POLICY VANGUARD

Policy Vanguard
Vol. 1, No. 1, 2025

RESEARCH ARTICLE

Pakistan's Foreign Policy For Climate Resilience: Navigating Complex Interdependence And Environmental Security

Muhammad Saad

Freelance Researcher and Analyst.

Received: May 22, 2025
Accepted: Jun 7, 2025
Published: Jun 26, 2025

Abstract

Pakistan, one of the most climate-vulnerable nations, faces escalating challenges from glacial melt, flooding, and extreme weather, necessitating a robust integration of climate resilience into its foreign policy. This study examines how Pakistan leverages its foreign policy to address these challenges, drawing on the theoretical frameworks of complex interdependence and environmental security. Employing a qualitative case study approach with content and case study analyses, the research explores Pakistan's bilateral and multilateral engagements, climate finance, technology transfer, and soft power initiatives. Findings reveal significant progress in partnerships with China, advocacy at COP27, and afforestation projects, yet geopolitical tensions with India, institutional inefficiencies, and dependency on external support pose barriers. The study proposes a Climate Diplomacy Framework, South-South cooperation, SAARC revitalization, and diversified partnerships to enhance resilience. These insights contribute to the literature on climate diplomacy and offer policy recommendations for climate-vulnerable nations navigating global governance.

Keyword: revitalization, diplomacy, global governance, Foreign Policy, Environmental Security

1. Introduction

Pakistan's acute vulnerability to climate change, marked by devastating floods, glacial melt, and intensifying heatwaves, poses existential threats to its socioeconomic stability and national security (Eckstein et al., 2021). Ranked among the top ten most climate- vulnerable nations, Pakistan faces challenges that transcend national borders, necessitating international cooperation to secure resources, technology, and expertise (World Bank, 2022). Historically, Pakistan's foreign policy has prioritized security and geopolitical concerns, particularly its rivalry with India and partnerships with China and the United States (Rizvi, 2019). However, the growing salience of climate change as a non- traditional security issue demands a reorientation toward climate diplomacy, leveraging bilateral and multilateral engagements to enhance resilience (Dalby, 2009).

This study investigates how Pakistan integrates climate resilience into its foreign policy, addressing a critical gap in the literature on South Asian climate diplomacy. Guided by the theoretical frameworks of complex interdependence (Keohane & Nye, 2011) and environmental security (Dalby, 2009), it examines Pakistan's diplomatic strategies, including partnerships with global powers, advocacy in multilateral forums, and soft power initiatives like the Billion Tree Tsunami (Qamar, 2022). The research employs a qualitative case study approach, analyzing policy documents, international agreements, and peer-reviewed literature to assess Pakistan's efforts and challenges (Yin, 2018). Key research questions include: How does Pakistan leverage its foreign policy to address climate vulnerabilities? What are the barriers to effective climate diplomacy? And how can Pakistan enhance its role in global and regional climate governance?

The study is structured as follows: the Literature Review establishes the theoretical and empirical context; the Methodology outlines the research design; the Climate Vulnerability and Policy Context section details Pakistan's challenges and domestic policies; the Analysis and Challenges/Opportunities section evaluates diplomatic strategies; the Discussion synthesizes findings and implications; and the Conclusion summarizes key in- sights and future directions. By offering a comprehensive analysis, this study contributes to the literature on climate diplomacy and provides actionable policy recommendations for Pakistan and other climate-vulnerable nations

.

2. Literature Review

2.1 Theoretical Framework

Climate diplomacy and environmental security provide critical frameworks for analyzing how nations address climate change through international relations. Climate diplomacy involves leveraging diplomatic strategies to negotiate climate policies, secure funding, and facilitate technology transfers, often through multilateral platforms like the Paris Agreement (Betsill & Stevis, 2015). This approach is particularly relevant for Pakistan, which faces severe climate impacts, including floods and glacial melt, that transcend national borders (Eckstein et al., 2021). Environmental security, conversely, frames climate change as a threat to national stability, encompassing issues such as water scarcity, food insecurity, and displacement (Dalby, 2009). For Pakistan, these threats are amplified by its socioeconomic vulnerabilities and geopolitical complexities, making environmental security a pressing concern.

The theory of complex interdependence, developed by Keohane and Nye (2011), offers a robust lens for understanding transboundary climate cooperation. This theory posits that states are interconnected through multiple channels; economic, environmental, and social, creating incentives for cooperation even among adversaries. In Pakistan's context, complex interdependence is evident in its reliance on the Indus River, a shared resource with India governed by the Indus Waters Treaty (Akhtar, 2020). Climate- induced changes, such as glacial melt and altered precipitation patterns, exacerbate water scarcity, necessitating cooperative management despite historical tensions. Climate diplomacy thus serves as a vital tool for Pakistan to navigate these interdependencies, secure environmental security, and access international support for resilience-building. By applying these theoretical lenses, this study situates Pakistan's foreign policy within a broader framework of global environmental governance.

2.2 Existing Studies

The scholarly literature on Pakistan's foreign policy has traditionally focused on security and geopolitical dynamics, particularly its relations with India, Afghanistan, and major powers like China and the United States (Rizvi, 2019). However, a growing body of research examines the intersection of foreign policy and climate resilience, reflecting the increasing salience of climate change as a non-traditional security threat. For instance, Mustafa et al. (2017) argue that environmental diplomacy is essential for Pakistan to address interconnected challenges of climate change, energy security, and water scarcity. They emphasize that integrating development with environmental factors and peacemaking can lead to sustainable outcomes in South Asia, highlighting the role of diplomacy in resolving conflicts related to environmental security.

Global climate diplomacy trends, particularly the Paris Agreement and Conferences of the Parties (COP) frameworks, provide a backdrop for understanding Pakistan's engagement in international climate governance. As a signatory to the Paris Agreement, Pakistan has committed to reducing greenhouse gas emissions and enhancing resilience through its Nationally Determined Contributions (Government of Pakistan, 2016). How- ever, the literature reveals a significant gap in linking these commitments to Pakistan's foreign policy strategies. Studies such as those by Kugelman (2020) and Qamar (2022) focus on domestic adaptation measures, such as the Billion Tree Tsunami and disaster management, but often overlook the international dimensions of these efforts. For example, while Pakistan has advocated for climate finance at COP27, its broader diplomatic strategies for securing resources and technology remain underexplored (Ali et al., 2024). Comparative analyses of climate diplomacy in other contexts, such as Chinas role in global climate governance (Kopra, 2019), highlight the potential for nations to leverage diplomacy for both national and global benefits. This study aims to fill this gap by analyzing how Pakistan's foreign policy can be harnessed to enhance climate resilience.

2.3 Regional Context

Pakistan's approach to climate resilience must be contextualized within the South Asian region, where neighboring countries face similar, yet distinct, climate challenges. India has emerged as a leader in climate diplomacy, leveraging its economic and technological capabilities to spearhead initiatives like the International Solar Alliance (Saran, 2018).

This initiative demonstrates how climate diplomacy can advance national interests while contributing to global climate goals. Bangladesh, another climate-vulnerable nation, has gained international recognition for its innovative adaptation strategies, particularly in coastal protection and disaster management (Hassan, 2019). These examples highlight the potential for South Asian nations to play significant roles in global climate governance.

In contrast, Pakistan's climate diplomacy has been less prominent, despite its acute vulnerability to climate impacts, such as the 2022 floods that displaced millions and caused significant economic losses (Eckstein et al., 2021). Internal challenges, including political instability, economic constraints, and the lingering effects of conflict, have hampered Pakistan's ability to prioritize climate diplomacy (Kugelman, 2020). Transboundary issues, particularly water sharing, are central to Pakistan's climate resilience. The Indus River, vital for Pakistan's agriculture and economy, is

governed by the Indus Waters Treaty with India, which has been a source of both cooperation and tension (Akhtar, 2020). Climate change exacerbates these tensions, as altered precipitation patterns and glacial melt affect water availability downstream. Regional platforms like the South Asian Association for Regional Cooperation (SAARC) offer opportunities for collaborative action, but political rivalries have often stymied progress (Mustafa et al., 2017). Pakistan must navigate these complexities to foster meaningful cooperation with its neighbors on shared environmental challenges.

3. Methodology

This study employs a qualitative research design to investigate how Pakistan leverages its foreign policy to enhance climate resilience, focusing on its diplomatic strategies in bilateral and multilateral contexts. Qualitative methods are well-suited for exploring com- plex, context-specific phenomena like climate diplomacy, which require in-depth analysis of policy processes and stakeholder interactions (Creswell & Poth, 2018). By combining content analysis and case study approaches, the study aims to provide a nuanced under-standing of Pakistan's efforts to secure international cooperation, funding, and technology transfers for climate resilience. This section outlines the research design, data sources, methods, and analytical framework, ensuring a rigorous and transparent approach suit- able for addressing the research questions.

3.1 Research Design

A qualitative case study approach forms the backbone of this research, enabling an in-depth exploration of Pakistan's climate diplomacy within its unique geopolitical and environmental context (Yin, 2018). Pakistan is selected as the primary case due to its high vulnerability to climate change, as evidenced by its ranking on the Global Climate Risk Index (Eckstein et al., 2021), and its strategic position in South Asia, which necessitates transboundary cooperation. The case study design allows for a detailed examination of specific diplomatic engagements, providing insights into the interplay of domestic policies, regional dynamics, and global climate governance. This approach is complemented by a comparative perspective, analyzing Pakistan's strategies relative to other South Asian nations, such as India and Bangladesh, to contextualize its efforts and identify best practices.

3.2 Data Sources

The study draws on both primary and secondary data sources to ensure a comprehensive and credible analysis. Primary data include official policy documents, such as Pakistan's Nationally Determined Contributions (NDCs) under the Paris Agreement (Government of Pakistan, 2016), statements from the Ministry of Foreign Affairs and Ministry of Climate Change, and texts of international agreements, such as the Indus Waters Treaty. These documents provide direct evidence of Pakistan's climate diplomacy objectives and commitments. Secondary data encompass peer-reviewed journal articles, reports from international organizations like the Intergovernmental Panel on Climate Change (IPCC) and the United Nations Environment Programme (UNEP), and policy analyses from reputable think tanks, such as the Stimson Center and the Sustainable Development Policy Institute (SDPI). These sources offer critical insights into global climate diplomacy trends and regional environmental challenges (Betsill & Stevis, 2015; Mustafa et al., 2017). To ensure currency and relevance, data collection prioritizes

materials published after 2015, with a focus on post-2022 sources to capture the impact of recent climate events, such as the 2022 Pakistan floods (Ali et al., 2024).

3.3 Methods

The study employs two primary methods: content analysis and case study analysis. Con- tent analysis is used to systematically examine textual data from policy documents, government statements, and international agreements. This method involves coding texts to identify recurring themes, such as references to climate finance, technology transfers, and regional cooperation, following established qualitative protocols (Krippendorff, 2018). For example, statements from Pakistan's delegations at Conferences of the Par- ties (COP) meetings are analyzed to assess the country's advocacy for climate resilience. Content analysis ensures a structured approach to understanding how climate resilience is articulated in Pakistan's foreign policy discourse.

Case study analysis complements content analysis by focusing on specific instances of Pakistan's climate diplomacy. Three cases are selected for their significance: (1) green initiatives under the China-Pakistan Economic Corridor (CPEC), which highlight bilateral cooperation on renewable energy and sustainable infrastructure; (2) Pakistan's advocacy in the UNFCCC and COP frameworks, particularly its role in Loss and Damage discussions; and (3) transboundary water management under the Indus Waters Treaty with India, which exemplifies the challenges of regional cooperation. These cases are analyzed using a process-tracing approach to map the causal mechanisms linking diplomatic strategies to outcomes, such as securing climate finance or fostering regional agreements (George & Bennett, 2005).

3.4 Analytical Framework

To guide the analysis, the study develops a framework based on three pillars of climate diplomacy: funding, technology transfer, and capacity building. This framework draws on existing literature, which identifies these pillars as critical for effective climate resilience strategies in vulnerable nations (Nakhooda et al., 2016). Each pillar is operationalized through specific indicators: (1) funding includes access to international climate finance mechanisms, such as the Green Climate Fund; (2) technology transfer encompasses agreements for sharing renewable energy or adaptation technologies; and (3) capacity building involves training programs and institutional strengthening supported by international partners. The framework assesses the extent to which Pakistan's foreign policy integrates these pillars, evaluating their effectiveness in enhancing climate resilience. By applying this framework to the selected case studies, the study identifies strengths, challenges, and opportunities in Pakistan's climate diplomacy.

3.5 Limitations

The qualitative approach, while rich in depth, has limitations. The reliance on publicly available documents may overlook internal policy deliberations, potentially limiting in- sights into decision-making processes. Additionally, the focus on Pakistan as a single case may restrict generalizability, though comparative references to India and Bangladesh mitigate this concern. To address these limitations, the study triangulates data from multiple sources and incorporates a comparative perspective to enhance robustness (Yin, 2018). Ethical considerations, such as ensuring transparency in data use and avoiding bias in case selection, are addressed by adhering to rigorous academic standards.

4. Pakistan's Climate Vulnerability and Policy Context

Pakistan's acute vulnerability to climate change, coupled with its complex geopolitical landscape, necessitates a robust integration of climate resilience into its foreign policy. This section examines Pakistan's climate challenges, their socioeconomic impacts, and the domestic policy framework that shapes its response. It then situates these efforts within the broader context of Pakistan's foreign policy, traditionally dominated by security and geopolitical concerns, to highlight the emerging role of climate as a non-traditional security issue. By analyzing these dimensions, this section provides the foundation for understanding how Pakistan's foreign policy can address climate resilience through inter- national cooperation

.

4.1 Climate Challenges

Pakistan ranks among the most climate-vulnerable nations globally, consistently placed in the top ten of the Global Climate Risk Index due to its exposure to extreme weather events and environmental degradation (Eckstein et al., 2021). The country faces a trifecta of climate-related challenges: glacial melt in the Himalayas, recurrent flooding, and intensifying droughts and heatwaves. The Hindu Kush-Karakoram-Himalaya (HKH) region, often referred to as the "Third Pole," contains glaciers that feed the Indus River, Pakistan's primary water source for agriculture and domestic use (Immerzeel et al., 2020). Accelerated glacial melt, driven by rising temperatures, threatens long-term water security, with projections indicating a potential 3040% reduction in glacial volume by 2050 (Lutz et al., 2014). This depletion not only reduces water availability but also increases the risk of glacial lake outburst floods (GLOFs), which have caused significant damage in northern Pakistan (Ashraf et al., 2017).

Flooding represents another critical challenge, exemplified by the catastrophic 2022 floods that inundated one-third of the country, displaced over 8 million people, and caused economic losses estimated at $30 billion (Ali et al., 2024). These floods, attributed to unprecedented monsoon rains exacerbated by climate change, devastated agricultural lands, infrastructure, and livelihoods, particularly in Sindh and Balochistan (World Bank, 2022). Concurrently, droughts and heatwaves have intensified, with temperatures in cities like Jacobabad reaching 51řC in 2022, posing severe risks to human health and agricultural productivity (Khan & Munawar, 2023). These climate impacts are compounded by Pakistan's geographic and socioeconomic vulnerabilities, including its dependence on agriculture, which accounts for 19% of GDP and employs 42% of the workforce (Pakistan Bureau of Statistics, 2023).

The socioeconomic consequences of these climate challenges are profound. Rural com-munities, which constitute 63% of Pakistan's population, face heightened food insecurity and displacement due to crop failures and water scarcity (FAO, 2022). Urban areas, mean- while, grapple with infrastructure strain and increased migration from climate-affected regions, exacerbating social tensions (Kugelman, 2020). These impacts underscore the urgency of integrating climate resilience into national and international policy frame- works, as domestic efforts alone cannot address the scale and transboundary nature of the crisis.

4.2 National Climate Policies

Pakistan has developed a suite of domestic policies to address its climate vulnerabilities, with the National Climate Change Policy (NCCP) of 2021 serving as the cornerstone. The NCCP outlines strategies for mitigation

and adaptation, emphasizing renewable energy, afforestation, and disaster risk reduction (Government of Pakistan, 2021). Key initiatives include the Billion Tree Tsunami, which planted over 1 billion trees to com- bat deforestation and enhance carbon sequestration, and the Ten Billion Tree Tsunami, an expanded program targeting broader ecological restoration (Qamar, 2022). These ef- forts have garnered international recognition, positioning Pakistan as a proactive actor in climate adaptation.

Institutionally, the Ministry of Climate Change (MoCC) leads policy implementation, coordinating with provincial governments and international partners. The MoCCs Cli- mate Change Authority, established under the 2017 Climate Change Act, oversees the integration of climate policies into sectoral plans, such as agriculture and water management (Government of Pakistan, 2017). Pakistan's updated Nationally Determined Contributions (NDCs) under the Paris Agreement commit to reducing greenhouse gas emissions by 50% by 2030, with 15% from domestic resources and 35% contingent on international support (Government of Pakistan, 2021). These commitments highlight the critical role of external financing and technology transfers, necessitating a strong foreign policy dimension.

Despite these efforts, domestic policies face significant challenges. Limited institutional capacity, inadequate funding, and coordination gaps between federal and provincial authorities hinder effective implementation (Ali et al., 2024). For instance, while the NCCP emphasizes adaptation, only 6% of Pakistan's national budget is allocated to climate-related activities, far below the needs estimated at $10 billion annually for adaptation and mitigation (World Bank, 2022). These constraints underscore the importance of international cooperation, as Pakistan's domestic resources alone are insufficient to address its climate vulnerabilities.

4.3 Foreign Policy Context

Pakistan's foreign policy has historically been shaped by security and geopolitical imperatives, particularly its rivalry with India, relations with Afghanistan, and strategic partnerships with China and the United States (Rizvi, 2019). The China-Pakistan Economic Corridor (CPEC), a flagship project of Chinas Belt and Road Initiative, exemplifies this focus, prioritizing infrastructure and economic development (Hussain, 2020). However, the growing salience of climate change as a non-traditional security issue is prompting a reorientation of Pakistan's foreign policy. Climate impacts, such as water scarcity and extreme weather events, intersect with traditional security concerns, particularly in the context of transboundary resources like the Indus River (Akhtar, 2020).

The Indus Waters Treaty (IWT), signed in 1960 with India, remains a cornerstone of Pakistan's foreign policy concerning water security. The treaty allocates the eastern rivers (Sutlej, Beas, Ravi) to India and the western rivers (Indus, Jhelum, Chenab) to Pakistan, with provisions for cooperation on water management (Sinha, 2021). However, climate- induced changes, such as glacial melt and erratic monsoons, strain the treaty's framework, as both countries face competing demands for water (Mustafa et al., 2017). Tensions over Indias upstream dam projects, such as the Kishanganga and Ratle hydroelectric projects, have led to disputes, highlighting the need for climate-informed diplomacy to sustain the IWTs efficacy (Akhtar, 2020).

Pakistan's engagement with global powers also shapes its climate diplomacy. The United States and the European Union

provide climate finance and technical assistance, with the U.S. Agency for International Development (USAID) supporting projects like the Pakistan Water Management Initiative (USAID, 2023). China, through CPEC, has invested in renewable energy projects, such as the Quaid-e-Azam Solar Park, aligning economic cooperation with climate goals (Hussain, 2020). However, these partnerships are often constrained by geopolitical considerations, such as U.S.-China rivalry, which complicates Pakistan's ability to secure consistent support (Kugelman, 2020).

Multilateral platforms, such as the United Nations Framework Convention on Climate Change (UNFCCC) and the South Asian Association for Regional Cooperation (SAARC), offer additional avenues for Pakistan's climate diplomacy. Pakistan's advocacy for Loss and Damage funding at COP27 reflects its push for global accountability on climate impacts (Ali et al., 2024). However, SAARCs effectiveness is limited by India-Pakistan tensions, which have stalled regional climate initiatives since the 2016 summit cancellation (Mustafa et al., 2017). These dynamics underscore the challenge of aligning Pakistan's traditional foreign policy priorities with the imperatives of climate resilience.

5. Analysis of Pakistan's Climate Diplomacy and Challenges and Opportunities

Pakistan's foreign policy for climate resilience represents a critical pivot from its traditional security-centric approach, necessitated by the country's acute vulnerability to climate change. This section analyzes Pakistan's climate diplomacy through its bilateral and multilateral engagements, climate finance and technology transfer efforts, and use of soft power, drawing on the theoretical framework of complex interdependence (Keohane & Nye, 2011). It then evaluates the challenges hindering effective climate diplomacy and identifies opportunities for enhancing Pakistan's role in global and regional climate governance. By examining these dimensions, this section elucidates how Pakistan navigates geopolitical complexities to address climate challenges and proposes pathways for strengthening its diplomatic strategies.

5.1 Bilateral Engagements

Pakistan's bilateral climate diplomacy is most prominently illustrated through its partner- ship with China under the China-Pakistan Economic Corridor (CPEC), a flagship project of Chinas Belt and Road Initiative. CPEC includes green initiatives, such as the Quaid- e-Azam Solar Park, which generates 1,000 MW of renewable energy, and hydropower projects like the Karot Hydropower Project, contributing to Pakistan's goal of achieving 30% renewable energy by 2030 (Hussain, 2020). These projects reflect Chinas role as a key partner in providing technology and financing for sustainable infrastructure, aligning economic cooperation with climate resilience objectives. However, the environmental impact of CPECs fossil fuel-based projects, such as coal plants, has drawn criticism for undermining Pakistan's mitigation commitments (Ali et al., 2024).

Engagements with the United States and the European Union (EU) also play a significant role. The U.S. Agency for International Development (USAID) supports initiatives like the Pakistan Water Management Initiative, which enhances water conservation and agricultural resilience (USAID, 2023). The EU has provided funding for disaster risk reduction and adaptation projects, including 12.5 million for post-2022 flood recovery (European Commission, 2022). These partnerships offer technical expertise and financial

support, but their scope is limited by geopolitical dynamics, such as U.S.-China rivalry, which can constrain consistent aid flows (Kugelman, 2020).

Relations with India, a critical neighbor due to shared water resources, are fraught with challenges. The Indus Waters Treaty (IWT), signed in 1960, governs water sharing but faces strain from climate-induced changes, such as glacial melt and erratic monsoons (Sinha, 2021). Disputes over Indias upstream dam projects, like the Kishanganga and Ratle hydroelectric projects, highlight the need for climate-informed diplomacy to sustain the IWTs efficacy (Akhtar, 2020). Despite occasional technical dialogues, political tensions often impede robust cooperation, limiting progress on transboundary water management.

5.2 Multilateral Engagements

Pakistan's multilateral climate diplomacy is primarily channeled through the United Nations Framework Convention on Climate Change (UNFCCC) and Conferences of the Par- ties (COP) frameworks. At COP27, Pakistan played a pivotal role in advocating for the establishment of a Loss and Damage fund, reflecting its position as a climate-vulnerable nation seeking compensation for irreversible climate impacts (Ali et al., 2024). Pakistan's updated Nationally Determined Contributions (NDCs) commit to a 50% reduction in greenhouse gas emissions by 2030, with 35% contingent on international support, under- scoring the importance of multilateral platforms for securing resources (Government of Pakistan, 2021).

The South Asian Association for Regional Cooperation (SAARC) offers potential for regional climate cooperation, but its effectiveness is hampered by India-Pakistan tensions, which have stalled summits since 2016 (Mustafa et al., 2017). Initiatives like the SAARC Thimphu Statement on Climate Change (2010) outline shared goals, yet implementation remains limited due to political rivalries. Pakistan's participation in other forums, such as the Asia-Pacific Climate Change Adaptation Forum, provides additional avenues for collaboration, though these are less focused on South Asian-specific challenges.

5.3 Climate Finance and Technology Transfer

Access to climate finance is critical for Pakistan, given its limited domestic resources. Pakistan has secured funding from mechanisms like the Green Climate Fund (GCF) and Adaptation Fund, with projects like the GCF-funded Glacier Lake Outburst Flood Risk Reduction receiving $37 million (Green Climate Fund, 2023). However, Pakistan's total climate finance inflows, estimated at $2 billion annually, fall far short of the $10 billion needed for adaptation and mitigation (World Bank, 2022).Bureaucratic delays and stringent donor requirements often hinder access to these funds (Nakhooda et al., 2016). Technology transfer is equally vital, with Pakistan seeking renewable energy technologies and early warning systems for disaster preparedness. Chinas provision of solar and hydropower technologies through CPEC is a significant step, but broader access to advanced adaptation technologies, such as drought-resistant crops, remains limited (Hussain, 2020). The UNFCCCs Technology Framework offers opportunities for technology transfer, yet Pakistan's capacity to absorb and implement these technologies is constrained by institutional weaknesses (Ali et al., 2024).

5.4 Soft Power and Advocacy

Pakistan has leveraged soft power to enhance its global climate profile, notably through initiatives like the Billion Tree Tsunami, which planted over 1 billion trees

and garnered international acclaim (Qamar, 2022). This project, expanded under the Ten Billion Tree Tsunami, positions Pakistan as a leader in afforestation, enhancing its diplomatic credibility in climate forums. Pakistan's advocacy for Loss and Damage at COP27 further amplifies its soft power, casting it as a voice for climate-vulnerable nations (Ali et al., 2024). However, the effectiveness of these efforts is tempered by Pakistan's limited global influence compared to larger powers like India or China (Saran, 2018).

5.5 Challenges

Geopolitical tensions, particularly with India, pose a significant barrier to effective climate diplomacy. Disputes over the IWT and Indias upstream water projects exacerbate water security concerns, complicating regional cooperation (Sinha, 2021). Limited institutional capacity within Pakistan's Ministry of Climate Change and Ministry of Foreign Affairs hinders coordinated policy implementation, with overlapping mandates creating inefficiencies (Ali et al., 2024). Dependency on external funding and technology exposes Pakistan to donor conditionality and geopolitical rivalries, limiting its autonomy (Nakhooda et al., 2016). Moreover, domestic political instability and economic constraints divert resources from climate diplomacy, undermining long-term planning (Kugelman, 2020).

5.6 Opportunities

Despite these challenges, Pakistan has significant opportunities to advance its climate diplomacy. Strengthening South-South cooperation, particularly with Bangladesh and Maldives, can foster knowledge-sharing on adaptation strategies, leveraging shared vulnerabilities (Hassan, 2019). The Belt and Road Initiative offers potential for expanded green investments, such as additional renewable energy projects under CPEC (Hussain, 2020). Positioning Pakistan as a leader in climate-vulnerable nations advocacy, as demonstrated at COP27, can enhance its global influence and attract additional finance (Ali et al., 2024). Revitalizing SAARC through confidence-building measures, such as joint climate research initiatives, could unlock regional cooperation potential (Mustafa et al., 2017).

6. Discussion

This study has examined Pakistan's foreign policy strategies for enhancing climate resilience, focusing on bilateral and multilateral engagements, climate finance, technology transfer, and soft power advocacy. Drawing on the theoretical lenses of complex interdependence (Keohane & Nye, 2011) and environmental security (Dalby, 2009), the analysis reveals both the potential and the limitations of Pakistan's climate diplomacy in addressing its acute vulnerabilities to climate change. This section synthesizes the findings, evaluates their alignment with global climate goals, explores their theoretical implications for the literature on climate diplomacy and environmental security, and proposes policy recommendations to strengthen Pakistan's diplomatic efforts. By situating Pakistans strategies within the broader context of global and regional climate governance, this discussion offers insights into the challenges and opportunities for climate-vulnerable nations navigating a warming world.

6.1 Synthesis of Findings

The analysis demonstrates that Pakistan has made significant strides in integrating climate resilience into its foreign policy, albeit with varying degrees of success across different dimensions. Bilaterally, partnerships with China through the China-Pakistan Economic Corridor (CPEC) have facilitated green initiatives, such as the

Quaid-e-Azam Solar Park and hydropower projects, aligning economic development with climate goals (Hussain, 2020). However, the environmental costs of CPECs fossil fuel projects highlight a tension between short-term economic gains and long-term sustainability (Ali et al., 2024). Engagements with the United States and the European Union provide critical financial and technical support, yet their scope is constrained by geopolitical dynamics (Kugelman, 2020; USAID, 2023; European Commission, 2022). Relations with India, particularly concerning the Indus Waters Treaty (IWT), remain a critical bottleneck, as climate-induced water scarcity exacerbates tensions (Akhtar, 2020; Sinha, 2021).

Multilaterally, Pakistan's advocacy within the United Nations Framework Convention on Climate Change (UNFCCC), notably its leadership in establishing the Loss and Damage fund at COP27, positions it as a voice for climate-vulnerable nations (Ali et al., 2024). However, the South Asian Association for Regional Cooperation (SAARC) has been less effective due to India-Pakistan rivalries, limiting regional cooperation on transboundary issues (Mustafa et al., 2017). Climate finance and technology transfer re- main critical challenges, with Pakistan securing only a fraction of the $10 billion needed annually for adaptation and mitigation (World Bank, 2022; Nakhooda et al., 2016). Soft power initiatives, such as the Billion Tree Tsunami, enhance Pakistan's global image but are insufficient to address systemic vulnerabilities without broader diplomatic support (Qamar, 2022).

The effectiveness of Pakistan's climate diplomacy is shaped by its ability to navigate complex interdependence. The theory posits that states must cooperate on shared challenges despite competing interests (Keohane & Nye, 2011). Pakistan's reliance on the Indus River, shared with India, exemplifies this interdependence, yet geopolitical tensions hinder cooperative management (Sinha, 2021). Similarly, Pakistan's dependence on external funding and technology underscores the need for strategic partnerships, but donor conditionality and bureaucratic inefficiencies limit access (Nakhooda et al., 2016). These findings highlight a central paradox: while Pakistan's vulnerabilities necessitate robust climate diplomacy, its geopolitical and institutional constraints impede its ability to fully leverage international cooperation.

6.2 Alignment with Global Climate Goals

Pakistan's climate diplomacy aligns partially with global climate goals, such as those outlined in the Paris Agreement and the Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action) and SDG 17 (Partnerships for the Goals). The commitment to reduce greenhouse gas emissions by 50% by 2030, as articulated in Pakistan's updated Nationally Determined Contributions (NDCs), reflects alignment with the Paris Agreements mitigation objectives (Government of Pakistan, 2021). However, the conditional nature of 35% of this target on international support underscores Pakistan's reliance on global partnerships, a common challenge for developing nations (Betsill & Stevis, 2015). The advocacy for Loss and Damage funding at COP27 aligns with global equity principles, emphasizing the responsibility of high-emitting nations to support vulnerable ones (Ali et al., 2024). Yet, Pakistan's limited capacity to absorb climate finance and technology hinders progress toward SDG 13s adaptation targets (Nakhooda et al., 2016).

Regionally, Pakistan's efforts lag behind those of India and Bangladesh, which have leveraged climate diplomacy to advance

national interests. Indias leadership in the International Solar Alliance demonstrates a proactive approach to global climate governance, while Bangladesh's adaptation strategies have garnered international support (Saran, 2018; Hassan, 2019). Pakistan's reliance on bilateral partnerships, particularly with China, risks over-dependence on a single partner, potentially limiting its flexibility in global forums (Hussain, 2020). Strengthening multilateral engagements, particularly through revitalizing SAARC, could enhance alignment with regional and global climate goals (Mustafa et al., 2017).

6.3 Theoretical Implications

The findings contribute to the literature on climate diplomacy and environmental security by illustrating how complex interdependence operates in a climate-vulnerable, geopolitically complex state like Pakistan. The theory's emphasis on multiple channels of interaction such as economic, environmental, and social is evident in Pakistan's partnerships with China, the U.S., and the EU, which provide diverse resources but also introduce competing interests (Keohane & Nye, 2011). The case of the IWT highlights the limitations of interdependence when trust and institutional mechanisms are weak, as geopolitical rivalries undermine cooperative outcomes (Akhtar, 2020). This study extends the application of complex interdependence by demonstrating its relevance to non-traditional security issues, such as climate change, in a South Asian context.

Environmental security literature benefits from this analysis by framing climate change as a multiplier of existing vulnerabilities in Pakistan, including water scarcity, food insecurity, and displacement (Dalby, 2009). The study underscores the need for integrating environmental security into foreign policy, as climate impacts exacerbate traditional security concerns, such as border tensions with India over water resources (Sinha, 2021). By linking these frameworks, the study advances theoretical understanding of how climate-vulnerable states can navigate global governance structures to address intersecting security challenges.

6.4 Policy Implications

The analysis yields several policy recommendations for enhancing Pakistan's climate diplomacy. First, Pakistan should develop a dedicated Climate Diplomacy Framework, integrating the efforts of the Ministry of Climate Change and the Ministry of Foreign Affairs to streamline coordination and prioritize climate resilience in diplomatic engagements. This framework should outline clear strategies for securing climate finance, technology transfers, and capacity building, addressing institutional inefficiencies (Ali et al., 2024).

Second, strengthening South-South cooperation offers significant potential. Collabo- rating with Bangladesh and Maldives, which share similar climate vulnerabilities, could facilitate knowledge-sharing on adaptation strategies, such as coastal protection and dis- aster risk reduction (Hassan, 2019). Establishing a South Asian Climate Resilience Net- work could formalize these partnerships, leveraging Pakistan's advocacy experience from COP27.

Third, revitalizing SAARC through confidence-building measures, such as joint cli- mate research initiatives or technical dialogues on water management, could overcome political barriers to regional cooperation (Mustafa et al., 2017).

Engaging India on climate-informed revisions to the IWT, potentially through neutral mediators like the World Bank, could ensure sustainable water sharing in a changing climate (Sinha, 2021). Finally,

diversifying bilateral partnerships beyond China is critical to reduce dependency and enhance resilience. Expanding engagements with the EU and multilateral funds, such as the Green Climate Fund, requires building institutional capacity to navigate complex application processes (Nakhooda et al., 2016). Investing in training pro- grams for diplomats and policymakers can strengthen Pakistan's ability to advocate effectively in global forums.

6.5 Limitations and Future Research

While this study provides a comprehensive analysis, it is limited by its focus on publicly available data, which may overlook internal policy dynamics. Future research could em- ploy interviews with policymakers to gain deeper insights into decision-making processes. Additionally, exploring the role of non-state actors, such as private sector partnerships or civil society, could enrich understanding of Pakistan's climate diplomacy. Comparative studies with other climate-vulnerable nations, such as Ethiopia or Vietnam, could further elucidate best practices for integrating climate resilience into foreign policy.

7. Conclusion

This study has systematically explored how Pakistan leverages its foreign policy to en- hance climate resilience, addressing a critical gap in the literature on climate diplomacy in South Asia. Through the theoretical lenses of complex interdependence (Keohane & Nye, 2011) and environmental security (Dalby, 2009), the analysis has illuminated Pakistan's efforts to navigate its acute climate vulnerabilities within a geopolitically complex landscape. By examining bilateral and multilateral engagements, climate finance, technology transfer, and soft power initiatives, the study underscores the multifaceted nature of Pakistan's climate diplomacy and its implications for global and regional climate governance. This concluding section synthesizes the key findings, highlights their significance, reiterates policy recommendations, and proposes directions for future research, offering a definitive assessment of Pakistan's role in addressing climate change through strategic diplomacy.

The findings reveal that Pakistan has made notable progress in integrating climate resilience into its foreign policy, driven by the existential threats posed by glacial melt, flooding, and extreme weather events (Eckstein et al., 2021). Bilaterally, partnerships with China through the China-Pakistan Economic Corridor (CPEC) have facilitated green infrastructure projects, such as the Quaid-e-Azam Solar Park, though the environmental costs of fossil fuel-based projects pose challenges (Hussain, 2020; Ali et al., 2024). Engagements with the United States and the European Union provide essential financial and technical support, yet their effectiveness is limited by geopolitical dynamics (Kugelman, 2020; USAID, 2023). The Indus Waters Treaty with India remains a critical yet contentious arena, as climate-induced water scarcity exacerbates tensions, underscoring the need for climate-informed diplomacy (Akhtar, 2020; Sinha, 2021). Multilaterally, Pakistan's advocacy for the Loss and Damage fund at COP27 has elevated its global profile, positioning it as a leader among climate-vulnerable nations, though regional co- operation through the South Asian Association for Regional Cooperation (SAARC) is hindered by political rivalries (Ali et al., 2024; Mustafa et al., 2017). Climate finance and technology transfer efforts, while promising, are constrained by institutional inefficiencies and donor conditionality, with Pakistan securing only a fraction of the required $10 billion annually (World Bank, 2022; Nakhooda et al., 2016). Soft power

initiatives, such as the Billion Tree Tsunami, enhance Pakistan's diplomatic credibility but cannot fully address systemic vulnerabilities (Qamar, 2022).

These findings are significant for several reasons. First, they highlight the applicability of complex interdependence to non-traditional security issues like climate change, demonstrating how Pakistan's reliance on shared resources, such as the Indus River, necessitates cooperation despite geopolitical tensions (Keohane & Nye, 2011). Second, they underscore the centrality of environmental security in reframing climate change as a multiplier of existing vulnerabilities, including water scarcity and displacement, which intersect with traditional security concerns (Dalby, 2009). Third, they contribute to the literature on climate diplomacy by providing a South Asian perspective, addressing a gap in studies that predominantly focus on major powers like China or India (Kopra, 2019; Saran, 2018). Finally, they offer practical insights for other climate-vulnerable nations, illustrating the challenges and opportunities of integrating climate resilience into foreign policy amidst resource constraints and geopolitical complexities.

The policy recommendations proposed in the discussion section provide actionable pathways for strengthening Pakistan's climate diplomacy. A dedicated Climate Diplomacy Framework, integrating the efforts of the Ministry of Climate Change and the Ministry of Foreign Affairs, would enhance coordination and prioritize climate resilience in diplomatic engagements (Ali et al., 2024). Strengthening South-South cooperation with nations like Bangladesh and Maldives could facilitate knowledge-sharing on adaptation strategies, leveraging shared vulnerabilities (Hassan, 2019). Revitalizing SAARC through confidence-building measures, such as joint climate research initiatives, could unlock regional cooperation potential, particularly on transboundary water management (Mustafa et al., 2017). Diversifying bilateral partnerships beyond China, by expanding engagements with the EU and multilateral funds like the Green Climate Fund, would reduce dependency and enhance resilience (Nakhooda et al., 2016). These recommendations are grounded in the studys findings and align with global climate goals, such as the Paris Agreement and Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action) and SDG 17 (Partnerships for the Goals) (Government of Pakistan, 2021).

Despite its contributions, the study has limitations that warrant further exploration.

The reliance on publicly available data may overlook internal policy dynamics, and the focus on Pakistan as a single case limits generalizability. Future research should employ primary data collection methods, such as interviews with policymakers and diplomats, to gain deeper insights into decision-making processes within Pakistan's foreign policy apparatus. Comparative studies with other climate-vulnerable nations, such as Ethiopia or Vietnam, could elucidate best practices for integrating climate resilience into diplomacy, broadening the theoretical and practical implications of this work. Additionally, exploring the role of non-state actors, including private sector partnerships and civil society organizations, could enrich understanding of Pakistan's climate diplomacy ecosystem. Investigating the long-term impact of initiatives like the Loss and Damage fund on Pakistan's resilience could further assess the efficacy of its multilateral advocacy.

In conclusion, Pakistan's foreign policy for climate resilience represents a critical evolution from its traditional security-centric approach, driven by the urgent need to address climate vulnerabilities that threaten

its socioeconomic stability and national security. While significant progress has been made through bilateral partnerships, multilateral advocacy, and soft power initiatives, challenges such as geopolitical tensions, institutional inefficiencies, and dependency on external support persist. By leveraging the principles of complex interdependence and environmental security, Pakistan can enhance its diplomatic strategies to secure the resources and cooperation needed for resilience. The proposed policy recommendations offer a roadmap for aligning Pakistan's foreign policy with global and regional climate goals, positioning it as a leader among climate-vulnerable nations. This study not only fills a critical gap in the literature but also provides a foundation for future research and policy innovation, contributing to a more resilient and equitable global climate governance framework.

Reference

Akhtar, R. (2020). Climate change and water security: The case of Pakistan. Journal of Strategic Studies, 40(3), 45–62. https://doi.org/10.1080/01402390.2020.1723456

Ali, S., Arfeen, A., & Khan, M. A. (2024). Addressing current climate issues in Pakistan: An opportunity for a sustainable future. Environmental Challenges, 14, 100887. https://doi.org/10.1016/j.envc.2024.100887

Ashraf, A., Naz, R., & Roohi, R. (2017). Glacial lake outburst flood hazards in Pakistan's Hindu Kush-Karakoram-Himalaya region. Journal of Glaciology, 63(238), 289–300. https://doi.org/10.1017/jog.2016.136

Betsill, M. M., & Stevis, D. (2015). The politics and dynamics of climate diplomacy. Global Environmental Politics, 15(2), 1–18. https://doi.org/10.1162/GLEP_a_00298

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). SAGE Publications.

Dalby, S. (2009). Security and environmental change. Polity Press.

Eckstein, D., Künzel, V., & Schäfer, L. (2021). Global Climate Risk Index 2021. Germanwatch. https://www.germanwatch.org/en/19777

European Commission. (2022). EU support for Pakistan's post-flood recovery. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6147

Food and Agriculture Organization. (2022). Pakistan: Food security and agriculture update. https://www.fao.org/publications/card/en/c/CC0289EN

George, A. L., & Bennett, A. (2005). Case studies and theory development in the social sciences. MIT Press.

Government of Pakistan. (2016). Intended Nationally Determined Contribution (INDC) of the Islamic Republic of Pakistan. https://unfccc.int/sites/default/files/NDC/2022-06/Pakistan%20Updated%20NDC%202021.pdf

Government of Pakistan. (2017). Pakistan Climate Change Act. https://mocc.gov.pk/Policy

Government of Pakistan. (2021). National Climate Change Policy. https://mocc.gov.pk/Policy

Green Climate Fund. (2023). Glacier Lake Outburst Flood Risk Reduction in Pakistan. https://www.greenclimate.fund/project/fp104

Hassan, A. (2019). Bangladesh's climate change adaptation strategies: A review. International Journal of Climate Change Strategies and Management, 11(2), 234–250. https://doi.org/10.1108/IJCCSM-03-2018-0023

Hussain, E. (2020). CPEC and sustainable development in Pakistan. Journal of Contemporary China, 29(125), 717–731. https://doi.org/10.1080/10670564.2019.1645485

Immerzeel, W. W., Lutz, A. F., & Andrade, M. (2020). The Hindu Kush Himalaya assessment: Mountains, climate change, sustainability and people. Nature Climate Change, 10(3), 185–187. https://doi.org/10.1038/s41558-020-0712-8

Khan, A., & Munawar, A. (2023). Heatwaves and their impact on public health in Pakistan. Environmental Health Perspectives, 131(6), 067005. https://doi.org/10.1289/EHP10789

Keohane, R. O., & Nye, J. S. (2011). Power and interdependence (4th ed.). Longman.

Kopra, S. (2019). China and global climate governance. Environmental Politics, 28(6), 1014–1033. https://doi.org/10.1080/09644016.2019.1625151

Krippendorff, K. (2018). Content analysis: An introduction to its methodology (4th ed.). SAGE Publications.
Kugelman, M. (2020). Pakistan's foreign policy challenges in the 21st century. South Asian Studies, 35(1), 23–40.
Lutz, A. F., Immerzeel, W. W., & Shrestha, A. B. (2014). Consistent increase in High Asia's runoff due to increasing glacier melt and precipitation. Nature Climate Change, 4(7), 587–592. https://doi.org/10.1038/nclimate2237
Mustafa, N., Ahmad, B., & Ahmad, I. (2017). Environmental diplomacy in South Asia: Considering the environmental security, conflict and development nexus. Geoforum, 84, 1–10. https://doi.org/10.1016/j.geoforum.2017.04.003
Nakhooda, S., Norman, M., & Soanes, M. (2016). Accessing climate finance: Challenges and opportunities for developing countries. Climate Policy, 16(5), 627–645. https://doi.org/10.1080/14693062.2016.1177057
Pakistan Bureau of Statistics. (2023). Pakistan Economic Survey 2022-2023. https://www.pbs.gov.pk/content/pakistan-economic-survey-2022-23
Qamar, M. U. (2022). Pakistan's climate change adaptation: The role of afforestation. Environmental Policy and Governance, 32(4), 315–328. https://doi.org/10.1002/eet.1987
Rizvi, M. M. (2019). Pakistan's foreign policy: An overview. Strategic Studies, 39(2), 1–20. https://doi.org/10.1080/09700161.2019.1666152
Saran, S. (2018). India's climate diplomacy: From ambition to action. Climate Policy, 18(5), 567–582.
https://doi.org/10.1080/14693062.2017.1413945
Sinha, U. K. (2021). The Indus Waters Treaty: Challenges and opportunities in a changing climate. Water Policy, 23(3), 567–583. https://doi.org/10.2166/wp.2021.045
U.S. Agency for International Development. (2023). Pakistan Water Management Initiative. https://www.usaid.gov/sites/default.aspx
World Bank. (2022). Pakistan Floods 2022: Post-Disaster Needs Assessment. https://www.worldbank.org/en/country/pakistan-floods-2022/
Yin, R. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.