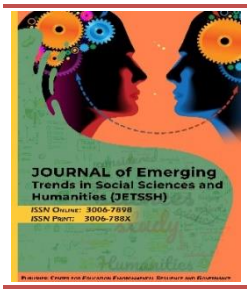
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Climate Security and Internal Stability in Pakistan: Exploring Resource Conflicts, Migration, and Governance Challenges

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ABSTRACT

Earth is the only planet with life. This existence of life on Earth is due to suitable environmental conditions. For the past few decades, the Earth's environment has been changing, mainly due to human activities. This results in fluctuations in the Earth's climate. Some scholars consider climate change as Non-Traditional Security Threats because it has spread beyond the environment to the political, socio-economic, and human security concerns. The negative effects of climate change include frequent flooding, droughts, extreme weather and resource depletion. It is more frequent in countries like Pakistan, which are most vulnerable to its impacts. It has placed an increased strain on communities and institutions, posing a challenge to intra-communal stability. Thus, this study investigates the relationship between climate security and internal stability in Pakistan by analysing challenges of resource conflict, climate-induced migration and governance issues in the years 2013-2024 using the Human Security Framework and Environmental Scarcity Theory. The research is qualitative, based on a thematic analysis of policy documents, government reports, disaster management records and secondary literature. This research indicate that the strong policies are required in policy implementation, institutional coordination, and inclusion of climate risks in national security planning.

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1. Introduction

Climate change is one of the greatest challenges of the twenty-first century and has been identified as one of the biggest problems since the Industrial Revolution (IPCC, 2023; World Economic Forum, 2025). It has transcended environmental limits and is affecting economic security, social unity and national security. The main idea of security was based on military threats and interstate conflicts. In the post-Cold War era, however, the concept of security was extended to encompass Non-Traditional Threats (Busby, 2022; United Nations, 2023). The threats are terrorism, pandemics, cybersecurity and environmental issues. One of these threat multipliers is climate change. It will worsen vulnerabilities and undermine human and National Security (Intergovernmental Panel on Climate Change [IPCC], 2023).

The concept of Climate Security has evolved from environment to climate-induced risks and their implications for societal stability, governance and conflict over time. Life in the aftermath of extreme weather, long droughts, flooding, heatwaves and higher temperatures is the new normal, impacting livelihoods, food systems, public health and migration. The most vulnerable are developing countries where adaptive capacities are very low. This has resulted in the depiction of climate change as a Non-Traditional Security Threat that exacerbates the competition for resources, displaces people, and creates policy issues for state institutions.

Despite contributing less than one percent of global GHGs, Pakistan is one of the most climate-vulnerable countries (Government of Pakistan, 2021). It has been exposed to various climate risks such as floods and droughts annually. It has also experienced glacial lake outburst floods, water scarcity and heatwaves due to increasing temperatures.

Since the Global Climate Risk Index (GKRI) came into existence, Pakistan has been one of the worst-hit countries by extreme weather events. But looking into the past, the flooding in 2022 was the worst. It pointed out the extent of climate vulnerability in the country. Some 33 million people were affected by the flooding in 2022. It inflicted damage on over 2 million houses and losses of over US$15 billion (Government of Pakistan, 2023; ICIMOD, 2023).

Pakistan, being an agrarian economy, is highly sensitive to climate change. Agriculture is a major source of employment and livelihoods in rural areas of Pakistan. Therefore, temperature variations have resulted in changing patterns of rainfall and water resources. This leads to glacier melting and frequent natural disasters. These situations build avenues for the impacts of climate change on internal stability and human security in Pakistan. In addition, it has led to significant stresses on natural resources, local communities, and governance institutions. Provincial inequalities due to water scarcity, land degradation, loss of agricultural productivity and extreme weather events. These factors put stress on resources, particularly in the districts of Sindh, Balochistan and Southern districts of Punjab, which are more vulnerable. Moreover, the environmental stresses are often compounded by existing socio-economic inequalities, poverty and weak institutional capacity, creating the potential for social tensions and instability.

Moreover, within the country, displacement and migration have also been driven swiftly by climate-induced disasters. For instance, the 2022 floods caused a loss of life for around 33 million people. It resulted in the displacement of millions of people, livelihood and infrastructure losses (Government of Pakistan & United Nations, 2022). More than 13,000 km of roads were washed away, and hundreds of bridges were destroyed. Over 1.1 million livestock were killed. There are security implications beyond humanitarian considerations associated with these developments. Resource shortages led to local conflicts, and there was a considerable amount of migration to cities.

This in turn exerts pressure on the urban areas, which are already facing problems of poor housing, employment and public services. Moreover, the above climate events reveal vulnerabilities of the governance regime that is dealing with disaster management, resource allocation, and adaptation planning. Although there are policy and institutional avenues related to climate change, they are not being implemented, which hinders their effectiveness in mitigating new climate security challenges.

Hence, the problem at hand is to study the internal instability in Pakistan due to climate change. Addressing resource conflicts, migration pressures and governance problems. Knowledge of linkages for putting together an integrated policy-based response that includes security and development planning along with climate adaptation.

In this article, the significant policy perspective of Pakistan is illustrated through various policy actions related to climate change, such as the National Climate Change Policy, National Adaptation Plan, and disaster risk reduction policies. But when climate disasters repeat, there are gaps in institutional preparedness and policy implementation. Thus, the results of this study can support policymakers in enhancing governance over climate and climate risks, in better managing resources and in integrating climate risks into national security planning.

2. Research Objectives

1. Examine migration and displacement trends and consequences of the climate crisis.
2. Evaluate governance issues related to climate insecurity and disaster management.
3. Assess the general consequences of climate change on internal security and human security in Pakistan.

3 Research Questions

1. How does climate change relate to resource conflicts in Pakistan?
2. What is the relation between climate-induced migration and internal instability and social pressures?
3. What is the effectiveness of the governance mechanisms to tackle climate-security challenges in Pakistan?

4. Literature Review

4.1 Conceptualising Climate Security

Security has been changed a lot since the end of the Cold War. Most security concepts were based on military aspects, territorial integrity and state sovereignty (Walt, 1991). In modern security research however, the spectrum of threats has broadened to encompass "non-traditional" threats such as environmental degradation, pandemics, food insecurity and climate change (Buzan, Wæver, & de Wilde, 1998). This will be reflected in a wider understanding of threats to human welfare issues that are not solely related to military conflict and which can impinge upon social and political stability.

Climate security is now an integral part of the non-traditional security (NTS) discourse. The concept is concerned with the security aspects of climate change that impact livelihoods, access to resources, migration, social cohesion, as well as state capacity (Busby, 2022). However, unlike traditional security risks, climate change does not in itself create conflict, but is considered a “threat multiplier” that heightens existing vulnerabilities and socio-political tensions (United Nations Security Council [UNSC], 2021).

The human security paradigm extends climate security. Human security is a concept introduced by the United Nations Development Programme (UNDP, 1994), and it moves the focus of security from the security of the state to the security of the individual and community. It involves economic, food, health, environmental, personal, community and political security. In this view, climate change poses a risk to human security in terms of impacts on livelihoods, disaster risk, food production and exposure to health risks (Adger et al., 2014).

Also, environmental security focuses on the linkages between environmental change and social stability. It is believed that environmental degradation can also have an impact on the strength of state institutions, growing competition over resources, and social unrest (Homer-Dixon, 1999). Climate security is thus a nexus between environmental and human security, as climate change poses threats to people and to the stability of states.

4.2 Climate Change and Conflict Nexus

There is one part of climate security research that has been the subject of debate: the link between climate change and violent conflict. Homer-Dixon's (1994, 1999) resource scarcity theory is an influential model of this relationship. This theory says that the deterioration or depletion of the environment and resources decreases the availability of resources like water, land, food, etc and increases competition between groups. The competition can promote conflict and instability under low governance and socio-economic

inequities.

It is on this basis that environmental conflict theory would suggest that environmental stress can act as a catalyst for violence in ways that result in increased poverty, displacement, and political grievances (Kahl, 2006). Limited availability of resources due to climate change can exacerbate inter-community conflicts between people relying on agriculture, livestock farming and water resources. These pressures are especially important in developing countries where livelihoods are heavily reliant on those sectors that are climate sensitive.

While these arguments are theoretical, the climate-conflict nexus is still contested. Although not all scholars agree (Burke, Hsiang, & Miguel, 2015), some believe that climate change can indirectly create a favorable environment for conflict, primarily when governance institutions are weak. Empirical evidence has shown that there are links between warming temperatures, extreme weather events and social unrest and violence in vulnerable areas.

Other scholars warn of a direct connection between climate change and conflict as a deterministic relationship, however. Selby et al. (2017) contend that especially when environmental factors are not sufficient, political, economic and institutional factors may be more influential. It is suggested that this view should not be that of climate change as a cause of conflict but rather as a risk multiplier. Current literature indicates a general consensus that climate change interacts with existing vulnerabilities, weak governance, and socio-economic inequalities affecting conflict dynamics, rather than being a standalone driver of conflict (Ide et al., 2021).

4.3 Climate-Induced Migration

Migration due to climate change is increasingly a field of study in climate security. According to the International Organization for Migration (IOM, 2019) environmental migration is the migration of people or groups who have been forced to abandon their place of usual residence as a result of sudden or gradual environmental change which has had harmful effects on their lives and living conditions. Climate-related migration can occur in the event of floods, droughts, sea-level rise, desertification and extreme weather events.

The latest research on climate change scholarship has pinpointed climate migration as one of the most visible impacts of climate change. Black et al. (2011) state that economic, social, demographic and political factors all interact with environmental factors to affect decision making regarding migration. Migration should therefore be viewed not just as a reaction to environmental stress but rather one of a series of adaptations.

There is a lot of discussion about the security implications of migration caused by climate change. Reuveny (2007) suggested that population shifts can put pressure on the urban infrastructure, public services, housing and the labor market, leading to social tensions. Rapid urbanization due to climate-displaced population can create strains on the capacity of local governments and raise the vulnerabilities of the climate-displaced population.

Others have pointed out that migration could also strengthen resilience because it allows households to diversify their income sources and also limit their exposure to environmental hazards (Foresight, 2011). From this perspective, the issue of migration should be viewed not only as a security risk but as an adaptation mechanism too. However, large-scale climate-induced migration, in settings of low institutional capacity, can result in considerable governance and security issues.

There is more and more emphasis in the literature on the need to consider climate migration from a human security perspective. Aside from the security concerns of the state, the researchers point to the vulnerability of the displaced population, including the loss of livelihoods, lack of housing, lack of food and healthcare (McAdam, 2012).

4.4 Climate Governance and State Capacity

Climate change has been increasingly recognised as a security concern, resulting in greater attention to climate governance and state capacity. Climate governance can be described as the institutions, policies, regulations and decision-making processes that respond to climate risks and foster adaptation and resilience (Biermann et al., 2010). Good governance is a key enabler to reduce vulnerabilities to climate change and manage the spread of environmental stress to overall security issues.

Adaptive governance has emerged as a subject that has been emphasized in this body of knowledge. Adaptive governance focuses on flexibility, learning, participation and cooperation to meet complex environmental challenges (Folke et al. 2005). Adaptive governance enables institutions to 'adapt' to varying conditions, to become 'resilient' and to cope effectively when facing climate impacts, particularly where uncertainty about impacts exists.

Institutional resilience is another important issue that is part of institutional climate governance. Resilient institutions can anticipate, absorb and recover from climate shocks and provide functions (OECD, 2020). Good governance systems support disaster preparedness, resource management, conflict prevention and reconstruction after a disaster. Conversely, fragile institutions are less resilient to climate change induced stress factors, and this may result in social unrest and humanitarian crises.

Climate policy frameworks can be viewed as a manifestation of climate governance. The Paris Agreement and other international instruments have stimulated states to develop adaptation and mitigation strategies. Disaster risk reduction, disaster resilience and sustainable development goals are increasingly integrated in national climate policies. Nevertheless, researchers have observed that implementation gaps often make policies less effective—especially in developing countries, where financial, technical and institutional resources are still limited (Ayers & Dodman, 2010).

From the literature, it has been found that the quality of governance can be a decisive factor in whether or not the effects of climate stress result in adaptation or instability. Vulnerabilities can be minimised, resource conflicts can be mediated, and equitable adaptation actions can take place through effective institutions, reducing climate-security risks (Busby, 2022).

5. Research Gap

The study has its own contribution in the emerging literature on climate security as it focuses on climate change as a non-traditional security threat in the context of Pakistan. Most existing research and literature have tended to focus on impacts on the environment and on disaster management, rather than on the links between climate change, resource conflicts, migration, governance, and internal stability. These dimensions' complement each other to offer a more comprehensive view of climate-induced security challenges (Khan et al., 2020; Rasul, 2021).

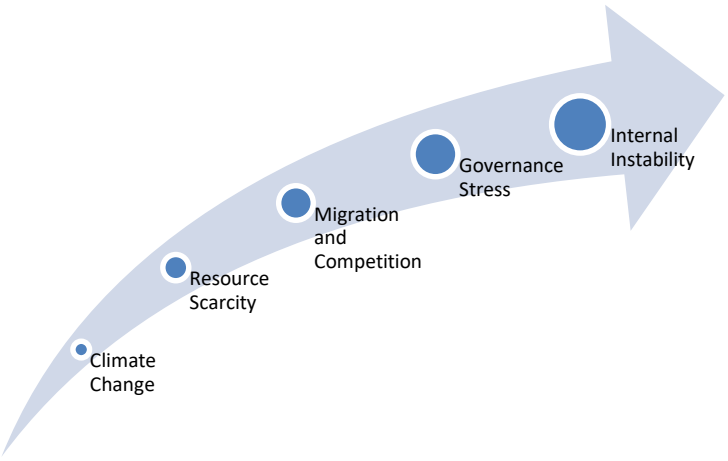
6. Theoretical Framework

It uses an interdisciplinary theoretical framework, combining the Human Security Framework, Environmental Scarcity Theory and the Climate Security Nexus to help understand the role of climate change in causing internal fragilities in Pakistan. The complementary viewpoints offer a full-spectrum analytical prism to understand the nexus between environmental change, resource pressure, migration, governance challenges, and security outcomes.

Conceptual Model

The study adopts the following conceptual model:

Figure No 1: *Conceptual Model*



Source: *Researcher*

This model assumes climate change is the major stressor in the environment. Limited availability of resources such as water and land may result in greater competition and, in turn, migration or displacement as a result of the effects of climate change. This can increase the strain on governance institutions due to demographic and socio-economic pressures, which may trigger social conflicts and internal fragilities.

7. Research Methodology

This study uses a qualitative method with a case study approach to explore the relationship between climate security and internal stability in Pakistan. Secondary sources of data were used, such as government reports, climate policy documents, NDMA/PDMA reports, UNDP publications, World Bank publications, IPCC publications and relevant academic literature. The study covers the period from 2013 to 2024, which includes major climate events and policy developments, particularly the 2022 floods. Thematic content analysis and policy analysis were used to analyse the data to elicit themes of resource conflicts, migration, governance challenges and climate security (Braun & Clarke, 2006). In this way, a comprehensive picture of the security issues related to climate change in Pakistan is acquired.

8. Climate Change and Resource Conflicts in Pakistan

8.1 Water Scarcity and Inter-Provincial Tensions

Climate-related water scarcity is one of the biggest security threats facing Pakistan. The Indus River Basin is also vital to the country's economy and food production systems. Almost 90 percent of the agricultural output and nearly 240 million people depend on it for their water needs (World Bank, 2022). The Hindu Kush–Karakoram–Himalayan region used to have glaciers that were melting at a faster rate due to climate change. This leads to changes in precipitation patterns and more frequent drought and flood events, which impact water availability and predictability (IPCC, 2023).

The availability of water in Pakistan has drastically decreased from around 5260 cubic meters per capita in 1951 to less than 1000 cubic meters in recent years. This indicates that the country is on the verge of reaching absolute water scarcity conditions (Pakistan Council of Research in Water Resources [PCRWR], 2021). There has been greater tension between the provinces over water allocation laid out in the Water Apportionment Accord of 1991. Sindh has had a history of pointing out that it is being denied water due to excessive withdrawals by Punjab, and Balochistan has had issues about water access and availability (Mustafa, 2019).

Diminishing river flows and growing water needs have aggravated political tensions. In dry years, the water distribution conflicts over the canals intensify and impact crop yields and farming income. Water scarcity has thus become a governance and security issue, and a social and federal-provincial relations issue, in addition to being an environmental issue.

8.2 Agricultural Stress and Rural Competition

Climate variability continues to pose a huge risk for agriculture in Pakistan. The sector accounts for around 23 percent of GDP and ~37 percent of labour force (Pakistan Economic Survey, 2023). The variations in rainfall, temperature and the frequent occurrence of drought have had a marked impact on crop production, food security and rural income.

The Food and Agriculture Organisation (2022) reports that due to prolonged drought-like conditions in parts of Sindh and Balochistan, agricultural production has decreased while food security among the rural population has increased. Wheat, cotton and rice production, which form a significant part of the agricultural economy in Pakistan, have also been impacted by higher temperatures. Research shows that wheat crop production in sensitive areas could be lowered by 5–7 percent for every one-degree Celsius rise in temperature (Ahmad et al., 2018).

These are compounded by land degradation. The Ministry of Climate Change estimates that about 40 per cent of the land area of Pakistan is degraded due to soil erosion, desertification, salinity and unsustainable land-use practices (Government of Pakistan 2021). This pressure increases the competition for productive land and water resources and decreases livelihood opportunities.

With shrinking household incomes, there is growing competition for scarce jobs and natural resources. This often leads to the exacerbation of

current socio-economic inequalities, which can lead to conflicts within farming communities. Environmental stress, therefore, also plays an indirect role in the destabilisation from a livelihood point of view because it raises the vulnerability of rural populations.

8.3 Climate-Induced Competition over Natural Resources

Climate change in Pakistan has led to increased competition for natural resources in multiple parts of the country. Pastoral and farming communities have experienced conflict due to reduced water levels and dwindling pastoral land use in the arid and semi-arid regions. These have been especially noticeable in Balochistan, where recurring droughts have lowered livestock productivity and forced nomadic communities to move for water and forage, on and off the land (UNDP, 2021).

In Sindh, due to a reduction in fresh water flow in the Indus Delta, seawater intrusion has adversely affected the farmlands and forced farming communities out. According to the International Union for Conservation of Nature (IUCN, 2020), over 1,200,000 acres of agricultural land have been salted and affected by seawater in coastal parts of Sindh. This has further increased competition for the remaining land and water resources available in agriculture.

The struggle for water, increasing temperatures and desertification also pose a serious threat to South Punjab's environment. All of this has driven livelihood insecurity and led to intra-community conflicts over access to water for irrigation and farmland. The conflicts are local and illustrate how climate change can exacerbate socio-economic vulnerabilities and lead to instability.

9. Climate-Induced Migration and Internal Stability

9.1 Patterns of Climate Migration

One of the largest impacts of climate change in Pakistan has been the phenomenon of climate-induced migration. Extreme weather events, floods, droughts, and land degradation are forcing more and more individuals and households to move from their homes, now temporarily or permanently. According to the Internal Displacement Monitoring Centre (IDMC, 2024), Pakistan is consistently identified as one of the countries in the world with the highest number of disaster-related displacements.

Floods continue to be the leading cause of climate-related displacement. Over the last ten years, the recurrent floods in the Indus River Basin have made millions of people homeless. At the same time, the long spells of dry spells in Balochistan, Tharparkar and southern Punjab have propelled migration as an alternative means of livelihood for the households. Migrant flows caused by drought can be slow-moving and may not be reported, even though they can have substantial socio-economic effects, as compared to sudden-onset disasters like floods.

9.2 Rural-to-Urban Migration

Climate-induced displacement is an increasing component of rural to urban migration. Due to environmental stress and lessened agricultural potential, major urban centres like Karachi, Lahore, Hyderabad and Multan have become the places of choice for the effected population. The United Nations Human Settlements Programme (UN-Habitat, 2022) reported that the urban population of Pakistan has been increasing at an alarming rate, climate-related migration being one of the major factors contributing to the growth.

The city of Karachi, already with more than 20 million people, is under a significant pressure from the influx of job-seeking migrants, who also need access to services. This is also happening in Lahore and other fast-growing cities. Migration may be an adaptive response of households affected by migration but rapid urbanization puts significant pressure on housing, transport, sanitation, health, and employment systems.

As urban populations continue growing, the lack of capacity to accommodate these populations within formal buildings and roads can exacerbate informal settlements and the vulnerabilities of migrants' socio-economic life.

9.3 Social and Security Implications

Demographic shifts are not the only security concerns of climate-induced migration. An influx of displaced populations to cities can increase competition for employment, housing and public services. Migrants often end up in informal settlements with poor housing, little access to sanitation facilities, health and education services,

and other services, and frequently face discrimination in accessing these services (World Bank, 2022).

Another major challenge is the competition in the job market. The skills that many climate migrants may have, such as agricultural skills, may not readily be applicable to the urban labour market. This result is that the unemployment and underemployment rates among displaced people are often high, which further renders them economically insecure and socially excluded.

The rapid demographic shifts can also fuel social tensions between migrants and host communities, especially if there are not enough resources (Reuveny, 2007). While climate migration does not inevitably lead to conflict, the lack of good governance and service provision can exacerbate perceptions of competition and marginalisation. This can compromise social cohesion and represent a new security issue to the community.

9.4 Case Study: The 2022 Floods and Population Displacement

The 2022 floods are a good illustration of how displacement and internal stability were connected with climate change in Pakistan. The floods occurred due to unprecedented monsoon rainfall and glacier melt and involved a total of about 33 million people in the country (Government of Pakistan & United Nations, 2022). Over 1,700 lives were lost and more than 2 million homes were damaged or destroyed (NDMA, 2022).

The estimated economic loss is reported to be US$15.2 billion in the Post-Disaster Needs Assessment (PDNA), and the damages are estimated at US$14.9 billion (Government of Pakistan, 2022). This flooding caused over 13,000 km of roads to be damaged, hundreds of bridges were destroyed, around 4.4 million acres of agricultural land were affected, and more than 1.1 million livestock were lost. This resulted in millions of people being displaced and becoming part of the largest human rights crisis in the recent history of Pakistan.

The flooding crisis not only had humanitarian consequences, but also had long-term security consequences. Large-scale displacement added to city pressures, food insecurity, livelihoods disruption. According to the World Bank (2023), the losses due to floods may push an additional 8.4-9.1 million people into poverty. The disaster highlighted inadequate preparedness for the disaster, institutional coordination, and climate change adaptation planning.

The 2022 floods provide a good example of climate change as a threat multiplier, increasing pre-existing socio-economic vulnerabilities and governance challenges. The magnitude of the displacement and the disruption of resources elucidates that climate-induced disasters have become a key force influencing the internal stability of Pakistan. Improving resilience, building adaptive capacities and managing resources sustainably are therefore necessary measures alongside humanitarian responses to mitigate the effects of climate migration and resource competition.

10. Governance Challenges in Addressing Climate Security

10.1 National Climate Governance Framework

In the past ten years, Pakistan has invested considerable time and energy to enhance its climate governance mechanisms by formulating National policies, adaptation mechanisms and DRR policies. The National Climate Change Policy (NCCP) 2012 and 2021, adopted as the cornerstone of Pakistan's climate governance framework, outlines strategic plans for mitigating and adapting to climate change. The National Climate Change Policy (NCCP) 2012 and 2021 forms the bedrock of Pakistan's climate governance framework and has strategic plans of action for mitigation and adaptation to climate change. Climate change is a multi-faceted phenomenon which impacts water, agriculture, energy, health, biodiversity, and disaster management sectors, which is acknowledged in the policy (Government of Pakistan, 2021). It focuses on climate adaptation, mitigation, ecosystem protection and institutional capacity building for increasing climate change risk resilience.

In addition to the NCCP, Pakistan also introduced the National Adaptation Plan (NAP) in 2023 for taking forward climate adaptation in mainstream development planning. The NAP also seeks to minimise vulnerability in key sectors, enhance adaptive capacities to climate, and promote

integration of climate into national and provincial development plans (Ministry of Climate Change, 2023). The plan is in line with international commitments made in the Paris Agreement and Sustainable Development Goals (SDGs).

Another significant aspect of climate governance is disaster risk reduction (DRR). After the floods in 2010, Pakistan adopted the National Disaster Management Act and gave more powers to institutions like the National Disaster Management Authority and Provincial Disaster Management Authorities. The National Disaster Management Plan highlights preparedness, early warning systems, development of disaster-resilient infrastructure, and community-based risk reduction.

In spite of such policy progress, the climate vulnerability is still high. The World Bank states that under the current conditions, if Pakistan fails to take steps towards adaptation, its economic losses due to climate change could be as high as 6–8 percent of the gross domestic product (GDP) by 2050 (2022). Policy implementation is also a significant governance challenge as a result of the gap between policymaking and implementation.

10.2 Institutional Coordination Challenges

Institutional fragmentation and lack of coordination between state and local and federal levels is one of the major challenges for effective climate governance in Pakistan. In 2010, environmental governance functions were mostly decentralised to the provincial level via the 18th Constitutional Amendment. Decentralisation led to possibilities of localised climate action but also led to problems of coordination between the federal and provincial government institutions (Khan & Ali, 2022).

Climate change is sectoral in nature and calls for synergy and collaboration between the various ministries with water resources, agriculture, disaster management, planning, energy and environment. Policy coherence is often impeded, though, by overlapping mandates and institutional duplication. For instance, the provincial departments may be carrying out climate adaptation projects separately, and they are not being well integrated into the national plans.

The governance is further complicated by capacity constraints. Technical, financial and climate data skills are lacking at many provincial and district-level institutions to support effective decision-making. Local governments are frequently challenged to carry out vulnerability assessments, undertake adaptation projects, and monitor climate hazards (United Nations Development Programme, 2022). These restrictions necessarily limit the responsiveness of institutions in the event of a climate emergency and diminish the efforts that can be made to strengthen long-term resilience.

These coordination issues were brought to light during the 2022 floods. Federal and provincial governments launched significant relief operations, but gaps were identified in terms of information sharing, emergency response coordination, and planning in the aftermath of the disaster (Government of Pakistan 2022). These deficiencies highlight the need for coordinated governance structures that can effectively address the growing climate-security challenges.

10.3 Policy Implementation Gaps

Pakistan has a relatively good climate policy framework, but implementation is not uniform. One of the biggest obstacles is often financial constraints. The World Bank (2022) estimates that by 2030, Pakistan will need around US$348 billion in investments to build climate resilience and undertake low-carbon development pathways. Domestic fiscal constraints and priorities, however, limit available resources.

Local level climate financing is in particular weak. International donors and development partners are critical to many adaptation projects, making for sustainability challenges if there is a reduction in external support. In addition, climate adaptation finance tends to be targeted at pilot initiatives instead of large, nationally implemented adaptations.

Another implementation challenge is weak local governance mechanisms. There is a lack of institutional capacity in district administration to effectively implement the national policies into action. Effectiveness and inclusiveness of adaptation efforts is limited by community involvement in the planning process. Research has shown that climate policies are not always designed to reflect local knowledge, gender issues and the needs of vulnerable groups (Ayers &

Dodman, 2010).

Monitoring/evaluation is also underdeveloped. There is a lack of performance measures in many climate change programs that lead to challenges in understanding how well policies are working and what is missing in implementation. Large gaps between policy goals and results remain, however.

10.4 Climate Security and National Security Planning

In the past, Pakistan's national security discussions were rigid and geared only towards the conventional military threat. But in recent years, climate-related emergencies have led to increased attention around climate change as a strategic security threat. The National Security Policy (2022-2026) is a great shift in which climate change, water stresses, food insecurity and environmental degradation have been included as threats to national security (Government of Pakistan, 2022).

This change is part of the increased global awareness of climate change as a security threat. The United Nations Security Council and several national governments are increasingly considering climate change as a threat multiplier that can amplify current vulnerabilities and conflict risks (UNSC, 2021). Climate induced risks have direct consequences for economic security, social stability, and governance capacity for Pakistan.

However, incorporating climate risks into national security planning is not complete. Climate change is frequently perceived by security institutions as an environmental or a development problem instead of a multi-dimensional security problem. Improvements in the integration of climate security must include more effective risk assessments, interagency coordination and strategic planning processes that integrate climate scenarios into national security plans.

11. Discussion

11.1 Climate Change as a Threat Multiplier

The results of this study corroborate a growing body of evidence pointing to the fact that climate change acts as a threat multiplier and not as a direct cause of conflict. Existing socio-economic vulnerabilities, governance gaps and resource pressures combine to lead to instability which is exacerbated by climate-related hazards (Busby, 2022).

This is well demonstrated in Pakistan. The vulnerable people are being impacted most by water scarcity, agricultural stress, and recurring disasters. According to The World Bank (2022), climate change is likely to cause a loss of water supply in Pakistan of up to 10 percent by 2047, as a result of population growth and urbanization. These pressures intensify competition for limited resources, and livelihood insecurity.

The 2022 floods are another example of the multiplier impacts of climate change. The floods had other humanitarian impacts, including affecting agricultural output and food prices, damaging infrastructure and bringing millions closer to poverty. Such cascading effects highlight how socio-economic vulnerabilities can be exacerbated by climate shocks and generate wider security issues.

11.2 Interconnections among Conflict, Migration, and Governance

One of the major outcomes of this study is the interconnection between resource conflicts, movement and governance issues in the context of climate change. These phenomena should not be considered singular events but as processes reinforcing one another.

Livelihood insecurity due to resource scarcity from climate change is likely to push people to migrate as a coping mechanism. Migration, in turn, puts pressure on urban infrastructure and housing systems and public services, as well as on urban populations. The absence of effective governance systems can increase social tensions and impact institutional legitimacy.

This is especially true in areas where there are recurring environmental stresses. Water scarcity and land degradation in Sindh and Balochistan, has led to displacement and heightened resource competition. The urban centres that receive migrants then have problems with informal settlements, unemployment and lack of services.

The dynamics of governance capacity and environmental pressures are thus key determinants of security outcomes. Good institutions can help to resolve conflicts, to help adapt and increase resilience. Meanwhile, if

governance is weak, there is a greater risk that a period of climate stress may lead to instability.

12. Policy Recommendations

12.1 Strengthening Climate Security Governance

There is a need for a special mechanism for climate-security coordination in Pakistan that could incorporate climate adaptation, disaster management, and national security planning. This could help ensure policy coherence and coordination between federal, provincial and local institutions.

12.2 Improving Water Resource Management

With the increasing scarcity of water, comprehensive reforms in water governance are needed. Key priorities should be modernisation of irrigation practices, better groundwater management, increased water storage and better implementation of the 1991 Water Apportionment Accord. Investing in water-saving farm technologies can also mitigate resource stresses.

12.3 Developing Climate-Resilient Livelihoods

Enhancing livelihood resilience is very important to mitigate vulnerabilities to climate change. Policymakers should encourage the adoption of climate-smart agriculture practices, drought-tolerant crop varieties, sustainable livestock management, and diversification of rural livelihoods. This can help to decrease reliance on climate-sensitive sectors and ease migration pressures.

12.4 Enhancing Disaster Preparedness and Adaptation

DPIPWE need to focus on disaster preparedness through enhancing early warning systems, reinforcing infrastructure resilience and adaptation at the community level. Climate information services and improved local capacities for disaster response can play a major role in mitigating the impacts of disasters.

In addition, climate adaptation should be integrated into development planning at all levels of Government. This comprises incorporating climate risk analysis into infrastructure, agriculture, health and urban planning projects.

12.5 Integrating Climate Security into National Security Strategy

National security assessments and strategic plans should be designed to integrate climate risks. Security institutions need to create frameworks to monitor climate risks, scenarios, and inter-institutional coordination platforms to mitigate new threats to security.

A national security response to climate change will make it easier to achieve more holistic responses that integrate environmental sustainability, economic development and societal stability.

12.6 Building Institutional and Community Resilience

Institutional and community resilience must be strengthened to achieve long-term resilience. Capacity building programmes should build the technical capacity of local governments and disaster management agencies. At the same time, community engagement in planning should be increased to guarantee locally appropriate adaptation measures are adopted.

Vulnerable groups like women, children, climate-displaced communities and smallholder farmers should be prioritised. Vulnerability can be lessened and adaptive capacity enhanced through inclusive governance and social protection mechanisms.

Finally, climate security in Pakistan requires more than dealing with environmental hazards; it also requires the development of institutional systems to effectively respond to the complex and interconnected challenges climate change poses.

13. Conclusion

The study discussed the relationship between climate and security and looked at the interaction between climate-induced resource scarcity, migration pressure and governance issues in the context of internal instability in Pakistan in the time frame 2013-2024. Based on the Human Security Framework, Environmental Scarcity Theory, and the Climate Security Nexus, the study highlighted that climate change is not simply an environmental issue but a multi-faceted challenge with significant implications for human security, socio-economic development, and national stability.

The results show that climate change is mainly a threat multiplier, exacerbating current

vulnerabilities and not as such a driver of conflict. Competition has grown over water resources, agriculture, land degradation and extreme weather event, in climate-sensitive provinces like Balochistan, South Punjab and Sindh. As water resources dwindle in the Indus River Basin and the livelihoods of farmers are under increasing threat, tensions on the local, interprovincial, and socio-economic front have grown. The developments illustrate the linkage between environmental stress and resource conflicts in Pakistan.

It also revealed that climate-induced migration has grown to be a significant aspect of the internal security equation in Pakistan. The unprecedented flooding in 2022, which impacted some 33 million people and resulted in economic losses of more than US$15 billion, is a stark reminder of the magnitude of climate-induced displacement and its future consequences for social stability and development. Affected people have also been moving towards towns and cities, putting strain on the provision of housing, infrastructure, jobs, and public services that have created further governance challenges and deepened socio-economic inequalities.

A second important finding relates to the impact of governance on climate-security outcomes. The country has developed a fairly comprehensive framework of climate governance as reflected in the National Climate Change Policy, National Adaptation Plan and Institutions for Disaster Management. But there are major challenges in implementing the SBP due to financial constraints, institutional fragmentation, inadequate coordination, and low institutional capacity at the local level. The study shows that governance effectiveness is a key determinant of adaptation and resilience or instability and insecurity in the face of climate stress.

The study further underscores the interdependencies of climate-induced resource conflicts, migration pressures and governance issues. The concept of climate security is therefore a multi-dimensional issue, and a multi-sectoral policy approach should be considered.

Theoretically, this study contributes to the growing climate security literature by applying human security and environmental scarcity perspectives to the Pakistani context. It advances understanding of how environmental risks interact with socio-economic vulnerabilities and institutional capacities to influence internal stability.

From a policy perspective, the findings emphasise the urgent need to mainstream climate security into national development and security planning. Strengthening climate governance, improving water resource management, investing in climate-resilient livelihoods, enhancing disaster preparedness, and integrating climate risks into national security assessments are essential for reducing vulnerability and building resilience. Equally important is the need to strengthen federal-provincial coordination, empower local governments, and expand community-based adaptation initiatives to ensure effective implementation of climate policies.

In conclusion, climate change represents a growing challenge to Pakistan's internal stability, human security, and sustainable development. As climate risks continue to intensify, traditional approaches to security will be insufficient to address emerging threats. A comprehensive climate-security strategy that combines environmental sustainability, human development, institutional resilience, and national security planning is therefore imperative. By adopting proactive and integrated governance measures, Pakistan can enhance its resilience against future climate-induced challenges and promote long-term stability in an increasingly uncertain environmental landscape.

Conflict of Interest

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