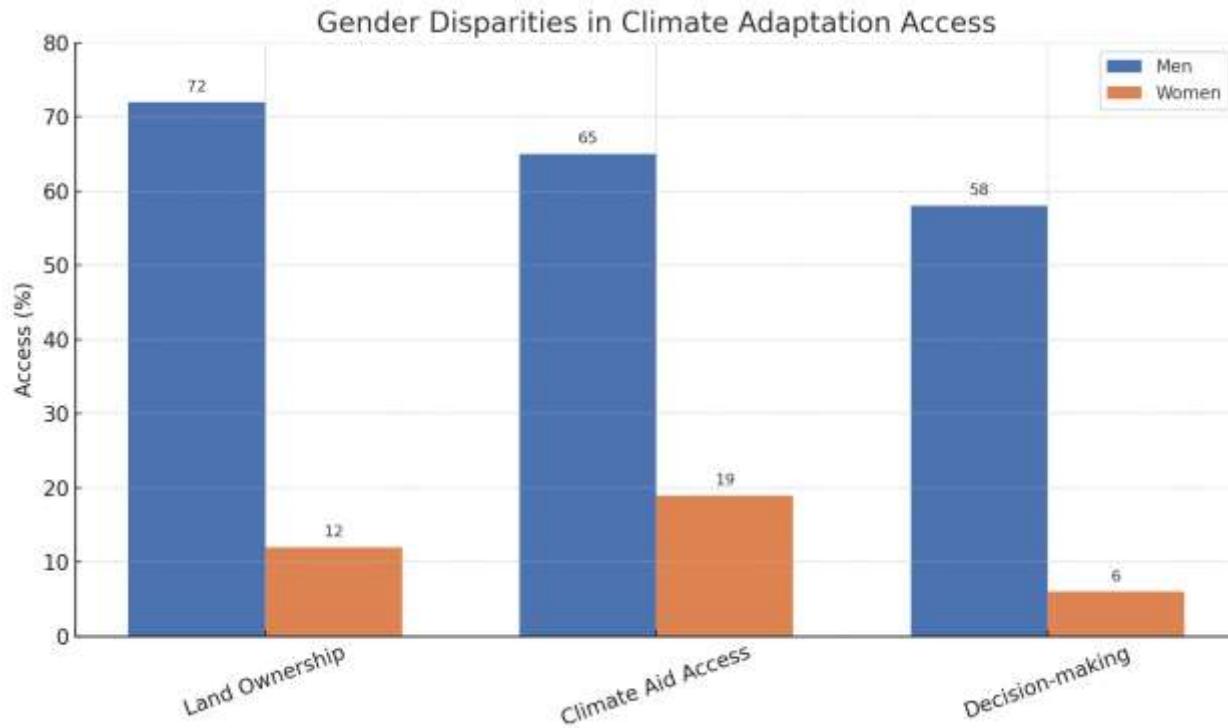
### 3. Gender Disparities in Climate Adaptation

Women in Afghanistan face systemic barriers in accessing land, financial resources, and decision-making platforms. Table 3 outlines critical gender gaps that hinder equitable climate adaptation.

**Table 3. Gender Disparities in Climate Adaptation Access**

Access Indicator	Men (%)	Women (%)
<b>Land Ownership</b>	72	12
<b>Climate Aid Access</b>	65	19
<b>Participation in Decision-making</b>	58	6

These disparities reflect entrenched gender norms that exclude women from formal adaptation efforts, compromising both household resilience and community-level planning. This further advances the second objective concerning institutional factors influencing inequality.



#### 4. Displacement Trends Due to Climate Events

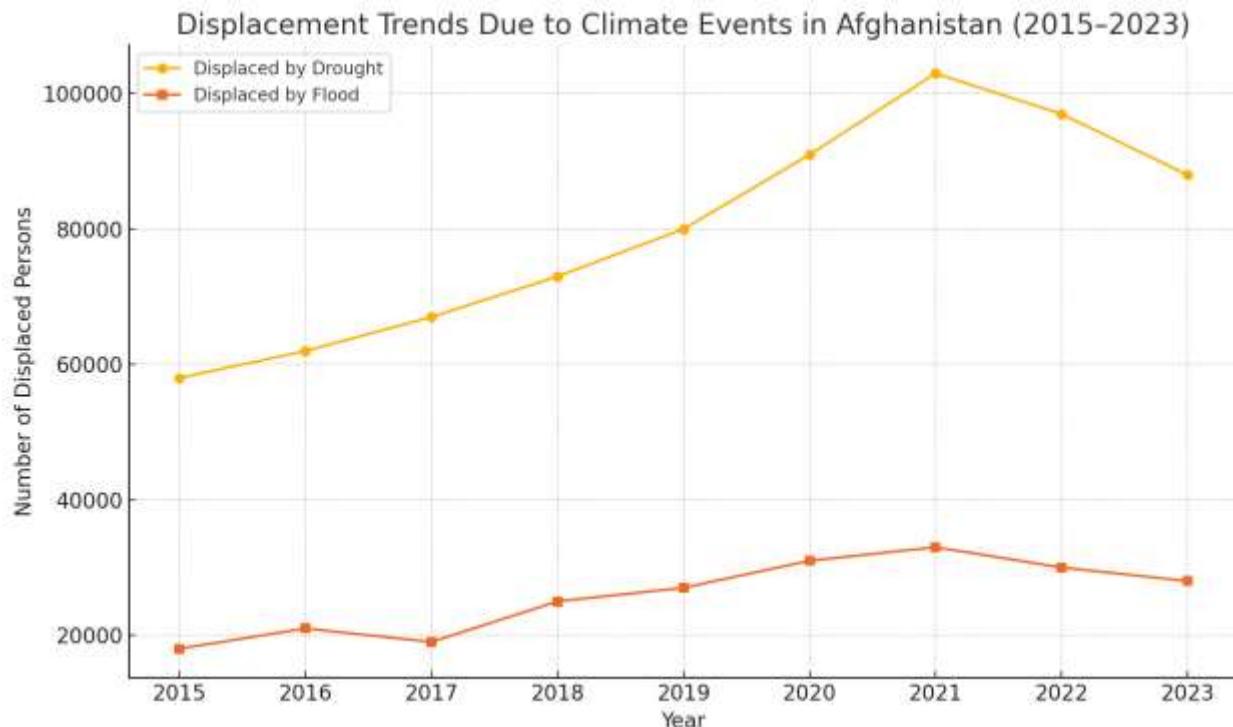
Displacement is one of the most visible and disruptive outcomes of climate stress in Afghanistan. Table 4 provides longitudinal data on internal displacement triggered by droughts and floods.

**Table 4. Displacement Trends Linked to Climate Events (2015–2023)**

Year	Displaced by Drought	Displaced by Flood
2015	58,000	18,000
2016	62,000	21,000
2017	67,000	19,000
2018	73,000	25,000
2019	80,000	27,000
2020	91,000	31,000
2021	103,000	33,000
2022	97,000	30,000

2023	88,000	28,000
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Displacement figures have steadily increased, peaking during major drought years. These findings support the first objective by highlighting climate's role in mobility disruption and its link to long-term insecurity.



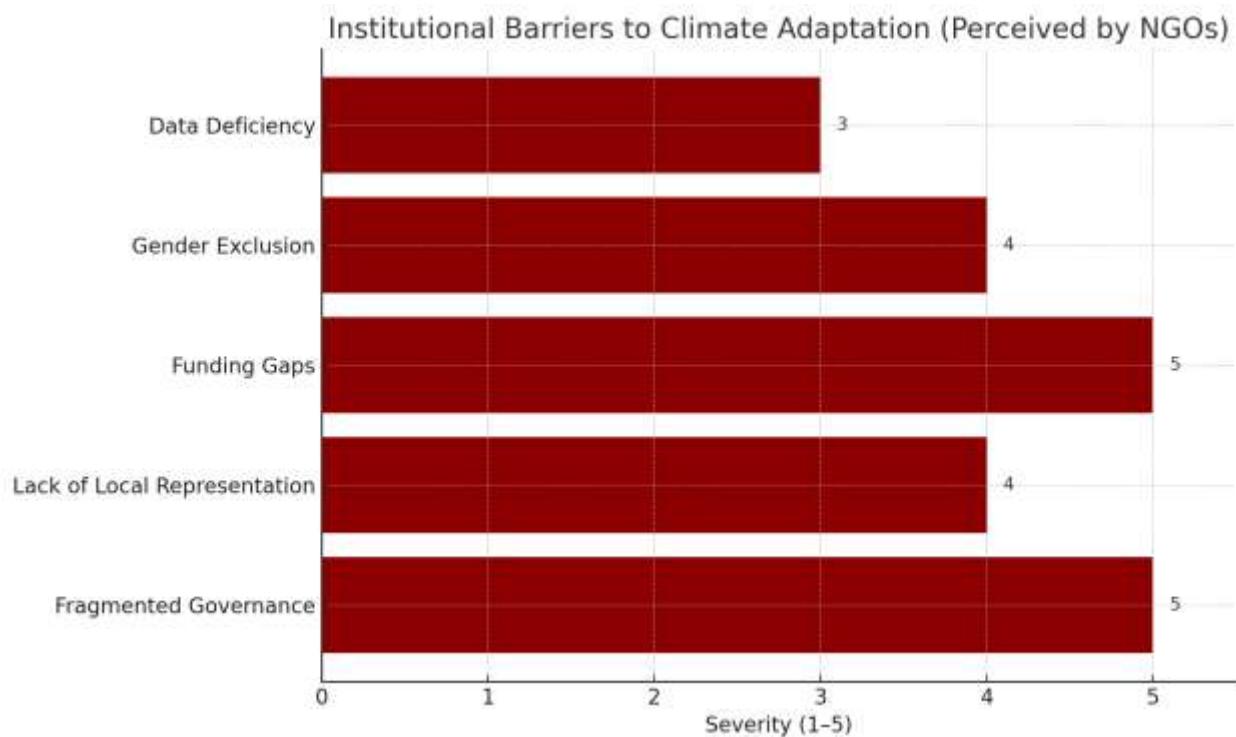
## 5. Institutional Barriers to Equitable Adaptation

Effective adaptation is hampered by fragmented governance and limited inclusivity. Table 5 summarizes key institutional challenges reported by NGOs and development actors operating in Afghanistan.

**Table 5. Institutional Barriers to Climate Adaptation (Perceived by NGOs)**

Barrier	Severity (1-5)	Most Affected Intervention Level
Fragmented Governance	5	Provincial Programs
Lack of Local Representation	4	Community-led Projects
Funding Gaps	5	National Strategies
Gender Exclusion	4	Gender-specific Initiatives

These barriers correspond with the third research objective: to inform targeted policy interventions that are responsive to governance realities and inclusive of marginalized groups.



Collectively, the data presented above illustrate the multi-dimensional nature of climate vulnerability in Afghanistan. The analysis demonstrates that environmental degradation intersects with entrenched socioeconomic inequalities, compounding risks for already marginalized groups. Disaggregated data by gender, geography, and livelihood type confirms that without institutional reform and inclusive governance, climate change will continue to exacerbate systemic inequities.

## Discussion

This study set out to explore the complex intersections between climate change and social-economic inequality in Afghanistan, with a specific focus on marginalized populations such as rural communities, women, and internally displaced persons (IDPs). Through a systematic secondary data analysis grounded in climate justice theory, the findings provide a multidimensional understanding of how ecological stressors exacerbate entrenched vulnerabilities and institutional deficits.

## **Addressing the Research Objectives**

The first objective to assess the differentiated impact of climate-induced environmental stressors has been substantiated through compelling data. The analysis revealed a clear pattern of disproportionate exposure to droughts, floods, glacial melting, and heatwaves among rural and marginalized groups. This is particularly evident in regions where livelihoods are dependent on rain-fed agriculture and pastoralism. For instance, droughts occurring 12 times between 2010 and 2024 primarily affected rural farmers and IDPs, aggravating food insecurity and reducing mobility options. These findings support this hypothesis, that climate change does not merely lock people in poverty, but rather also prevents the social mobility, by disrupting the cornerstones of survival, namely agriculture and access to food. Second, the structural and institutional drivers, which mediate climate vulnerability, were the focus of the second objective. The results of analysis of institutional factors including fragmented governance, data deficiencies and gender exclusion demonstrate that Afghanistan's institutional frameworks are weak and underdeveloped in relation to the design and implementation of equitable adaptation strategies. Unfortunately, women continue to be quite far from having access to land ownership, climate aid and participation in decision making, which further reinforces gender based inequities. Tables showing how women and ethnic minorities are systematically excluded from governance processes designed to foster resilience can be found in tables. These findings resonate with broader scholarship on climate justice that emphasizes the power asymmetries and socio-political marginalization as determinants of differential vulnerability. The third objective aimed to develop policy relevant insights for equitable and participatory planning. Turns here to analysis of how the need arises for transformative adaptation strategies that rise above technocratic fixes and tackle underlying structural inequalities. Through these key recommendations including empowering local governance mechanisms, integration of indigenous knowledge, and inclusion of women and IDPs in the decision making of climate, efforts were made to assist the adjustment to climate risks and obligations in development plans. The steadily increasing figures of internal displacement caused by droughts and floods also highlight the urgency for legal and institutional frameworks that protect climate migrants, particularly those relocating to urban peripheries without adequate services.

## **Interpreting the Analytical Findings**

The disaggregated data analyzed in this study highlights the embedded nature of climate vulnerability within Afghanistan's socio-political and geographic fabric. Notably, the Central Highlands, home to ethnic minorities, face compounded marginalization due to ecological fragility and limited political representation. The gendered dimension of vulnerability is equally critical; for instance, while men own 72% of land, only 12% is held by women, significantly limiting the latter's ability to invest in or benefit from climate adaptation resources. Similarly, climate aid access disparities (65% men vs. 19% women) reveal a skewed distribution of resources that undermines equitable resilience-building. The institutional analysis confirms that while Afghanistan has received considerable attention from international donors, adaptation efforts remain impeded by governance fragmentation and top-down planning. Funding gaps, lack of local representation, and exclusion from data monitoring frameworks reflect broader challenges in aligning external aid with community needs. These governance issues, if left unaddressed, risk perpetuating rather than alleviating climate injustice. In light of these patterns, the research underscores that Afghanistan's climate vulnerabilities cannot be divorced from its structural inequalities. Rather than viewing environmental change as an isolated driver of crisis, the study advocates a paradigm where climate adaptation is inherently tied to questions of justice, equity, and empowerment. For fragile contexts like Afghanistan, building adaptive capacity means reconfiguring power relations and fostering participatory governance at all levels.

## **Conclusion**

This study has demonstrated that climate change in Afghanistan functions as a powerful amplifier of pre-existing socioeconomic inequalities, disproportionately affecting the most vulnerable populations—rural communities, internally displaced persons (IDPs), women, and ethnic minorities. The analysis of secondary data shows a strong correlation between recurring climate stressors (such as droughts, floods, heatwaves, and glacial melting) and deepening livelihood insecurity, food scarcity, and forced displacement. These environmental pressures, when layered upon structural inequities in governance, gender dynamics, and resource access, produce a cascading effect that undermines both social cohesion and adaptive capacity. The findings affirm the central hypothesis of the study: that climate-induced disruptions are not evenly distributed but instead reflect and reinforce entrenched patterns of marginalization. Particularly compelling is the gendered dimension of vulnerability, wherein women face systemic barriers to land ownership, climate finance, and participation in adaptation decision-making. Similarly, the spatial and

institutional distribution of climate impacts reveals stark disparities between regions and governance levels. Climate adaptation in Afghanistan is currently constrained by fragmented institutions, limited data infrastructure, and top-down approaches that exclude grassroots actors. Ultimately, the research underscores the urgent need to reconceptualize climate adaptation not merely as a technical or environmental challenge, but as a fundamentally social and political process. Without deliberate and inclusive governance reforms, Afghanistan's climate future is likely to entrench inequity and fuel instability. A justice-centered approach grounded in recognition, redistribution, and participation is essential to building long-term resilience.

## **Recommendations**

### **1. Strengthen Local Climate Governance Structures**

Decentralization and community-based adaptation must be prioritized. Empowering local councils (e.g., shuras and jirgas) through capacity-building and institutional support will ensure that adaptation strategies reflect on-the-ground realities. This includes integrating indigenous knowledge systems into formal adaptation planning.

### **2. Promote Gender-Responsive Adaptation Policies**

Addressing gender disparities is critical for effective climate resilience. Policies must ensure equal access for women to land, credit, education, and representation in decision-making platforms. Specific attention should be given to the needs of female-headed households in rural and disaster-prone areas.

### **3. Invest in Rural Infrastructure and Climate-Resilient Livelihoods**

Expanding irrigation systems, building sustainable storage facilities, and supporting climate-smart agriculture can reduce the vulnerability of agrarian communities. Livelihood diversification programs targeted at rural youth and women would further enhance adaptive capacity.

### **4. Develop Legal Protections for Climate-Induced Displacement**

Given the growing trends in internal migration, the Afghan government and international partners must formalize protections for climate migrants. This includes establishing rights-based frameworks that guarantee access to housing, health, and education in urban resettlement areas.

### **5. Enhance Climate Data Systems and Early Warning Mechanisms**

Investment in geospatial mapping, climate monitoring, and impact forecasting is essential to guide proactive adaptation planning. These tools should be accessible to both national planners and local communities for informed decision-making.

## 6. Align Donor Programs with Equity Goals

International aid agencies must move beyond infrastructure-heavy adaptation and prioritize equity-focused programming. Funding frameworks should mandate participatory planning, social impact assessments, and direct engagement with marginalized populations.

## 7. Institutionalize Intersectional Climate Justice

National adaptation plans should explicitly integrate principles of climate justice, ensuring that policies account for intersecting vulnerabilities across gender, ethnicity, rurality, and displacement status. This requires cross-sectoral coordination between climate, social welfare, and development ministries. By implementing these recommendations, Afghanistan can begin to build a more inclusive and resilient response to the multifaceted challenges of climate change. Doing so not only safeguards vulnerable populations but also lays the foundation for more equitable and sustainable national development.

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