

Gender Disparities in Climate Change Policies: A Case Study of Pakistan

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Abstract

Climate change poses significant challenges for Pakistan, a country increasingly affected by extreme weather events such as heatwaves, heavy rainfall, and the devastating floods of 2022 and 2025. These challenges are further exacerbated by gender inequality, which leaves women more vulnerable due to limited access to resources and restricted decision-making power, particularly in rural and agricultural communities. This study examines gender-based disparities in Pakistan's climate change policies, with a specific focus on the National Climate Change Policy (NCCP) and the Climate Change Gender Action Plan (ccGAP). Using an ecofeminist framework, the study finds that although these policies acknowledge the role women play in climate adaptation, their participation largely remains symbolic and constrained by prevailing socio-cultural norms. The research highlights the need for targeted institutional reforms, enhanced female participation in climate governance, and community-based programs that integrate women's agency and knowledge. To strengthen resilience and achieve equitable adaptation outcomes in Pakistan, climate policies must become more inclusive.

Keywords

Pakistan, gender, climate change, climate vulnerability, national policy

Introduction: Gender, Climate Vulnerability & Ecofeminist Perspectives

Pakistan is ranked as the most climate-vulnerable nation in 2025 due to the consequences of climate change and natural disasters such as floods, droughts, and earthquakes (Adil et al., 2025). The issue of gender inequality, in conjunction with the

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climate problem, poses a significant and pressing concern in contemporary society. The phenomenon presents many risks to the lifestyles, occupations, well-being, and overall welfare of women and girls across the globe. Throughout history, there has been a persistent challenge for climate change scientists, researchers, and policymakers in establishing the crucial linkages between gender, social equity, and climate change. With the increasing availability of data and research findings, it is imperative to engage in a discussion regarding the distinct consequences of climate change and the interconnectedness between women's empowerment and the efficacy of worldwide climate action.

The impacts of climate change exhibit variations among individuals due to factors such as age, geographical location, sex, adherence to gender norms, and socioeconomic status. The National Climate Change Policy (NCCP) acknowledges the susceptibility of women, elderly individuals, and persons with disabilities, particularly regarding evacuation methods (Ministry of Climate Change & Environmental Coordination, 20021; Khan, 2023). Additionally, it highlights the vulnerability of rural women in the agricultural sector. The significance of this emphasis is justified, as women make up 49% of the rural population involved in agricultural and animal activities. The occurrence of extreme events in recent years has had a detrimental effect on production, livelihoods, and food security in these sectors. Furthermore, the occurrence of climate shocks has resulted in movement, particularly male outmigration, exacerbating the susceptibility of women to various forms of violence (Memon et al., 2023).

This phenomenon also contributes to an increased burden for women, a loss of financial autonomy, adverse health outcomes, and a diminished capacity for decision-making and negotiation. The integration of a gender perspective into the discourse on climate change is a relatively recent development globally. Within the United Nations Framework Convention on Climate Change (UNFCCC) forums, member states face significant challenges in demonstrating their commitment to adopting gender-responsive approaches in climate policy and implementation (UNFCCC, n.d.). The UNFCCC first acknowledged the connection between climate change, food security, and women's poverty at the Rio Summit in 1992 and emphasized it at numerous Conference of the Parties (COP) meetings (Masud & Khan, 2024).

The 2015 Paris Agreement and COP23 Gender Action Plan emphasize including women in climate policy through gendered mainstreaming. However, Pakistan's climate framework struggles to turn these principles into practical outcomes. Despite policies like the ccGAP acknowledging women's roles, research on gender disparities is lacking, making it harder to assess how policies support or hinder women's climate involvement. (Bajwa et al., 2023).

In order to close this gap, the present study analyzes the gender-based disparities in Pakistan's climate change policies and identifies the institutional and sociocultural barriers that prevent women from effectively participating in climate decision-making. By doing this, it aims to contribute to the broader discourse about sustainable policy reform and gender-responsive climate action. This study holds significant value for policymakers and development professionals to create inclusive strategies that improve women's resilience and strengthen Pakistan's overall capacity to adapt to climate change.

In the context of South Asia, where women frequently experience significant societal pressures, climate change emerges as a pressing concern. The floods that occurred in Pakistan in recent times have demonstrated that women are

disproportionately affected by the consequences of the climate crisis (Ullah et al., 2024). A paradoxical display of scarce water availability and catastrophic climatic events, namely floods, caused catastrophic effects on women. However, despite their susceptibility, women frequently encounter exclusion from discussions regarding potential remedies.

It is significant to mention here that 80% of those displaced as a result of climate change are women (Ahmed et al., 2023). This disparity can be attributed, at least in part, to factors such as limited access to education and a lack of personal agency. Within the population of Internally Displaced Persons (IDPs) and climate refugees, it is evident that women shoulder a disproportionate burden of unpaid labor and caregiving responsibilities.

The issue of environmental degradation is known to have a significant impact on the occurrence of zoonotic illnesses, instances of school exclusions, and incidents of domestic violence. These adverse consequences further exacerbate the burdens faced by women in society. Notwithstanding, or perhaps due to this, Ecofeminism has emerged as a formidable influence (Khan, 2023). This particular school of thought (and movement) advocates for the active involvement of women in addressing environmental issues and emphasizes the potential for empowerment via their significant contributions in combating climate change.

Research Methodology

The study exclusively relies on secondary data obtained from documentary sources. Relevant data were extracted from textbooks, peer-reviewed journal articles, policy reports, and official documents, including the NCCP and the ccGAP. Furthermore, reliable internet databases and official government websites are utilized in this study to ensure the inclusion of up-to-date data. Every document used in the study was publicly accessible and chosen for its applicability to Pakistani policy development, gender, and climate change.

A qualitative research design was employed for a thorough investigation of gender disparities in climate policy frameworks. This approach enables the interpretation of intricate social phenomena that are difficult to fully capture through quantitative methods, such as gender roles, cultural norms, and power dynamics. In order to investigate how current policies address or restrict gendered aspects of climate change, the study used both explanatory and descriptive methodologies.

The analytical process involved thematic content analysis of the data. Text was thoroughly examined to find recurrent themes, policy gaps, and trends about women's representation, participation, and vulnerability in climate governance. By manually coding the data, the researcher was able to group the information under thematic headings like gender mainstreaming, institutional barriers, and policy inclusion. Ecofeminist theory, which highlights the connection between gender and environmental justice, was used to interpret these themes.

For this study, the use of a qualitative document analysis approach is especially appropriate since it allows the researcher to assess current frameworks in a critical manner. It also draws attention to discrepancies between national implementation and international commitments and offers contextually sound suggestions for improving gender-responsive climate policies in Pakistan.

Climate Change and Pakistan

In 2025, Pakistan experienced the most severe monsoon floods in forty years, beginning in late June and lasting until mid-September. Heavy and prolonged rainfall in Khyber Pakhtunkhwa, Gilgit-Baltistan, Punjab, and Sindh resulted in riverine and flash floods, breaking major rivers and flooding vast areas. There was substantial damage to homes, schools, infrastructure, and farmlands, affecting around 4.9 million people (UNOCHA, 2025). The tragedy severely disrupted access to basic services and livelihoods, particularly in Punjab's floodplains. Significant response and financial shortages remain, particularly in early recovery and resilience operations, despite humanitarian partners increasing life-saving relief across vital sectors.

Climate disasters disproportionately affect women in Pakistan, as they manage households with little resources, care for parched fields during droughts, and carry children during flooding. Despite employing more than 67% of the nation's agricultural workers, they are mostly overlooked by the laws designed to protect them. Pakistani women, who are ranked last out of 148 countries for gender equality, face the climate crisis with little assistance, voice, or recognition. According to UN data, as elaborated by Kundi (2025), women account for over 80% of caregiving activities and make up the majority of displaced individuals; nonetheless, their challenges are rarely acknowledged in policy discussions. With a score of 56.7%, Pakistan ranks bottom in the World Economic Forum's 2025 Global Gender Gap Report, suggesting a systematic disregard for women's concerns in both policy and practice. (Kundi, 2025).

Pakistan, like several other nations, has faced difficulties in harmonizing its climate policy and implementation frameworks with the swiftly evolving requirements on the ground. In various contexts, the policy process has involved a lengthy and contentious discussion among individuals or groups with a vested interest, where the need to tackle important challenges requires making difficult choices between preserving the environment and improving human adaptability. In recent years, there has been increased awareness and consideration for vulnerable populations, particularly about the difficulties faced by women. However, when evaluating the effectiveness of climate policies, the outcomes are generally limited, if not nonexistent.

Pakistan remains highly susceptible to natural disasters due to the frequent occurrence of such events, its reliance on natural resources for sustenance and livelihoods, and the high number of people exposed to the impacts of climate change (Fayaz et al., 2024). Pakistan is ranked 18th out of 191 nations in terms of its vulnerability to earthquakes and internal conflict related to earthquakes and internal conflict (World Bank Group, n.d.). Scholars have highlighted that approximately 39% of Pakistan's population, which amounts to 220 million people, is currently enduring multidimensional poverty (Saddique et al., 2023). Additionally, up to 36% of households in the country are grappling with food insecurity (State Bank of Pakistan, 2019). The glacier-fed Indus River system is crucial for 90% of the agriculture industry, which in turn employs 42% of the labor force (FAO, 2018). Approximately 80% of urban residents lack access to potable water (Pakistan Today, 2025)

Pakistani cities have the highest ranking in terms of air pollution, and the presence of haze has reduced life expectancy by five years in Punjab and other regions (Farah et al., 2023). Pakistan has made significant progress in revamping its climate policy framework in recent years. Pakistan's newly implemented NCCP (2021) and the submission of the revised Nationally Determined Contribution (NDC) highlight the country's fresh climate objectives and acknowledge the specific challenges faced by women in climate crises (Government of Pakistan, 2021). The emphasis on nature-

based solutions for mitigating climate change is commendable, especially through the Ten Billion Tree Tsunami Project. This project aims to capture approximately 150 million metric tons of carbon dioxide by 2030, alongside other efforts to reduce carbon emissions and promote economic growth (Ministry of Climate Change and Environmental Coordination, 2021).

Having already accomplished Goal 13 of the Sustainable Development Goals (SDGs) two decades prior, Pakistan is well-positioned to provide reliable guidance on climate action (Gopang, 2024). Simultaneously, it is imperative to prioritize SDG Goal 5, which focuses on achieving gender equality and requires addressing significant obstacles. Nevertheless, facilitating adaptation is a significant challenge in Pakistan's varied landscapes and communities, where vulnerability and resilience characteristics differ. There are inherent limitations in our ability to support communities in the field of climate, similar to other social areas such as healthcare or education.

The COVID-19 epidemic exerted significant pressure on the capacity of federal and provincial governments to provide fundamental rights and benefits to citizens while simultaneously providing substantial financial assistance to certain economic sectors and expanding social safety nets (Ahmed & Luqman, 2024). The severe economic recession that ensued has diminished household earnings and intensified poverty. The decline in Pakistan's HDI ranking (154th) can be attributed to both the lack of significant investments in human development throughout history and the persistent inefficiency in governance (UNDP Pakistan, 2024).

The issue of climate change requires policy action from both the government and society as a whole. However, current policy agendas largely consist of ad hoc responses to catastrophic weather events, and responsibility for addressing climate change is rarely shared across government departments. In Pakistan, climate change is recognized as a primary concern; however, it is generally accorded less priority than other crises addressed by federal or provincial decision-makers (Nasir et al., 2024). This pattern aligns with findings that Pakistani citizens perceive water scarcity and air pollution as significant threats to their livelihoods yet lack adequate information on adaptation and mitigation strategies and awareness of early warning systems for natural disasters.

Gender imbalance in Pakistan has long been a prevalent concern, and the escalating global warming phenomenon poses a significant threat with various catalytic effects on women. The situation is further exacerbated by the adverse effects of climate change. By implementing inclusive policies, it becomes possible to clearly define women's roles as recognizable obligations (Khan & Naeem, 2024). Furthermore, during a period of significant transformation, the inclusion of diverse perspectives can pave the way for effective mitigation and adaptation strategies. Vulnerable populations, including women and children, are often not actively engaged in action plans aimed at addressing the impacts of change and facilitating adaptation.

The governmental body responsible for overseeing and managing national disaster-related affairs is commonly referred to as the Ministry of National Disaster Management, which addresses all climate-related matters and Natural disasters. Pakistan revised its NCCP in 2021 (Shah et al., 2024). Simultaneously prioritizing both adaptability and the focus of mitigation techniques, and its primary emphasis on Nature-based solutions refers to approaches that utilize the inherent capabilities of natural ecosystems to address various environmental challenges.

The ccGAP actively advocates for gender equality (Asadullah et al., 2023). Incorporating women into the framework of core values. The evolution and formulation

of regional and nationwide policy Programs. Furthermore, it actively upholds its inclusive policy. The topics under consideration include conversation, capacity building, and pilot initiatives regarding women. Among the multitude of parties are prominent sector specialists affiliated with the IUCN. The entities involved in this context include the government, civil society, and think tanks. Academic leaders were convened as an integral component of the event (Lammers et al., 2024).

The procedure aimed at bolstering the role of women in climate-related endeavors. Individuals are taking proactive measures and enhancing their ability to adapt and persevere in challenging circumstances. The consequences are associated with climate change. Climate change is the most serious and urgent challenge we face. There is no need for additional evidence to demonstrate the rapid and widespread transformation that technology is causing in our environment. We also cannot question its lasting influence on our livelihoods, health, and lifespan. What we require is a strategy for ensuring our existence that strengthens our resources to confront the climate crisis and protects our communities from its unyielding assault (Bryan et al., 2024).

It is imperative to prioritize regional and international coordination, cooperation, and the exchange of evidence to ensure collective existence. Governments possess diverse capabilities and restrictive limitations that impede their ability to address global concerns, even under optimal circumstances; civil society also faces similar obstacles that are deeply entrenched in daily challenges for survival, progress, and protection against potential threats or risks. There is no way to overcome the climate challenge, anticipating a single entity to address the stresses encountered due to the deterioration of the environment and the resulting negative impact on society and the economy. Demands for comprehensive government involvement mean that the entire society must coordinate its efforts and work together. The utilization of resources has undeniably resulted in increased coordination (Sadrudin, 2024). The consequences of climate action, but the overall opposing power to the urgency to address climate stress must be heightened as we continue.

Climate Change Policies of Pakistan

For the past decade, Pakistan has continuously improved its official framework for addressing climate change through international obligations and changing national requirements. The primary papers that guide climate interventions in Pakistan are the NCCP, the Framework of Implementation of Climate Change Policy (FICCP), and the NDC. Some of these policies have undergone multiple revisions. The Planning Commission of Pakistan commenced a series of expert deliberations in 2008, leading to the creation of a report by the Task Force on Climate Change in 2010. This report served as the foundation for the development of the initial NCCP in 2012 (Sargani et al., 2023).

The Framework for Implementation of Climate Change Policy was developed and notified in 2013. During this time, the Paris Agreement (2015) was in effect, and Pakistan's NDC was requested. The contribution was made in 2016 by the government of the Pakistan Muslim League-Nawaz (PML-N). Subsequently, during the administration of Pakistan Tehrik-e-Insaf (PTI), NCCP was revised and officially announced in 2021, along with a revised version of the National Determined Contributions submitted to the UNFCCC in the same year (Ahmad et al, 2024).

Looking back at this timeline makes it easier to see and compare how climatic goals have changed, how national identity has been shown, and how much attention

has been paid to gender issues in these records. It is crucial to analyze these documents to enhance our capacity to address the climate challenge effectively while preventing the recurring oversights that result in further marginalization of certain demographic groups, despite the well-meaning policy actions taken (Lammers et al., 2024). The following analysis will illustrate multiple instances of policy omissions as well as several path-dependent formulations that could be improved through course adjustments.

This analysis primarily relies on the gender elements embedded in the national policy framework. The assessment focuses on assessing the efficacy of our policy tools in mitigating the hardships faced by women during climate-induced stress. The main focus of this study is to assess if these policies can effectively enhance resilience and decrease vulnerability, as well as the specific approaches they adopt to achieve climate fairness (Sadrudin, 2024). Examining these documents is crucial to enhancing our capacity to address the climate crisis while preventing recurring oversights that result in increased marginalization of specific demographic groups, despite well-meaning policy responses. The analysis demonstrates that several structural flaws and omissions still exist in the creation of climate policies; these need to be fixed quickly to guarantee gender responsiveness and inclusivity.

This analysis further explores the NCCP of 2012 and 2021, as well as the FICCP of 2013–2030, which share some similar interventions and suggested measures. Pakistan's NCCP of 2012 and FICCP of 2013 were formulated to address climate deterioration by implementing measures based on climate research (Shah et al., 2024). From an Eco-economist perspective, however, the technical-administrative orientation for climate management relies on scientific assessments that quantify the depletion and acquisition of environmental resources.

This strategy relies on standardized governance and planning in environmental sectors, linear policy procedures, and economic rationality, reflecting confidence in technology's ability to overcome ecological and resource deficits while overlooking the gendered and social aspects of climate vulnerability. Similar to international climate frameworks, Pakistan's policies place a high priority on technical adaptation and mitigation strategies. Although this approach improves administrative effectiveness, it frequently ignores the adaptive knowledge and lived experiences of marginalized groups, especially women. Following the same pattern, the NCCP 2021 offers a thorough technical response to climate change that planners and decision-makers can use as a useful guide (Khan & Naem, 2024).

However, a wider policy imbalance is highlighted by its limited engagement with social dynamics. Without political will and taking socioeconomic disparities into account, it is still extremely unlikely that these policies can be successfully implemented, especially within Pakistan's contentious policy environment. According to the ecofeminist framework, climate change policies are not value-neutral; rather, they reflect prevailing power structures and social relationships. In this context, scientific and technical endeavors are frequently prioritized over the socioeconomic effects of environmental policies. There is still a lack of research on the relationship between ecological deterioration and human vulnerability, particularly its gendered aspects.

According to Khan (2023), existing frameworks necessitate a clear protocol that evaluates the impact of suggested interventions on marginalized communities, such as women, indigenous groups, and small-scale farmers. Climate strategies run the risk of perpetuating exclusionary outcomes in the absence of such measures. For instance,

technological advancements that disproportionately benefit wealthy landowners are usually given priority in agricultural modernization projects, which exacerbates class and gender disparities. Similarly, even though environmental infrastructure projects are meant to encourage sustainability, they have the potential to uproot communities that depend on forests from their natural habitats, thereby increasing the economic and social insecurity of women. These results show that top-down policies run the risk of exacerbating structural inequality unless they are supported by inclusive and participatory frameworks.

This analysis demonstrates that Pakistan's climate policies still follow a technocratic framework that fails to adequately incorporate gender equity into environmental governance. Connecting these findings to the ecofeminist viewpoint demonstrates that real climate resilience necessitates a shift in how policy frameworks acknowledge women's agency, knowledge systems, and crucial role in sustainable adaptation, more than just technical fixes. Pakistan's policies would be able to accomplish social justice and ecological sustainability if this intersection between gender justice and the environment were strengthened.

Gender Disparities in Climate Change Policies

Climate policies acknowledge the distinct burden that women bear due to climate stress, but they often treat this issue as an 'additional' concern, alongside factors like poverty that may be addressed by suitable adaptation measures. The NCCP 2012 dedicates a single page to the topic of gender, which is presented as a distinct and independent concept, lacking significant examples or relevance to other areas of climate action (Masud & Khan, 2024). This compartmentalized approach illustrates how gender has traditionally been addressed in climate policy in a symbolic rather than a substantive manner.

The NCCP 2021 delves deeper into gender considerations; however, it remains a secondary theme within the broader climate policy framework. The interventions largely mirror those of the previous strategy, with a heightened awareness of the hardships faced by disadvantaged groups living in forests or deserts and their acknowledged difficulties. The policy acknowledges the significance of gender equality in achieving long-term sustainability and resilience for the entire population. It emphasizes the importance of implementing gender-responsive measures, such as enhancing women's representation and restructuring institutions to promote favorable outcomes for gender mainstreaming. These inclusions are significant and inspiring (Ahmed et al., 2023).

However, from an ecofeminist perspective, these inclusions fall short because they do not address the systemic causes of gender inequality in environmental governance. Gender is treated as a secondary issue in the policy, which is indicative of a technocratic mentality that values quantifiable results over social change. Instead of addressing gender issues in discrete areas, true gender mainstreaming necessitates integrating gender viewpoints into climate policy at every level, including design, implementation, monitoring, and budgeting. By critically analyzing the power dynamics among actors, institutions, and procedures with a gender lens, planners can avoid symbolic actions that don't result in meaningful outcomes.

For example, existing frameworks encourage industries to reduce emissions, but they ignore systemic problems like illegal resource exploitation and the absence of penalties for environmental harm. According to Mumtaz (2024), these actions run the risk of sustaining injustice in the absence of a comparable accountability system for

exploitation, pollution, and harm to the community. A gender-aware policy framework would expose that Women, who are frequently on the front lines of environmental degradation but are not included in the advantages of economic development, would be disproportionately impacted by such omissions.

As the FICCP rightly notes, gender-insensitive climate policies often make inequality worse rather than better. Although useful, this admission also highlights the disconnect between the rhetoric of policy and its actual application. Recognition of disparities in representation, consultation, and knowledge sharing is reflected in the existing frameworks promoting women's participation. But as the data indicates, these disparities still exist in reality, impeding women's agency and preventing them from influencing climate responses in their favor.

Climate change has exacerbated gender inequality, which is ingrained in Pakistan's sociocultural fabric. In rural areas, where women are more exposed to climate change due to limited resources, mobility constraints, and decision-making access, the intersection of gender and climate vulnerability is most pronounced. Women's roles could be reinterpreted through inclusive policymaking as active agents of resilience and adaptation rather than passive recipients. But even though they play a crucial role in managing household and natural resources, women and children are still underrepresented when it comes to developing adaptive strategies (Mumtaz & Naeem, 2024). This disparity illustrates a recurring misalignment between the policy's declared goals and its working mechanisms.

In contrast, the National Biodiversity Strategy and Action Plan 2017 under the Pakistan Climate Change Act explicitly delineates legislative provisions that facilitate greater female participation in the formulation and implementation of the legislation (Government of Pakistan, 2017). The 2021 revision, which places a strong emphasis on integrated planning and natural solutions, shows institutional learning but is still primarily technocratic, with little opportunity for grassroots gendered participation.

On July 21, 2022, IUCN and Pakistan's Ministry of Climate Change signed a partnership and updated policies to strengthen gender-responsive climate action (IUCN, 2022). This document establishes a fresh framework for addressing climate change by integrating women's empowerment and gender equality into discussions and initiatives (Khan & Hussain, 2024). The Green Climate Fund is providing financial support for this purpose.

Encouraging women to participate in the formulation of climate change policies and decisions is the objective of the CGMP. By promoting gender equality as a fundamental principle, the CCGAP engages women in the formulation of regional and national policy initiatives. Capacity building, pilot programs for women, and inclusive policy discourse are also supported. Long-term consultations with the government, experts, academia, and civil society suggest a growing understanding of women's leadership potential in climate action (Adnan et al., 2024). However, it is still crucial to determine whether these commitments result in actual institutional change or if they are merely aspirational.

Although the implementation of these initiatives reveals significant systemic gaps, they do represent a growing political recognition of gender dimensions. Women's experiences and needs cannot be fully incorporated into policy design when gender commitments are not carried out. Neglecting to execute these commitments to gender integration compromises the substantial incorporation of women's perspectives and requirements in the formulation of policies. This phenomenon perpetuates preexisting gender biases and imbalances of power, leading to the formulation of policies that

neglect to effectively tackle the unique challenges that women face in the context of climate change. Inadequate funding for climate change initiatives in Pakistan exacerbates gender inequality.

The insufficient financial support for initiatives that aim to empower, educate, and engage women hinders their capacity to significantly influence climate change policies and alleviate the adverse effects of the phenomenon on marginalized communities, specifically women (Masud & Khan, 2024). Gender budgeting, an essential component in climate policies that considers the varied needs and consequences of women, is conspicuously absent from both Pakistan's National Determined Contributions and its endeavors to mitigate climate change. Without this integration, policy commitments remain rhetorical and fail to translate into meaningful progress toward climate resilience and women's empowerment.

Financial planning foregoes an opportunity to develop policies that are more inclusive and cognizant of the diverse challenges that climate change presents to various genders by neglecting to incorporate gender perspectives. Financial decisions fail to consider the variations in the capabilities, vulnerabilities, and demands of women (Ahmed et al., 2024). Without gender budgeting, policy commitments are more likely to be empty rhetorical than practical, effective solutions. Insufficient gender-specific statistical data is available across a broad spectrum of social, political, economic, and environmental concerns. Due to the scarcity of data regarding the gender-related ramifications of climate change, policymakers remain oblivious to the imminent peril that climate change presents to susceptible women. Policy experts and academics must have a precise comprehension of current events.

This is necessary to ensure that policy options are meticulously designed for subsequent dependable assessments. For endeavors to be recognized and rewarded, additional funding and evaluation are necessary (Butt et al., 2024). Similarly, endeavors that do not yield desired results must be recognized, rectified, and, if required, terminated. The efficient formulation, evaluation, and implementation of policies are predicated on large, precise, consistent, exhaustive, longitudinal, and complete data sets. Comprehensive, longitudinal, and gender-specific data sets are necessary for effective policymaking to support accurate assessments and direct remedial measures. Accountability measures are also essential to adaptive governance to ensure that initiatives that fail are openly reviewed, revised, or abandoned.

Women make up about half of Pakistan's 238.1 million people, so it is unfair and strategically incorrect for them to be excluded from climate policymaking (Ahmed & Luqman, 2024). Despite being excluded from decision-making processes that directly impact their livelihoods, rural women, in particular, suffer the most from the climate crisis. According to reports from international forums like the Glasgow Summit, older men continue to hold the majority of the decision-making authority in climate governance, while women and young people are becoming increasingly frustrated with the slow pace of climate action. The patriarchal norms that influence environmental governance in Pakistan are reflected in this gendered power imbalance.

From an ecofeminist perspective, this disparity illustrates how gender inequality and environmental degradation are jointly produced by patriarchal and technocratic systems. Therefore, it is not only a moral imperative but also ecologically necessary to empower women in climate governance. By elevating women's voices in policy discussions and negotiations, civil society organizations are essential in closing this gap (Butt et al., 2024). Therefore, gender perspectives must be incorporated into climate solutions that are resilient and sustainable, inclusive participation must be

encouraged, and institutional barriers that disadvantage women must be removed. Only fair opportunities, gender-sensitive resource distribution, and proper acknowledgment of women's vital contributions to climate resilience can address structural injustices.

Way Forward: A Gender-Based Approach to Climate Policies

Due to the vast array of policy domains that climate change policies encompass, emphasizing the significance of a rights-based approach or a gender perspective expands their operational and ethical scope. It can also facilitate the realization of rights by providing women and marginalized groups with access to environmental endowments. A human rights-based approach examines areas of weakness, responsibilities, and disparities to eradicate unjust power imbalances that impede progress and threaten human rights, as well as combat discriminatory behavior (Afzal et al., 2024). Policymakers can guarantee that social justice and environmental resilience develop simultaneously by coordinating climate interventions with gender equity principles.

Practical applications of this approach encompass reassessing strategies for mitigating and adapting to climate change, incorporating security, healthcare, poverty reduction, and access to justice into evaluations, and infusing policy processes with greater methodological rigor. The SDGs serve as a benchmark for guidance and implementation within the current policy structure. Specific indicators for climate action that address gender-differentiated vulnerability and resilience would be beneficial in aiding communities in devising strategies to rescue themselves from climate stress by equipping and empowering them (Khan, 2023).

The UNFCCC received the second draft of Pakistan's revised NDC (Government of Pakistan, 2021) before COP26. Among the proposed initiatives are programs that aim to raise awareness among women and communities, enhance their participation, representation, leadership, and integration, provide training and education specifically designed for women, and facilitate their access to credit, information, and means of developing a livelihood. This is an excellent program that incorporates previous gender mainstreaming policy concepts to address women's vulnerabilities and develop resilience. However, the effectiveness of these measures is determined by institutional commitment, intergovernmental coordination, and the incorporation of gender metrics into climate monitoring frameworks.

How these objectives are achieved is contingent upon the willing capacities and timelines of the federal and provincial administrations. Moreover, a statistical baseline regarding the status of women in these domains is absent. Such a baseline would be advantageous in establishing objectives for practitioners to achieve in alignment with work plans at the national and local levels. However, this document provides evidence that policy thinking is progressing in the correct direction and serves as a crucial foundation upon which provinces can build their models. Similar to the NCCP, the NDC is a living document that, in future revisions, may incorporate additional details regarding its primary objectives for women (Masud & Khan, 2024).

As agreed at COP23, the NDC also acknowledges the UNFCCC's requirement that all member states submit a gender action plan. The document indicates the development of a Climate Change Gender Action Plan (cGMP), which will focus on the following five thematic areas: (i) communication, knowledge-sharing, and capacity building; (ii) women's leadership and gender balance; (iii) coherence between UNFCCC and the United Nations Convention against Climate Change; (iv) gender-responsive implementation and means of implementation; and (v) monitoring and

reporting (Khan, 2023). These thematic areas are intended to enhance knowledge and understanding of gender-responsive climate action.

The ccGAP should be regarded as an initial step toward gender mainstreaming, the objectives of which require sustained collaboration spanning multiple years before tangible advancements (Mumtaz, 2024). Instead of remaining a declaratory document, the ccGAP must be institutionalized through quantifiable indicators and sufficiently funded frameworks to guarantee long-term success. It is imperative to emphasize that the NDC functions as a mechanism for reporting to the UNFCCC, not as a means of guiding domestic climate policy, as it would via the NCCP and FICCP. It is the most recent batch of interventions processed domestically and the finest illustration of the policy's objective. While not intended to serve as an evaluation of Pakistan's domestic climate policy achievements, this information can be valuable for international climate registers. In addition, it should be noted that the NDC lacks an explicit mandate to oversee provincial action plans. To achieve true gender-responsive climate governance in Pakistan, it will be essential to bridge this policy gap by coordinating international commitments with provincial implementation frameworks.

Policy Recommendations

The urgency to acknowledge and capitalize on the potential of women as pivotal catalysts for change in the battle against climate change requires immediate intervention. The following are some suggestions for policies regarding climate change that are inclusive of all genders:

- Establish a Women's Rights Desk within the Adaptation Fund to determine funding priorities. It has the potential to be implemented across a range of institutions dedicated to promoting gender equality and empowerment, including development organizations that prioritize the economic empowerment and rights of women.
- Compile planning information, practice materials, case studies, and updates on forthcoming gender and disaster risk reduction initiatives into a reference book on the subject of disasters and gender.
- Develop a social paradigm that is equitable concerning gender and advocates for services that enhance the well-being of individuals, with a particular focus on women, alleviate stress, and facilitate effective time management.
- Offer prospects for female IT specialists to participate in initiatives that employ technology to forecast and alleviate climate change, including geospatial and early warning systems.
- Develop a dashboard that specifically addresses gender-related issues, such as violence and safety, women's representation in decision-making bodies, labor force participation, the digital divide, and the gender pay disparity.
- By providing a central location for data collection, analysis, and action aimed at reducing gender disparities and advancing women's rights, this type of dashboard could enable stakeholders to take decisive and focused measures.
- Establish digital skill training centers to facilitate skill development programs and digital literacy for women, empowering them to utilize smart city technologies and online services and participate in the digital economy.
- To promote women's access to public spaces, safety, and participation in urban planning, it is imperative to develop smart cities that are gender-responsive.

To encourage the participation of women entrepreneurs in eco-friendly products, renewable energy, and sustainable agriculture industries, incubators for green entrepreneurship for women should be established.

Conclusion

Pakistan faces substantial challenges due to the interrelated dynamics of climate change and gender inequality. Pakistan exhibits a heightened vulnerability to the adverse consequences of environmental changes. This study investigates the complex relationship between gender and climate change policies in Pakistan, with a particular emphasis on the effects these policies have on women. The study reveals that, despite progressive intentions due to insufficient integration of gender-responsive mechanisms of current policy frameworks, women's experiences and contributions are frequently marginalized.

The findings underscore the crucial importance of adopting a more comprehensive and inclusive approach to address these challenges. The research contributes to broader discourse by demonstrating how policy tools can either support or undermine structural inequality based on their inclusivity and responsiveness to gendered realities. The differential effects of climate change on the physical and socio-economic aspects of women's lives in Pakistan underscore the heightened vulnerability of women to its ramifications. The NCCP of Pakistan recognizes and acknowledges the vulnerabilities that exist, with a specific focus on the challenges encountered by rural women involved in agricultural labor. Nevertheless, the persistence of gender inequality is prevalent throughout the social structures of the nation, exacerbating the obstacles faced by women.

The research methodology employed in this study involved the use of secondary data sources. This approach emphasized the importance of adopting a feminist perspective when evaluating the issue of climate change in Pakistan. Furthermore, the study conducted a thorough examination of the existing body of literature on this topic. This approach offered insightful information from the existing literature and policy documents; however, it also presents certain limitations. Such as the inability to record firsthand accounts or recent on-ground developments relevant to this gender and climate change.

Ecofeminism has emerged as a significant social movement, advocating for the active participation of women in environmental matters and highlighting their potential to attain empowerment through large contributions to climate change mitigation. This study emphasizes the importance of acknowledging women as crucial change agents rather than just as victims of environmental degradation by analyzing climate policy through an ecofeminist lens.

To effectively tackle the gender inequality in Pakistan's NCCP, it is imperative to adopt a holistic approach that encompasses legislative reforms, societal adaptations, and ongoing efforts to empower women. Thus, this study provides a nuanced understanding of how equitable resilience strategies can be facilitated by incorporating feminist principles into the design of climate policies. Given the growing apprehension surrounding climate change, the insights derived from this study could potentially inform future initiatives aimed at fostering a society that is both robust and egalitarian. Ultimately, by bridging the gap between gender equity and climate resilience, this research contributes to policy discourses seeking long-term sustainability based on social justice.

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References

- Adil, L., Eckstein, D., Kuenzel, V., & Schaefer, L. (2025). *Climate Risk Index 2025: Who suffers most from extreme weather events?* Germanwatch.
<https://www.germanwatch.org/en/node/93013>
- Adnan, M., Xiao, B., Bibi, S., Xiao, P., Zhao, P., & Wang, H. (2024). Addressing current climate issues in Pakistan: an opportunity for a sustainable future. *Environmental Challenges*, 15, 100887.
<https://doi.org/10.1016/j.envc.2024.100887>
- Afzal, J., Fatima, S., Nishtar, Z., & Batool, A. (2024). Impending challenges of climate change edification for sustainability in Pakistan. *Siazga Research Journal*, 3(1), 1–9. <https://journals-uoli.com/index.php/SRJ/article/view/20>
- Ahmad, N., Shaheen, N., & Hussain, S. (2024). Gender disparities in universal primary education: An analysis of women's education and policy implications in Pakistan (1947-2017). *European Journal of Education*, 59(2), e12638. <https://doi.org/10.1111/ejed.12638>
- Ahmed, N., & Luqman, M. (2024). Explaining urban communities' adaptation strategies for climate change risk: novel evidence from Rawalpindi, Pakistan. *Natural Hazards*, 120(7), 6685-6703.
<https://link.springer.com/article/10.1007/s11069-024-06501-8>
- Ahmed, N., Padda, I. U. H., Khan, A., Otil, M. D., Cismas, L. M., Miculescu, A., & Rehman, A. (2023). Climate change adaptation strategies in urban communities: New evidence from Islamabad, Pakistan. *Environmental Science and Pollution Research*, 30(14), 42108-42121.
<https://pubmed.ncbi.nlm.nih.gov/36645589/>
- Asadullah, M. N., Webb, A., & Islam, K. M. M. (2024). SDG 4 mid-point challenge: Fixing the broken interlinkages between education and gender equality. *International Journal of Educational Development*, 106, 103015.
<https://doi.org/10.1016/j.ijedudev.2024.103015>
- Bajwa, M. S., Khan, M. I., & Helwing, K. (2023). Climate change and water crisis, consequences on agriculture and hydrological justice: Case study of Pakistan. *Pakistan Journal of International Affairs*, 6(2).
- Bryan, E., Alvi, M., Huyer, S., & Ringler, C. (2024). Addressing gender inequalities and strengthening women's agency to create more climate-resilient and sustainable food systems. *Global Food Security*, 40, 100731.
<https://doi.org/10.1016/j.gfs.2023.100731>
- Butt, A. Q., Shangguan, D., Ding, Y., Banerjee, A., Mukhtar, M. A., & Taj, K. (2024). Evaluation of environmental impact assessment and mitigation strategies for the Gulpur hydropower project, Kotli, Pakistan. *Discover Applied Sciences*, 6(4), 137.
- Farah, N., Siddiqui, S., Afzal, S., Gillani, S. M. A., Bakhsh, A., & Touseef, M. (2023). Climate-induced migration and associated risks in Pakistan: A

- systematic review. *Russian Law Journal*, 11(12S), 785-796.
<https://www.russianlawjournal.org/index.php/journal/article/view/2344>
- Fayaz, S., Gul, S., & Taj, S. (2024). Socio-political narrative and the misperception of feminism: A case study of Pakistan. *Remittances Review*, 9(1), 1727-1745.
- Food and Agriculture Organization of the United Nations FAO. (2018, April 27). *Transforming the Indus Basin with climate resilient agriculture and climate-smart water management*. <https://www.fao.org/pakistan/news/detail-events/en/c/1126905/>
- Gopang, N. (2024). Gender discrimination in Pakistani society and its impact on youth and women. *Pakistan Journal of Gender Studies*, 24(1), 138-157.
- Government of Pakistan. (2017). *National biodiversity strategy and action plan for achieving Aichi Biodiversity Targets and sustainable development goals (2017–2030)*. Convention on Biological Diversity.
<https://www.cbd.int/doc/world/pk/pk-nbsap-v2-en.pdf>
- Government of Pakistan. (2021). *Pakistan updated nationally determined contributions 2021* (UNFCCC). United Nations Framework Convention on Climate Change. <https://unfccc.int/sites/default/files/NDC/2022-06/Pakistan%20Updated%20NDC%202021.pdf>
- IUCN. (2022, July 21). *IUCN and MoCC launch Pakistan's first-ever Climate Change Gender Action Plan*. <https://iucn.org/news/202207/iucn-and-mocc-launch-pakistans-first-ever-climate-change-gender-action-plan>
- Khan, M. (2023). Shifting Gender Roles in Society and the Workplace: Implications for Environmental Sustainability. *Politica*, 1(1), 9-25.
<https://doi.org/10.5281/zenodo.7634130>
- Khan, M. A., & Hussain, W. (2024). Climate change impacts on Pakistan's mountain agriculture: A study on Burusho Farmers' adaptation strategies towards livelihood sustainability. In *Traditional Knowledge and Climate Change: An Environmental Impact on Landscape and Communities* (pp. 21-45). Singapore: Springer Nature Singapore.
https://link.springer.com/chapter/10.1007/978-981-99-8830-3_2
- Khan, S. S., & Naeem, S. (2024). Social entrepreneurship bridging the gender gap: Evidence from Pakistan. *International Journal of Social Science Archives (IJSSA)*, 7(1), 191-203.
<https://www.ijssa.com/index.php/ijssa/article/view/215>
- Khan, Z. (2023). Gender disparities in climate change policies and actions: A case study of Pakistan. *Regional Studies*, 41(10), 1-10.
<https://www.irs.org.pk/Spotlight/SP10012023.pdf>
- Kundi, A. (2025, September 20). In Pakistan, women shoulder the heaviest burden of climate change. *Nukta*. <https://nukta.com/pakistan-women-climate-change>
- Lammers, K., Belmin, C., Soomauroo, Z., & Hoffmann, M. M. (2024). Empowering women in a climate-changing world through climate-resilient energy access. In *Women and the Energy Sector: Gender Inequality and Sustainability in Production and Consumption* (pp. 91-124). Cham: Springer International Publishing. https://link.springer.com/chapter/10.1007/978-3-031-43091-6_5

- Masud, S., & Khan, A. (2024). Policy implementation barriers in climate change adaptation: The case of Pakistan. *Environmental Policy and Governance*, 34(1), 42-52. <https://onlinelibrary.wiley.com/doi/full/10.1002/eet.2054>
- Memon, F. S., Abdullah, F. B., Iqbal, R., Ahmad, S., Hussain, I., & Abdullah, M. (2023). Addressing women's climate change awareness in Sindh, Pakistan: an empirical study of rural and urban women. *Climate and Development*, 15(7), 565-577. <https://doi.org/10.1080/17565529.2022.2125784>
- Ministry of Climate Change & Environmental Coordination. (2021). *National Climate Change Policy* (NCCP) (Government of Pakistan). <https://mocc.gov.pk/SiteImage/Policy/NCCP%20Report.pdf>
- Mumtaz, M. (2024). Intergovernmental relations in climate change governance: A Pakistani case. *Global Public Policy and Governance*, 3(1), 116-136. <https://link.springer.com/article/10.1007/s43508-023-00066-1>
- Mumtaz, T., & Naeem, S. (2024). Non-Traditional Security Threats in Pakistan from 2008 to 2024: An Analysis. *The Regional Tribune*, 3(1), 407-417. <https://doi.org/10.63062/trt/V24.075>
- Nasir, H., Anjum, F., & Asghar, K. (2024). Gender disparities in access to agricultural modes of production and impediments to rural women's empowerment. *Pakistan Languages and Humanities Review*, 8(1), 22-32. <https://ojs.plhr.org.pk/journal/article/view/718>
- World Bank Group. (n.d.). *Pakistan country profile*. https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15078-WB_Pakistan%20Country%20Profile-WEB.pdf
- Pakistan Today. (2025, December 9). *ADB says over 80% of Pakistan's population lacks access to safe drinking water*. Profit by Pakistan Today. <https://profit.pakistantoday.com.pk/2025/12/09/adb-says-over-80-of-pakistans-population-lacks-access-to-safe-drinking-water/>
- Saddique, R., Zeng, W., Zhao, P., & Awan, A. (2023). Understanding multidimensional poverty in Pakistan: implications for regional and demographic-specific policies. *Environmental Science and Pollution Research*, 1-16. <https://doi.org/10.1007/s11356-023-28026-6>
- Sadrudin, M. M. (2025). Design and pilot of an inclusive environmental education course for a community living under the unprecedented environmental emergencies in Pakistan- a case study. *Journal of Peace Education*, 22(1), 101-131. <https://doi.org/10.1080/17400201.2024.2314302>
- Sargani, G. R., Jiang, Y., Chandio, A. A., Shen, Y., Ding, Z., & Ali, A. (2023). Impacts of livelihood assets on adaptation strategies in response to climate change: Evidence from Pakistan. *Environment, Development and Sustainability*, 25(7), 6117-6140. <https://link.springer.com/article/10.1007/s10668-022-02296-5>
- Shah, U., Hayes, N. and Obaid, A. (2025) Subsistence entrepreneurship and intersectional inequalities: a case study of women from Pakistani urban-poor districts. *International Journal of Entrepreneurial Behavior & Research*, 31(1). pp. 12-30. <https://doi.org/10.1108/ijebr-12-2022-1094>

- State Bank of Pakistan. (2019). *Special Section 2: The state of food security in Pakistan* (Third Quarterly Report for FY19).
<https://www.sbp.org.pk/reports/quarterly/fy19/Third/Special-Section-2.pdf>
- Ullah, W., Dong, H., Shah, A. A., Alotaibi, B. A., Khursid, M., & Nihei, T. (2024). Unseen suffering: Social injustice among women during climate-induced migration in Pakistan. *Climate Risk Management*, 46, 100663.
<https://doi.org/10.1016/j.crm.2024.100663>.
- UNFCCC. (n.d.). *United Nations Framework Convention on Climate Change*. United Nations Framework Convention on Climate Change.
<https://unfccc.int/process-and-meetings/united-nations-framework-convention-on-climate-change>
- United Nations Development Programme Pakistan UNDP. (2024). *National Human Development Report 2024: Doing digital for development: Access, adopt, anticipate, accelerate*. <https://undppknhdr2024.com/wp-content/uploads/2024/05/NATIONAL-HUMAN-DEVELOPMENT-REPORT-2024.pdf>
- UNOCHA. (2025, October 28). *Pakistan monsoon floods: Needs, response, and gaps snapshot* [Report].
<https://www.unocha.org/publications/report/pakistan/pakistan-monsoon-floods-needs-response-and-gaps-snapshot-28-october-2025>