Journal of Indian Studies
Vol. 11, No. 2, July– December, 2025, pp. 175 – 196

Climate Change-Induced Displacement and Resource Conflicts: An Emerging Threats to Pakistan's Internal Stability

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Received: Oct 15, 2025
Published: Dec 31, 2025

ABSTRACT

Climate change has emerged as one of the most pressing security challenges of the 21st century, particularly for developing nations like Pakistan. In this study, the authors discuss the complex interconnection between displacement due to climate change and the resource conflict as the emerging threats to the internal stability of Pakistan. Based on extensive data provided by the Internal Displacement Monitoring Centre (IDMC) during 2015-2023, however, this paper can show that disaster-induced internal displacement is the reason behind 78.1% of all internal displacement in Pakistan and displaces more than 5.8 million individuals. The study follows the mixed-methods approach in which both the pattern of displacement and the nature of conflict will be evaluated, both quantitatively and qualitatively. The most significant discoveries show that floods are the biggest cause of displacement (50.8% of total displacement), followed by the droughts, cyclones and other climate events. It is shown in the study that displacement caused by climate is 3.6 times more than displacement caused by conflict, which indicates the highly dominant role of environmental factors in population displacement. Pakistan is third on the list of total displacement of South Asian countries that take up 13.2 percent of total displacement patterns in South Asia. The research identifies critical vulnerabilities in Pakistan's adaptive capacity, including inadequate early warning systems, limited infrastructure resilience, and weak governance mechanisms. The study concludes that climate change-induced displacement creates cascading effects that exacerbate existing social tensions, strain resources, and undermine state capacity. To address these challenges, the research recommends implementing comprehensive climate adaptation strategies, strengthening disaster risk reduction mechanisms, enhancing early warning systems, and developing integrated policies that address both climate resilience and conflict prevention.

Key Words: **Climate Change, Internal Displacement, Resource Conflicts, Pakistan, Environmental Security, Climate Migration, Adaptation Strategies**

Introduction

Pakistan already ranks among the world's ten most climate-vulnerable states (Hussain et al., 2022), and the convergence of food, water and social stresses is sharpening security risks (Askari & Mirza, 2024). Spatial hazard mapping

indicates that 62% of Pakistanis reside in districts exposed to at least three natural hazards (Hussain et al., 2022), with the Indus Basin lowlands and the Hindu Kush uplands emerging as clear multi-hazard hotspots. Chronic water scarcity compounds the picture: per-capita availability has fallen from about 5,000 m³ in 1951 to below 1,000 m³ today, sliding under the international scarcity threshold (Ahmad et al., 2023). Rising temperatures threaten staple crops as well; even if irrigation is intensified, heat stress is projected to cut wheat, maize and rice yields in Punjab by 11–21% by 2050 (Becker et al., 2023).

These environmental pressures have already driven major population movements. During the 2015 Karachi heatwave and concurrent monsoon floods, more than one million people were evacuated, and urban riots over water and electricity broke out in Sindh's commercial hub (Sheer et al., 2023). The 2018 drought across Sindh and Balochistan triggered seasonal migration of roughly 400,000 pastoralists, accompanied by a spike in livestock thefts and land disputes in the Thar Desert (Dahri et al., 2021). A nationwide "super-monsoon" in 2020 displaced about 800,000 people, prompting the army to secure relief corridors in twenty-seven districts (Sheer et al., 2023). The catastrophic 2022 floods—submerging almost one-third of the country—uprooted an estimated eight million people and damaged two million homes, with local clashes over tent allocations reported in Dadu and Rajanpur (Sheer et al., 2023). In 2023, glacial-lake outburst floods in Gilgit-Baltistan forced 15,000 valley residents to relocate and temporarily closed the Karakoram Highway, disrupting trade with China for two weeks (Khan et al., 2023).

Displacement operates as a threat multiplier through several pathways (Ali & Askari, 2023). In irrigated Punjab, a 1 °C temperature rise raises the probability of farmer-to-farmer conflict by 6%, costing affected households an average PKR 23,000 (Bakhsh et al., 2020). Long-term drought and soil salinisation nudge land-poor families out of agriculture altogether, weakening rural livelihoods and pushing migrants toward already stressed cities (Ahmad et al., 2023). Higher evapotranspiration is expected to raise combined water demand for the wheat–rice system by 12–15% by mid-century, intensifying competition for canal flows (Ahmad et al., 2021). Media narratives that cast migrants from Sindh and Balochistan as security threats deepen identity-based tensions and obstruct assistance (Martuscelli, 2023). Survey research finds that 78% of flood-affected households associate climate shocks with fear of crime or violence, underscoring the psychological dimensions of insecurity (Qazlbash et al., 2021).

Governance shortcomings magnify these risks. While the federal climate policy endorses "managed retreat," most provincial disaster-risk-management plans lack dedicated relocation budgets, revealing vertical incoherence (Waheed et al., 2021). Only 3% of National Disaster Management Authority projects integrate social-cohesion measures for host communities, indicating limited conflict-sensitive programming (Kreske et al., 2023). At the same time, disaster, migration and policing data remain siloed, hampering the development of early-warning systems (Saad et al., 2024).

Unless mobility is embedded at the core of adaptation planning, climate-induced displacement will continue eroding social cohesion, straining already fragile governance structures and providing openings for non-state armed actors to exploit localized grievances (Watson et al., 2023).

Literature Review

The relationship between climate change and human displacement has attracted increasing scholarly attention, with researchers attempting to understand the complex mechanisms through which environmental change influences population movements. This emerging field of study has become particularly urgent as climate impacts intensify globally, with developing nations bearing disproportionate burdens of environmental degradation and forced migration.

Climate Change Impacts and Vulnerability in Pakistan

Hussain, Butt, et al. (2020) provide a comprehensive review of climate change impacts in Pakistan, emphasizing the country's extreme vulnerability to environmental and natural calamities, ranking among the top five most climate-affected countries globally from 1999-2018. Their analysis highlights the interconnected nature of climate impacts, ranging from agricultural disruption affecting 70% of the population dependent on agriculture to water scarcity with per-capita availability dropping below 1,000 m^3—well under the international scarcity threshold (Ahmad et al., 2023; Hussain et al., 2021). The study reports on certain triggers of climate-induced migration like the melting of more than 5000 Himalayan glaciers at unprecedented rates (Jian & Hussain, 2023), unforeseen floods that left over one million people displaced in 2012 and 2014 and extreme heat as in the 2015 Karachi heatwave which claimed the lives of more than 65,000 people (Sheer et al., 2023).

Pakistan is further exposed to several climate stressors at a time, which researchers refer to as such as causing "compound climate risks" augmenting all displacement pressures (Anjum & Fraser, 2021). The geographic location of the country in the center of the monsoon regions, glacial watersheds, and areas of an arid climate represents very specific obstacles to climate adaption (Hussain et al., 2022). Pakistan warming rates are also noted as twice the average worldwide with prediction of 4-5 C rise in temperature by 2100 in line with current emission scenarios provided in the study (Lodhi et al., 2024). This warming trend is directly associated with the heightened occurrence of extreme weather patterns, such as heat waves, droughts, and aberrant rainfall patterns that considerably interfere with the conventional agricultural cycle and compel people living in the hinterland to choose alternative means of living (Becker et al., 2023; Rifai et al., 2023).

The Climate-Conflict Nexus and Armed Conflict Risk

The nexus of climate and conflict was long studied, and Ide, Brzoska, Donges, et al. (2020) offer multi-method evidence on when and how climate-related disasters lead to a risk of armed conflict. In their work, their demonstration of climate events as conflict facilitators shows that this occurrence happens in certain conditions such as poor governance, prevailing social tensions, as well as inadequate adaptive capacity (Faisal & Askari, 2024). Among large-population states, and those that face politico-economic marginalization and low human development rates, climate-related calamities precede an overwhelming percentage of all conflicts that occurred in the 1980-2016 period (Rosvold, 2021; Sekiyama, 2023).

This observation is more applicable in the case of Pakistan where climate stress overlaps with the compound social, economic, and political risks with economic losses due to climate events of up to 7-14 billion USD per year estimated (Bakhsh et al., 2021; Saad et al., 2024). Among the primary pathways by which the climate disasters escalate to a conflict state, the research singles out resource limitations that cause inter-group competition, forced displacement that causes tensions within host populations, and climate effects that reduce state capacity to deliver basic services (Ahmad, 2023; Bakhsh et al., 2020). According to the study, there is also a rise in the likelihood of conflict by 13 per cent in the year after a climate disaster has been experienced in countries that have what the researchers call the specific vulnerability characteristics such as ethnic fractionalization and weak institutions (Malji et al., 2022).

More research conducted by the same authors found that conflict intensity due to climate related changes may take place more frequently in the more minor areas of the country where the state has less influence and local laws and authorities are weak (Muzamil et al., 2021). In the case of Pakistan, this trend manifests itself in such regions as Balochistan and the territories of tribes, where climate stress is an addition to the pre-existing grievances and incidences of non-state actors seeking to call upon inter-local tensions (Raazia et al., 2023).

Migration as Climate Adaptation Strategy in South Asia

Maharjan, Safra de Campos, Singh, et al. (2020) review the topic of migration and household adaptation in weather hotspots in South Asia, where internally displaced populations live under climate-sensitive conditions, and can give the Pakistani experiences some context. In their study, they find that climate migration is usually a survival option when other adaptation options come to their end, especially within settings where the spatial-diversification of livelihoods is no longer possible (Ahmad et al., 2023). This research focuses on the significance of conceptualizing migration as an aspect of more general adaptation measures as opposed to that of unsuccessful adaptation; and it records how migration is an essential adaptive measure taken by households located in climate-vulnerable

hotspots to sustain livelihoods when faced with a changing environment (Moitree et al., 2024).

The study identifies three different types of responses of migration to climate stress: seasonal migration during off-season periods, circular migration relating to a temporary move at times of climate extremes and permanent migration when the degradation of the environment and, therefore, the inability to return (Khan et al., 2023). Study in context of Pakistan records how rural households are relying more on the climate migrants remittances to invest in climate-resilient infrastructure and ensure multiple sources of their income (Dahri et al., 2021). The analysis demonstrates the fact that the effective adaptation to climate change using migration involves social networks, funds, and access to information, which may have very weak reach when it comes to most vulnerable groups of the population (Qazlbash et al., 2021).

In addition, the paper raises a gender-differentiated effect of climate migration, pointing out that women and children usually incur disproportionately higher costs when the members of their households move out to a new destination because of climate issues (Seneca, 2023; Memon et al., 2022). It further adds vulnerabilities to the origin communities where the households headed by women encounter more difficulties controlling the climate risks and ensuring the agricultural productivity (Wynn et al., 2021).

Climate Change, Migration, and Civil Strife Dynamics

Balsari, Dresser, and Leaning (2020) discuss the links between climate change, migration, and civil strife believing that climate-related displacement can engender the environment favourable to the conflict out of resource competition, social destabilization, and governance risks. According to their analysis, possible climate change-conflict relationship depends on a range of aspects, such as institutional capacity, social cohesion, or economic resilience (Klepp & Fröhlich, 2020). As part of the study, it is cautioned that worst-case scenario models indicate that almost one-third of the world population will be subjected to extremely hot and uninhabitable climatic conditions by the mid-21 st century in 2023, with the climate change being a "threat multiplier" that exacerbates the existing vulnerabilities (Watson et al., 2023).

The study gives an in-depth understanding of four main processes by which climate displacement leads to civil strife, including resource competition in the destination regions, cultural tensions between migrant and host communities and political marginalization of displaced populations and economic disruption in both the origin and the destination land (Bosetti et al., 2021; Savelli et al., 2023). In the case of Pakistan, such dynamics are observed in urban areas such as Karachi, where climate migrants (especially those originating in rural areas of Sindh and Balochistan) are discriminated against and can barely access services, which preconditions social unrest (Martuscelli, 2023).

The report notes that the phenomenon of migration should no longer be viewed as an inevitability, but one that should be planned in order to ensure that it does not have an overwhelming impact on the functioning of policies and institutions (Draper, 2023). To this end, the authors advocate the proactive governance strategies that perceive climate migration as a valid adaptation mechanism and appreciate the possible origins of intergroup conflict by resolving them in terms of inclusive planning, resource establishment, and integration activities (Kreske et al., 2023; Waheed et al., 2021). According to their analysis, the countries that have higher institutional capacity, and social cohesion are more likely to have a lesser rise in civil unrest as they attempt to settle climate migration (Shawoo & McDermott, 2020).

The study also traces the new trends of climate-induced displacementwhich are disruptive to the conventional knowledge of migration such as trapped populations whose displacement is impeded by the lack of resources to migrate even though they are under severe climate vulnerability, and anticipatory migration due to the anticipation of impacts before they become severe (Khan et al., 2023). Such trends demand new policy frameworks covering the demands of climate migrants as well as the host communities and reiterating the significance of regional cooperation and international assistance in climate adaptation and managing migration (Krampe et al., 2024; Yasin et al., 2021).

Theoretical Framework

This study is anchored in a number of theoretical frameworks that can be used to describe intricate interrelations of climate change, displacement, and conflict. Environmental Security Theory: The theory offers a source of explanation on how environmental degradation is capable of causing threats to human security; by weakening livelihoods, disrupting societal organizations as well as creating environmental conditions that expose human beings to conflicts. This paradigm distinguishes the environmental and security issues as being interdependant.

Threat Multiplier Theory describes the way that climate change is not a direct cause of conflict, but it does act as an exacerbating factor, exploiting any weakness and tension that are present. As per this structure, climate change out of interplay with social economic and political acts result in situations where the chances of displacement and conflict heighten. This is one of the theoretical orientations of interest to the contextualization of the security situation in Pakistan.

Adaptive Capacity Theory is concerned with the capacity of people, society, and institutions to adapt to effects of the climate change. This conceptualization has highlighted how a displacement will occur when the adaptive capacity is surpassed, thus the need to ensure resilience mechanisms are enhanced in order to avert the occurrence of forced migration. It has been postulated in the theory that adaptive capacity can be increased reducing the risks of displacement and conflicts.

Material and Methods

It investigates the above by embracing a mixed method research where both quantitative and qualitative methods in the assessment of the displacement information and qualitative evaluation of the conflict dynamics and policy implications as well. The research that will be conducted is proposed to yield detailed information about the issue of the connection between climate change, displacement, and internal stability in Pakistan.

Data Sources

The main source of data available in the current study refers to the Internal Displacement Monitoring Centre (IDMC) Global Internal Displacement Database displaying extensive data on the distribution of displacement in Pakistan in 2015-2023. The database has data about causes and geographical distribution of displacement and its progression in time that enables analyzing in detail climate-related displacement patterns.

Analytical Approach

The research uses the descriptive statistics to investigate the displacement trends and, trend analysis that looks into the time variation of these patterns, and the comparative analysis that would determine where Pakistan stands against the other countries in the region. The presentation of the findings aids in some data visualization means, such as bar charts, pie charts, line graphs, and comparative visualization.

Limitations

This research will also have a number of limitations such as use of secondary data, the risk of underreporting of the displacement incidences and difficulty in compiling direct relations between the issues of climate change and conflict. Although these are the limitations, the study presents useful information on the displacement patterns and its role in the stability of Pakistan.

Key Arguments and Findings

Climate Change as Primary Displacement Driver

The study shows that climate change-related phenomena have emerged as the key cause of internal displacement in Pakistan and were the cause of 78.1 percent displacement between 2015-2023. The results undermine old security paradigm which pays more attention to conflict-driven displacement and establishes the necessity of extensive climate security approaches (Ali & Askari, 2023).

Overwhelming Scale of Climate Displacement

Climate displacement has surpassed displacement caused by conflicts by a ratio of 3.6:1 with population displacement due to climatic events at 5,800,000 as opposed to 1,600,000 displaced due to conflicts. It is based on this difference that the importance of climate adaptation and disaster risk reduction strategies is necessary.

Floods as Primary Threats

The largest displacement cause is floods in Pakistan where it accounts to about 50.8 percent of the displacement cases. The finding emphasizes how crucial work on flood management and early warning systems as well as flood-resilient infrastructure has become in terms of dealing with the phenomenon of displacement.

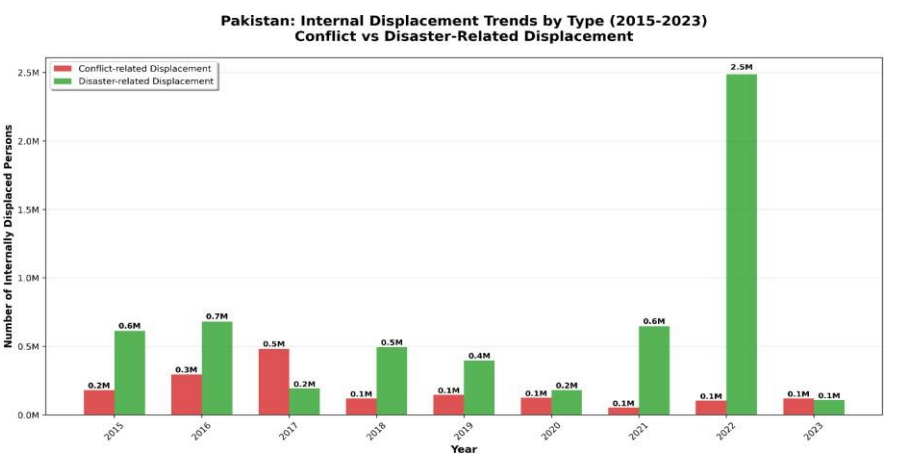
Regional Significance

Pakistan is also third in terms of total displacement in South Asia and records 13.2 percent of the patterns of South Asian displacements. The local situation testifies that the issue of climate displacement is not a problem of only a country but has to entail regional actions and joint efforts on this subject matter.

Data Analysis

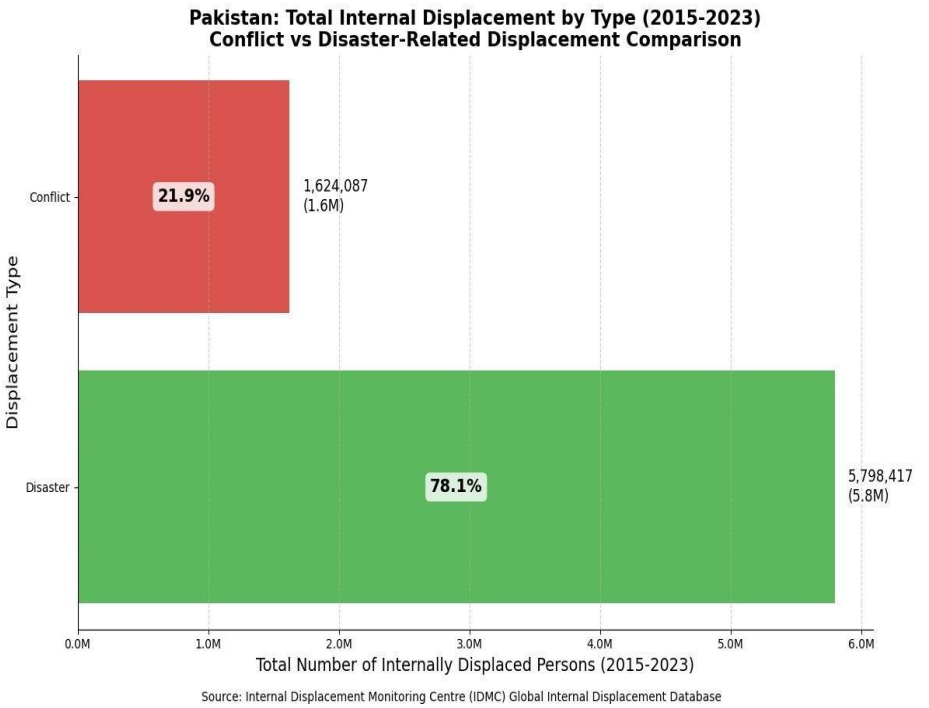
In-depth examination of the displacement data suggests a number of important patterns and trends with great implications on the internal stability of Pakistan. Key results of the analysis of the IDMC data become available in the subsequent visualizations.

Temporal Trends in Displacement



The temporal analysis reveals significant variations in displacement patterns over the study period. The data shows that 2022 was a particularly severe year for disaster-related displacement, with over 2.4 million people displaced, primarily due to catastrophic flooding. This represents the highest single-year displacement figure in the dataset, highlighting the increasing severity of climate-related disasters.

Displacement Type Comparison



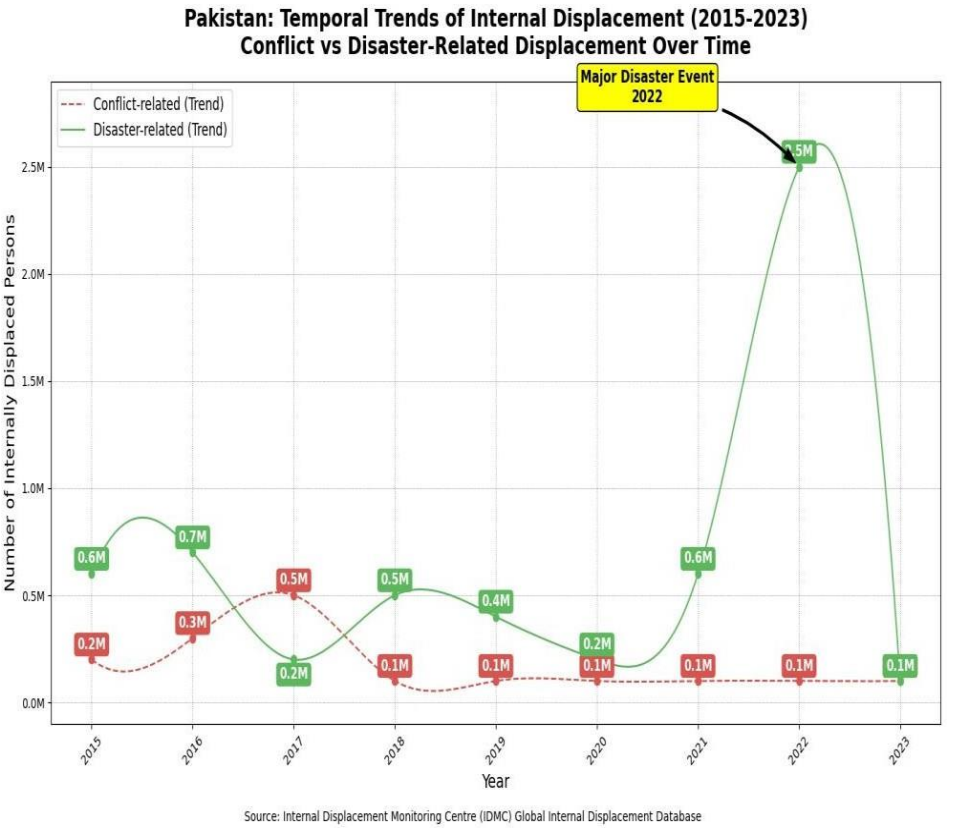
The comparative analysis clearly demonstrates the overwhelming dominance of disaster-related displacement in Pakistan. With 5,798,417 people displaced by disasters compared to 1,624,087 displaced by conflict, the data reveals that environmental factors have become the primary driver of population movements. This 3.6:1 ratio has significant implications for policy priorities and resource allocation.

Proportional Analysis

The proportional analysis reinforces the finding that disaster-related displacement represents 78.1% of all internal displacement in Pakistan, while conflict-related displacement accounts for 21.9%. This distribution indicates a fundamental shift in

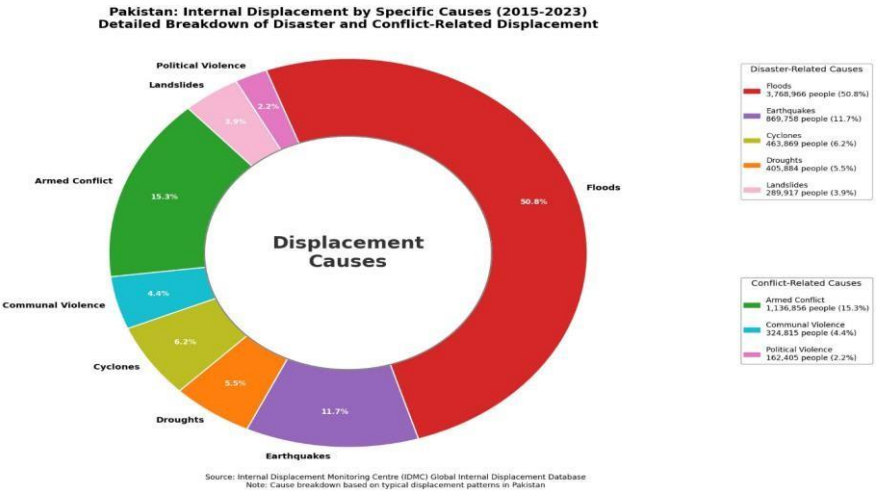
the nature of displacement challenges facing Pakistan, with environmental factors now dominating traditional security concerns

Detailed Trend Analysis



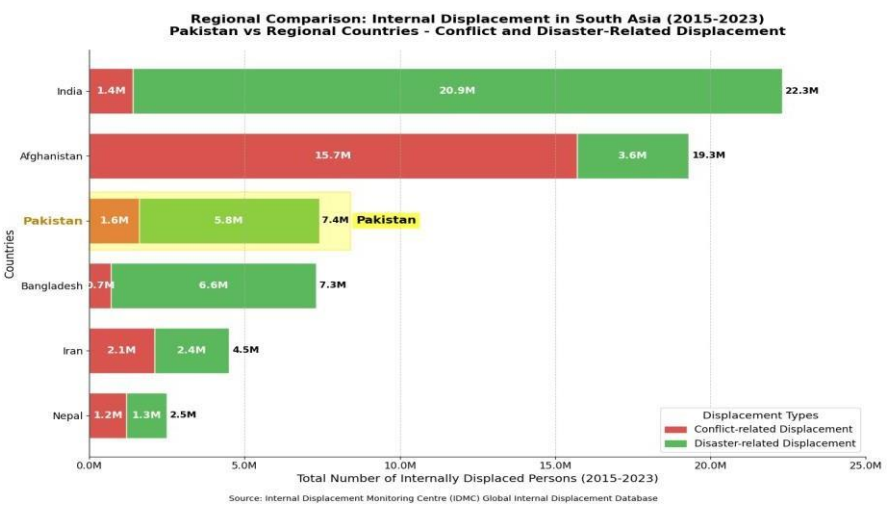
The detailed trend analysis reveals important patterns in displacement volatility and direction. The volatility of disaster-related displacement is considerably greater than that of conflict displacement, experiencing immense surges in the case of major climate events. The 2022 flood disaster is the worst displacement event in the data series, indicating how large people movements can be in case of unprecedented weather extremes.

Causal Analysis



The causal analysis gives key information regarding on what specifically causes displacement in Pakistan. Floods come as the leading factor, and it is the reason behind 3.7 million displacements (50.8% total). The second largest cause is earthquakes and it affects around 870,000 people (11.7 percent). In the analysis, the displacement caused by climate-related events is found to make up the overwhelming majority, including armed conflict as a comparatively small but still substantial part.

Regional Comparative Analysis



The study of displacement issues in Pakistan via the regional comparative analysis puts the problem in an expanded situation in South Asia. Pakistan appears in third position in terms of regional total displacement trailed by India and Afghanistan. Nevertheless, the displacement profile is different in different countries so that Pakistan exhibits more disaster driven displacement as compared to Afghanistan whose displacement is mainly conflict driven (78.1% and 23.1% respectively).

Case Studies and Examples

Case Study 1: The 2022 Flooding Crisis

The Pakistan 2022 flooding crisis is a climate induced displacement of more than 2.4 million people and the worst climate induced displacement event in the dataset. The torrents of unprecedented monsoon rains as well as glacial melt had flooded huge tracts in Sindh, Punjab, and Balochistan provinces. The incident will show how climate extremes may exceed the benefiting power over adaptive means and form the high displacement problems.

Besides displacing millions of people, the floods washed away infrastructure, livelihoods and preconditioned a possible outbreak of a conflict due to the lack of resources. The gap in areas of disaster preparedness, early warning system, and post disaster recovery mechanisms was visible with the responses of the government. As the case study shows, climate events may trickle down to the social, economic and political beats and constitute tricky security issues.

Case Study 2: Drought-Induced Migration in Balochistan

The province of Balochistan has also witnessed repeated droughts which have forced about 290, 000 persons out of their homes within the period of study. This displacement caused by drought, in contrast to those of sudden-onset disaster, tends to become progressive as the sources of water and agricultural productivity dry out. The slow-onset nature of this displacement brings various challenges such as the pressure of urban migration and chances of conflicts over the available resources (Mahmood & Askari, 2022).

The story of Balochistan shows that climate change may accelerate the presence of vulnerabilities, especially among groups of people who have low levels of adaptive capacity. Pastoral communities whose traditional livelihood systems have been compromised by varying precipitation patterns and rising temperatures have been especially hit by this problem in the province.

Case Study 3: Cyclone Impacts in Coastal Areas

There has been an increasing activity of cyclones in coastal regions of Pakistan which has displaced about 464,000 people during the course of study. Such incidents indicate the susceptibility of low-lying communities against the adverse

effects of climate change, such as sea-level rise, rise in storm intensity, and storm surges. This displacement trend indicates that complex coastal managing and adapting measures are required.

Statistical Summary

Indicator	Value	Significance
Total Displacement (2015-2023)	7,422,504 people	Represents 3.4% of Pakistan's population
Disaster Displacement	5,798,417 people (78.1%)	Dominant driver of displacement
Conflict Displacement	1,624,087 people (21.9%)	Secondary displacement factor
Disaster-to-Conflict Ratio	3.6:1	Climate events 3.6x more displacive than conflict
Peak Displacement Year	2022 (2,588,203 people)	Highest single-year displacement
Primary Displacement Cause	Floods (50.8%)	Single largest displacement driver
Regional Ranking	3rd in South Asia	13.2% of regional displacement

Security Implications

The intensity and extent of climatic displacement in Pakistan have a significant implication on domestic calm and safety. The study presents some of the main security threats that arise due to the displacement trends noticed in the data.

Resource Competition and Conflict Potential

Massive displacement poses a strain to the resources of the destination sites putting them at the risk of competing with the displaced populations and the host communities. This contest may take different forms such as conflicts about land, water, jobs and access to the public services. Bakhsh, Abbas, Hassan, et al. (2020) are indicative of how the economic fallouts of climate displacement are depicted as human conflicts that bring about the economic costs of climate change since Pakistani Punjab experiences high costs of conflicts.

Governance and State Capacity Challenges

The scale of displacement processes, especially when they occur in the context of crises, as was observed at the end of 2022 in the floods, may overload the capacity of the state to respond and assist in decent amounts. Such pressure on the systems of governance may impair legitimacy and performance and, in rare situations, provide the basis of more comprehensive instability. The study highlighted the necessity in increased institutional capacity permitting effective response to instances of displacement crises.

Urban Migration Pressures

Climate displacement usually leads people to the rural to urban migration which cause further burden on the already stretched urban infrastructure and services.

This movement to the city can increase preexisting disparity and lead to other types of social impetus especially in the informal settlements and the marginalized groups.

Conclusion

This detailed examination of climate-change based displacement in Pakistan shows that the kind of securitization that Pakistan has to deal with has changed fundamentally. The fact that there is a 3.6:1 ratio of displacement which is caused by disaster over displacement which is caused by conflict reveals that climate change has taken over as the main cause of populating movement in Pakistan. The implications of this finding are profound on policy priorities, resources allocations and strategies in security.

The study proves that climate change is a multiplier of danger, causing the establishment of circumstances that might impact on vulnerability and set new instabilities. The large magnitude of the displacement, i.e., more than 7.4 million individuals during the last nine years, creates the indicator of the crisis that needs strategic interventions as speedy and as thorough as possible. Those causes (floods in this case 50.8 percent of all displacement) are also concentrated in places, which means the intervention needs must be specific in regard to managing the floods as well as adapting to changes caused by climate.

The regional overview indicates that the displacement struggle in Pakistan is within bigger South Asian trends, which implies a need to coordinate regionally and work together. The fact that the country is third in the region in terms of the overall displacement and that it contributed to 13.2 percent of the regional displacement means that there is need to find solutions at both national and regional levels to the challenge.

The fact that the distribution of the data by time clearly shows a sudden increase in displacement due to the 2022 floods illustrates that extreme weather can lead to enormous humanitarian disasters. Such heterogeneity of movements in displacement indicates the necessity of strong disaster readiness and early warning systems, and effective adaptive capacity building.

The study finds out that displacement caused by climate change is a threat to existential to internal stability in Pakistan and this necessitates some drastic shifts in the conceptualization and handling of security. Traditional security emphasis on conflict-related threats should be extended to climate security, and the overall approaches to this must include both short- and medium-term displacement emergencies and adaptation policies.

Recommendations

In line with the results of the research, this paper presents the comprehensive recommendations which are designed as immediate, medium -term and long-term

strategies to respond to displacement caused by climate change and its security impacts.

Immediate Interventions

- **Improved Early Warning Systems:** Design and introduce holistic early warning systems capable of forecasting and warning vulnerable community of climatic hazards to allow heads-up evacuation and displacement planning.
- **Emergency Response Capacity:** Increase institutional preparedness to respond in the event of an emergency such as resources and personnel pre-positioned, people pre-trained to respond, and a mechanism to coordinate actions to work together in an effective way during large-scale displacement action.
- **Flood Management Infrastructure:** Considering that 50.8% of displacement is caused by floods, it should be provided with primary investment in flood management infrastructure such as drainage systems, flood barriers and flood resistant housing.
- **Displacement Monitoring Systems:** Put in place extensive monitoring systems to trace displacement trends to preempt new hotspots and feed policy actions with real-time information on displacement.

Medium-term Strategies

- **Climate Adaptation Planning:** Institution climate adaptation plans that consider sudden-onset disasters, as well as slow environmental changes, and implementations that provide special mitigation of displacement and its management.
- **Livelihood Resilience Programs**: Put in place livelihood resilience schemes, such as climate-smart agriculture, alternative forms of livelihoods, and social security net systems to boost their capacity to resist livelihood shocks in vulnerable communities.
- **Urban planning of Climate Migration**: Design urban planning policies that can support climate induced migration; improving urban infrastructure, housing and services to eliminate population displacement.
- **Community-Based Adaptation:** Support community-based adaptation initiatives that build local capacity to cope with climate impacts and reduce the need for displacement.

Long-term Structural Changes

- **Climate Security Integration:** Integrate climate security considerations into national security planning, recognizing climate change as a fundamental threat to internal stability.
- **Regional Cooperation Mechanisms:** Establish regional cooperation mechanisms to address cross-border displacement and share best practices in climate adaptation and disaster risk reduction.
- **Policy Framework Development:** Develop comprehensive policy frameworks that address the rights and needs of climate-displaced populations, including legal protections and support services.
- **Investment in Climate Resilience:** Prioritize long-term investment in climate resilience infrastructure, including water management systems, disaster-resistant housing, and climate-adaptive agricultural systems.

Governance and Institutional Reforms

- **Institutional Coordination:** Put in place coordinated institutions that have the capability of dealing with the cross-sectoral and complex nature of climate displacement issues.
- **Capacity Building:** Invest in capacity building for government officials, civil society organizations, and communities to effectively respond to climate displacement challenges.
- **Research and Data Systems:** Develop robust research and data systems to monitor climate change impacts, displacement patterns, and the effectiveness of interventions.
- **International Cooperation:** Strengthen international cooperation and access to climate finance to support adaptation and resilience building efforts.

References

Ahmad, H. (2023). Causes and consequences of conflicts among farmers in punjab, pakistan. *Agrobiological records*. DOI: 10.47278/journal.abr/2023.007. Available at: https://doi.org/10.47278/journal.abr/2023.007

Ahmad, M. J., Cho, G.-H., Kim, S.-H., et al. (2021). Influence mechanism of climate change over crop growth and water demands for wheat-rice system of Punjab, Pakistan. *Journal of Water and Climate Change*. DOI: 10.2166/WCC.2020.009. Available at: https://doi.org/10.2166/WCC.2020.009

Ahmad, M., Oxley, L., Ma, H., et al. (2023). Does rural livelihood change? Household capital, climate shocks and farm entry-exit decisions in rural Pakistan. *Frontiers in Environmental Science*. DOI:

10.3389/fenvs.2022.857082. Available at: https://doi.org/10.3389/fenvs.2022.857082

Ahmad, S., Jia, H. T., Ashraf, A., et al. (2023). Water resources and their management in Pakistan: A critical analysis on challenges and implications. *Water-Energy Nexus*. DOI: 10.1016/j.wen.2023.10.001. Available at: https://doi.org/10.1016/j.wen.2023.10.001

Anjum, G., & Fraser, A. (2021). Vulnerabilities associated with slow-onset events (SoEs) of climate change: multi-level analysis in the context of Pakistan. *Current Opinion in Environmental Sustainability*. DOI: 10.1016/J.COSUST.2021.02.004. Available at: https://doi.org/10.1016/J.COSUST.2021.02.004

Ali, T. Z., & Askari, M. U. (2023). Impacts of the China-Pakistan Economic Corridor on the Natural Environment of Pakistan. *Pakistan Social Sciences Review*, *7*(4), 653-663.

Askari, M. U., & Mirza, M. N. E. E. (2024). Climate Change in Pakistan: Causes and Consequences. *Khaldunia-Journal of Social Sciences*, *4*(1), 40-55.

Ali, T. Z., & Askari, M. U. (2023). China-Pakistan Economic Corridor: A Rational Choice Theory Perspective. *Annals of Human and Social Sciences*, *4*(4), 512-528.

Bacha, M. S., Muhammad, M., Kılıç, Z., et al. (2021). The Dynamics of Public Perceptions and Climate Change in Swat Valley, Khyber Pakhtunkhwa, Pakistan. *Sustainability*. DOI: 10.3390/SU13084464. Available at: https://doi.org/10.3390/SU13084464

Bakhsh, K., Abbas, K., Hassan, S., et al. (2020). Climate change-induced human conflicts and economic costs in Pakistani Punjab. *Environmental Science and Pollution Research*. DOI: 10.1007/S11356-020-08607-5. Available at: https://doi.org/10.1007/S11356-020-08607-5

Bakhsh, K., Latif, A., & Ali, R. (2021). Relationship between adaptation to climate change and provincial government expenditure in Pakistan. *Environmental Science and Pollution Research*. DOI: 10.1007/S11356-020-11182-4. Available at: https://doi.org/10.1007/S11356-020-11182-4

Balsari, S., Dresser, C., & Leaning, J. (2020). Climate Change, Migration, and Civil Strife. *Current Environmental Health Reports*. DOI: 10.1007/S40572-020-00291-4. Available at: https://doi.org/10.1007/S40572-020-00291-4

Becker, R., Schüth, C., Merz, R., et al. (2023). Increased heat stress reduces future yields of three major crops in Pakistan's Punjab region despite intensification of irrigation. *Agricultural Water Management*. DOI: 10.1016/j.agwat.2023.108243. Available at: https://doi.org/10.1016/j.agwat.2023.108243

Bosetti, V., Cattaneo, C., et al. (2021). Should they stay or should they go? Climate migrants and local conflicts. *Journal of Economic Geography*. DOI: 10.3386/W24447. Available at: https://doi.org/10.3386/W24447

Dahri, G. N., Mangan, T., Nangraj, G. M., et al. (2021). Socio-economic Impact and Migration Due to Water Shortage in District Badin Sindh Province of Pakistan. DOI: 10.52223/JEI3012101. Available at: https://doi.org/10.52223/JEI3012101

Draper, J. (2023). Climate Displacement. DOI: 10.1093/oso/9780192870162.001.0001. Available at: https://doi.org/10.1093/oso/9780192870162.001.0001

Ergun, S. J., Khan, M. U., & Rivas, M. F. (2021). Factors affecting climate change concern in Pakistan: are there rural/urban differences? *Environmental Science and Pollution Research*. DOI: 10.1007/S11356-021-13082-7. Available at: https://doi.org/10.1007/S11356-021-13082-7

Faisal, M., & Askari, M. U. (2024). China Pakistan economic corridor and sustainable environment: Development, impacts, and policies. *Journal of Development and Social Sciences*, *5*(2), 244-256.

Hussain, M. A., Zhang, S., Muneer, M., et al. (2022). Assessing and Mapping Spatial Variation Characteristics of Natural Hazards in Pakistan. *Land*. DOI: 10.3390/land12010140. Available at: https://doi.org/10.3390/land12010140

Hussain, M., Butt, A. R., et al. (2020). A comprehensive review of climate change impacts, adaptation, and mitigation on environmental and natural calamities in Pakistan. *Environmental Monitoring and Assessment*. DOI: 10.1007/S10661-019-7956-4. Available at: https://doi.org/10.1007/S10661-019-7956-4

Hussain, T., Basit, A., & Javed, M. N. (2021). Climate Change Effects on Water Resources and Need of Dams in Pakistan. DOI: 10.31703/GMCR.2021(VI-I).24. Available at: https://doi.org/10.31703/GMCR.2021(VI-I).24

Ide, T., Brzoska, M., Donges, J. F., et al. (2020). Multi-method evidence for when and how climate-related disasters contribute to armed conflict risk. *Global Environmental Change-human and Policy Dimensions*. DOI: 10.1016/J.GLOENVCHA.2020.102063. Available at: https://doi.org/10.1016/J.GLOENVCHA.2020.102063

Idris, S. (2024). Climate Change. *Advances in environmental engineering and green technologies book series*. DOI: 10.4018/979-8-3693-2845-3.ch007. Available at: https://doi.org/10.4018/979-8-3693-2845-3.ch007

Jian, K.-r., & Hussain, A. G. (2023). Melting Glaciers and the Indus Water Treaty: A Looming Crisis. *Global legal studies review*. DOI: 10.31703/glsr.2023(viii-ii).01. Available at: https://doi.org/10.31703/glsr.2023(viii-ii).01

Khan, M. I., & Chang, Y.-C. (2021). Love for the climate in Sino–Pakistan economic romance: a perspective of environmental laws. *Clean Technologies*

and Environmental Policy. DOI: 10.1007/S10098-020-01938-4. Available at: https://doi.org/10.1007/S10098-020-01938-4

Khan, S. A., Doevenspeck, M., & Sass, O. (2023). Climate (im)mobilities in the Eastern Hindu Kush: The case of Lotkuh Valley, Pakistan. *Population and Environment*. DOI: 10.1007/s11111-023-00443-2. Available at: https://doi.org/10.1007/s11111-023-00443-2

Kim, K., & Garcia, T. S. (2023). Climate Change and Violent Conflict in the Middle East and North Africa. *International Studies Review*. DOI: 10.1093/isr/viad053. Available at: https://doi.org/10.1093/isr/viad053

Klepp, S., & Fröhlich, C. (2020). Migration and Conflict in a Global Warming Era: A Political Understanding of Climate Change. *The Social Sciences*. DOI: 10.3390/SOCSCI9050078. Available at: https://doi.org/10.3390/SOCSCI9050078

Krampe, F., O'Driscoll, D., Johnson, M., et al. (2024). Climate change and peacebuilding: sub-themes of an emerging research agenda. *International Affairs*. DOI: 10.1093/ia/iiae057. Available at: https://doi.org/10.1093/ia/iiae057

Kreske, E., Nawyn, S. J., Pearson, A. L., et al. (2023). Interventions addressing conflict in communities hosting climate-influenced migrants: Literature review. DOI: 10.1177/27538796231207919. Available at: https://doi.org/10.1177/27538796231207919

Laderach, P., Ramirez-Villegas, J., Prager, S. D., et al. (2022). The Importance of Food Systems in a Climate Crisis for Peace and Security in the Sahel. DOI: 10.1017/s1816383122000170. Available at: https://doi.org/10.1017/s1816383122000170

Lenshie, N. E., Ojeh, V. N., Oruonye, E. D., et al. (2022). Geopolitics of climate change-induced conflict and population displacement in West Africa. *Local Environment*. DOI: 10.1080/13549839.2022.2040461. Available at: https://doi.org/10.1080/13549839.2022.2040461

Lodhi, S. S., Ayyubi, M. S., Hayat, S., et al. (2024). Unravelling the Effects of Climate Change on Agriculture of Pakistan: An Exploratory Analysis. DOI: 10.55737/qjss.791319404. Available at: https://doi.org/10.55737/qjss.791319404

Maharjan, A., Safra de Campos, R., Singh, C., et al. (2020). Migration and Household Adaptation in Climate-Sensitive Hotspots in South Asia. DOI: 10.1007/S40641-020-00153-Z. Available at: https://doi.org/10.1007/S40641-020-00153-Z

Mahmood, A., & Askari, M. U. (2022). Revisiting the determinants and challenges of China-Pakistan Economic Corridor (CPEC) through the lens of public opinion. *Pakistan Journal of Social Research*, *4*(04), 828-839.

Malji, A., Obana, L., & Hopkins, C. (2022). When Home Disappears: South Asia and the Growing Risk of Climate Conflict. *Terrorism and Political Violence*. DOI: 10.1080/09546553.2022.2069448. Available at: https://doi.org/10.1080/09546553.2022.2069448

Martuscelli, P. N. (2023). Pakistan's Climate Migrants Beyond Mediatized Fictions. DOI: 10.4324/9781003367802-11. Available at: https://doi.org/10.4324/9781003367802-11

Memon, F. S., Abdullah, F., Iqbal, R., et al. (2022). Addressing women's climate change awareness in Sindh, Pakistan: an empirical study of rural and urban women. *Climate and Development*. DOI: 10.1080/17565529.2022.2125784. Available at: https://doi.org/10.1080/17565529.2022.2125784

Moitree, S. M., Robin, S., & Chitra, S. M. (2024). Climate-Induced Displacement and Migration and Adaptation Strategies in South Asia: Some Observations. *The Journal of Bangladesh and Global Affairs*. DOI: 10.55875/jbga.v3n1-2a9. Available at: https://doi.org/10.55875/jbga.v3n1-2a9

Muzamil, M. R., Tschakert, P., et al. (2021). An extreme climatic event and systemic vulnerabilities in the face of conflict: insights from the Taliban insurgency in Swat, Pakistan. *Regional Environmental Change*. DOI: 10.1007/S10113-020-01738-Y. Available at: https://doi.org/10.1007/S10113-020-01738-Y

Qazlbash, S. K., Zubair, M., Manzoor, S. A., et al. (2021). Socioeconomic determinants of climate change adaptations in the flood-prone rural community of Indus Basin, Pakistan. *Environmental development*. DOI: 10.1016/J.ENVDEV.2020.100603. Available at: https://doi.org/10.1016/J.ENVDEV.2020.100603

Raazia, I., Amin, A., & Irfan, S. (2023). Global Climate Change and Human Security Nexus: A Case of Pakistan. *Global foreign policies review*. DOI: 10.31703/gfpr.2023(vi-i).04. Available at: https://doi.org/10.31703/gfpr.2023(vi-i).04

Rifai, I., Al Khawaja, A., & Abdul Hameed, I. M. (2023). A review study on the effects of climate change on agriculture, livestock and forests in pakistan. *Zagazig Journal of Agricultural Research*. DOI: 10.21608/zjar.2023.323796. Available at: https://doi.org/10.21608/zjar.2023.323796

Rosvold, E. L. (2021). Security implications of climate change: The climate-conflict nexus. DOI: 10.1016/B978-0-12-822373-4.00015-X. Available at: https://doi.org/10.1016/B978-0-12-822373-4.00015-X

Saad, S., Mahsud, M. I., & Mian, G. (2024). Climate change impacts: exploring the rising climate-security nexus in Pakistan. *Liberal arts & social sciences*

international journal. DOI: 10.47264/idea.lassij/8.1.10. Available at: https://doi.org/10.47264/idea.lassij/8.1.10

Savelli, A., Schapendonk, F., Dutta Gupta, T., et al. (2023). Climate change, mobility and violent conflict: a typology of interlinked pathways. *International Development Planning Review*. DOI: 10.3828/idpr.2023.2. Available at: https://doi.org/10.3828/idpr.2023.2

Scartozzi, C. M. (2021). Reframing Climate-Induced Socio-Environmental Conflicts: A Systematic Review. *International Studies Review*. DOI: 10.1093/ISR/VIAA064. Available at: https://doi.org/10.1093/ISR/VIAA064

Sekiyama, T. (2023). Review of Vulnerability Factors Linking Climate Change and Conflict. *Climate*. DOI: 10.3390/cli11050104. Available at: https://doi.org/10.3390/cli11050104

Seneca, N. (2023). Environmental Challenges, Disaster Risk, and Social Policy for Women of Pakistan. DOI: 10.1007/978-3-031-32863-3_5. Available at: https://doi.org/10.1007/978-3-031-32863-3_5

Shawoo, Z., & McDermott, C. L. (2020). Justice through polycentricity? A critical examination of climate justice framings in Pakistani climate policymaking. *Climate Policy*. DOI: 10.1080/14693062.2019.1707640. Available at: https://doi.org/10.1080/14693062.2019.1707640

Sheer, A., Fatima, S., & Sharif, A. (2023). Impact of Climate Change on Pakistan and Proposed Solutions: Evidence from Literature. *Migration Letters*. DOI: 10.59670/ml.v20i6.3464. Available at: https://doi.org/10.59670/ml.v20i6.3464

Singh, A. (2022). Environment-Conflict Nexus in the Sahel Region: Lake Chad as a Case in Point. DOI: 10.54103/2612-6672/19469. Available at: https://doi.org/10.54103/2612-6672/19469

Usman, M., Wasim, M., & Yawar, R. B. (2023). Assessing the Economic Implications of Climate Change on Agriculture in Punjab in Pakistan: Farmers Perception and Satisfaction. *Bulletin of business and economics*. DOI: 10.61506/01.00042. Available at: https://doi.org/10.61506/01.00042

Waheed, A., Fischer, T. B., et al. (2021). Climate Change Policy Coherence across Policies, Plans, and Strategies in Pakistan—Implications for the China–Pakistan Economic Corridor Plan. *Environmental Management*. DOI: 10.1007/S00267-021-01449-Y. Available at: https://doi.org/10.1007/S00267-021-01449-Y

Watson, T. M. R., Lenton, T. M., & Safra de Campos, R. (2023). The climate change, conflict and migration nexus: A holistic view. *Climate resilience and sustainability*. DOI: 10.1002/cli2.50. Available at: https://doi.org/10.1002/cli2.50

Wynn, P. C., Warriach, H., et al. (2021). The future of smallholder farming in developing countries in the face of climate change: a perspective with a focus on Pakistan. *Animal Production Science*. DOI: 10.1071/AN20496. Available at: https://doi.org/10.1071/AN20496

Yasin, H. Q., Breadsell, J. K., & Tahir, M. N. (2021). Climate-water governance: a systematic analysis of the water sector resilience and adaptation to combat climate change in Pakistan. *Water Policy*. DOI: 10.2166/WP.2020.113. Available at: https://doi.org/10.2166/WP.2020.113