



RESEARCH PAPER

Climate Justice and Women: Adaptation Strategies in the Global South and North

¹Amara Afzaal and ²Prof. Dr. Rana Eijaz Ahmad

1. Ph. D Scholar, Department of Political Science, University of the Punjab, Lahore, Punjab, Pakistan
2. Chairman, Department of Political Science, University of the Punjab, Lahore, , Punjab, Pakistan

Corresponding Author: ammara.chattha2018@gmail.com

ABSTRACT

Climate injustice underscores the ethical and social dimensions of climate change, highlighting how systemic inequalities exacerbate environmental harm. In the Global South, particularly in Pakistan, India, and Bangladesh, women face disastrous impacts due to systematic inequalities, socio-economic vulnerabilities, and women's exclusion from policy frameworks. This is a comparative analysis of climate adaptation strategies adopted by women in South Asia and women's climate policy contribution in the Global North, specifically Sweden, Canada, and the European Union. This interpretive, qualitative research study employs the methodology of discourse analysis and an exploratory research technique. The theoretical framework analyzes feminist political ecology, which refers to how gender, power, and environmental issues intersect. The intersectionality theory critically highlights how overlapping systems of oppression, such as racism, sexism, and colonialism, interact to shape social inequalities. These two combined examine women's participation in the climate adaptation strategies in both regions. It is an attempt to understand in what ways climate adaptation policies can become more gender-responsive and regionally inclusive, and how women in Pakistan, India, and Bangladesh experience and respond to climate change differently compared to their counterparts in the Global North. The Global North VS South comparison reveals stark regional disparities in climate policies regarding women and underscores the importance of integrating gender-responsive adaptation into national and international climate agendas. The findings call for transformative policy interventions that recognize women not only as vulnerable populations but also as agents of change by recognizing their active roles in developing, implementing, and driving effective climate solutions.

KEYWORDS

Climate Injustice, Global South, Global North, Pakistan, Women, Intersectionality, Gender, Feminist Political Ecology

Introduction

Climate injustice refers to the unequal distribution of the causes, impacts, and burdens of climate change, highlighting the systemic disparities in how climate change is caused, experienced, and addressed (Hickel, 2017; Odeku, 2022). It argues that marginalized groups bear the worst consequences despite contributing the least to emissions. Climate change is a global crisis with uneven impacts (Sultana, 2021). Women in the Global South are disproportionately affected. Climate change is not gender-neutral and exacerbates existing gender inequalities. Women from third-world countries like Pakistan, India, and Bangladesh face socio-economic vulnerabilities and structural inequities (UN Women, 2022; IPCC, 2022). Women play a pivotal role in developing grassroots adaptation strategies in developing countries despite existing inequalities (Anjum & Aziz, 2025). On the contrary, in the Global North, women benefit from stronger institutional support but face different challenges in policy implementation (Djouidi et al., 2016). From both regions, women's experiences and contributions are shaped by vastly different political, social, and economic systems. In this article, Climate injustice highlights that women in Pakistan, India, and Bangladesh are being impacted severely and have limited capacity to mitigate or adapt to the changing climate. It argues that women in the Global North are experiencing better

institutional frameworks, accessible resources, and socio-political agency (Sultana, 2021; WEF, 2023). Gender intersects with other axes of identity to produce differentiated climate vulnerabilities and adaptive strategies. This intersection of climate change, regional landscape, and women represents a critical nexus in international relations by analyzing how women in diverse contexts are adapting to environmental disruptions and what policy interventions are needed to support them more equitably.

Gender-responsive climate adaptation must account for these regional disparities to build equitable resilience. Although women across the globe contribute meaningfully to climate adaptation, those in the Global South (particularly in Pakistan, India, and Bangladesh) face heightened vulnerabilities due to socio-political and economic inequalities and therefore require context-specific, gender-responsive policy interventions for effective adaptation strategies. Most global climate adaptation frameworks fail to differentiate between the lived experiences of women in varying geopolitical and socio-economic contexts. Therefore, this theoretical analysis bridges the empirical and conceptual gap in climate policy and gender studies and enhances the understanding of how intersectional identities and regional governance structures affect women's adaptive capacities (Daraz et al., 2024; UNDP, 2024). This exploration of climate change impacts on women in South Asia contributes to the growing body of feminist climate literature that critiques technocratic, one-size-fits-all adaptation models.

Both regions recognize women's roles in climate adaptation. The objectives of this study are to analyze the gendered dimensions of climate adaptation in Pakistan, India, and Bangladesh. It reviews the participation of women in climate adaptation strategies and frameworks maneuvering. It reveals that the absence of women's experiences in policymaking undermines women's potential at the national level.

Literature Review

The recognition of climate change as a gendered issue emerged in the early 2000s, and scholars highlighted that women bear distinct vulnerabilities due to socially embedded roles in agriculture and resource management (Terry, 2009). Women in India and Bangladesh have been primary environmental stewards and excluded from formal adaptation processes. The Global North witnessed early integration of gender considerations in climate risk frameworks (Enarson & Morrow, 1998). Gender had become a central lens by the 2010s in both technical climate intervention and feminist critique (Neumayer & Plümper, 2007; MacGregor, 2010). In the Global South, community-based adaptation has been pivotal in supporting women's resilience. Women's participation is often informal and context-specific, relying on traditional knowledge rather than formal representation in the Global South.

In Pakistan, the National Climate Policy 2021 officially acknowledges gender inclusion in adaptation. However, on-ground implementation is limited, with many rural women still lacking legal rights (Sultana, 2021). Daraz et al. reveal that climate change has detrimental impacts on women's mental health in rural areas of Pakistan (Daraz et al., 2024). According to Nosheen et al., Women in agricultural areas encounter economic hardships, limited resources, and social barriers. These factors have adverse climate change effects on their livelihoods (Nosheen et al., 2023). The National Rural Livelihood Mission (NRLM) promotes women's self-help groups to adopt climate-smart agriculture in India. But the impact remains uneven due to patriarchal constraints (Agarwal, 2010).

Bangladesh's Climate Change Strategy integrated women-led coastal afforestation programs and water-saving innovations with improved outcomes in female-led communities (Rahman et al., 2019). In India, climate change impacts on health affect men and women differently due to socioeconomic and cultural factors. Environmental issues threaten gender-based health disparities. There is a need to integrate a gendered

perspective into existing climate policy frameworks to mitigate negative health outcomes (Sorensen et al., 2018). India's Green Tamil Nadu Mission and the Climate Change mission focus on the inclusion of women in countering the disastrous impacts of climate change (Climate Group, 2023). The National Action Plan on Climate Change (NAPCC) of India was launched in 2008. It aims to promote renewable energy and sustainable agriculture for addressing ecological challenges. It recognizes climate change impacts on women and stresses the importance of gender-sensitive adaptation strategies (Alam, 2024).

Comparatively, in the Global South, gender mainstreaming is deeply embedded within climate policy infrastructures. Feminist International Assistance Policy explicitly targets climate justice and Indigenous women's leadership in Canada. These actions reflect institutional commitment, but gaps remain in implementation, particularly concerning marginalized subgroups (MacGregor, 2020). In Sweden, the Gender Equality and Climate Action Plan mandates gender-disaggregated impact assessment and allocates 15% of environmental funding toward women-led initiatives (Pareliussen & Purwin, 2023). Women of both regions encounter crises on multiple axes. In the Global South, women face climate shocks, patriarchal norms, and institutional exclusion challenges. Lohano and Mari reveal that prolonged heatwaves in Sindh increased caregiving burdens while restricting mobility due to conservative gender norms (Lohano & Mari, 2020). Saltwater intrusion disrupts household tasks, which fall largely on women. Comparatively, women in the Global North face fewer existential threats from climate change, but persistent inequalities affect outcomes. MacGregor argues that climate transition policies risk marginalizing lower-income women (MacGregor, 2010).

Theoretically, Feminist Political Ecology (FPE) situates Global South women's adaptation as embedded in unequal access to land, water, and representation (Rocheleau et al., 2013). Crenshaw's intersectionality theory provides insight into how identities compound vulnerability in Southern women. Crenshaw argues that race and mobility also play pivotal roles in Northern contexts (Crenshaw, 2013; Sultana, 2021). Climate justice frameworks call for the redistribution of resources and participatory governance, comparing the North with the South to underscore the need for differentiated policy responses that go beyond a one-size-fits-all model. (Schlosberg & Collins, 2014). This North-South comparative provides insights that are essential to shape globally relevant gender-responsive climate adaptation strategies.

Research Methods

This is a qualitative interpretative research study. It uses discourse analysis as a research method to explore and describe the impacts of climate change on women. The secondary data sources include books, research articles, reports, water treaties, newspaper articles, and climate policies are used to compare the impacts of climate injustice in the Global North and Global South.

Theoretical Framework

Feminist Political Ecology

Feminist Political Ecology (FPE) is an interdisciplinary philosophy that combines political ecology and feminist theory to explore how gender shapes access to natural resources and environmental knowledge embedded in unequal relations and socio-economic structures. This framework examines how gender, power, and environmental change intersect. Feminist Political Ecology emphasizes women's role in resource management and their disproportionate vulnerability to climate impacts (Rocheleau et al., 2013; Sultana, 2022). FPE highlights how structural inequalities such as patriarchy, capitalism, and colonialism shape resource access and environmental degradation (Elmhirst, 2011). FPE key themes are

- Gendered patterns of resource control and environmental labor
- Recognition of local, often women-led, grassroots environmental strategies
- Critique of technocratic, gender-neutral approaches that invisibilize women's agency

FPE recognizes that women's lived experiences and intimate knowledge of their environment offer valuable insights for sustainable resource management. It emphasizes forming policy frameworks that are explicitly gender-sensitive. FPE not only includes women but also seeks to rethink power structures that shape environmental decision-making. It ensures that justice and equity are central to sustainability. These points focus on the intersectional nature of FPE (Directory, 2025).

1. **Intersectionality:** FPE recognizes that gender is not only an axis of inequality, but it operates in conjunction with social categories to shape environmental experiences (Sarwar & Aziz, 2024). Women from rural and urban areas face distinct environmental challenges.
2. **Power and Access:** FPE examines how power dynamics determine access to and control over environmental resources from the household to global scales. It analyzes the gender defined rights and access to the decision-making process.
3. **Care Ethics and Environment:** FPE brings feminist perspectives into environmental discussions and highlights the importance of relationality and responsibility in our interactions with people and the world. It emphasizes the ethical dimensions of our environmental actions and challenges purely economic approaches to environmental management.

This framework demonstrates that climate change is not gender neutral and it amplifies existing inequalities. In the Global South, women's knowledge remains marginalized in policy frameworks, yet they develop rainwater harvesting, seed banks, and community-based flood responses.

Intersectionality Theory

1. This framework examines how intersecting identities such as gender, race, class, and caste converge to shape differential power and vulnerabilities (Crenshaw, 1989; Kaijser & Kronsell, 2014). Sarwar & Farid argue that intersectionality theory contests the single-axis way of dealing, sheds light on the importance of multiple dimensions in analyzing the gender disparity in Pakistan. It underlines the significance of thinking about different components of identities and investigates social disparities (Sarwar & Farid, 2024). Key themes are:
 - Climate impacts vary not just by gender, but by economic status, ethnicity, age, and disability
 - Recognition of compounded disadvantage in policy and adaptation planning

It is an analytic sensibility. It offers a way of thinking about identity and its power relationship (Crenshaw, 2015). In Pakistan, India, and Bangladesh, rural women facing caste or class oppression bear disproportionately burdens from floods and water scarcity. In contrast, women in the Global North also face climate inequalities despite living in well-resourced settings that highlight the universal gaps in inclusion.

Ecofeminism

This theory identifies parallels between the exploitation of women and nature, rooted in patriarchy and capitalist systems (Mangusdottir & Kronsell, 2024; Musa, 2025). Mellor defines ecofeminism as both a philosophy and a movement that sees a connection between the exploitation and degradation of the natural world and the subordination of women (Mellor, 1997). Feminists of this paradigm argue that the treatment of women in society is a likely indicator of the treatment of the earth and vice versa (Thomas, 2022). It explores the relationship between women and nature. Key Themes are:

- Intersection of ecological degradation and gender inequality
- Advocacy for relational, care-centered approaches to environmental policy

In South Asia, ecofeminists link environmental harm to women's marginalization in agrarian societies. In the North, ecofeminist critiques challenge unsustainable policies that detach environmental care from social equity. Sarwar & Huma suggest constructing an effective model of feminism that supports Pakistani women. This model includes diverse voices and lived experiences of the local women (Sarwar & Huma, 2021). This theoretical framework situates women's climate adaptation experiences within structural hierarchies. It provides both ontological grounding and instrumental guidance for gender-equitable policy design. It offers concrete pathways for reform across regions.

Gendering Climate Change: Geographical Insights

Climate change acts as a threat multiplier. Environmental issues are not just ecological, but they are political and gendered. Environmental changes are significantly increasing vulnerabilities, marginalization, and suffering of many in the Global South. Climate justice is impossible without climate gender justice. The USA and China are both major powers that have large impacts on global temperature and environmental change. Women suffer more than men in the events of climatic disasters (Alam & Rahman, 2017). This section underscores the key factors that can be applied geographically with a regional focus on South Asia. In Pakistan, India, and Bangladesh, gendered implications of climate change are poignant as patriarchal norms and inequalities often place women and men in different positions in their abilities to cope with dramatic changes in socio-ecological relations.

Climate change exacerbates both ecological degradation and water-related natural hazards (Sultana, 2013). Women bear a proportionate burden of environmental strain due to their limited mobility and restricted access to resources and ecological knowledge (Bilal et al., 2025). In Pakistan, climate vulnerabilities not only have technical issues but structural inequities and the complex ways in which social power relations operate in communal responses to adaptation strategies. In India, women are victims of environmental degradation in quite gender-specific ways (Agarwal, 2019). Alston argues that Bangladesh is critically affected due to climate change, especially since a high portion of the population is at significant risk of damage to livelihoods. National policies are in contrast with ground realities, impacting gender relations. Women have a significant role to play in helping communities cope with the climate crisis. Alston suggests that recognizing women's active contribution and supporting gender equality is a critical strategy in global adaptation to climate challenges (Alston, 2015). In developing countries, social inclusion and exclusion of women reshape climate change adaptation, and these social inequalities reveal that the intersectional social relations and knowledge claims shape adaptation efforts (Nightingale, 2023).

In contrast, women in the Global North are also significantly affected by climate change. In Canada, indigenous women experience heightened exposure to climate risks such as flooding, which threaten livelihoods (Whyte, 2017). Legadec reveals that in 2003, a disproportionate number of elderly women died due to an inadequate support system

during the European heatwave (Lagadec, 2004). However, women generally benefit from stronger institutional frameworks in the Global North. They remain vigilant and proactive in climate decision-making at national and global levels (MacGregor, 2010). Sweden has implemented gender mainstreaming in climate policy, integrating gender equality across all sectors. Moreover, in response, Sweden's Climate Policy Action Plan 2023 includes targeted efforts to address how climate policy affects women differently, aiming to close gender gaps (Pareliussen & Purwin, 2023; Weber et al., 2024). Gender Action Plan of the European Union also pushes for gender-responsive budgeting and inclusion of women in environmental governance (Teevan, 2021; European Commission, 2020).

This comparison reveals that women in the Global South, particularly in countries like Pakistan, India, and Bangladesh, face more acute climate risks such as displacement, water scarcity, and loss of livelihood due to weaker institutional support and their higher dependency on natural resources (Sultana, 2021). Consequently, policies in these countries either lack gender considerations or fail in implementation due to limited resources and deep-rooted patriarchal norms. In sum, both regions experience gendered climate impacts. The nature and severity of vulnerability are more intense and structurally embedded in the Global South, necessitating differentiated policy responses rooted in local socio-political realities.

Table 1
Global North VS Global South: Comparative Analysis

Dimension	Global South (Pakistan, India, Bangladesh)	Global North (Sweden, Canada, EU)
Institutional Support	Weak gender integration, policy implementation barriers	Strong gender policies, but implementation gaps remain for marginalized subgroups
Knowledge Recognition	Women's local knowledge is central to survival, yet excluded from formal planning	Formal policies exist—grassroots knowledge is less integrated
Power & Decision-Making	Limited political participation, land and resource ownership gaps	Higher representation overall, yet Indigenous/migrant women are still underrepresented
Policy Frameworks	National policies mention gender but lack actionable funding or role-sharing mechanisms	Gender budgeting and equity tools are present, but may overlook intersectional needs

Climate Justice and Human Rights

The concept of climate justice frames climate change not only as an environmental issue but also as a social, political, and ethical problem. According to Lam, Climate justice acknowledges the impacts of capitalist expansion. It reveals how this affects the rich and the poor differently (Lam, 2023). It is both a normative concept and an activist movement. It emphasizes that those least responsible for greenhouse gas emissions are the ones most vulnerable to its impact (Schlosberg & Collins, 2014; Whyte, 2020). Climate justice calls for equitable climate action. It integrates human rights, development, and environmental justice. Climate justice movements in the Global North focus on racial disparities in pollution exposure and green transitions (Bullard, 2005). In the Global South, countries face rising sea levels, floods, and droughts with limited resources. For example, the Global North has emitted 92% of excess CO₂ since the industrial revolution (Hickel, 2020; Muzaffar, & Choudhary, 2017), and Bangladesh emits 0.5% of global emissions but faces severe flooding. It also highlights the intersectional inequality. Dalit women in India face water apartheid during droughts (Nightingale, 2019).

Types of climate justice

Distributive Justice: Fair allocation of climate burdens and benefits

Procedural Justice: Respect for marginalized groups' rights

Intergenerational Justice: Protecting future generations

Climate Justice Movements

Most Affected Peoples and Areas (MAPA) highlights the climate impacts and demands minimal temperature limits in the Pacific Islands. Anti-Coal Struggles in India fight for women's land rights. Feminist climate justice focuses on gender-responsive adaptation. Care-centered policies address women's unpaid labor in disasters (Alston, 2021; Chant & Sweetman, 2012). Moreover, climate justice policies demand wealth tax on polluters, debt cancellation, and land back movements to combat climate change.

Results

Women's Rights and Gender Disparities in the Global South

South Asia hosts a paradoxical landscape when it comes to women's rights and gender equality. Gender disparities have been a challenging issue in the Global South, particularly in Pakistan, India, and Bangladesh, in achieving women's equal rights and Sustainable Development Goals. These countries have made some progress in promoting gender equality despite many challenges. The constitution of these countries guarantees gender equality, yet the region continues to face entrenched gender disparities deeply rooted in patriarchal norms, socio-cultural practices, economic exclusion, and weak legal frameworks (Sarwar & Farid, 2024). Women in South Asia, such as Benazir Bhutto, Indira Gandhi, and Sheikh Hasina, have historically held powerful political positions. Women's political participation remains low due to multifaceted hurdles (Sarwar et al., 2022). Quota systems for women exist, but decision-making power has been restricted due to patriarchy and male dominance. Gender gaps remain stark in education and literacy. South Asian women face high maternal mortality and poor access to healthcare. Although legal and policy initiatives to mitigate the gender gap and empower women are:

Table 2
South Asian Initiatives

Pakistan	Punjab Protection of Women against Violence Act 2016, National Gender Policy Frameworks 2021
India	The Protection of Women from Domestic Violence Act 2005, Beti Bachao Beti Padhao 2015
Bangladesh	National Women Development Policy (2011); Acid Crime Control Act (2002)

These nations continue to grapple with structural gender inequalities despite constitutional guarantees. However, governments must transform social reforms, ensure institutional accountability, and invest in gender-responsive education to advance women's rights (Aziz & Sarwar, 2024). From a climate perspective, women are heavily involved in agriculture and water management in South Asia. They lack land rights, access to credit, and political representation, yet they engage in grassroots adaptation through early warning systems.

Challenges

- Patriarchal norms limit mobility and decision-making
- Weak Institutional frameworks
- Climate policies often exclude gender perspectives
- High exposure to floods, droughts, and heat stress
- Structural Barriers
- Data Gaps

In contrast, women in the Global North, women in the Global North often engage in institutional climate activism and policymaking. Women influence climate education and policy reforms in Canada and Sweden.

Opportunities

- Greater access to education, policy platforms, and technology
- Legal protections and funding for adaptation initiatives
- State-supported climate programs with gender mainstreaming

In Pakistan, India, and Bangladesh, climate change affects women's health, mobility, livelihoods, and mental health. The impacts of climate change on women in South Asia are:

- Health Risks and Heat Exposure
- Unpaid labor and resource insecurity
- Food and nutrition insecurity
- Climate-induced displacement and Gender-Based Violence (GBV)
- Lack of participation in adaptation planning

Addressing these challenges requires gender-responsive adaptation strategies, including:

- Equal access to climate finance and disaster relief
- Inclusion of women in climate planning and governance
- Protection of women's land, labor, and health rights in climate-stressed regions

Gendered Climate Vulnerabilities in South Asia

South Asia is one of the world's most climate-vulnerable regions, with gendered impacts intensifying due to patriarchal norms, economic inequality, and postcolonial resource extraction. South Asia's climate crisis is a feminist issue because women are both the most impacted and the most innovative responders. Gendered climate vulnerabilities in South Asia are:

- Water scarcity and women's labor
- Agricultural crisis and landlessness
- Disasters and sexual violence

Discussion and Analysis

Climate Change Initiatives and Policy Frameworks in South Asia

Climate change is an epic threat (Sarwar & Farid, 2025). According to Khan, the Emergency Service Rescue initiative of the Sindh government in Pakistan focuses on women training as first responders during the 2022 floods. It aims to include 30% female staff by 2028. This reveals the importance of gender-responsive disaster systems (Khan, 2023). Malik argues that Pakistan is among the most vulnerable countries to the cross-sectoral impacts of climate change. IUCN's Climate Change Gender Action Plan (CCGAP) 2020-21 highlights women-led climate initiatives across sectors (Malik, 2023). Similarly, NGOs like Pathfinder International initiated the Islamabad Declaration to evaluate women's role in adaptation planning among 11 countries, including Pakistan (Latif, 2024). In Tharparkar, the Paani Project drilled hundreds of wells, empowering local women in water and income generation. UN Development Programme data shows Pakistan ranks near the bottom in gender indexes and inclusion. Rural women, who compose 60% of Pakistan's agricultural labor force, often lack land ownership <1% formally own land, financial access (only 0.9–5.3% have bank accounts), education, and disaster relief access (Puskur & Mishra, 2022; Talpur, 2025). These gendered constraints, combined with increasing sexual violence and maternal health crises during floods, highlight the urgent need for gender-sensitive climate interventions (Basu, 2023). Pakistan's National Climate Change Policy 2021 mentions gender, but implementation is weak. Bangladesh's Climate Change Strategy and Action Plan

includes women's participation, but local women remain underrepresented. Pakistan's climate change initiatives aim to combat environmental issues that include the Ten Billion Tree Tsunami, the Living Indus Initiative, the Energy and NDC Framework, and Climate Finance and Governance. India's initiatives are the Solar Mission, Clean Mobility, and Heat Insurance for Women. However, Bangladesh's climate combat policies are the Mujib Climate Prosperity Plan 2022-2041 and the Climate Fiscal Framework.

Cross-Comparison of Adaptation Strategies: Global South VS Global North

Climate adaptation refers to adjusting to actual or expected climate effects to moderate harm or exploit beneficial opportunities. The Global North and South both face climate risks, and their adaptation strategies differ significantly due to variations in institutional capacity, financial resources, governance structures, and socio-economic vulnerabilities.

Adaptation Strategies in the Global South

In South Asia, community-based adaptation and grassroots participation are central. For example, in Pakistan, women-led adaptation in Sindh includes small-scale water storage and kitchen gardening. In Bangladesh, floating gardens and cyclone shelters have become effective community responses. These countries have also launched national adaptation plans and frameworks to minimize the risks. In Pakistan, the Framework for Implementation of Climate Change Policy (2022-2030) focuses on water, agriculture, and disaster risk reduction (MoCC, 2022). Mujib Climate Prosperity Plan aims for climate-resilient infrastructure and livelihoods in Bangladesh (MoEF, 2021). In India, State Action Plans on Climate Change (SAPCCs) support decentralized adaptation in vulnerable states. These nations are also using nature-based solutions. For example, Pakistan's Billion Tree Tsunami and Mangrove restoration in Bangladesh combat both erosion and carbon emissions. Despite strong frameworks, adaptation is limited by dependence on international finance.

Adaptation Strategies in the Global North

The Global North has a rigorous institutional and technology-driven adaptation infrastructure. Sweden implements adaptive urban planning and flood-control systems, integrating adaptation into spatial and infrastructure policy. Canada applies remote sensing and AI-driven models to track glacier melt, wildfire risks, and extreme weather prediction. Global North has climate-resilient infrastructure, i.e., European cities use climate-proof architecture like rain gardens and elevated dikes. Canada's "Building Back Better" framework funds retrofits for public buildings to withstand future climate shocks. The EU and Nordic Countries integrate climate insurance into the public and private sectors, which provides social protection and insurance. Sweden also funds programs targeting the elderly and women facing heat-related health risks. They invest heavily in research and climate modeling, which supports long-term adaptation planning.

Table-03
Comparative Analysis: Theoretical Insights

Feature	Global South	Global North
Approach	Community-based, participatory, low-tech	Institutionalized, technology and data-driven
Policy Instruments	NAPs, SAPCCs, Mujib Plan	National Adaptation Strategies (EU Adaptation Strategy, 2021)
Nature-based Solutions	Tree Plantation, Small-scale agriculture	Green urban infrastructure
Finance Availability	Limited, reliant on international climate funds	Ample domestic funds and insurance
Gender Integration	Emerging, limited institutional support	Integrated into mainstream adaptation

Analytical Insights

Women in the Global South are often excluded from planning, despite bearing disproportionate burdens. The Global South adapts more out of necessity, a core climate justice issue despite contributing least to emissions. Table-04 provides a framework and policy comparison between North and South.

Table 4
Framework and Policy Comparison: Statistics

Indicator	Pakistan	Bangladesh	Sweden	Canada
Gender Inequality Index	00541	0.478	0.040	0.077
Gender Gap	142/146	129/146	5/146	30/146
ND-Gain Vulnerability Rand	153/182	162/182	5/182	13/182
Climate Policy Gender Inclusion	Weak	Moderate	Strong	Moderate
Women in Parliament	20%	21%	46%	30%

These statistics reveal that the inclusion of women in climate adaptation remains uneven across regions. Women remain marginalized in policy design and resource allocation despite being among the most affected by climate impacts. In South Asia, policies that ignored gender risk deepened vulnerabilities. Conversely, the Global North has made more substantial progress in gender mainstreaming within climate frameworks, such as the EU Gender Action Plan III and Canada's feminist international assistance policy.

Table 5
Gender-Climate Indicators: Statistical Comparison

Indicator	Global South (Avg)	Global North (Avg)
Women in climate decision-making	18%	34%
Gender responsive climate funding	12%	28%
Heat wave mortality	+15%	+8%
Land ownership (women)	13%	54%

This North-South cross-comparison on climate injustice reveals different approaches to climate change. This adaptation is shaped by economic capacity, institutional development, and socio-political contexts. Gender-inclusive approaches enhance adaptation, sustainability, and justice. The Global North leans toward technologically advanced and well-funded adaptation strategies.

On the contrary, the Global South relies more on community-based and locally-driven solutions. South Asia faces structural challenges such as inadequate financing, governance limitations, and heightened gender vulnerabilities. However, these disparities underscore the urgent need for greater climate justice, equitable finance mechanisms, and inclusion of women in climate-responsive projects as leaders.

This comparison highlights a gender justice gap. Therefore, climate adaptation must be both gender-responsive and equity-driven, ensuring that women are active agents in shaping resilient and inclusive climate futures.

Discussion and Analysis: Future Implications

Ecofeminism suggests that patriarchy has largely contributed to the climate crisis. The FPE framework explains the South Asia livelihoods and uses gender as an analytical category to study power relations that shape climate policies. FPE challenges capitalist interventions and colonial relations that perpetuate uneven dynamics of social and environmental justice. Women are key agents of climate adaptation. Both regions underutilize women's leadership in policy-making. The comparative analysis reveals that while women in both regions play a critical role in adaptation, the form and recognition of their contributions differ vastly. In the South, adaptation is survivalist and community-driven; in the North, it's institutionalized and policy-led. However, both contexts reveal gender gaps in power, voice, and visibility, reinforcing the need for a global feminist climate

justice agenda. In South Asia, there is a need for gender-inclusion adaptation plans. Policymakers recognize indigenous knowledge and informal practices. The Global feminist must support South-led feminist climate agendas. This paper argues that cross-regional feminist coalitions can enhance advocacy and knowledge exchange. A feminist intersectional approach reveals the need for equitable climate policies that not only recognize but also empower women across diverse global contexts.

This analysis suggests that

- Promote women-led adaptation initiatives with direct funding support
- Integrate gendered climate vulnerability assessment in national planning
- Strengthen local governance and build institutional capacity for inclusive policy implementation
- Foster a North-South feminist alliance
- Strengthen data collection
- Legal reforms

These suggestions underscore the importance of viewing climate adaptation through a gendered, intersectional, and transnational lens. It advocates for climate governance that not only includes women but prioritizes their lived experiences and knowledge systems—empowering women through land rights and climate leadership for climate adaptation and mitigation. There is a need to address structural inequalities, invest in localized responses, and collaborate across borders to build a climate-resilient future that is equitable for all. Climate change is not gender neutral, and stronger engagement on gender equality is a key to a sustainable global recovery.

Conclusion

Climate change acts as an existential threat. It deepens existing social and economic inequalities. Climate change affects all regions of the world, particularly women in third-world countries. Women are more vulnerable to environmental changes due to social restrictions, limited access to resources, and exclusion from decision-making processes. In the Global South, Pakistan, India, and Bangladesh are among the countries most severely affected by climate change. Women face severe risks during floods. Women are the victims in these crises due to existing gender inequities.

In contrast, in the Global North, women often benefit from institutional support, gender-sensitive policies, and access to climate adaptation resources. These women participate in policy-making and climate adaptation frameworks. These are well-equipped and prepared to tackle the disastrous impacts of climate. This North-South comparison brings visibility that climate change exacerbates gender inequality and that differing socio-political systems influence women's capacity to adapt and lead in climate resilience.

Climate justice is impossible without climate gender justice. Women are powerful agents of resilience and transformation. It is essential to bridge these divides by promoting gender equity and the inclusion of women's experiences in policy frameworks. This research suggests that addressing climate change demands social justice and gender inclusive governance at the heart of adaptation strategies.

International organizations and developed countries must enhance global climate financing and foster cross-regional collaboration that respects local knowledge and integrates global innovation. Feminist groups also include climate change in their movements and collaborate with cross-regional feminist groups to enhance knowledge and prevent climate effects. Gender-inclusive approaches enhance adaptation, sustainability, and justice.

Recommendations

- Institutional Reforms
- Equity-based budgeting
- Amplifying marginalized voices
- Integrated Environmental and gender justice
- Transnational feminist networks

References

- Agarwal, B. (2010). *Gender and green governance: the political economy of women's presence within and beyond community forestry*. Oxford University Press
- Agarwal, B. (2019). The gender and environment debate: Lessons from India. In *Population and environment* (pp. 87-124). Routledge.
- Alam, M. B., & Rahman, K. A. (2017). Women and climate change in Bangladesh: an analysis from gender perspective. *Cross Cult Comm*, 13(8), 7-9.
- Alam, M. Mashood. (2024, Feb. 24). Climate change: India needs gender-responsive policy solutions. Policy Circle. <https://www.policycircle.org/opinion/indian-women-and-climate-change/>
- Alston, M. (2015). *Women and climate change in Bangladesh*. Routledge.
- Anjum, G., & Aziz, M. (2025). Climate change and gendered vulnerability: A systematic review of women's health. *Women's Health*, 21, 17455057251323645.
- Aziz, A., & Sarwar, G. (2024). The Politics of Humanity and Women Right's in Pakistan: Challenges and Solutions. *Social Sciences Spectrum*, 3(4), 96-111.
- Basu, Dr. Koyel. (2023). 2022 floods in Pakistan: Violence and vulnerabilities of women increase during climate disasters. *South Asia Monitor*. <https://www.southasiamonitor.org/index.php/spotlight/2022-floods-pakistan-violence-and-vulnerabilities-women-increase-during-climate-disasters>
- Bilal, A., Riaz, A., & Farid, S. (2025). GENDERED DIMENSIONS OF CLIMATE CHANGE IN GILGIT-BALTISTAN: A FEMINIST POLITICAL ECOLOGY APPROACH. *Contemporary Journal of Social Science Review*, 3(2), 1188-1197.
- Bullard, R. D. (Ed.). (2005). *The quest for environmental justice: Human rights and the politics of pollution* (Vol. 19, pp. 32-33). San Francisco: Sierra Club Books.
- Chant, S., & Sweetman, C. (2012). Fixing women or fixing the world?'Smart economics', efficiency approaches, and gender equality in development. *Gender & Development*, 20(3), 517-529.
- Crenshaw, K. (2015). Why intersectionality can't wait. *The Washington Post*, 24(09), 2015.
- Crenshaw, K. W. (2013). Mapping the margins: Intersectionality, identity politics, and violence against women of color. In *The public nature of private violence* (pp. 93-118). Routledge.
- Daraz, U., Khan, Y., Alsawalqa, R. O., Alrawashdeh, M. N., & Alnajdawi, A. M. (2024). Impact of climate change on women mental health in rural hinterland of Pakistan. *Frontiers in Psychiatry*, 15, 1450943.
- Directory, S. (2025, March. 20). Feminist Political Ecology. *Sustainability Directory*. <https://lifestyle.sustainability-directory.com/term/feminist-political-ecology>
- Djoudi, H., Locatelli, B., Vaast, C., Asher, K., Brockhaus, M., & Basnett Sijapati, B. (2016). Beyond dichotomies: Gender and intersecting inequalities in climate change studies. *Ambio*, 45, 248-262.
- Elmhirst, R. (2011). Introducing new feminist political ecologies. *Geoforum*, 42(2), 129-132.

- Enarson, E., & Morrow, B. H. (1998). *The gendered terrain of disaster*. Westport, CT.
- European Commission. (2020, November 25). *Joint communication to the European Parliament and the Council: EU Gender Action Plan III – An ambitious agenda for gender equality and women’s empowerment in EU external action (2021–2025)*. Publications Office of the EU. <https://op.europa.eu/en/publication-detail/-/publication/f270a798-2f20-11eb-b27b-01aa75ed71a1>
- Group, Climate. (2023, Nov. 02). *Leading with Impact: Women’ in India’s Climate Governance*. Climate Group. <https://www.theclimategroup.org/our-work/news/leading-impact-women-indias-climate-governance>
- Hickel, J. (2017). *The divide: A brief guide to global inequality and its solutions*. Random House.
- Hickel, J. (2020). Quantifying national responsibility for climate breakdown: an equality-based attribution approach for carbon dioxide emissions in excess of the planetary boundary. *The Lancet Planetary Health*, 4(9), e399-e404.
- IPCC (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Chapter 10: Asia. <https://www.ipcc.ch/report/ar6/wg2/>
- Kaijser, A., & Kronsell, A. (2014). Climate change through the lens of intersectionality. *Environmental politics*, 23(3), 417-433.
- Khan, R. Saeed (2023, Feb. 21). Three projects in South Asia putting gender at the centre of responses to climate change. *dialogue.earth*. <https://dialogue.earth/en/climate/three-projects-in-south-asia-putting-gender-at-the-centre-of-responses-to-climate-change/>
- Lagadec, P. (2004). Understanding the French 2003 heat wave experience: Beyond the heat, a multi-layered challenge. *Journal of contingencies and crisis management*, 12(4), 160-169.
- Lam, Curtis. (2023, April 01). Explainer: What is climate justice and why it is important. *Earth.org*. <https://earth.org/what-is-climate-justice/>
- Latif, Madiha. (2024). Women Must Be Centerstage in Climate Adaptation Plans. *Pathfinder*. <https://www.pathfinder.org/impact-stories/women-must-be-centerstage-in-climate-adaptation-plans/>
- Lohano, H. D., & Mari, F. M. (2020). Climate Change and Implications for Agriculture Sector in Sindh Province of Pakistan. *Mehran University Research Journal of Engineering and Technology*, 39(3), 668-677.
- MacGregor, S. (2009). A stranger silence still: The need for feminist social research on climate change. *The Sociological Review*, 57(2_suppl), 124-140.
- Magnusdottir, G. L., & Kronsell, A. (2024). Climate institutions matter: The challenges of making gender-sensitive and inclusive climate policies. *Cooperation and Conflict*, 59(3), 361-378.
- Malik, F. Bilqis. (2023, March. 03). Women to lead actions for climate change adaptation and mitigation. *IUCN*. <https://iucn.org/story/202303/women-lead-actions-climate-change-adaptation-and-mitigation>
- Muzaffar, M. & Choudhary, S. (2017). Human Development and Democratic Governance: An Analysis, *Orient Research Journal of Social Sciences*, 2(1), 71-94

- Mellor, M. (1997). *Feminism and ecology: An introduction*. NYU Press.
- Musa, Imad. (2025, May 22). The Gendered Blindspots of Climate Policies. *The Republic*. <https://rpubl.com/africa-2/gendered-blindspots-of-climate-policies/>
- Neumayer, E., & Plümper, T. (2007). The gendered nature of natural disasters: The impact of catastrophic events on the gender gap in life expectancy, 1981–2002. *Annals of the association of American Geographers*, 97(3), 551-566.
- Nightingale, A. J. (2019). Commoning for inclusion? Commons, exclusion, property and socio-natural becomings. *International journal of the commons*, 13(1).
- Nightingale, A. J. (2023). Urban climate change and feminist political ecology. In *Turning up the heat* (pp. 143-158). Manchester University Press.
- Odeku, K. O. (2022). Climate injustices due to the unequal and disproportionate impacts of climate change. *Perspectives of Law and Public Administration*, 11(1), 103-110.
- Pareliussen, J., & Purwin, A. (2023). Climate policies and Sweden's green industrial revolution. *Documents de travail du Département des Affaires économiques de l'OCDE*.
- Puskur, R. & Mishra, A. 2022, Oct. 04). Rural women in Pakistan are the most affected by 'apocalyptic' floods. *CGIAR*.<https://gender.cgiar.org/news/rural-women-pakistan-are-most-affected-apocalyptic-floods>
- Rahman, M. S. (2022). Environmental Change Induced Salinity Intrusion on Socio-Economic and Gender Vulnerability among the Southern Coastal People in Bangladesh: A Comparative Study. *Barishal University Journal of Social Sciences* 3(1), 15-37.
- Rahman, S., Islam, M. S., Khan, M. N. H., & Touhiduzzaman, M. (2019). Climate change adaptation and disaster risk reduction (DRR) through coastal afforestation in South-Central Coast of Bangladesh. *Management of Environmental Quality: An International Journal*, 30(3), 498-517..
- Rocheleau, D., Thomas-Slayter, B., & Wangari, E. (2013). *Feminist political ecology: Global issues and local experience*. Routledge.
- Sarwar, G., & Farid, A. (2024). Unveiling Gender Disparities in Pakistan: Challenges, Progress, and Policy Implications for Achieving SDG 5. *Journal of Development and Social Sciences*, 5(2), 506-517.
- Sarwar, G., & Farid, A. (2025). The Indus Under Pressure: Hydro-Politics, Climate Change, and Strategic Anxiety in South Asia. *Journal of Political Stability Archive*, 3(3), 45-59.
- Sarwar, G., & Aziz, A. (2024). Populism and Political Polarization: Cross-National Comparison of Populist Politics. *Contemporary Journal of Social Science Review*, 2(04), 155-168.
- Sarwar, G., & Huma, Z. (2021). Aurat March and women empowerment: Perceptions and perspectives of women in Pakistan. *Journal of Development and Social Sciences*, 2(4), 1052-1062.
- Sarwar, G., Daraz, U., & Ullah, M. S. (2022). Feminism and Women Empowerment: Ambiguities and Conflicts of Feminism in Pakistan. *Pakistan Languages and Humanities Review*, 6(4), 394-404.

- Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: climate change and the discourse of environmental justice. *Wiley Interdisciplinary Reviews: Climate Change*, 5(3), 359-374.
- Sorensen, C., Saunik, S., Sehgal, M., Tewary, A., Govindan, M., Lemery, J., & Balbus, J. (2018). Climate change and women's health: Impacts and opportunities in India. *GeoHealth*, 2(10), 283-297.
- Sultana, F. (2014). Gendering climate change: Geographical insights. *The Professional Geographer*, 66(3), 372-381.
- Sultana, F. (2021). Climate change, COVID-19, and the co-production of injustices: A feminist reading of overlapping crises. *Social & Cultural Geography*, 22(4), 447-460.
- Sultana, F. (2022). The unbearable heaviness of climate coloniality. *Political Geography*, 99, 102638.
- Talpur, Murtaza. 2025, Feb 03). Climate's Gendered Toll. *The News*. <https://www.thenews.com.pk/print/1278899-climate-s-gendered-toll>
- Teevan, C. (2021). The EU's gender action plan.
- Terry, G. (2009). *Climate change and gender justice*. Oxfam GB.
- Thomas, Leah. (2022, March 07). Ecofeminism Explores the Relationship between Women and Nature. *Teen Vogue*. <https://www.teenvogue.com/story/intersectional-environmentalist-ecofeminism>
- United Nations Development Programme. (2024, March 14). *Human Development Report 2023–2024: Breaking the Gridlock—Reimagining Cooperation in a Polarized World*. UNDP.
- Weber, K., Henriksen, S. M., Borgman, E., Barkardóttir, F., Standal, K., Aamodt, S., ... & Tanhua, I. (2024). A review of the Nordic implementation of the UNFCCC Gender Action Plan.
- Whyte, K. (2017). Indigenous climate change studies: Indigenizing futures, decolonizing the Anthropocene. *English language notes*, 55(1), 153-162.
- Whyte, K. (2020). Too late for indigenous climate justice: Ecological and relational tipping points. *Wiley Interdisciplinary Reviews: Climate Change*, 11(1), e603.
- Women, U. N. (2022). Explainer: How gender inequality and climate change are interconnected. *UN Women*, 28.
- World Economic Forum. (2023, March). *Global Gender Gap Report 2023*. World Economic Forum. Retrieved from https://www3.weforum.org/docs/WEF_GGGR_2023.pdf