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The Role Of Pakistan And India In Shaping South Asia's Climate Change Landscape

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Abstract

India and Pakistan are facing climate-related challenges including extreme weather events, water scarcity and environmental degradation, which impact agriculture, water resources and human health. Their historical and geopolitical tensions often-complicate collaborative climate action. Both the countries have made commitments under international agreements such as the Paris Agreement. Thus, their approaches reflect differing priorities and capacities. India, with its larger economy and significant ¹greenhouse gas emissions has focused on scaling up renewable energy and achieving ambitious targets. On the other hand, Pakistan has concentrated on adaptation strategies and enhancing resilience in vulnerable communities. The tension between these two nations affects regional climate initiatives and the effectiveness of collective actions. Bilateral strains such as water-sharing agreements and cross-border pollution often hinder collaborative efforts. The paper explores the complexities of Pakistan and India's roles in South Asia's climate change landscape and analyze their domestic and regional policies. By utilizing the qualitative analysis of previous literature, policy documents and mutual communications the study conceptualize the efforts of India and Pakistan to mitigate climate change.

Keywords: Pakistan, India, Climate Change, Kashmir, Indus, Environmental Policy.

Introduction

The South Asian region, particularly India and Pakistan, has been identified one of the most vulnerable areas in the view of climate change. Both the nations are facing significant environmental challenges including smog, droughts and floods. The rise of global temperatures and the resulting climate change impacts, as underlined by the United Nations Framework Convention on Climate Change (UNFCCC), have made it imperative to examine the roles and responsibilities of these two countries in addressing the climate crisis (Khan, 2022, p. 20). The severity of the situation is made worse by the increasing historical and political issues between India and Pakistan, which are now being further complicated by disputes over water due to climate change and rise of Hindu nationalism in India after BJP's ascension to power. Such water disputes emerge from various factors, including population growth, poor water management and environmental concerns, leading to conflicts both within and between states as noted in the article "Complexities of Water Conflict Between India and Pakistan" (Durar et al., 2023). The challenges in this area are aggravated by scarce water supplies and declining water quality, increasing the unpredictability and danger of droughts.

The aim of the paper is to analyze the roles of India and Pakistan in the context of South Asian climate change. It also seeks how both the countries, both individually and

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collectively, contribute for the issue of climate change. South Asia is a region that is especially vulnerable to climate change due to its geographical and socio- economic characteristics. Pakistan, for example, ranks among the top ten countries most affected by climate change. The country faces countless climate-related challenges, including prolonged droughts, severe flooding, melting of glaciers and various other natural disasters, aggravating its struggle to adapt to these changes. Despite contributing minimally to global greenhouse gas emissions, Pakistan's reliance on fossil fuels and other fabricated greenhouse gases poses significant risks to its food supply, energy security and overall wellbeing. Likewise, India's contribution to global greenhouse gas emissions, though not as high as some developed countries, is significant due to its large population and rapid industrialization (Chateau et al., October 2023). The coastal zones, home to a large portion of India's population, are increasingly experiencing the adverse effects of climate change. The region faces heightened risks of heavy rains, floods and cyclonic activities, all of which are worsened by climate change. Both countries' energy policies and their efforts to adapt to and mitigate climate change, including India's National Action Plan on Climate Change and Pakistan's Climate Change Policy are crucial in shaping the region's environmental future. Many developed countries, along with nations like USA, China, South Africa and India are significant consumers of natural resources, particularly coal. This consumption leads to considerable air pollution. Therefore, developed countries play a vital role in climate change of South Asia.

Climate change offers a new perspective in the relationship between India and Pakistan, creating opportunities for cooperation and diplomacy that were previously unexplored. There is an urgent need for climate-focused diplomatic efforts that could turn their historical rivalry into a joint effort to tackle mutual environmental issues. This literature review will look into how the ongoing geopolitical tensions between India and Pakistan are influenced by climate change. Moreover, the review will also analyze the political consequences of climate change in this area and evaluate the possibilities for diplomatic initiatives to address these common environmental threats (Hussain, May 90, 2022).

The environmental crisis and human-driven climate change have resulted in over half a million fatalities across the borders, affecting both India and Pakistan significantly. In a startling revelation, the year 2020 saw almost half of the two hundred most polluted cities globally located in these two countries. This indicates a dire situation where air pollution has become a deadlier threat than terrorism, claiming more lives in India and Pakistan. Various civilizations in the past, such as the Indus civilization, have collapsed largely due to climate change, which elaborates the absolute necessity of having clear, dedicated and collaborative climate directed policies (Giosan, 2018). The Indus Valley Civilization, flourishing in what is now Pakistan and northwest India, faced a significant decline around 1800 BCE primarily due to climate change. Environmental shifts, including the drying of the Saraswati River and altered monsoon patterns, led to a cooler, drier climate, disrupting their agriculture and trade. These changes undermined the civilization's urban structure, compelling its people to migrate to more fertile regions like the Ganges basin and transition to a rural, agrarian lifestyle (Lacy, October 16, 2017). This example from history shows how significant environmental changes can greatly affect a civilization, emphasizing the importance of adapting to and planning for climate changes.

Literature Review

Since Pakistan achieved its independence in 1947, Kashmir Issue has continuously been a subject of dispute between the two neighboring nuclear rivals. Chandra (2021), the region of Kashmir remains an extremely sensitive area with the potential to escalate a full-scale war between Pakistan and India. The main cause of the dispute between the two countries centers on the strategic importance, geographic value and resource richness of Kashmir. Pranav (2020), The Indus River, flowing through Kashmir, holds paramount importance for Pakistan's agricultural sector, especially in the lower Indus Valley where there is a scarcity of rainfall. Similarly, India depends on the Indus River to meet its irrigation requirements. Consequently, having control over the Indus River and its tributaries is strategically

significant; the country that dominates this area has the potential to restrict the water flow to the other. Under the Indus Water Treaty of 1960, mediated by the World Bank to ensure logical and fair distribution of water, India manages the eastern tributaries, specifically Beas, Ravi and Sutlej, while Pakistan administers the western rivers, encompassing the Indus, Chenab and Jhelum. The treaty gives India access to 20% of the total water, while Pakistan has access to the rest 80%. Despite the existence of this treaty, Pakistan harbors concerns that India might disrupt the water supply in a possible conflict scenario, given India's control over the Kashmir region through which the Indus flows Sidduige (2017), The Kashmiri Rivers hold the capacity to produce hydroelectricity on a large scale. This area also boasts an abundance of resources including uranium, gold, oil and natural gas. Geopolitically, Kashmir holds significant importance too. It serves as a link between South and Central Asia. For Pakistan, Kashmir is a crucial component of the Belt and Road Initiative (BRI) and is especially vital for the China-Pakistan Economic Corridor (CPEC). Joshua (2019), the prominent question that arises is will the Indus Water Treaty (IWT) survive? Climate change is intensifying existing pressures on the IWT. While the overall water flow in the rivers remains stable and is not expected to decrease due to the negative effects of climate change, the patterns of these flows are likely to become more unpredictable and erratic. Consequently, it is highly probable that flooding incidents will rise in the Indus River Basin. Pakistan harbors deep concerns that India might adjust the storage levels in dams to intensify floods downstream, severely affecting Pakistani farmers. Conversely, India is apprehensive that Pakistan might attribute floods, partly driven by climate change, to alleged Indian water management interference, as a tactic to gain an advantage in geopolitical discussions. The link between climate change and conflict varies widely, depending on the specific situation

Lauren (2019), Water has often been used as a tool in armed conflicts influenced by other factors. A notable instance occurred when Turkey restricted the Euphrates River's flow to Syria in April- May 2014, a period marked by Turkey's alleged support to groups opposing the government of Syria. In a similar manner, Israel has at times reduced the flow of freshwater to the Gaza Strip. In the case of the Indus River Basin (IRB), there was an incident where India restricted the flow of water to Pakistan in 1948, amidst the ongoing conflict over Kashmir. Climate change impacts are most noticeable in the Indus River Basin, particularly in terms of the variability and inconsistency of river flows. It is the variability/unpredictability, more than the lack of water, which is a more accurate predictor of water-related conflicts. This is because current practices and institutions struggle more with increased uncertainty. Mason (2019), therefore, while outright wars over water might not be a common future scenario, the use of water in coercive diplomatic strategies could become more prevalent.

The theory that could be applied to understand the roles of Pakistan and India in climate change in South Asia is Environmental Determinism. This theory suggests that environmental factors, such as climate, geography and natural resources, play a vital role not only in shaping human societies but also of their development. In the context of Pakistan and India's, this theory can be used to make an analysis that how the geographical features, climate patterns and utilization of natural resources of both countries; India and Pakistan has contributed to the region's overall climate dynamics. For example, factors like deforestation, industrialization, nuclear activities and energy production methods in both countries could be examined to understand their influence on regional climate change pattern.

Pakistan and India possess diverse geographical features, which have historically influenced settlement patterns, agricultural practices and trade routes etc. The climatic variations across both countries have shaped agricultural practices, food security and economic activities. Due to the climate change, Monsoon patterns are heavily influencing agricultural productivity and water availability in South Asian region. Both countries possess rich natural resources and distribution of these natural resources has influenced not only the economic development but also the political dynamics. Competition over water resources, for instance, has been a significant factor in regional tensions between Pakistan and India.

Environmental determinism also widens to cultural adaptations and societal norms and traits. Traditional practices, such as water conservation techniques and crop selection, have been influenced by environmental conditions. In the modern current times, the Theory of Environmental Determinism shows deepen relevancy in understanding the challenges posed by climate change and environmental degradation. Both countries are facing threats such as water scarcity, deforestation and air pollution, which have wide-ranging impacts on public health, livelihoods and socio-economic stability. Food shortage due to the climate change in the most anticipated nontraditional security threat for Pakistan and India, which will cost the human lives at the worst possible extreme.

Essentiality of Climate Diplomacy for Relations between India & Pakistan.

The climate change is universally acknowledged as a major global challenge in the 21st century, profoundly affecting geopolitical and geo-economic dynamics worldwide. Rising temperatures, primarily due to greenhouse gas emissions, are leading to sea-level rise, depletion of water resources and jeopardizing human lives and livelihoods. Severe weather conditions, including powerful storms, lethal heatwaves, unpredictable weather patterns, heavy rainfall, rampant wildfires and droughts are becoming increasingly common and pose significant risks to people's safety. The disastrous consequences of climate change are transforming the dynamics of global politics, with its impact intensifying rapidly.

Climate diplomacy revolves around using diplomatic methods to counteract the adverse effects of climate change, encompassing the reduction of emissions of greenhouse gases and fostering peace, stability and prosperity. This approach incorporates climate change considerations into foreign policy goals, emphasizing the reinforcement of multilateralism, trust-building and peace efforts. It involves strategizing for risk management and developing precise global strategic risk assessments. These objectives can be realized through a focus on climate initiatives in interactions with international and regional bodies, engaging in diplomatic dialogues, employing foreign policy instruments and harnessing the power of public diplomacy (Carius et al., 2017). The emphasis on national interests necessitates Pakistan's active participation in the global climate change discourse, not only with Western nations but also with India (Sheikh, November 21, 2021). Incorporating climate diplomacy into Pakistan's foreign policy, especially in relation to India, is increasingly important. It is essential to recognize that climate change impacts are not limited to environmental and economic realms but also extend to Pakistan's strategic considerations. Islamabad's focus on neighborhood policies is key in addressing these climate challenges. Engaging in climate diplomacy with India positions Pakistan as a potential regional leader, demonstrating responsibility in addressing the challenges posed by climate change and boosting its influence in soft power (Ayaz, 2020).

Ten Billion Tree Tsunami Programme, initiated by Pakistan's former PTI regime, represents a significant stride in Pakistan's climate diplomacy. This project, spearheaded by the former Prime Minister, Imran Khan, received global acclaim for its approach to tackling climate fluctuation issues. During the 2015 UN Conference on Climate Change, it was noted that the most encouraging news from Pakistan was the Khyber Pakhtunkhwa province's 'Billion Tree Tsunami.' Additionally, a 2016 report by the Christian Science Monitor highlighted the significant effort of planting 250 million trees in the face of ongoing deforestation, which has significantly decreased Pakistan's forest area from 33% to merely 3-5% since the nation achieved independence (Haris, 2023).

Robert D. Kaplan correctly asserts that understanding the current century (21st) requires a new perspective. His thorough research suggests that the challenges of this century (21st century) differ markedly from the challenges of the previous century. Kaplan believes that the major risks of our time are not nuclear weapons, but rather challenges like the scarcity of resources, the growing global population, widespread diseases and most

importantly environmental decline (Kaplan, February 1994 Issue). The deteriorating global environment is forcing governments to consider sustainability as a crucial factor for their existence. For the first time in history, the survival of human civilization necessitates a unified approach and international collaboration. Regarding this, India must acknowledge that its isolation is unsustainable and recognize the importance of climate diplomacy with Pakistan. This collaboration is essential not only to resolve their longstanding conflict but also to protect humanity from the catastrophic impacts of climate change (Mabey et al., 2013).

In an unforeseen move during the COP26 climate summit in November 2021, the presidents of China and U.S.A agreed to cooperate regarding climate change initiatives. This agreement included commitments to reduce methane emissions and pursue other climate- related projects. Experts believe that this collaboration between the two major powers opens the door for future joint efforts in climate diplomacy (Gunia, November 17, 2021). In 2014, the then U.S. President Barack Obama and China's President Xi Jinping renewed their commitment to fight climate crisis, recognizing it as probably the most significant threat facing humanity. Both leaders promised to advance their respective domestic climate policies, enhance bilateral efforts and foster climate-resilient and sustainable economies focused on low-carbon and green transitions. This example sets a precedent for New Delhi and Islamabad, suggesting they reflect on the areas of cooperation demonstrated by the U.S. and China. It highlights the importance for India and Pakistan to draw inspiration from this collaboration for strengthening their own climate diplomacy (US Department of State, April 17, 2021).

India's Contribution in Climate Change

- I. **Emissions and Policy Framework:** India's economy, which is among the fastest growing and largest in the world, is a major contributor to the world's greenhouse gas emissions. Concerns regarding the nation's environmental impact have been raised by its reliance on fossil fuels and industrial activities. Academics have examined India's emissions patterns and the efficiency of its policy framework in mitigating climate change in detail. The main topics of discussion are India's commitment to renewable energy and the National Action Plan on Climate Change (NAPCC) (Farooqi et al., March 2005, pp. 11-21).
- II. Land Use and Deforestation: Land use changes and deforestation add to India's carbon footprint in addition to industrial emissions. Research draws attention to the effects of deforestation, urbanization and agricultural growth on regional and global climate patterns. Understanding India's contribution to climate change requires a review of the country's land-use policies and their effects on the environment (Aljazeera, May 04, 2024).
- III. The Climate Policies of India: India has put in place a number of climate policies to address environmental issues, as it is one of the major contributors to global greenhouse gas emissions. Eight national missions, such as solar energy, sustainable agriculture and water conservation, are outlined in the National Action Plan on Climate Change (Aljazeera, May 04, 2024).

Pakistan's Role in Climate Change

- I. **Vulnerabilities and Adaptation:** climate-related issues, just like those of India, affect Pakistan's population and environment. The availability of water in the area is seriously threatened by the melting of the Himalayan glaciers. Research highlights the significance of sustainable water resource management and agricultural practices, while examining Pakistan's vulnerabilities and its strategies for adapting to climate change (Mirza & Ahmad, 2005, pp. 197-230).
- II. Pakistan's Climate Initiatives: Pakistan has created policies like the Pakistan

Climate Change Policy, which focuses on adaptation and mitigation measures, in response to its own unique set of climate challenges. The nation's participation in international accords such as the Paris Agreement highlights its dedication to worldwide climate action. Despite these initiatives, academics contend that obstacles to the effective implementation and enforcement of policies still exist, impeding the intended effects on public health and climate change in South Asia (Gul et al., 2022).

III. Health Outcomes in South Asia: There are several ways that climate change is affecting South Asian health. Rising temperatures, shifting precipitation patterns and extreme weather events facilitate the transmission of vector-borne illnesses like dengue and malaria (Ohdedar, 2021, pp. 103-123). Furthermore, it has been established that air pollution from industrial activities in Pakistan and India causes respiratory problems, putting the health of vulnerable populations at risk (Mirza & Ahmad, 2005). Comprehending the direct and indirect effects of climate change on health is essential to developing policies and interventions that work.

Regional Implications and Collaborations

- I. **Himalayan Region and Water Security:** The Himalayan region is a vital source of freshwater that is shared by Pakistan and India. Research explores how climate change may affect the Himalayan glaciers and how that might affect both countries' water Security. Addressing common issues requires an understanding of how the water resources in the area are interconnected (Gul et al., 2022).
- II. Community Socioeconomic Impact: Beyond the environment, communities in South Asia are greatly impacted by the effects of climate change. Changes in precipitation patterns can cause crop failure and loss of livelihood for marginalized populations, especially farmers (Sevakumar & Stefeski, 2010, pp. 13-30). Displacement due to extreme weather events and sea-level rise poses additional threats to vulnerable communities (Mustefa, 2007, pp. 101-111). Understanding these socioeconomic impacts is essential for devising adaptive strategies that promote resilience and sustainable development.

III. Dengue outbreak in Pakistan

Extensive research focuses on the worrying dengue fever outbreak while addressing the significant effects of climate change in Pakistan. The author examines how vulnerable the nation is to climate-related issues, using the devastating floods that were declared a national emergency in 2022 and the worst since 2010, as an example. These floods have produced conditions that are ideal for the growth of Aedes aegypti and other disease-carrying mosquitoes (Khan et al., 2007). Vector-borne diseases are more common in Pakistan due to complex urban and rural issues like water scarcity, poor sanitation and overcrowding (Assir et al., 2014, pp. 41-46). Following the floods, there has been a notable increase in cases of dengue, a year-round threat. Communities in Karachi have become mosquito breeding grounds because of the infrastructure, particularly the drainage and sewerage systems.

By October 11, 2022, a significant dengue outbreak had been reported, with 41,746 confirmed cases, the majority of which occurred in the flood-affected province of Sindh. This situation underscores the serious public health threat posed by dengue, a common disease worldwide, particularly in Asia (Assir et al., 2014). The author recommends a multimodal strategy to address this outbreak. This approach extends beyond traditional methods such as environmental management and mosquito control. The development and approval of vaccines, like QDENGA offer new hope in curbing the spread Dengue (Ahmad et al., 2017, p. 30). Additionally, innovative techniques, such as the World Mosquito Program's Wolbachia method, have shown potential in reducing dengue incidents. Emphasizing the need for immediate preventive measures, the author advocates for intensified mosquito control efforts, health education campaigns and the widespread availability of nets and other preventive tools (Ahmad et al., 2017). Furthermore, the

research calls for comprehensive strategies to effectively manage and prevent future dengue outbreaks in Pakistan, exacerbated by climate change. These strategies should include public education and vaccination programs, highlighting the importance of a holistic approach in combating this health challenge (Khan et al., 2007).

Interaction of Climate Change and Marine Pollution in Southern India

In his 2023 study, Lincoln examines the interconnected relationships between marine litter and climate change, focusing on the southern Indian coast, particularly in the states of Tamil Nadu and Kerala. He highlights how these interactions vary across different oceanic regions and pose threats to marine and coastal ecosystems, affecting the services and goods they provide (Lincolin et al., 2023, p. online). Moreover, thorough research identifies marine litter as a 'threat multiplier' that exacerbates the adverse impacts of climate change. For example, increased storminess, a consequence of climate change, can lead to more litter being deposited in marine environments, further diminishing the resilience of habitats and species to climate change effects (Lincolin et al., 2023).

Research studies emphasize the vulnerability of the coastal zone, which is crucial for its ecosystem services, to the dual threats of rising sea levels and increasing pollution loads, including marine litter, as a result of climate change. A famous researcher, Schiedek, notes that the severe impacts of climate change, coupled with the escalating issue of marine litter pollution, pose challenges to sustainable development goals in the Indian subcontinent, particularly in India (Schiedek et al., 2007, p. 53).

Sivakumar, in his research, points out that with 170 million people living along its coastline, India is particularly susceptible to climate-related events such as heavy rains, flooding, erosion, droughts, heat waves and tropical storms. These events are becoming more frequent and intense due to climate change. The study also notes the significant amount of plastic waste, mainly from India, which contributes to the marine litter in the North Indian Ocean. This is compounded by inadequate waste disposal methods and pollution from activities such as shipbreaking, fishing and leisure (Sevakumar & Stefeski, 2010).

The impact of marine litter and climate change is particularly severe for coastal communities in Tamil Nadu and Kerala. While state governments are making efforts to manage coastal and marine areas, the magnitude and severity of these threats pose substantial challenges to effective management. The review by Sivakumar concludes with recommendations for effective management strategies to enhance coastal resilience. It underscores the importance of understanding the specific impacts on India's southwest and southeast coasts and their implications for coastal management (Sevakumar & Stefeski, 2010).

Consequences of Environmental Collaboration to Tackle Common Challenges

Food Insecurity and Malnourishment

Historically known for their lush rice fields and thriving fisheries, India and Pakistan are now grappling with social upheaval as farmers struggle to adapt to recent environmental shifts. In the past decade, escalating environmental issues and climate change have significantly impeded agricultural progress in both nations. A report from the World Bank highlights that Pakistan's agricultural sector previously engaged 43.6% of its workforce and accounted for 21% of its GDP before the devastating 2010 floods (World Bank Climate Change Knowledge Portal, 2011, p. 07). However, these figures have since declined to less than 38% of the workforce and 18% of GDP (World Bank Climate Change Knowledge Portal, 2011). Furthermore, since 2021, Pakistan's agricultural sector has been experiencing a consistent decline.

In the same way, India, Pakistan's neighboring country, is experiencing a comparable decline in its agricultural sector. In India, where agriculture is a vital sector engaging over half the populace and accounting for 15.4% of its GDP, the situation is

particularly critical. Studies suggest that the combination of high population density and vulnerability to extreme weather could lead to a decrease in crop yields by up to 30% by mid-century (Rao et al., 2019). Governance issues compound the challenges. The agricultural crisis in India has escalated to a point where farmers have engaged in protests and, tragically, some have committed suicide, as evidenced by the recent demonstrations in Delhi against government agricultural policies. This downturn in the agricultural sector is especially detrimental to the millions of people residing by the Indus River, where agriculture is the main source of livelihood.

Following the events of COVID-19, India has become increasingly vulnerable, with poverty on the rise and an additional 85 million individuals falling in the poverty bracket (Kharas & Dooley, June 2, 2021). Problems such as food scarcity, food instability/insecurity and unsuccessful agricultural seasons, mainly resulting from environmental pressure on water resources, are expected to further exacerbate the issues of malnutrition and hardship in both Pakistan and India. Often, children and women are the most affected in these situations.

Relocation and Migration of Populations due to Climate-Related Factors

The situation in India regarding the impacts of climate change has rapidly deteriorated in recent years. Currently, an estimated 600 million individuals are facing risks associated with climate change, leading to a significant increase in migration due to severe weather events. Data reveals that between 2013 and 2018, around 70 million people in India were displaced by extreme weather occurrences (Khan O. F., 2022). Similarly, the effects of climate change-induced displacement were evident in Afghanistan amidst the so-called "War on Terror". In 2018, Afghanistan experienced the displacement of approximately 13 million people in its northwestern regions, primarily caused by extended periods of drought (Krampe et al., 2024).

Economic Consequences

India, with its trillion-dollar expanding economy and Pakistan, progressing at a slower pace, have traditionally relied on agriculture as a vital component of their GDP. However, recurring environmental challenges and climate change have significantly affected this sector in both countries. A study conducted by Stanford indicates that climate crisis has decreased India's economy by 31% in comparison to its potential size. Since 2015, the impact of severe climatic conditions has led to a decline in agriculture's contribution to employment and has resulted in a yearly cost to India of approximately 2.5% of its GDP. Agriculture engages around 60% of India's population and accounts for over 80% of its exports (Maqbool, 2022). However, the sector's contribution to national growth is diminishing yearly and disruptions in energy supplies could further harm the economies of India and Pakistan. Additionally, India has incurred a loss of \$36.8 billion, equivalent to 1.36% of its GDP, due to deaths related to air pollution (Reuters, December 22, 2022). In contrast, Pakistan has faced a loss of \$3.8 billion and 9,989 lives due to severe weather occurrences between 1999 and 2018 (Abubakar, December 04, 2019).

Bilateral Trade

When India and Pakistan recognize the need to jointly tackle shared environmental issues such as water management, air pollution and collective efforts in dealing with post COVID-19 world and locust invasions, this cooperation could extend into other spheres, notably in boosting bilateral trade. The two nations can draw lessons from the mutual trade reliance/interdependence observed between China and India, especially in light of their recent border tensions. A World Bank report suggests that trade between India and Pakistan has the potential to soar to \$37 billion, a significant leap from the current figure of around \$2 billion (Akhtar, April 22, 2021). Adopting such strategies could not only enhance the living standards of the people in these countries but also contribute to achieving the Sustainable Development Goals in the Asian region.

Conclusion

The geopolitical tensions between India and Pakistan have important implications for the environment and economic stability of the region. The policies and actions of both countries contribute to a mix of geopolitical tensions, climate change and its consequences for the South Asian region. Geopolitical conflicts such as the Kashmir Issue are linked with the region's environmental landscape. The Indus Water Treaty has been a critical agreement in ensuring fair water distribution between India and Pakistan. However, this diplomatic cooperation is faced with many challenges due to the impact of climate change on the Indus River Basin. The unpredictable river flows have increased the chances of flooding incidents, igniting water- related conflicts between the two countries. The consequences of such environmental disasters lead to problems like food insecurity and malnourishment due to agricultural decline and a forced relocation and migration of populations due to climaterelated factors. Moreover, economic downturns in the agricultural sector pose a threat to the well-being of millions of people who reside alongside the Indus River. The path forward calls for an immediate collaboration between the two nations, India and Pakistan. Both countries need to realize that the threats posed by climate change are no longer limited to the environment; rather, they will affect the economic conditions, global stability and wellbeing of the society. Recommendations to deal with climate change concerns include giving climate change a priority in foreign policy agendas, attributing climate change to the status of a national security issue, economic partnerships for stability and renegotiations of past agreements such as the Indus Water Treaty. There is no economic stability without environmental sustainability. Recognizing climate change as a national security issue can foster bilateral cooperation. Additionally, current viable avenues for progress that promote environmental sustainability could be joint reforestation efforts and a transition to cleaner energy sources. There is a potential for future cooperation between India and Pakistan in terms of research and development, educational initiatives and cinematic collaborations to raise awareness about climate change and develop innovative solutions to counter the challenges of climate change. Furthermore, leveraging international platforms like SAARC opens a forum for dialogue, cooperation and financial assistance to aid in addressing the shared concerns of climate change. It is been necessary for India and Pakistan to leave behind historical hostilities and build a collaborative path towards a sustainable and resilient future. The urgency of the climate crisis demands a paradigm shift where diplomatic efforts are aligned with ecological responsibility for the collective well-being of the region and its inhabitants. Lastly, the recommendations provided serve as a blueprint for action and emphasize the importance of immediate and coordinated measures to mitigate the impacts of climate change on South Asia.

References

- Abubakar, S. M. (December 04, 2019). Pakistan 5th Most Vulnerable Country To Climate Change, Reveals Germanwatch Report. Https://Www.Dawn.Com/News/1520402#:~:Text=The%20Global%20Climate%20Risk%20I ndex,Think%2Dtank%20Germanwatch%20on%20Wednesday.
- Ahmad, S., Aziz, M. A., Aftab, A., Ullah, Z., Ahmad, M. A., & Mustan, A. (2017). Epidemiology Of Dengue In Pakistan, Present Prevalence And Guidelines For Future Control. International Journal Of Mosquito Research, 4(6), 25-32.
- Akhtar, A. (April 22, 2021). 10 Reasons For Peace Between India And Pakistan. Https://Www.Salzburgglobal.Org/News/Latest-News/Article/10-Reasons-For-Peace-Between-India-And-Pakistan.

Years#:~:Text=%E2%80%9cclimate%20change%20is%20a%20major,Of%20Pakistan%2C%20killing%201%2C739%20people.

- Assir, M. K., Masood, M. A., & Ahmad, H. I. (2014). Concurrent Dengue And Malaria Infection In Lahore, Pakistan During The 2012 Dengue Outbreak. ISID, 18, 41-46. Https://Doi.Org/Https://Doi.Org/10.1016/J.Ijid.2013.09.007
- 6. Ayaz, A. (2020). Climate Diplomacy: The Pakistan Chapter. Retrieved From Climate Diplomacy: Https://Www.Paradigmshift.Com.Pk/Pakistan-Climate-Diplomacy/

- 7. Barrech, D., Ahmad, N., Ahmad, S., Aslam, A., Baloch, M. S., & Ejaz, R. (2023). Climate Diplomacy In Indo-Pak Relations. Journal Of Positive School Psychology, 07(04), 242-252.
- Carius, A., Vleva, D., Pohl, B., Rüttinger, L., Schaller, S., Sharp, H., . . . Wolters, S. (2017). Foreign Policy Responses To Climate Change. Retrieved From Https://Climate-Diplomacy.Org/Sites/Default/Files/2020-
- 9. Chateau, J., Dang, G., Macdonald, M., Spray, J., & Thube, S. (October 2023). A Framework For Climate Change Mitigation In India. International Monetary Fund.
- Durar, S. U., Shah, M., Sisto, M. D., & Arshad, N. (2023). Metabolic Rift Theory And The Complexities Of Water Conflict Between India And Pakistan: A Pathway To Effective Environmental Management. Journal Of Environmental Management, 347(1). Https://Doi.Org/Https://Doi.Org/10.1016/J.Jenvman.2023.119164
- 11. Farooqi, A. B., Khan, A. H., & Mir, H. (March 2005). CLIMATE CHANGE PERSPECTIVE IN PAKISTAN. Pakistan Journal Of Meteorology, Vol. 2: Issue 3, 11-21.
- 12. Giosan, L. (2018). Climate Change Likely Caused Migration, Demise Of Ancient Indus Valley Civilization. The Woods Hole Oceanographic Institution.
- Gul, A., Chandio, A. A., Sial, S. A., Rehman, A., & Xiumin, W. (2022). How Climate Change Is Impacting The Major Yield Crops Of Pakistan? An Exploration From Long- And Short-Run Estimation. Environmetal Science And Polution, 2(December), 26660-26674. Https://Doi.Org/Https://Doi.Org/10.1007/S11356-021-17579-Z
- Gunia, A. (November 17, 2021). President Biden And Xi Jinping's Summit Suggests Climate Diplomacy Could Soften The U.S.-China Divide. Retrieved From Times: Https://Time.Com/6116972/Xi-Biden-Summit-China-Us/
- 15. Haris, J. (2023). Socioeconomic Impacts Of The. SLU.
- 16. Hussain, K. (May 90, 2022). Climate Change And Conflict Resolution In South Asia's Highlands. Stimson.
- 17. Kaplan, R. D. (February 1994 Issue). The Coming Anarchy. Retrieved From The Atlantic: Https://Www.Theatlantic.Com/Magazine/Archive/1994/02/The-Coming-Anarchy/304670/
- Khan, E., Sadiquei, J., Shakoor, S., Mehraj, V., Jamil, B., & Hassan, R. (2007). Dengue Outbreak In Karachi, Pakistan, 2006: Experience At A Tertiary Care Center. PMID Oxford. Https://Doi.Org/10.1016/J.Trstmh.2007.06.016
- 19. Khan, O. F. (2022). COMMON ENVIRONMENTAL CHALLENGES AND OPPORTUNITIES FOR COOPERATION BETWEEN PAKISTAN AND INDIA. ISSRA Papers, 14(26).
- 20. Khan, O. F. (2022). COMMON ENVIRONMENTAL CHALLENGES AND OPPORTUNITIES FOR COOPERATION BETWEEN PAKISTAN AND INDIA. ISSRA Papers, XIV, 18-31.
- 21. Kharas, H., & Dooley, M. (June 2, 2021). Extreme Poverty In The Time Of COVID-19. Https://Www.Brookings.Edu/Articles/Extreme-Poverty-In-The-Time-Of-Covid-19/.
- 22. Krampe, F., Driscoll, D. O., Johnson, M., Simangan, D., & Hegazi, F. (2024). Climate Change And Peacebuilding: Sub-Themes Of An Emerging Research Agenda. International Affairs, 100(03), 1111–1130,. Https://Doi.Org/Https://Doi.Org/10.1093/Ia/Iae057
- 23. Lacy, W. (October 16, 2017). Migration: Making The Move From Rural To Urban By Choice. IOM.
- Lincolin, S. S., Chowdhary, P., & Posen, P. (2023). Interaction Of Climate Change And Marine Pollution In Southern India: Implications For Coastal Zone Management Practices And Policies. Science Of Total Environment, 902(December). Https://Doi.Org/Https://Doi.Org/10.1016/J.Scitotenv.2023.166061
- Mabey, N., Gallagher, L., & Born, K. (2013). Understanding Climate Diplomacy. Retrieved From E3G: Https://Cdkn.Org/Sites/Default/Files/Files/E3G-Understanding-Climate-Diplomacy.Pdf
- 26. Maqbool, N. (2022). Water Crisis In Pakistan: Manifestation, Causes And The Way Forward. Pakistan Institute Of Development Economics (PIDE). Https://Doi.Org/Https://Pide.Org.Pk/Research/Water-Crisis-In-Pakistan-Manifestation-Causes-And-The-Way-Forward/
- 27. Mirza, M. Q., & Ahmad, Q. K. (2005). Climate Change And Water Resources In South Asia. London.
- 28. Mustefa, Z. (2007). CLIMATE CHANGE AND ITS IMPACT WITH. Symposium On "Changing Environmental Pattern And Its Impact With Special Focus On Pakistan.
- 29. Ohdedar, B. (2021). Climate Change Litigation: Global Perspectives2. Brill. Https://Doi.Org/Https://Doi.Org/10.1163/9789004447615_006
- 30. Rao, C. S., Parsad, R. S., & Mohapatra, T. (2019). Climate Change And Indian Agriculture.

ICAR Policy Paper, 1-19.

- 31. Reuters. (December 22, 2022). Pollution Deaths In India Rose To 1.67 Million In 2019 -Lancet. Https://Www.Reuters.Com/Article/Us-India-Pollution-Iduskbn28w158/.
- Schiedek, D., Sundelin, B., Readman, J. W., & Mocdonald, R. W. (2007). Interactions Between Climate Change And Contaminants. Marine Pollution Bulletin, 54(12), 1845-1854. Https://Doi.Org/Https://Doi.Org/10.1016/J.Marpolbul.2007.09.020
- 33. Sevakumar, M., & Stefeski, R. (2010). Climate Change In South Asia. Springer. Https://Doi.Org/Https://Link.Springer.Com/Chapter/10.1007/978-90-481-9516-9_2
- 34. Sheikh, A. T. (November 21, 2021). Five Takeaways From COP26. Retrieved From DAWN: Https://Www.Dawn.Com/News/1659322
- 35. US Department Of State. (April 17, 2021). Retrieved From U.S.-China Joint Statement Addressing The Climate Crisis: Https://Www.State.Gov/U-S-China-Joint-Statement-Addressing-The-Climate-Crisis/#:~:Text=At%20the%20conclusion%20of%20the,And%20urgency%20that%20it%20d emands.
- 36. World Bank (2011) Climate Change Knowledge Portal.