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Climate Change, Social Inequality, and Environmental Justice in Pakistan: A Narrative Review from a Gender and Social Work Perspective

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Abstract
Climate change now ranks among the greatest challenges confronting the world. It carries a range of ecological, economic and social consequences. Although climate change has been extensively examined through environmental science and ecological lenses, there remains a need to understand how it shapes social inequality, gender relations, human impact and community resilience. This narrative review examines climate change through a social work lens and takes environmental justice into account. The literature on climate change will be reviewed, with particular attention to Pakistan and Balochistan. International climate assessments, academic articles, and policy and development reports were drawn on to identify five key themes concerning climate change. These comprise the ecological and economic impacts of climate change, social inequality and climate vulnerability, gender and climate change, climate vulnerability in Pakistan and Balochistan, and how green social work can support adaptation, disaster reduction and environmental justice. The literature indicates that climate change can combine with poverty, weak infrastructure, unequal access to resources and limited institutional support to heighten climate vulnerability. Vulnerability may be heightened for women, children, low income households, people with disabilities and those who rely on climate sensitive livelihoods, though it can differ across social groups.
Green social work can play a central role in connecting sustainable practices with human rights, empowering communities and generating social outcomes. Recent studies have likewise shown that integrating environmental justice into social work practice, community work and policy is becoming increasingly important. There remains a need to examine gender sensitive adaptation, displacement, mental health impacts and how social work can assist in Pakistan. This article will conclude that climate change can be addressed by ensuring it is integrated with sustainable environmental practices, social protection, gender equality, community participation and resilience.
Keywords: *Climate change, Narrative review, Social work, Environmental justice, Gender inequality, Climate vulnerability, Pakistan, Balochistan, Green Social Work.*

1. Introduction

Climate change is among the greatest environmental and social challenges of the 21 st Century. Rising global temperatures, shifting rainfall patterns, heat waves, flooding, droughts and other climate related hazards affect human health, livelihoods, migration, food security and social outcomes. Human activity has undeniably caused global warming (IPCC, 2023).

The scientific literature has demonstrated that climate change is not merely an environmental problem. Poverty, social marginalisation, governance and disparities in adaptive capacity are factors that heighten vulnerability (IPCC, 2022). Communities facing similar climate hazards may be affected in different ways because of their financial status, housing, infrastructure and access to public services.

Pakistan is exposed to numerous climate-related hazards, such as flooding, extreme heat, drought, water stress and effects on those working in agriculture. The 2022 flood produced substantial social and economic consequences. Probabilistic attribution and vulnerability were applied to examine the impact of climate change (Otto et al., 2023). Another study in the field examined socioeconomic differences and gender vulnerability before and after the 2022 flood in Sindh (Exploring the effects of floods in Pakistan, 2024).

Social work offers a valuable lens through which to consider climate change. Social work centres on human rights, social justice, community participation and the relationships between individuals and society. Green social work connects these concepts with climate change, environmental degradation, displacement, resource insecurity and environmental risks (Dominelli, 2012, 2013).

Recent literature has examined how green social work can be regarded as an emerging concept. Lorenzo et al. (2025) carried out a systematic review and found that the field of green social work is developing. However, knowledge gaps remained, since the evidence base is inconsistent and more empirical research is needed (Lorenzo et al., 2025).

Further synthesis is required to connect climate change, gender, social inequality and social work practice in Pakistan. This article will examine the literature to understand how climate change can be viewed as a social development challenge, identify gaps in knowledge and offer recommendations.

2. Review Objectives

Synthesise the literature on the ecological, economic and social impacts of climate change.

Examine how poverty, gender and access to resources can heighten climate vulnerability.

Determine the climate-related challenges facing Pakistan, with particular attention to Balochistan.

Examine critically the ways in which social work and environmental justice can contribute to climate adaptation.

Point out gaps in the existing research and offer recommendations.

3. Review Methodology

3.1 Review Type

A narrative review is the approach adopted in this article. Narrative reviews enable researchers to bring together concepts, theories, findings and policy from across disciplines. This approach is valuable when the research question requires insights from environmental science, sociology, gender studies, social work and development studies.

The review will concentrate on how climate change intersects with social inequality and how social work can contribute to equitable adaptation in Pakistan.

In contrast to a systematic review, this article does not seek to offer an exhaustive review of all literature relevant to the topic. The aim of this article is to provide a thematic review.

3.2 Literature Sources

The sources used included major climate assessments, academic articles, international policy and government and development reports. Key sources included the IPCC, the United Nations, the World Health Organisation, the United Nations Office for Disaster Risk Reduction, and researchers working on environmental justice and green social work.

Academic articles included Dominelli (2012, 2013) on green social work, work on climate-related flooding in Pakistan, and Lorenzo et al. (2025) with their recent review of green social work.

For the review to be fully replicable, you should search databases such as Scopus, Web of Science and Google Scholar, along with relevant academic journals within Pakistan. Possible search keywords include climate change and social inequality, climate justice in Pakistan, gender and climate vulnerability, climate change in Balochistan, environmental social work, green social work, and climate-induced displacement in Pakistan.

3.3 Thematic Analysis

The literature has been grouped into five themes: ecological and economic impacts, social inequality and climate vulnerability, gender and climate change, climate vulnerability in Pakistan and Balochistan, and social work.

The main arguments and findings presented in the literature have been examined. This has pinpointed shared themes across the literature and made clear which information is established internationally and which calls for further local empirical study.

Limitation: Since database searching, screening and study selection were not recorded, this article should be regarded as a narrative review. If a journal asks for a replicable methodology for the review, you should state when you searched, which criteria you used and what literature you examined.

4. Thematic Literature Review

4.1 Climate Change as an Environmental and Social Challenge

Climate science has established that human activities produce greenhouse gas emissions, which are driving the present rise in global temperatures. The effects on natural and human systems are wide ranging (IPCC, 2022, 2023).

Yet the social impacts of climate change cannot be attributed to environmental factors alone. Cutter et al. (2003) demonstrate how important social vulnerability is in disaster situations. The IPCC (2022) has found that vulnerabilities stem from inequalities, institutional capacity and access to resources.

A climate hazard will not necessarily affect every community in the same way. Where a community has resilient housing and emergency services, a flood may cause only minor disruption; but those in unsafe housing with no money may endure devastating losses.

The United Nations Office for Disaster Risk Reduction (2015) has stressed the importance of risk, effective governance, investment in resilience and preparedness. This indicates that climate change adaptation should address both environmental hazards and social factors.

The literature indicates that an interdisciplinary approach is needed. Environmental science can identify changes in hazards, while social science can identify how risks are distributed among communities.

4.2 Climate Change, Poverty and Social Inequality

Climate change can be closely connected to poverty, insecure livelihoods, weak infrastructure and limited access to essential services. Social and economic inequality can heighten the risks posed by climate change (IPCC, 2022).

Households on low incomes may find it difficult to upgrade their homes, obtain insurance, diversify their sources of income or relocate away from high-risk areas. Floods and droughts can destroy productive assets, resulting in job losses and the loss of savings, livestock, crops, education and healthcare. When a community does not receive sufficient recovery support, households may be forced to borrow money or cut back on essential spending.

This can produce a cycle in which poverty heightens exposure and weakens adaptive capacity. Climate change can exacerbate poverty and social exclusion. This matters especially for people whose livelihoods depend on climate-sensitive activities.

Social vulnerability can help explain why disasters do not affect all communities equally (Cutter et al., 2003). It also demonstrates that adaptive strategies may prove ineffective if they fail to account for inequality in resources.

Social justice can support climate adaptation by ensuring resilient housing, accessible healthcare and education, diversified livelihoods and social protection. This can help to lessen the underlying vulnerability.

4.3 Gender Inequality and Climate Vulnerability

Research on gender and climate change has found that climate change can be shaped by gendered roles, resource ownership, social expectations and decision-making. Many women are responsible for collecting water, ensuring household food security, carrying out unpaid care work and working in agriculture. During droughts, floods and crop losses, this can increase their workload and leave them less time for education, paid work and community activities.

The IPCC (2022) has identified that vulnerability will differ according to social factors within a community, such as gender, poverty, age, disability and institutional factors. It is important to recognise that not all women will experience climate change in the same way, and that men can also be affected by gendered climate risks.

Women may find it hard to recover without land, access to credit, stable employment and agricultural extension services. Men may face greater exposure to extreme heat if they work outdoors. Children and older adults may face particular health risks.

A study on the 2022 floods in Pakistan examined how men and women differed in socioeconomic factors before and after flooding in the area surrounding Khipro, Sindh (Exploring the effects of floods in Pakistan, 2024).

A gender-sensitive approach should go beyond simply asserting that women are vulnerable and instead examine how structural factors make them vulnerable. Supporting women to become leaders, hold jobs, access information and take part in climate governance can contribute to climate change adaptation planning. Nevertheless, evidence is needed to demonstrate how effective this proves to be.

Additional research in Pakistan should examine how women access climate funding, land, water, livelihood programmes and decision-making bodies.

4.4 Climate Change and Vulnerability in Pakistan

Owing to geographical factors, dependence on climate-sensitive livelihoods and inequalities, Pakistan confronts numerous climate change challenges. Floods, heatwaves, droughts and water stress can affect agriculture, health, housing, infrastructure and income.

In the 2022 flood, the Government of Pakistan and development partners recorded the extensive damage and losses (Pakistan Floods 2022: Post-Disaster Needs Assessment, Government of Pakistan et al., 2022). This highlighted the need to build resilient infrastructure and pursue long-term recovery.

Climate change attribution has likewise shown the importance of examining both physical and social factors. Otto et al. (2023) examined the extreme monsoon rainfall during the 2022 flood using event attribution and vulnerability. This demonstrates how important it is to examine why a climate disaster happened and why it produced severe social impacts (Otto et al., 2023).

From a social development standpoint, the flood can bring loss of livelihoods, interruption of education, obstacles to healthcare and a need for housing and mental health support. Households with few savings, insecure jobs and no social protection may experience greater impacts.

Pakistan should implement early warning systems, resilient infrastructure, livelihood support, accessible social services, community involvement and inclusive recovery.

4.5 Climate Vulnerability in Balochistan

Balochistan can be viewed from a regional social work perspective. Water scarcity, drought, high temperatures, dispersed housing and dependence on agriculture and livestock can place strain on livelihoods.

Ahmed et al. (2025) carried out a review examining climate vulnerability and adaptation in Balochistan. They found that problems exist with water scarcity, fragile agriculture, extreme heat, declining groundwater levels and the necessity for suitable adaptation strategies. They found ways to address this, such as water management, drought-resistant crops, rainwater harvesting, early warning systems and community-led adaptation (Ahmed et al., 2025).

Research examining water quality and sustainability in Balochistan found that access to water is important (Sustainability study on Balochistan, 2025).

This demonstrates that climate change vulnerability should be examined through an environmental lens as well as the social factors affecting households. Nevertheless, the degree and nature of vulnerability may differ across districts, livelihoods and communities. Results from the province might not be applicable to every area.

Women may take on greater domestic responsibilities when they live in areas without access to water. Interruptions to agriculture and the loss of livestock can affect household income. Remote communities may have difficulty obtaining climate information, healthcare, emergency assistance and livelihood support.

More empirical research is required to examine the differences between districts, women's access to water, household adaptation strategies, climate migration and the effectiveness of adaptation strategies.

Social work researchers can contribute by carrying out participatory research, documenting experiences, examining access to social protection and assessing local resilience strategies. This would help connect environmental planning with the reality that households face.

4.6 Green Social Work and Environmental Justice

Dominelli (2012) created the concept of green social work in order to connect environmental crises with social justice, human rights and the wellbeing of marginalised communities. Dominelli subsequently contended that environmental justice ought to be a central element of social work (Dominelli, 2013, 2014).

This questions the assumption that environmental issues should be viewed through a physical science lens. Environmental degradation can worsen poverty, displacement, health inequalities and unequal access to essential resources. Social workers can help tackle the social consequences of environmental hazards as well as the structural factors that create vulnerability.

Lorenzo et al. (2025) carried out a systematic review examining green social work in practice, education, community and policy. They found that the field is growing but is hampered by inconsistent conceptualisations and qualitative exploratory studies (Lorenzo et al., 2025).

Social work can contribute to climate change adaptation through disaster preparedness, mental health assistance, community organizing, advocacy, service coordination and support for displaced households. Social workers can also assist communities in obtaining public support and taking part in decisions about relocation, water management and environmental restoration.

At the higher education level, green social work can be integrated into modules, placements, research and university partnerships. Students could carry out risk assessments in the community, increase awareness of environmental issues and evaluate local adaptation strategies.

Nevertheless, more empirical research is required to understand how social work can contribute to strengthening climate resilience in Pakistan. Research should examine which strategies are effective, how they can be maintained and what institutional resources are needed.

5. Critical Discussion and Synthesis

The literature revealed three key findings.

Vulnerability to climate change is socially differentiated. The extent of harm experienced by a community cannot be attributed solely to environmental factors. Poverty, unstable housing, access to public services, livelihood dependency and institutional capacity can heighten vulnerability to climate change, resulting in temporary disruption or long term hardship (Cutter et al., 2003; IPCC, 2022).

A gender sensitive approach is important. Resource ownership, unpaid care, employment and decision making can affect the ability to prepare for and recover from climate related disasters. However, it is important to take into account the differences between women and men.

Social work can help complement climate change efforts by providing mental health support, social protection, community involvement and addressing unequal access to recovery resources. Green social work can offer a framework that links sustainable environmental practices with human rights and social justice (Dominelli, 2012, 2013).

This indicates that climate change adaptation should be regarded as an intersectoral development process. Environmental interventions are more likely to be equitable when combined with poverty reduction, public health, education, gender equality and local governance.

However, the literature had some limitations. International climate assessments offered a solid foundation for grasping climate risks, yet they are no substitute for local evidence. The growing body of literature on green social work can offer a helpful theoretical foundation, but additional research is required to understand how it is being put into practice and what outcomes result (Lorenzo et al., 2025).

The review has demonstrated how it should shift from merely identifying climate-related issues toward evaluating interventions, comparing experiences and pinpointing institutional factors that can support equitable adaptation.

6. Research Gaps

The literature highlighted several areas that call for further research.

6.1 Lack of Social Work and Climate Integration: Climate change is frequently examined through environmental science, disaster management and development policy; yet in many local areas there is little evidence showing how social work theory and practice contribute.

6.2 Lack of Evidence at District Level in Balochistan: Empirical evidence is lacking on how climate hazards affect water insecurity, livelihood loss, gender dynamics and social protection. Although provincial-level reviews are useful, they do not establish the precise needs of each district.

6.3 Gender Equality Adaptation: Future research should concentrate on how women are included in climate planning. In addition, how adaptation strategies are improving women's access to resources, livelihoods and decision making.

6.4 Climate Migration and Psychosocial wellbeing. Longitudinal research could be carried out to establish how migration affects mental wellbeing, family relationships, education, employment and community ties.

6.5 Community Centred Strategies: More evidence is needed to establish how effective community-driven strategies are in preparing for disasters, implementing green social work strategies and strengthening local adaptation.

6.6 Institutional Strategies and Policy Implementation: Research should be undertaken to establish how climate policies are implemented at different levels of government. This could examine how funding, administrative capabilities and public accountability affect vulnerable people.

Opportunities for interdisciplinary research could be pursued with social work, sociology, gender studies, environmental science, public health and development studies.

7. Recommendations

On the basis of the literature synthesis, the following recommendations can be put forward:

7.1 Social Equity

Climate adaptation strategies should identify vulnerable individuals and address the barriers they face in housing, healthcare, water access, education and livelihoods. Climate strategies should be evaluated to confirm that they are effective not only for the environment but also for equity and social justice (IPCC, 2022).

7.2 Gender Equality

Women should be part of climate decision-making strategies and should have equal access to climate information, funding, livelihoods and agriculture. Monitoring should be undertaken to establish whether women are contributing in a meaningful way.

7.3 Increase Local Research in Balochistan

Local universities and research centres should carry out more research at the district level. This could cover water insecurity, climate migration, agricultural livelihoods, gender equality and community resilience. The findings should be used to inform local adaptation strategies (Ahmed et al., 2025).

7.4 Green Social Work Strategies

Environmental justice, climate adaptation, disaster management and psychosocial strategies should be incorporated into social work curriculums. Practitioners could also take part in placements to assess how well prepared communities are, how to support affected households and how to develop environmental awareness initiatives (Dominelli, 2013, 2014).

7.5 Community Led Adaptation

Local authorities, universities and civil society should work together with communities to develop local strategies. These could involve preparing communities, establishing accessible early warning systems, sustainable water management and local livelihood strategies.

7.6 Social Protection

Households affected by climate change should receive accessible support to obtain funding, rebuild livelihoods, access healthcare and housing support and continue their education. Recovery strategies should be designed to reduce inequalities.

7.7 Monitoring and Evaluation

Climate strategies ought to be assessed to establish their effectiveness, accessibility, gender responsiveness and sustainability. Longitudinal and mixed methods approaches may be employed to identify which strategies deliver benefits over the long term.

7.8 Interdisciplinary Working

Universities, government bodies, social work departments, environmental organisations and communities ought to collaborate. This would strengthen local evidence, enhance practitioner training and produce more inclusive climate policies.

8. Conclusion

This narrative review has shown that climate change is not merely an environmental issue but also a matter of social justice. The impacts of climate change will hinge on how climate hazards, poverty, gender inequality, administrative capacity and unequal resource distribution interact. It has been demonstrated that Pakistan is exposed to numerous vulnerabilities, and the challenges in Balochistan have underscored the need for locally informed adaptation strategies.

The literature review has indicated that social protection strategies, gender equality, community involvement and resilient public services could be incorporated into climate strategies. Green social work strategies could be applied to develop approaches centred on environmental sustainability, human rights, community empowerment and social development (Dominelli, 2012, 2013, Lorenzo et al., 2025).

Yet local empirical evidence remains scarce regarding gender equality strategies, climate-induced migration, psychosocial wellbeing and the effectiveness of social work strategies. Addressing these areas can expand both academic knowledge and practical strategies.

Future research should concentrate on evaluating how effective strategies are, comparing community experiences and determining which institutional factors generate equitable adaptation strategies. Ultimately, climate resilience should focus not only on surviving climate hazards but also on building a more inclusive, just and sustainable society.

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