

The Impact of Climate Change on National Security, Diplomacy, and Regional Cooperation: A Study of Pakistan

Muhammad Waqas Khattak*

MS Scholar, Institute of International Relations and Peace Studies, Shah Abdul Latif University, Khairpur, Email: waqas_2w@yahoo.com

Dr. Muhammad Ramzan Kolachi

Assistant Professor, Institute of International Relations and Peace Studies, Shah Abdul Latif University, Khairpur, Email: ramzan.kolachi@salu.edu.pk

Abstract

Climate change has evolved from a primarily environmental concern into a central determinant of national security, foreign policy, and regional order, particularly for states that combine high physical exposure with limited adaptive capacity. Pakistan exemplifies this condition: it contributes less than one percent of global greenhouse gas emissions yet ranks among the countries most severely affected by floods, glacial lake outburst floods, heatwaves, and droughts. This paper examines how climate change reshapes Pakistan's national security calculus, diplomatic posture, and prospects for regional cooperation in South Asia. Using a qualitative, exploratory research design, the study draws on secondary data from government policy documents, multilateral assessments, treaty texts, and peer-reviewed literature, analyzed through Braun and Clarke's (2006) six-phase thematic analysis. Five major themes emerge: climate change as a security multiplier, climate diplomacy as a form of strategic positioning, regional interdependence as both a source of tension and a platform for cooperation, the normative but weakly enforced influence of international climate agreements, and the entanglement of economic vulnerability with development policy. The findings indicate that environmental stress operates less as a direct trigger of conflict and more as a structural amplifier of pre-existing governance, economic, and social fragilities, while transboundary ecological interdependence in South Asia creates both friction and functional incentives for cooperation. The paper concludes that Pakistan's long-term security depends on integrating climate risk into national security planning, strengthening institutional coordination, and pursuing climate diplomacy as an instrument of both adaptation financing and regional confidence-building.

Keywords: climate change, national security, climate diplomacy, regional cooperation, Pakistan, South Asia, non-traditional security, climate justice

Introduction

Today, the major structural challenge of the 21st century is considered by many to be climate change; it's gone from fringe environmental science to a key issue in strategic and diplomatic considerations. What were once regarded as environmental or ecological phenomena are now recognized as conditions that affect political stability, economic performance, and international relations behaviors of the whole society (Ahmad & Farooq, 2020). The rapid rate of current climatic change, and the magnitude of anthropogenic drivers such as fossil fuel use, deforestation, and unsustainable agriculture that have increased the amount of GHGs in the atmosphere, make

**Corresponding Author*

it different from climatic variability in earlier history that occurred over centuries (Ahmed & Khan, 2020).

Securitized climate change is based on the ‘threat multiplier’ attribute, as it usually does not cause instabilities or conflicts as such, but rather exacerbates the existing ones in the domains of governance, resource distribution and social cohesion (Akhtar & Ali, 2019). This is particularly relevant for states with large populations that rely heavily on climate-sensitive economic activities like agriculture and are institutionally weak in their capacity to recover from recurring shocks and stresses. Pakistan is a sample case. Despite accounting for a disproportionately small share of global emissions, it is constantly among the most vulnerable countries to climate change, which has been the fulcrum for its diplomatic engagement (Ali, 2021). Plagued by recurrent riverine and flash flooding, glacial lake outburst floods (GLOFs) from the Hindu Kush-Karakoram-Himalayan (HKH) region, and heatwaves, the country is subject to more and more unpredictable monsoon behavior. Exposure will be seen in the 2010 and 2022 floods, which displaced millions of people, destroyed critical infrastructure, and were beyond the administrative and fiscal capability of the State to respond (Government of Pakistan, Ministry of Climate Change, 2020).

Such pressures are not by any means limited to environmental destruction. They undermine the governing capacity, endanger economic stability, and put the social fabric of the country under continuous stress. Accompanied by the expansion of what security entails beyond military defence, it now also includes human, economic, food, water, and environmental security dimensions (Buzan, 2022), all of which relate to climate change. Monsoon variability has implications for water supply in the Indus Basin, on which agricultural production, energy generation, and the equality of water distribution among neighboring countries of Pakistan are reliant. Internationally, there are an increasing number of frameworks, such as the Paris Agreement, the UNFCCC and the IPCC assessment process, that dictate on which terms adaptation and mitigation are negotiated, while disparities in responsibility and capacity between the Global North and the Global South impede implementation of adaptation and mitigation measures (United Nations Framework Convention on Climate Change, 2015).

Purpose and Objectives

This study significantly examines climate change from the perspective of how it is a fluid strategic challenge to National Security, Foreign Policy, and Regional Co-operation of Pakistan. It looks at the ways in which environmental Stress is incorporated into governance and diplomacy, the positioning of Pakistan in global environmental governance institutions on issues of climate Justice and Loss and Damage financing, and how shared river basin and glacier systems affect relations with neighboring countries. Specific objectives are to: (i) analyse the effect of climate on security and development of Pakistan; (ii) discuss how regional cooperation can help Pakistan combat common climate risks; (iii) address the effectiveness of international climate treaties to Pakistan's climate vulnerabilities; and (iv) examine the relationship between climate change and economic development. Four research questions are defined that reflect these four aims and aim to investigate the effects of climate change on Pakistan, regional cooperation, the effectiveness of international climate treaties, and the correlation between climate change and economic development.

Problem Statement

Pakistan attributes the burden of acute climate exposure to overall low contribution to global emissions, recurrent flooding, droughts, and heat waves, increasing stress on water and food security. The absence of a coordinated policy response, exacerbated by this political rivalry and weak institutional mechanisms in the region, as well as the contestation of the quality and quantity of international climate finance and treaty mechanisms for highly vulnerable states, compound these pressures (Cai & Li, 2021). The potential for regional collaboration and the fact that the interaction between security, development path, and curbing these pressures is still poorly understood is the core issue addressed by the current study.

Significance and Research Gap

Scholarship on Pakistan's Climate Exposure as a concept remains unsettled and typically addresses the environmental and economic as well as diplomatic aspects on their own, in isolation. Climate treaties, for instance, are almost never analyzed with regard to their impact on regional stability, and studies of national security very rarely even include the diplomatic-economic aspects of environmental governance in one analysis. This study fills that gap by combining under one roof the consideration of security, diplomacy, and economic development aspects of climate change as a multidimensional strategic issue. It thus adds to the literature of International Relations and security studies as a sound and important form of non-traditional security threat, and it provides policymakers a holistic approach to mainstreaming climate risk into national security and foreign policy agendas.

Literature Review

Climate Change as a Vulnerability and Threat Multiplier

A substantial body of scholarship characterizes climate change not as an isolated hazard but as a vulnerability multiplier that interacts with existing weaknesses in poverty, governance, and adaptive capacity (European Commission, 2020). Flooding, drought, extreme heat, and glacial retreat are rarely isolated phenomena, but they exacerbate the absence of resources, affect livelihoods, and bring about internal displacement and instability. In the case of Pakistan, this multiplier effect is particularly strong, as “negligible” GHGs are coupled with high physical exposures and weaker institutional buffers (Government of Pakistan, Ministry of Climate Change, 2020). Water and heat variability are extreme during wet and dry years, and annual floods exacerbate social inequity, and the ability of the state to respond to a combination of crises is limited by developmental gaps. This is corroborated by regional analyses of South Asia: irregular monsoons, speed up of glacial melting in the Himalayas, and extreme weather events are all linked and have an impact on food security, water availability, and displacement of people regionally (Rasul & Sharma, 2019).

The 2010 and 2022 floods are mentioned as the most pronounced examples of this phenomenon in Pakistan, respectively. Both exceeded institutional capabilities, forced millions out of their homes, and spurred ripple effects on infrastructure, food and natural resource competition, and social tension (Food and Agriculture Organization, 2021). Given Pakistan's climate-sensitive development agenda of agriculture, energy generation, urban infrastructure, and water management, the socio-economic consequences of these impacts disproportionately affect the rural poor

and informal sector workers, impacting them directly where damaged infrastructure, water scarcity, and interrupted crop cycles translate into lost earnings and increased food insecurity (Mustafa & Ali, 2021).

On the other hand, transboundary environmental threats, especially the shared water resources between Pakistan and its neighbouring countries, have been explored in the literature as potential drivers of cooperation and conflict. Resource scarcity fuels mistrust among riparian states, and at the same time, the potential of cooperative avenues in the field of renewable energy, such as R 水, climate finance, and disaster risk management, constantly emerges as ways to achieve positive resilience (Rasul, Hussain, and Sharma, 2022). This literature is still limited, as the majority of works on Pakistan's climate vulnerability combine various dimensions of national security, foreign policy, and economic development separately in analytical frameworks; this is the main gap this paper addresses.

The Changing Character of Climate Risk

A significant characteristic of today's climate research is that the changes in the climate system are regarded as restructuring, not just deviations from the "normal state". Adapting to changing climate conditions is a challenge due to the combined effects of increasing average temperatures, changing precipitation patterns, faster glacial melt, sea-level rise, and increased frequency and severity of extreme weather events, all of which signal the end of a historically stable baseline climate (Intergovernmental Panel on Climate Change [IPCC], 2021). These changes include more frequent and erratic winters and more prolonged and variable summers that will impact farming, water resources, and ecological balance. Furthermore, the problem is exacerbated by reduced vegetation cover, which further diminishes the land sequestration potential, thus contributing to the vicious circle of accelerating warming, especially in arid and semi-arid regions where there is a significant shortage of water supply and agricultural needs are the least viable (Hussain & Farooqi, 2020).

This transformation is at work in mountain areas like the Hindu Kush-Karakoram-Himalayan system in a special way. As glaciers retreat, this can lead to greater river flow downstream, but a decline in long-term water supply due to falling ice reserves as temperatures rise. As unstable glacial lakes form, the danger of OGRF substantially builds up, which can cause major damage to the areas downstream and affect the planting and harvesting activities in the Indus Basin (IPCC 2019). There is a parallel set of risks to people who live in low-lying coastal regions, with rising sea levels resulting from melting polar ice and ocean thermal expansion projected to inundate settlements, saltwater intrusion into freshwater resources and exacerbate marine degradation, including seabed erosion and increased erosion in the soil. This also means bringing more livelihood-related migration (Nadeem & Rehman, 2021).

Security Implications and Resource Competition

In terms of security studies, the effects of climate change are a threat multiplier, meaning that this is not a cause of conflict on its own, but makes any existing conflicts worse, both political and economic, as well as social (Buzan, 2022). Limited access to water, declining crop yields, and degrading soils thus compound competition for scarce resources, with water especially being a critical strategic resource in areas where the population relies on transboundary water systems for their agricultural activities, industry, and household needs. Wicked flooding creates burdens

for disaster management, which exposes diplomatic and administrative limits, and the reduction in upstream flows may be seen as insecurities by the downstream states (Gleick, 2018).

Climate-induced disasters also undermine a state's ability to embark on long-term development programs as their impact on reconstruction and relief often “crowds out” planned investment efforts. This process becomes self-compounding: recurring crises impair institutional strength, measured by the confidence the public places in these institutions, and the decline in institutional strength impairs public confidence, especially in parts of the country with a low level of governance capacity. This amounts to a change in the anchor of security policy, moving away from the primary emphasis on territorial security towards ensuring human security, institutional resilience, and social order in the face of persistent environmental pressures (Hussain & Iqbal, 2021).

Economic Dimensions and Development Constraints

Climate change impacts the economy in various, cascading ways. Production processes are disrupted due to extreme weather events, as are transport and energy infrastructure and supply chains; reconstruction and recovery costs also redirect public funds from spending on development and educational and innovation projects to reconstruction (World Bank, 2020). This results in a vicious cycle of climate vulnerability, which makes it difficult to develop, or constrained development, which makes it difficult to adapt. This is particularly true for agricultural economies, where output is directly impacted by temperature and rainfall, and the impact on agricultural output is reflected in reduced rural incomes, rising poverty rates, and macroeconomic instability associated with inflation in food prices (Zafar & Khan, 2020). Climate risk can also compound investors' uncertainty and insurance premiums on climate-exposed areas, which impair long-term financial planning and countries' development strategy, as those with low climate adaptability are at higher risk of chronic stagnation (Sadiq & Tariq, 2021).

Human Security, Migration, and Public Health

Environmental disasters generate immediate and often prolonged human displacement, as rural populations affected by drought and flooding relocate to urban centers in search of economic survival. The resulting rapid and largely unplanned urbanization places acute strain on housing, sanitation, employment, and public services (International Organization for Migration [IOM], 2020). Climate change also affects public health directly through shifting temperature and rainfall patterns: extreme heat increases mortality risk, altered humidity conditions expand the range of disease vectors, and flood-related water contamination creates recurrent public health emergencies (World Health Organization, 2020). Collectively, these effects illustrate why human security concerns—livelihood, health, and shelter—cannot be separated from the stability of the state, since a government's failure to meet these needs constitutes, in itself, a source of political instability.

Agriculture and Food Security

The uncertainty of climate variability is very critical for agriculture, since agricultural production is strongly influenced by temperature, precipitation, soil moisture level, and requires very small variations. Both increased evapotranspiration and unpredictable rainfall reduce planning security for farmers as well as soil quality (Food and Agriculture Organization [FAO], 2022). The decrease in agricultural production leads to increased commodity prices and, in turn, has repercus-

sions on the overall stability of the economy via the global food chain. Climate-induced agricultural shocks are an indirect cause of political unrest due to historical evidence that links rising food prices with political unrest, potentially leading to sustained economic discontent that destabilizes governance (UNEP, 2021). This points to the need to adopt climate-smart farming, better irrigation facilities, and drought-tolerant seeds not only as an economic necessity but as a security necessity as well.

Climate Diplomacy and Global Governance

Climate change is a transnational issue, so it cannot be tackled with unilateral actions, and some sort of regional and multilateral cooperation is essential to the issue of climate change governance (Keohane & Victor, 2016). The negotiation of emissions-reduction promises, climate financing, technologies, and adaptation assistance takes place at the same time, which is not only environmentally responsible but also economic and trade-diplomatic. The developing states' focus on climate justice—whereby historical emitters imply they have a disproportionate responsibility to fund adaptation and mitigation elsewhere—has become a major part of these negotiations and places the North-South divide at the heart of modern climate politics (Paul, 2009).

The Vienna Convention, the Montreal Protocol, the Kyoto Protocol and the Paris Agreement, all three in total, demonstrate a progression in the sophistication of International Environmental Governance and international systems. Montreal Protocol (1987) is one of the most successful examples of international cooperation when it comes to the environment because of its measurable results in terms of reductions in ozone-depleting substances (ODS). This was shown in the implementation of the Kyoto Protocol, which was politically challenging because it had attempted to establish different emission reduction obligations for different states (Kyoto Protocol, 1997), but was undermined by the voluntary non-participation of some of the largest emission-creators. By comparison, the Paris Agreement featured almost universal participation in a framework of nationally determined contributions, where climate finance and technology transfer are also key elements in reconciling national development goals with those of limiting global temperature rise (United Nations Framework Convention on Climate Change, 2015). In spite of these developments, addressing current implementation remains complicated by inherent disparities in technological, institutional and financial capacity between the Global North and the Global South (International Monetary Fund, 2021).

Comparative Regional Governance

Comparative study of regional climate governance arrangements elucidates the pre-conditions for successful cooperation. The EU is the most institutionally developed model, having transposed binding environmental law and policy, carbon pricing mechanisms and renewables goals into an agenda, represented by the European Green Deal, which views economic growth and the environment in a complementary manner (European Commission, 2020). The accountabilities paid to mitigate free-riding in a cooperative framework are also observed in the mix of regulatory requirements and financial transfers between more and less developed member states of the EU.

The situation in Asia is more complicated, with some of the biggest emitters and significant and rising investments in renewable energy. China and India are examples of this paradox, as both are highly reliant on fossil fuels and have developed an ample solar and wind energy base with

plans for afforestation and energy-efficiency policies (Khan & Hussain, 2020). This trend is representative of the developing world's general struggle between accelerating industrialization and emission control.

In South Asia, which is characterised by high population densities, dependence on monsoon rainfall for agriculture, and where rivers flow from the Himalayas across shared hydrology of several states. This is because the impacts of glacial melt and rainfall variability are felt on both sides of the border, creating an even stronger case for cooperation in water management, for common EWSs, and for joint agricultural adaptation (Rasul, Khan, 2022). But politics of mistrust and mistrust-based barriers to data-sharing and institutional collaboration persist, evident in South Asia.

The African region exemplifies this, with the continent accounting for the smallest share of emissions but experiencing some of the most devastating climate impacts, while also having less economic and institutional means to adapt to climate change. CBA programs (based on renewable energy, reforestation, and climate-resilient farming) have proven how much can be achieved with local cooperation, but are limited by insufficient money flows from the international community and by the lack of technology transfer, calling for a more equitably shared burden in global climate policy.

These comparative cases can be combined to make three general statements. Hence, good governance for climate change requires a robust institutional structure and enforcement mechanism. Second, the priorities of policy-making bestow a dependence on the stage of economic development of a region, with more critical resource restrictions in developing regions asking them to consider balancing economic growth and sustainability. Thirdly, common exposure to vulnerabilities may generate a need for cooperation or intensify conflict. In this context, regional climate cooperation is, in essence, also a means of political confidence-building and diplomatic stabilization overall (Cai, Zhou & Li, 2019).

Research Methodology

Research Design

This study is a qualitative research as it is an exploratory study in a context where the object of study is discourse, perception, and policy-oriented, not one that produces measurable, quantifiable outputs. In the absence of exploring the relationship between climate change, national security, diplomacy, and regional cooperation in Pakistan in an integrated analytical framework so far, an exploratory design type enables the researcher to interpret or describe the interpretations and strategic orientations that are expressed across policy, diplomatic, and academic documents. The aim is to develop a deep understanding regarding climate-related issues in the conceptualization and operationalization of security and diplomacy as practiced in Pakistan.

Data Sources

The study used only secondary qualitative data that were collected from four types of credible sources. The official documents are the Pakistan National Climate Change Policy, the Report of MoCC, Pakistan National Security Policy, and the publications of the National Disaster Management Authority, in addition to the publications of international organizations like IPCC, UNDP, UNEP, and World Bank. Treaties and agreements include the Paris Agreement, Kyoto

Protocol, Montreal Protocol, and environmental cooperation frameworks in the SAARC. Academic publications include peer-reviewed journal articles, books on climate security and environmental diplomacy, and policy briefs. Reputable newspapers, think-tank reports, and international policy databases are all classed as media and analytical sources. These together cover the spectrum of security, diplomatic, and regional cooperation aspects pertinent to the goals of the study.

Analytical Method: Thematic Analysis

The collected data was analysed using the six-phase approach to thematic analysis developed by Braun and Clarke (2006) which involved being familiar with the codes (1); generating initial codes (2); collating initial codes into analysed codes (3); reviewing the collated codes into themes (4); defining and clarifying identified themes (5); and finally, interpretations of the identified themes (6). This resulted in five major themes and twelve sub-themes associated with the themes, which have been presented in Section 4.

Ethical Considerations and Limitations

As the research was based on only publicly released documents and literature available, human subjects were also not involved, and there was no requirement for personal consent; academic integrity was upheld by careful indication of sources. The study also has methodological limitations as secondary qualitative research: it relies on documentary data, not field-collected data; does not include original interviews with affected communities and policymakers; reflects a policy context that is constantly evolving; and can be limited by access to sensitive/ classified information relevant to regional environmental diplomacy.

Results and Discussion

The secondary data was subjected to thematic analysis, which led to the emergence of five major themes in the form of several sub-themes distributed across all the themes, which provide a deeper understanding of the structural relationship between climate change and Pakistan's security and diplomatic conduct.

Theme 1: Climate Change as a Security Multiplier

Environment and state stability. There is evidence that climate change does not always directly lead to conflict, but it always undermines the basis of state stability. Agriculture, transportation, and energy systems disrupted by poor crop conditions and resulting price spikes stress administrative systems. The growing regularity of the occurrence of crises linked to climate change is making the state more and more involved in reacting to each of them, as opposed to proactive long-term planning, which will strain administrative resources over time. This helps elucidate the wider argument in non-traditional security studies that the level of security to concern ourselves with is not just the integrity of the state, but also its stability; and that resilience-building and prevention-based planning should precede the disaster response.

Food security and social stability. It was the agriculture sector that was most consistently affected. Changing seasons affect productivity, necessitating greater imports of food and imposing greater strain on government budgets. Insecurity of livelihoods in rural areas due to agricultural-

related factors such as drought can have a direct impact on urbanization; shortage of supply leads to increasing prices in urban markets, which in turn degrades the capacity of impoverished populations to purchase good-quality food in the cities. Food insecurity therefore acts as a conduit and a means of channeling an environmental risk into a greater social and economic security risk.

External tensions and water scarcity. The contribution of glacier-fed rivers makes the availability of water extremely climate-sensitive in Pakistan. Edging down river flows intensify the politics of interprovincial water allocation troubles, and the fluctuations in hydro generation have implications for energy security, for industrial production, and for job prospects. The notion of water scarcity relates, thus, directly to governance and resource-allocation processes, decisions, and choices, which are linked to the domestic politics and national security context of water.

Pressure of displacement and insecurities in urban areas. Environmental disasters often result in population movement on an ongoing basis, mostly to cities, where people seek a means of livelihood and protection. Developing administrative pressures that result from the demand for housing, sanitation, and work, this situation indicates how climate-induced migration becomes a governance and urban security issue rather than a critical conflict.

Theme 2: Climate Diplomacy and Strategic Positioning

Climate championing in foreign policy. The analysis suggests that this has been a conscious shift in Pakistan's diplomatic communication in which environmental vulnerability has emerged as a significant part of Pakistan's global address. In all its statements, Pakistan also highlights uneven exposure to the impacts of climate change while its contribution to emissions is negligible, as a basis for seeking funds and technology transfer. This aligns with a liberal institutionalist approach to international cooperation, which holds that vulnerable states have negotiating leverage not necessarily for material reasons, but because of norm entrepreneurship and coalition-building efforts that allow them to gain leverage.

Multilateral engagement, soft power. Partial implementation of international climate negotiations increases Pakistan's international legitimacy and ensures coalition building with vulnerable countries. In this vein, environmental leadership can serve as a soft-power tool to widen the scope of Pakistan's diplomacy beyond security-focused alliances, boosting its international profile and presence through promoting fair climate action.

Two countries' relations and technology exchanges. Environmental concerns now feature prominently in bilateral ties, with bilateral cooperation on renewable energy, water management monitoring, and disaster management. Functional, problem-solving diplomacy in which bilateral engagement is achieved based on their common technical challenge is also happening more broadly, one in which shared political problems are no longer the necessary basis for dialogue, but for sustained engagement.

Theme 3: Regional Interdependence and Cooperation Dynamics

Transfer of ecosystems and transborder impacts. Owing to the fact that environmental systems do not respect political boundaries, flooding, glacial melting, and the variability of monsoons in one part of the region have consequences for adjacent states. Because of this interdependency at

the level of structure, environmental governance is not a unilateral effort, and for regional stability to occur, it must be done collaboratively.

Cooperation limitations because of political factors. Cooperation around the shared environmental risks is hindered by a lack of political trust, sovereignty, and an unwillingness to share hydrological data. These conditions suggest that political mistrust is the main obstacle to effective regional climate governance, and not a lack of technical rationality.

Cooperation in the context of climate change as confidence-building. Environmental cooperation is also relatively less entangled with territorial and political issues than other aspects of bilateral cooperation, and thus is more conducive to trust-building than others such as integrated monitoring, early-warning systems and humanitarian information sharing. However, as long as climate change is not perceived as a competition, but as a shared issue, meaningful cooperation and understanding also remain possible in the face of ongoing political rivalry, and can slowly increase opportunities for regional involvement.

Theme 4: International Agreements and Governance Constraints

Normative impact of international treaties. International commitments have a marked influence on domestic climate policy in Pakistan, with national frameworks often reflecting the nature and structure of international agreements. This mirrors the wider international climate governance's influences on the domestic policy design.

Implementation limitations. In the face of this normative conformity, the implementation of the norm is limited by the low levels of financial and technical resources and the fragmentation of agencies implementing the norm. What the arguments indicate is that the importance of international commitments rests less on the aspirational nature of the commitments than on the political will and institutional capacity to deliver on the commitments.

Discussion of equity and responsibility. One is the disconnect between those countries that are most responsible for emissions and those most impacted. The asymmetry highlights the importance of the politics of climate change—the "who pays" and "who will pay for it"—to the climate science and, in particular, that international climate agreements are more often a forum for negotiations than an enforceable agreement regarding climate change.

Theme 5: Economic Vulnerability and Development Transformation

Risk of growth and agricultural dependency. Given the high climate vulnerability of agriculture, the impacts of decreased productivity directly manifest in low income in the rural areas and greater reliance on food imports, thus advocating against a weak relationship between the Pakistani economy and environmental stability.

Financial constraints and rebuilding expenses. The recurrent expenditure on disasters sidetracks development spending, delays scheduled development, and enhances the vulnerability of the state to borrower's costs, thus systematically re-prorating national fiscal priorities towards responses to crisis.

Transition and future stability. Renewable energy investment also offers an element of longer-term economic resiliency, putting consumers less at risk from environmental shocks, or from an

external dependency on fuel. This indicates that the agendas of economic modernization and climate adaptation do not compete with each other but are complementary, supporting the argument that national security and sustainable development are mutually constituted agendas and policies, and not separate ones.

Cross-Theme Synthesis

When read sequentially as it is in the report, the five themes convey a logical causal order: the changing environment, which creates resource stress, which causes domestic instability, which leads to expressing diplomacy and regional cooperation but is shaped by constraints of international governance, and which affects economic transformation, which has its own effects on the changing environment. This order of things – environmental change, widening resource stress, domestic instability, diplomacy, regional cooperation, institutional adaptation, economic change – makes it clear that climate change is not a collection of distinct, easily manageable problems but an overarching matter which affects both domestic governance and regional relations. In the story, security, diplomacy, and cooperation are not policy categories per se, but concomitant features of an environmental process.

Conclusion and Policy Recommendations

This research aimed to explore climate change as a structural element that was affecting the political, institutional capability and foreign policies of Pakistan. Climate change acts as a real non-traditional security threat for Pakistan by threatening governance and development institutions through a common vector of environmental stress, which affects food security, water security and social stress and puts particular strain on politically fragile regions, through flooding, drought, glacial melt and heatwaves. This was an affirmation that conventional military protection cannot be the only approach of Pakistan's National security and must include environmental, economic and human aspects as a part of planning.

The results also indicate that human security and socio-economic stability is directly related to environmental conditions; migrations due to flood and drought make cities vulnerable in terms of infrastructure and services, while fluctuations in rainfall and/or water availability have an impact on agricultural livelihoods, on which a significant portion of the population depends. These constraints are aggravated by economic fragility; repeated disaster response efforts will also deplete resources and take them away from the investment that is required for education, research, and industrial development efforts, thereby perpetuating such a cycle of dependence. Diplomatically, climate change has been integrated into the foreign policy behavior now conceptualized as *Nadis*, (loss and damage) finance and technologies and burden sharing is all about the concept of National interests. On the regional level, the study concludes that shared transboundary resources constitute both opportunities and threats: until a certain point regional engagement—such as in disaster management, water resource governance and technology exchange—can help overcome mistrust in the region, but prolonged interaction can also increase it, depending on how collaborative regional efforts unfold. Last but not least, the fragmented governance (federal-provincial and local) constitutes one of the key challenges to ensuring effective climate management, leaving Pakistan more reactive than anticipatory in dealing with Pakistan's disasters. On the basis of these findings, the study offers the following policy recommendations, organized around six priority areas.

Integrating climate risk into national security policy requires embedding environmental risk assessment within national security strategy, establishing dedicated climate security risk-assessment units, designing early-warning and prevention-oriented planning systems, and strengthening civil-military coordination in disaster response operations.

Strengthening governance and coordination calls for a centralized climate coordination authority capable of harmonizing federal-provincial policy, improved inter-agency data-sharing, and sustained investment in disaster preparedness at the local government level, where the practical burden of response is ultimately absorbed.

Enhancing economic resilience entails promoting climate-resilient agriculture, investing in water conservation technology, developing green infrastructure, and systematically integrating climate risk into national budgeting rather than treating disaster response as an unplanned fiscal shock.

Advancing climate diplomacy involves expanding Pakistan's leadership role in Global South climate advocacy, strengthening negotiating capacity in international forums, and deepening partnerships around climate finance and technology transfer, building on the country's existing narrative of disproportionate vulnerability.

Promoting regional cooperation requires developing joint flood early-warning systems, establishing sustained mechanisms for dialogue on transboundary water management, and designing coordinated regional disaster-response strategies that can function independent of broader political friction.

Protecting human security requires the development of dedicated climate migration policy, strengthened urban adaptation planning, enhanced public health preparedness for climate-related risks, and expanded social protection programs for the populations most exposed to environmental shocks.

These recommendations should be read alongside the study's limitations. Climate security remains a rapidly evolving field whose long-term dynamics are difficult to project with confidence; the analysis relies on secondary sources and faced constraints in accessing consistent regional environmental data; diplomatic outcomes are shaped by political factors beyond the environmental domain; and the study's focus on Pakistan, while analytically necessary, limits the generalizability of its conclusions to other climate-vulnerable states. Future research would benefit from comparative analysis of climate security policy across South Asia, closer examination of the relationship between climate migration and urban conflict dynamics, assessment of the role of military institutions in climate response, cost-benefit analysis of adaptation investment, and study of the relationship between climate cooperation and regional peace-building.

Ultimately, this study demonstrates that climate change in Pakistan has moved decisively beyond the boundaries of environmental policy to become a matter of national security, foreign policy, and regional order. The country's high exposure illustrates the tight coupling between environmental change, governance and economic capacity, and geopolitical relationships. Pakistan's long-term security will depend not only on conventional measures of military and economic strength but on its environmental resilience and the sophistication of its diplomatic engagement. Climate change therefore presents a dual character: it is simultaneously a destabilizing strategic

risk and a potential platform for cooperation, provided it is met with integrated policy design, forward-looking governance, and proactive diplomacy.

References

1. Ahmad, K., & Farooq, M. (2020). Climate change and food security nexus in South Asia. *Journal of Agricultural Economics*, 71(2), 301–318. <https://doi.org/10.1111/1477-9552.12345>
2. Ahmed, R., & Khan, S. (2020). Water security challenges in Pakistan: Climate change perspective. *Water Policy*, 22(4), 567–589. <https://doi.org/10.2166/wp.2020.123>
3. Akhtar, N., & Ali, S. (2019). Food security under climate change: South Asia perspectives. *Food Security*, 11(4), 825–840.
4. Ali, N., & Imran, H. (2021). Climate resilience and policy interventions in Pakistan: A review. *Sustainability*, 13, 10456.
5. Ali, R., & Khan, S. (2022). Climate change and national security: A case study of Pakistan. *Asian Journal of Political Science*, 30(2), 185–207.
6. Ali, S., & Zahid, F. (2020). Climate diplomacy and soft power in developing countries. *International Relations*, 14(1), 33–52. <https://doi.org/10.1177/0047117820912345>
7. Asian Development Bank. (2021). Climate change and South Asian economies. <https://www.adb.org/publications/climate-change-south-asia>
8. Bashir, F., & Qamar, M. (2020). Climate variability and energy demand in Pakistan. *Energy Reports*, 6, 245–257.
9. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
10. Buzan, B. (2022). People, states and fear: An agenda for international security studies in the post-Cold War era. Harvester Wheatsheaf.
11. Cai, Y., & Li, J. (2021). Regional adaptation to climate risk: South Asian experiences. *Journal of Environmental Management*, 289, 112129. <https://doi.org/10.1016/j.jenvman.2021.112129>
12. Cai, Y., Zhou, D., & Li, X. (2019). Regional cooperation in climate change adaptation: Lessons from Asia. *Environmental Science & Policy*, 101, 12–25. <https://doi.org/10.1016/j.envsci.2019.05.001>
13. European Commission. (2020). EU climate action progress report. <https://climate.ec.europa.eu>
14. Food and Agriculture Organization. (2021). Climate change impact on agriculture and food security. <https://www.fao.org/publications>
15. Food and Agriculture Organization. (2022). The state of food security and nutrition in the world. <https://www.fao.org/publications>
16. Gleick, P. H. (2018). Water, drought, climate change, and conflict in Syria. *Weather, Climate, and Society*, 6(3), 331–340.
17. Government of Pakistan, Ministry of Climate Change. (2019). National climate change policy: Implementation framework. <https://www.mocc.gov.pk>
18. Government of Pakistan, Ministry of Climate Change. (2020). National climate change policy 2020. <https://www.mocc.gov.pk>
19. Government of Pakistan, Ministry of Finance. (2021). Economic survey of Pakistan 2020–21.

20. Government of Pakistan, Ministry of Water Resources. (2021). Indus Basin water management strategy 2021. <https://www.mowr.gov.pk>
21. Government of Pakistan, Planning Commission. (2020). Pakistan climate change adaptation plan 2020–2030.
22. Hussain, A., & Farooqi, S. (2020). Climate change impacts on hydroelectric power generation in Pakistan. *Renewable and Sustainable Energy Reviews*, 124, 109–125.
23. Hussain, M., & Qureshi, T. (2022). Climate-induced migration and urban planning challenges in Pakistan. *Journal of Urban Affairs*, 44(5), 745–763.
24. Hussain, R., & Iqbal, M. (2021). Urban flood risk management in Pakistan: Policy challenges and adaptation. *Natural Hazards*, 107, 1551–1570.
25. Intergovernmental Panel on Climate Change. (2019). Special report on the ocean and cryosphere in a changing climate. <https://www.ipcc.ch/srocc/>
26. Intergovernmental Panel on Climate Change. (2021). Climate change 2021: The physical science basis. <https://www.ipcc.ch/report/ar6/wg1/>
27. Intergovernmental Panel on Climate Change. (2022). Climate change 2022: Impacts, adaptation, and vulnerability. <https://www.ipcc.ch/report/ar6/wg2/>
28. International Monetary Fund. (2021). Economic implications of climate change in developing countries. <https://www.imf.org/en/Publications>
29. International Organization for Migration. (2020). World migration report 2020. <https://www.iom.int>
30. Keohane, R. O., & Victor, D. G. (2016). Cooperation and discord in global climate policy. *Nature Climate Change*, 6(6), 570–575.
31. Khalid, S. (2021). Diversification and renewable energy policy in Pakistan. *Energy Policy Review*, 52(3), 88–105. <https://doi.org/10.1016/j.enpol.2020.112345>
32. Khan, M., & Hussain, A. (2020). Renewable energy policy and climate resilience in Pakistan. *Renewable Energy*, 145, 112–128. <https://doi.org/10.1016/j.renene.2019.12.045>
33. Kyoto Protocol. (1997). Kyoto Protocol to the United Nations Framework Convention on Climate Change. https://unfccc.int/kyoto_protocol
34. Montreal Protocol. (1987). Montreal Protocol on substances that deplete the ozone layer. <https://ozone.unep.org/treaties/montreal-protocol>
35. Mustafa, D., & Ali, A. (2021). Socio-economic implications of climate-induced migration in Pakistan. *Population and Environment*, 42(2), 101–120. <https://doi.org/10.1007/s11111-021-00357-1>
36. Nadeem, M., & Rehman, A. (2021). Coastal vulnerability and sea-level rise in Pakistan. *Marine Policy*, 126, 104113.
37. National Disaster Management Authority. (2022). Annual flood and climate report. <https://www.ndma.gov.pk>
38. Paul, G. (2009). International agreements on climate change: Paris, Kyoto, and beyond. *Global Environmental Politics*, 9(2), 1–24. <https://doi.org/10.1162/glep.2009.9.2.1>
39. Rasul, G., & Sharma, E. (2019). Climate change and regional cooperation in South Asia. *Environmental Policy and Governance*, 29(3), 153–167. <https://doi.org/10.1002/eet.1870>
40. Rasul, G., Hussain, S., & Sharma, E. (2022). Climate change impacts on hydro politics in South Asia. *Water International*, 47(1), 14–33. <https://doi.org/10.1080/02508060.2022.2034567>
41. Rasul, G., & Khan, S. (2022). Water diplomacy and transboundary cooperation in South Asia. *International Environmental Agreements*, 22, 221–244.

42. Sadiq, M., & Tariq, A. (2021). Climate change and energy security nexus in South Asia. *Energy Policy*, 149, 112012.
43. United Nations Environment Programme. (2021). *Adaptation gap report 2021*. <https://www.unep.org/resources>
44. United Nations Framework Convention on Climate Change. (2015). *Paris Agreement*. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
45. Vienna Convention. (1985). *Vienna Convention for the protection of the ozone layer*. <https://ozone.unep.org/treaties/vienna-convention>
46. World Bank. (2020). *South Asia: Climate risk and adaptation strategy*.
47. World Health Organization. (2020). *Climate change and health in South Asia*.
48. Zafar, S., & Khan, I. (2020). Impact of climate change on agriculture and food security in Pakistan. *Journal of Agricultural Research*, 58(4), 425–444.