

Focus
August 2024

**Transboundary Resilience: Towards
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Abstract

Pakistan's policy landscape is often referred to as a 'graveyard' of floating documents. It is surprising then that there currently exists no document that comprehensively outlines the climate issue for Pakistan as it pertains to regional cooperation. Climate change will remain a global issue with local consequences. Therefore, in an effort to amalgamate the various strains that comprise it, this paper highlights key priority areas for a foreign policy on climate change, focusing on critical aspects necessary for national and regional resilience in the face of climate change while recommending ways to address those areas. In doing so, key areas include transboundary water management, with an emphasis on maintaining and adapting the Indus Waters Treaty, regional and multilateral cooperation to address climate security threats, and building institutional capacity for resilience against climate risks such as extreme weather events. The transition to a sustainable, low-carbon economy is identified as an essential step to integrate economic development with climate action. Additionally, the protection of biodiversity and ecosystems, particularly in the Indus Basin and the need to counter misinformation that could hinder regional

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cooperation are discussed. A whole-of-government approach aligned with international frameworks, is recommended to implement scalable climate actions for an effective regional cooperation on the climate issue.

Key words: *climate change, foreign policy, transboundary resilience, climate governance, regional cooperation, sustainable development*

Introduction

Over the last 70 years, global cooperation has been essential in expanding human well-being and socioeconomic opportunities.¹ The need to address global challenges like pandemics, financial debt, resource conflict, and climate change is indelibly linked with the urgency of multilateral cooperation. While questions have arisen about the effectiveness of bilateral efforts² and their perceived benefits, including whether they mitigate the risk of conflicts and slow down the climate crisis, regional integration remains vital for South Asia.

No single country possesses the capacity to independently address extreme weather events, but with collective effort countries can amplify their adaptation and build climate resilience. The significance of cooperation among the Global South governments and non-state stakeholders has been a consistent pillar under the United Nations Framework Convention on Climate Change (UNFCCC) and its various instruments like the 2016 Paris Agreement,³ particularly in the context of the first Global Stock-take (GST)⁴ and Nationally Determined Contributions (NDCs).⁵ Bilateral cooperation has been vital in adapting to climate change and its importance will only continue to grow in the face of emerging challenges.

Since signing the Paris Agreement, numerous countries have initiated intergovernmental cooperative efforts on issues

like deforestation, transboundary water-sharing, and energy management. Despite COVID-19 acting as a booster in recent multilateral efforts, the extent of participation from Pakistan and India at the regional level remains poor.⁶

Cooperation on shared resources in South Asia—the Indus Waters Treaty (IWT) between Pakistan and India being a notable exception—remains lacking in contrast. The resilience gap between the Global North and South, particularly in mid-lower income countries, may have limited capacity to harness the benefits of sector-based cooperation, which includes database sharing, independent bilateral policy development coordination, and open-source scientific Research and Development (R&D).⁷

As shared transboundary natural resources (water) in South Asia become increasingly important, equitable and comprehensive cooperation will become essential for long-term sustainability. This paper aims to highlight key priority areas for regional cooperation for Pakistan and give recommendations for how these areas may be appropriately addressed by relevant government bodies and stakeholders.

Transboundary Water Management

The 1947 partition of India drew an international border at the heart of the Indus River Basin, sparking a long-standing fault-line. The Indus River and one of its major tributaries originate in China and flow through India into Pakistan, while other tributaries rise in India and Afghanistan. Both countries heavily rely on the river water, with 80 per cent of Pakistan’s agricultural sector dependent on the basin, which leads to persistent tensions over water access.⁸

The Indus Waters Treaty (IWT) of 1960 apportioned rights between the two newborn nations with the help of the World Bank and the US, granting India unrestricted use of the three eastern tributaries but mandating the flow of water from the three western rivers into Pakistan. India has constructed projects on these western rivers permitted by the treaty. However, for Pakistan, these projects have reduced the water that it used to receive, which India disputes, attributing Pakistan's water strains to inefficient practices.⁹

In 2023, India officially sent a letter for amendments in the bilateral IWT.¹⁰ Despite periodic challenges to the IWT from politicians on both sides, its mechanisms have successfully resolved disputes, alleviated tensions, and contributed to regional stability for over six decades, and state and non-state actors such as think tanks and civil society coalitions should be appreciated.

In the absence of any geopolitical changes, it would be reasonable to expect the current situation to persist. However, the landscape is shifting significantly in the wake of climate change and extreme weather events like heatwaves, droughts, and floods. The populations of India and Pakistan are expanding, which is resulting in the mounting demands for water to support increased food production and a higher demand for energy generation.¹¹ Meanwhile, Afghanistan¹² and China¹³ are also experiencing rapid growth in water demands and natural disasters.

Both Afghanistan and China are actively developing projects along their sections of the Indus River, but neither is a signatory to the IWT nor any transboundary water treaty. These developments have pushed groundwater extraction to its

maximum limit. In recent reports, Pakistan is in high water stress, introducing new points of contention in the near term.¹⁴ Now the added impact of global warming on the Upper Indus Basin (UIB) further complicates this already fraught situation.

The Indus River's headwaters, fed by glaciers and snowfields in the Tibetan Plateau, are experiencing changes induced by climate change. Glaciers are shrinking, decreasing the snow cover, and intense snowmelt occurs each year. Precipitation patterns are unpredictable as the 'age of averages' is over, leading to erratic river flow during monsoon and increased sedimentation across the Himalayan wetlands.¹⁵ As a result, water availability will likely fluctuate more significantly between years and seasons within this decade (by 2030), but demand will continue to rise. This creates a perfect storm for permanent tension between the powerful troika of 'Pakistan-India-China', with maximal resource utilisation and extraction.¹⁶

Unpredictable and unforeseen climate stresses raise concerns about the prospects for sustained peace and prosperity in the region. The Indus Basin is not only stressed due to climate change, but its significance is heightened by the nuclear capabilities of Pakistan, India, and China, making this scenario particularly pertinent and concerning.¹⁷

In this new era of risk, bilateral and multilateral institutional capacity and adaptability are crucial skills for a nation-state. The Intergovernmental Panel on Climate Change (IPCC's) AR6-2023¹⁸ report's conclusion emphasises the need for climate-informed transboundary management and cooperation to address mounting risk factors effectively with long-term sustainability. It is essential to question whether the current policy tools for the Indus Basin are adequate for the escalating risks

ahead of climate change. Are Pakistani and Indian authorities preparing for transboundary extreme droughts and floods? Are water consumers being engaged in planning and development of any policy?

The Indus Basin, shared by four countries—Pakistan, Afghanistan, China, and India—collectively relies on the larger Himalayan ecosystem and monsoon, which faces weather pattern changes, biodiversity degradation, and uncoordinated hydro-power development. These challenges were not considered when the existing articles of the IWT were established 60 years ago.¹⁹ How can regional governance frameworks evolve to address these climate risks? Will governments respond to the amplified risks due to climate change with increased inclusivity and bilateral cooperation? Will these challenges, which all countries will face to some extent, lead to cooperation or conflict? These are the questions that must be at the centre of climate-friendly policies for Pakistan and the region.

Regional Cooperation and Multilateral Engagement

Climate crisis is one of the most significant security threats of the 21st century for the Global South, contributing to regional conflicts and internal instability.²⁰ The world is now facing unprecedented anomalies within earth systems, where novel events driven by climate change undermine previous adaptation efforts, amplify societal inequalities, and intensify resource competition both between and within states, leading to permanent migration in South Asia.²¹ The consequences of climate change extend beyond environmental impacts,

influencing geopolitical dynamics and necessitating urgent regional action to address this security nexus.²²

Addressing the climate crisis requires collective effort in this era of heightened risk. Globally, international law and order is disrupted by raging wars from the Russia-Ukraine war to Israel's occupation of Gaza. Similarly, Prime Minister Narendra Modi's government's actions in Indian Illegally Occupied Jammu and Kashmir (IIOJK) have marked a significant turning point in Pakistan-India relations, with far-reaching implications for the stability of South Asia and the broader Global South. In the context of this volatility, weapons, pharmaceutical, and fossil fuel companies are exploiting humanity's dependencies, leveraging financial instruments like the World Bank and International Monetary Fund (IMF) to their advantage. Oxfam estimates that in 2022, the 'true value' of climate finance provided by wealthy nations was only between \$28 billion and \$35 billion, with a maximum of \$15 billion allocated for adaptation.²³

However, the green transition offers an opportunity to redesign the global economic structure. As G20 countries, responsible for approximately 80 per cent of global emissions, have significantly increased their wealth in recent years, they bear a special responsibility to implement ambitious climate policies and lead by example.²⁴ This requires a fair contribution to regional climate actions and financing.

Furthermore, effective regional climate cooperation depends on regional and international dialogue and collaboration. Even with partners who do not fully share our values, climate cooperation can be a cornerstone for a positive agenda, fostering bridges and strengthening regional partnerships. Climate diplomacy will allow us to deepen relations

with states on issues beyond climate, creating opportunities for mutually beneficial cooperation. The eco-centric transition presents Pakistan, Afghanistan, Iran, China, and India with a unique opportunity to develop resilient, sustainable, future-oriented technologies, reducing dependencies and enhancing economic resilience across the region.

To meet the Sustainable Development and Paris Agreement goals, collective actions with bottom-up approaches are imperative. No country can single-handedly mitigate extreme weather events or curb climate catastrophes. Therefore, our climate diplomacy must be inclusively grounded in the UNFCCC and Paris Agreement values and missions. Frameworks for climate action must be guided by the Sustainable Development Goals (SDGs) and the Kunming-Montreal Global Biodiversity Framework (GBF).²⁵

A whole-of-government approach to regional cooperation will ensure regional alignment in infrastructure and instrument development to support a regional transition to a carbon-neutral near-term. Constructive treaties must not only be nature-based but also socially acceptable and economically prosperous. There needs to be consistent commitment to actively shaping regional dialogue. This strategy will serve as a guiding framework for Pakistan's position in international climate negotiations like COPs and the UN General Assembly (UNGA).

Sustainable Economic Transition

The 21st century must be also defined by the widespread adoption of renewable energies. In COP-28, held in Dubai, some 97,000 participants attended from 30 November to 13 December 2023.²⁶ During this COP, the Paris Agreement's first GST assessed

the world's progress in achieving the agreement's goals. A key outcome was the transition away from fossil fuels while tripling renewable (11,000 GW) capacity by 2030. Numerous countries worldwide have acknowledged the immense economic and social benefits of a bold, pragmatic, and successful climate policy and are spearheading the transition to green energy, enhanced energy efficiency, industrial decarbonisation, and the development of sustainable technologies.

Proactively driving this shift towards a resilient, resource-efficient economy in South Asia is essential for Pakistan. In the coming years, it will be essential to set a clear trajectory for accelerating this green transition at the subnational, national, regional, and global levels while mitigating the most severe consequences of loss and damages.²⁷

Integrating economic and social development with climate action must be a core principle of Pakistan's policies that pertain to regional cooperation. The transition to a long-term, low-carbon economy development not only addresses the climate crisis but also presents significant opportunities for carbon markets. Public support and societal acceptance are crucial for the success of regional climate action and coordinated environmental initiatives like the IWT, the Turkmenistan-Afghanistan-Pakistan-India Gas Pipeline (TAPI), and the Central Asia-South Asia power project (CASA-1000). A policy on regional climate cooperation should aim to position Pakistan among leaders in the near-term emerging economies of South Asia, driving ambitious NDCs, enhancing regional competitiveness, and fostering inclusive regional cooperation and development.

Countering Misinformation

An emerging area of concern is the dissemination and proliferation of climate knowledge. As technologies improve, misinformation (factually inaccurate information), disinformation (factually inaccurate, widely disseminated), and mal-information (factually correct, but manipulated to back an agenda) related to climate change are seen at various scales.²⁸

Climate change denialism and the politicisation of 'emissions peaking' and achieving Net-Zero have been prominent issues.²⁹ Harmful misinformation campaigns are increasingly and routinely observed around climate-related issues, including blame for climate hazards, backlash to climate-driven out-migration, disputes over transboundary water-sharing policies like IWT, polarisation over climate protests of farmers, and competition over shared natural resources.

Already amplified climate pressure points like Glacial Lake Outburst Flooding (GLOFs)³⁰ and wildfires³¹ are further being misattributed to conspiratorial causes on marginalised communities in regions such as water-lithium-rich IIOJK.³² This trend is likely to intensify conflict due to growing trust deficits and polarisation among major players (Pakistan-India-China) in the region. In some cases, extreme weather events manifest as scapegoats along existing sociopolitical fault lines, such as Algeria blaming Israel and Morocco for wildfires in 2021.³³

In the context of Pakistan and India, where climate impacts trump borders as in the case of transboundary water resources in the Indus Basin, the increased use of disinformation or mal-information to cast blame for shortages on particular ethnic groups. The dispute between Egypt, Ethiopia, and Sudan over the Grand Ethiopian Renaissance Dam's impact on shared Nile waters

serves as a comparable example for this.³⁴ Egypt's campaign to influence public perception of Ethiopia and Sudan in the dispute in turn led to an Ethiopian influence campaign. Instances like these indicate the way conflict over natural resources and conflict over prevailing narratives intermingle.

Another example of this phenomenon at play was when Pakistan, after the devastating floods of 2022, attributed the disaster to climate change and sought compensation of \$30 billion in loss and damages from high-emitting countries.³⁵ Other countries claimed that Pakistan's vulnerable condition was due to administrative mismanagement and political corruption. Both of these perspectives have grounds for validity; Pakistan and the other side were not relying on false information to press their case, but rather framed the core issues differently. There is potential in the future for stakeholders to use such 'mal-information', that is the skewing of facts to manipulate a perspective, for the purposes of intensifying the geopolitical situation.³⁶ Therefore, it is important that measures are in place to counter all misinformation, disinformation, and mal-information.

Biodiversity and Ecosystem Conservation

Finally, a key priority for regional climate cooperation should include the protection and conservation of ecosystems. The integrity of ecosystems relies on biological diversity, and Pakistan is an agri-based economy, culturally tied to its land, which is essential for the services that sustain societal and economic prosperity. Climate change is one of the major drivers of degradation regarding land use, land-use change and forestry (LULUCF), while the destruction of ecosystems due to economic development exacerbates weather change intensification.³⁷

The ongoing deforestation and degradation of forests in Pakistan are alarming. Forests, which act as 'carbon sinks' by absorbing carbon dioxide (CO₂), are vital to maintaining our 'carbon budget', that is, the maximum amount of net anthropogenic CO₂ emissions that would result in limiting global warming to a certain level. At the current pace, the remaining 200 GtCO₂ carbon budget is set to run out in the next five years in the absence of serious action.³⁸

To adapt to an overshoot scenario to the >1.5°C limit, it is imperative to halt deforestation and substantially restore degraded land. Meanwhile, there are irreversible degradation processes underway in the glaciers of the UIB, leading to the permanent alteration of the entire ecosystem and water availability.

According to the International Centre for Integrated Mountain Development (ICIMOD), this will have far-reaching consequences in South Asia, including growing climate out-migrations.³⁹ Protecting the UIB is of paramount importance, and Pakistan needs to invest in more projects like Living Indus and Recharge Pakistan.

Policy Recommendations

- Pakistan, India, Afghanistan, and China should collaborate on transboundary climate actions and treaties on biodiversity protection, aligning their collective efforts with the SDGs.
- Pakistan must advocate for the transboundary implementation of Nature-based Solutions (NbS) with India in Kashmir and Punjab to address the complex, compounding, and cascading nature of water scarcity.

The Ministry of Foreign Affairs and Ministry of Climate Change and Environmental Coordination should proactively coordinate with regional counterparts across bilateral and multilateral frameworks like the South Asian Association for Regional Cooperation (SAARC), the South Asia Co-operative Environment Programme (SACEP), the Sendai Framework for Disaster Risk Reduction, and the Convention on Biological Diversity in addition to the UNFCCC Paris Agreement.

- Pakistan should develop regional, bilateral, and multilateral treaties on shared natural resources with Afghanistan and China. We can share knowledge, technocrats, and resources, ensuring that our responses to climate change and biodiversity loss are equitable, inclusive, accessible, and adequate.
- The only 'currency' that counts today is 'speed and scale' to return the world within the safe operating space of planetary boundaries. A Pakistan-India collaborative approach will protect the rich biodiversity of the Indus Basin and preserve the nature-based services like food, air, and water which eventually support human well-being.

Conclusion

The climate crisis poses an existential threat to Pakistan and the broader South Asian region, demanding a comprehensive response through regional cooperation. This paper has highlighted key priority areas, including the need for effective transboundary water management, particularly concerning the IWT, and the importance of regional and multilateral cooperation to address climate security threats. It has

elaborated on the necessity of building institutional capacity for resilience against climate risks, such as extreme weather events, while also advocating for a sustainable economic transition that integrates climate action with economic development. Furthermore, the protection of biodiversity and ecosystems, countering misinformation, and fostering inclusive regional cooperation are essential components of this strategy.

Further constructive engagements require constant determination, cooperation, and collective action from administrative governments, civil bureaucrats, public-private partnerships, and eco-centric consumerism in Pakistan and the region. Together, we can build resilience to the pressing challenges of climate change and biodiversity loss, ensuring a sustainable future for all of humanity. By aligning its policies with international frameworks and ensuring a whole-of-government approach, Pakistan can position itself as a leader in regional climate action to address long-term sustainability and stability in the region.

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