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Effects of Climate Change on Pakistan's National Security and Economy: An Examination of Hard Power Dynamics

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Abstract:

The recent devastating flood in Pakistan has had a severe impact on the nation's economy, exacerbating its vulnerability to natural disasters. Climate change has emerged as a significant threat to Pakistan's military strength, a crucial component of its hard power capabilities. Economic and military prowess are the twin pillars of hard power projection. The consequences of climate change are evident in Pakistan's GDP contracting by 10 percent, dealing a substantial blow to its economic resilience. This economic downturn, in turn, hampers investments in essential military hardware, affecting military capabilities. Pakistan's agricultural sector, vital to its economy, faces a dual challenge from climate change. It suffers immediate damage from severe weather events affecting crops and long-term declines in agricultural production. This has a cascading effect on the economy and food security. As global geopolitical rivalries intensify, nations like India are modernizing their military arsenals with advanced systems. Pakistan must increase its military budget to keep pace. Failure to do so would have profound consequences for national security.

Keywords: Pakistan, national security, climate change, non-traditional security, hard power, emerging technologies

INTRODUCTION

Climate change poses significant challenges to global stability, and its far-reaching effects have the potential to jeopardize national security and economic prosperity, particularly in vulnerable countries like Pakistan. This research paper delves into the implications of climate change on Pakistan's military might and economic stability from the country's perspective. It explores the interrelated nature of climate change, its impact on the agricultural industry, and how it can lead to food shortages, inflation, and economic instability. The paper emphasizes Pakistan's vulnerability to climate change despite its relatively low greenhouse gas emissions, and how it is positioned among nations worst affected by its consequences.

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The concept of "climate change" encompasses shifts in the average yearly temperature and the frequency of severe weather events over time. Such occurrences have been recurring for many years, and possible explanations include natural phenomena like the sun's periodic variations. However, human activities, especially the burning of fossil fuels such as charcoal, petroleum, and gas, since the 1800s, have significantly contributed to global warming. The release of greenhouse gases during the combustion of these fossil fuels traps heat in the atmosphere, impeding the earth's natural cooling process (United Nations Organization, 2022).

One of the most devastating consequences of climate change, particularly for developing countries, is the rise in frequency and severity of natural disasters, including floods, droughts, storms, and heatwaves. Pakistan's agricultural industry, which is a major source of revenue and employment, is particularly susceptible to inclement weather, resulting in a profound economic impact. The agricultural sector's susceptibility to climate change-induced disruptions may lead to food scarcity, escalating food prices, and overall economic instability.

Despite Pakistan's relatively low contribution of only 0.6percent to global greenhouse gas emissions, it ranks 8th in terms of vulnerability to climate change (Ahmed, 2022). This places the country in a precarious position, affecting not only its economic stability but also its military might. A nation's military power is closely linked to its economic strength, as resources allocated to military research, development, and training are directly proportional to its economic capabilities. Moreover, a country's military plays a crucial role in safeguarding vital resources and trade routes, further securing its economic interests.

As established by the Stockholm International Peace Research Institute (SIPRI), there is a direct correlation between a country's economic might and its military expenditure. In 2020, over 80percent of global military spending was attributed to just 15 countries, most of which are major economies (SIPRI, 2021). Hence, fluctuations in the strength of one state can have repercussions on the strengths of others, raising concerns over the distribution of international benefits (Powell, 1991).

This research aims to examine the multifaceted effects of climate change on Pakistan's national security, encompassing both traditional and non-traditional spheres. Various authors have explored the impact of climate change on agriculture and food security, highlighting the potential rise in hunger and food shortages (Syed et al., 2022; Raj et al., 2022; Parry et al., 2005). The present study builds upon this foundation and delves further into Pakistan's specific challenges, encompassing the interconnected dynamics of hard power, economy, and military might. This paper fulfills the gap that how climate change is impacting the economy and military power of Pakistan. The relationship between military power and economic power underscores the significance of assessing the potential challenges that Pakistan's national security may confront as a result of climate change. India's substantial investments in emerging technologies further accentuate the predicaments Pakistan could encounter due to climate change, thereby exacerbating its competitiveness vis-à-vis India in the military sphere.

In the subsequent sections, the paper elaborates the theoretical frameworks guiding this research and how they have been applied in the context of Pakistan. It delves deeper into the economic ramifications of climate change, followed by an analysis of its implications on Pakistan's military

capacity. The conclusion summarizes the findings and underscore the significance of addressing climate change to safeguard Pakistan's national security and overall stability.

CONCEPTUAL FRAMEWORK

The concept of "climate change as a threat multiplier" emerged from the United States military and security establishment at the beginning of the 21st century. The notion was initially introduced in the 2007 report, "National Security and the Danger of Climate Change," commissioned and funded by the Center for Naval Analyses. Retired military leaders and national security experts contributed to this report, highlighting climate change as a factor that could exacerbate existing political, economic, and social tensions, potentially leading to conflicts over essential resources such as water and food (CNA Corporation, 2007). Subsequently, the term "climate threat" has become a common discourse within military and security communities to address the potential impacts of climate change on global peace and stability (CNA Corporation, 2007).

To comprehend the workings of "Climate Change as a Threat Multiplier," it is crucial to grasp the underlying assumptions that support it. Some researchers contend that climate change might amplify the likelihood or intensity of conflicts, resource competitions, and humanitarian crises by interacting with other social, economic, and political variables (Hagmann & Merten, 2013). Environmental challenges, such as water and food scarcity or natural catastrophes, can exacerbate social and political tensions, leading to disputes over limited resources or forced migrations (Salehyan & Hendrix, 2014).

Climate change's impact on military preparedness and efficiency is evident in various ways. For instance, disruptions caused by climate change, such as reduced access to vital resources like water and electricity and increased occurrences of severe weather events, can hinder the military's capacity to respond to security threats (US Department of Defense 2014, 3). These projections stem from an expanding body of knowledge that recognizes the complexity and interconnectedness of climate change impacts. Consequently, it implies that security threats arising from climate change necessitate coordinated and adaptive solutions that address the interplay of various social, economic, and environmental elements.

The concept of a "climate multiplier" underscores the interdependence of numerous systems and emphasizes the need to comprehend and address feedback loops that might amplify the effects of climate change. By tackling these feedback loops, it becomes feasible to mitigate the worst consequences of climate change and foster more resilient and sustainable systems capable of adapting to a changing environment.

THE MULTIPLIER EFFECTS OF CLIMATE CHANGE ON PAKISTAN'S SECURITY

The concept of a "climate multiplier effect" pertains to the exacerbation of preexisting vulnerabilities and challenges, particularly those associated with robust power dynamics, due to the impacts of climate change. Within the context of Pakistan, a nation grappling with a spectrum of security threats emanating from its robust power endeavors, the climate multiplier effect assumes a paramount significance. Climate change has induced a series of natural calamities and heatwaves in Pakistan, exemplified by the devastating floods in 2010 and subsequently in 2022. The augmented peril posed by these hazards can be ascribed squarely to the influence of climate change.

Projections indicate a significant upsurge, as high as 30-fold, in the likelihood of severe meteorological events attributable to climate change (McGrath, 2022).

Amidst these environmental challenges, Pakistan's economy has been grappling with a multitude of difficulties, chief among them being rampant inflation. As noted by Maryam (2022), in March of the same year, the inflation rate in Pakistan approached 15percent. This rate spiraled to approximately 25percent by September 2022. However, the impact of climate-induced floods escalated the costs of selected commodities by a staggering 500percent (Tewari, 2022). The resultant economic toll on the already-strained Pakistani economy was formidable, with the floods inflicting a loss of USD 30 billion and estimates indicating damage equivalent to 10percentof the GDP (Xinhua, 2022).

Given that economic prowess is intrinsically linked to military might, the diminishing economic stature of Pakistan engenders severe implications for the country's national security paradigm, encompassing military preparedness and relative capabilities. The erosion of economic stability directly reverberates into a diminution of military power, which, in turn, impacts the nation's standing in the realm of security. As such, the intricate interplay between climate-induced adversities and the preexisting security landscape in Pakistan underscores the intricate nexus of environmental and geopolitical factors.

The Economic Effects of Climate Change

The ramifications of climate change on the Pakistani economy are extensive and profound ("Climate change to impact," 2022). The potential consequences of climate change span both immediate and long-term horizons, cast a substantial shadow over Pakistan's economic landscape. With its elevated temperatures surpassing global averages, Pakistan's susceptibility to atmospheric shifts is accentuated. The Hindu Kush-Karakoram Himalayan glaciers, serving as primary water sources for the nation's rivers, are undergoing rapid depletion due to climate change, imperiling the economy's foundation. Research conducted by Syed et al. (2022) underscores the vulnerability of Pakistan, emphasizing the effects of climate change on agriculture and the overall quality of life, leading to its lamentable ranking as the twelfth most adversely affected nation (Awan & Yaseen, 2017).

One of the paramount concerns is Pakistan's agricultural sector, which plays a pivotal role in the economy, both in terms of its contribution to the GDP and employment generation. With a significant portion of arable land dedicated to feeding the burgeoning population, alterations in rainfall patterns, precipitated by escalating temperatures attributed to climate change, have significantly disrupted agricultural productivity, water availability, and forest resources. Evident in the escalation of droughts and catastrophic floods, these shifts underscore the vulnerability of Pakistan's agricultural plains and infrastructure. The significance of agriculture is exemplified by its employment of 50 percent of Pakistan's workforce and its 24 percent contribution to the GDP. Furthermore, agriculture serves as a noteworthy contributor to the country's foreign currency reserves. The year 2021 saw over half of Pakistan's GDP originating from the services sector, while agriculture accounted for 22.67 percent and industry contributed 18.8 percent (Jatoi, 2020).

The economic toll attributed to climate change is staggering. Research anticipates damages exceeding USD 14.9 billion and total economic losses nearing USD 15.2 billion, necessitating an estimated USD 16.3 billion for rehabilitation and adaptation efforts to bolster the country's resilience to future climatic shocks (World Bank, 2022). Notable sectors experiencing substantial

losses include housing, agriculture, livestock, transportation, and communications. The province of Sindh stands as the most severely affected, bearing approximately 70percentof the overall damages and losses (World Bank, 2022).

Pakistan's encounter with the impacts of global warming has been protracted, marked by events such as the severe floods witnessed between 2010 and 2014. The colossal 2010 floods, characterized as the most significant natural calamity in Pakistan's history, inflicted a staggering cost of $10 billion on the country and escalated food insecurity by 10percent. While climate change manifests across multiple sectors, the agricultural domain is the most adversely affected. Alarming projections foretell a substantial decline in Pakistan's agricultural output over the forthcoming decades. By 2040, agricultural production is expected to plummet by 8-10percent, with crops like wheat facing substantial damage (Ramay, 2022).

Furthermore, the imperative of industrialization for economies like Pakistan, grappling with limited resources, holds paramount importance. Raw materials serve as the essential ingredients for manufacturing and eventual production of finished goods. Pakistan's manufacturing sector draws heavily from agricultural exports for its raw material requirements. Cotton, a prized crop and a crucial export, holds a pivotal role in garment and fabric production (Falcon, 2022). The textile industry assumes a crucial foreign currency earning role through its exports, with the livestock sector also contributing. Notably, the export of raw materials bolsters industries such as sports goods and leather. Thus, agriculture's multifaceted contribution underpins Pakistan's economic expansion and resilience (Falcon, 2022).

Effects on Military Capability

The escalating incidence of extreme heat events, encompassing heat waves and a sustained trend of elevated mean and daily maximum temperatures, gives rise to critical concerns pertaining to the safety of military personnel and equipment during training maneuvers and operational undertakings (Wang et al., 2021). This concern has emerged as a focal point in discussions surrounding climate change and its geographical implications for armed forces, serving as a potentially applicable generalization to the Pakistani military context. Such climatic shifts could induce disruptions in mechanized armament systems, leading to compromised functionality and escalated maintenance costs. Consequently, these vulnerabilities undermine military security across critical domains such as crisis response, operational preparedness, and border surveillance (Gülenç, 2022).

Climate change engenders indirect threats to Pakistan's military security, portending an erosion of the nation's force capabilities. The intensification of disaster frequency and severity, largely stemming from the converging manifestations of climate change, is exacerbated by the looming risk of floods and their cascading ramifications (Raza & Kandhro, 2015). In the aftermath of such disasters, governments often deploy their military resources to aid in humanitarian assistance and disaster relief (HADR) endeavors (Raza & Kandhro, 2015).

Within the Pakistani societal framework, the military occupies a particularly pivotal role owing to its consistent and robust engagement in disaster response. Pakistan military is already facing so many challenges internally and involved in military operation. Disaster induced by the climate change poses a significant risk to army’s ability to focus on traditional threats.

Notably, the military played crucial roles in responding to both the 2005 earthquake and the 2010 floods. Moreover, the degradation of civilian infrastructure, encompassing vital systems like water supply and power networks, exacerbates the repercussions of climate change. Given the potential ramifications of altered operating conditions due to climate change, a comprehensive evaluation of the resilience of military infrastructure and equipment becomes imperative (Shaheen, 2021).

The escalating temperature trends, coupled with the surge in mean and daily average temperatures within Pakistan, present an escalating threat to the nation's armed forces. Under even the most conservative warming projections, the incidence of heat-related extreme events is forecasted to multiply by 5.6-fold per decade on a global scale (Haider & Sultan, 2022).

Furthermore, the region between Pakistan and India, marked by significant military presence, remains inherently susceptible to climate change impacts. The melting glaciers within this locale pose a heightened threat to troop safety and necessitate strategic force deployment. Instances such as the 2018 ice avalanche that claimed the lives of ten Indian troops at the Siachen Glacier starkly underscore the influence of global warming on these hazards. While Pakistan faced a similar albeit more, dire situation in 2012, when an ice avalanche impacted a Pakistani installation in the Gayari sector of the northern glacial region, resulting in the loss of 140 lives, with 120 being military personnel (Haider & Sultan, 2022).

Additionally, given the economic asymmetry between India and Pakistan, an exacerbated economic scenario could potentially exacerbate challenges for Pakistan in maintaining a conventional balance vis-à-vis India, further underscoring the intricate interplay of climate change, economic stability, and military preparedness (Zielinski et al., 2017).

From a military perspective, climate change introduces an array of avenues through which Pakistan's national security could be jeopardized. Shifting climatic conditions could impede military operations, particularly in peripheral regions. Concurrently, the escalating threat of rising sea levels and floods places maritime security at risk, potentially hampering Pakistan's capacity to project military influence in maritime territories if its naval bases and ports are compromised.

Implications for National Security: An Profound Examination

The outcomes of this research illuminate manifold ways in which these shifts can impact Pakistan's national security paradigm. Climate change is a multiplying threat for Pakistan and it can create multiple challenges for national security of Pakistan (Khan, 2019). Pakistan currently experiences economic asymmetry when compared to India, with a substantial variance in their respective defense budgets (Afzal, 2022). Furthermore, the advent of climate change has escalated the magnitude of economic challenges faced by Pakistan, thereby amplifying pre-existing threats. In addition to these economic concerns, Pakistan confronts a multitude of internal security challenges, and the impact of climate change exacerbates these risks.

Pakistan's articulation of its National Security Policy in 2021 underscores a comprehensive strategy aimed at safeguarding the entirety of the nation. This strategic approach accentuates the indispensability of a robust economy in shielding the country against an array of challenges, both conventional and asymmetrical (National Security Policy, 2021).

In the global context, there is a discernible uptick in military expenditure, with the year 2021 witnessing an annual global military spending exceeding $2 trillion, marking the sixth consecutive year of expansion (SIPRI, 2022). Remarkably, Pakistan is poised to recalibrate its defense budget by a substantial 35 percent, a calculated move aimed at realigning budgetary priorities and facilitating an essential accord with the International Monetary Fund (IMF) (Siddiqa, 2020).

Additionally, noteworthy technological collaborations have been forged between the United States and India, motivated by the shared ambition to counterbalance China's ascendancy in the realm of high-tech industry. Deliberations culminated in comprehensive agreements spanning advanced weaponry, supercomputing, semiconductor production, and other high-tech sectors (Swanson, 2023). This strategic alignment, driven by the critical and emerging technologies dialogue between President Biden and Prime Minister Modi, fuels India's concurrent increase in defense spending.

Within India, the fiscal year commencing February 1, 2023, allocates a substantial budget of 45.03 trillion rupees, earmarking approximately 6.1percent (5.93 trillion rupees) for military allocation (Raghuvanshi, 2023).

The U.S.-India initiative on Critical and Emerging Technology (iCET), announced in May 2022 by President Biden and Prime Minister Modi, aims to strengthen and expand the strategic technology partnership and defense industrial cooperation between the governments, businesses, and academic institutions of the two nations. It emphasizes the importance of democratic ideals and universal human rights in shaping technological design, development, governance, and usage. The establishment of an accessible and secure technological environment is seen as a means to reinforce democratic principles and institutions (Bhandari, 2023).

The initiative seeks to foster international collaboration in key domains such as artificial intelligence (AI), quantum technologies, and advanced wireless systems. This is being achieved through the endorsement of an Implementation Arrangement for a Research Agency Partnership between the National Science Foundation of the United States and pertinent scientific agencies in India. Additionally, the establishment of a joint Indo-U.S. Quantum Coordination Mechanism involving industry, academia, and government entities aims to facilitate research and industrial collaboration (Potter, 2023).

An important facet of the initiative involves the pursuit of consensus-driven, multi-stakeholder standards for trustworthy AI, aligned with democratic norms. Building upon existing international efforts, this initiative aims to establish these standards. Simultaneously, efforts are underway to promote partnerships in High Performance Computing (HPC), including legislative actions to remove constraints on the transfer of HPC hardware and software from the United States to India (Schermer & Lesnick, 2022).

In the context of enhancing technical collaboration for joint research and manufacturing endeavors, such as jet engines and munition-related technologies, a bilateral Defense Industrial collaboration Roadmap is currently under development. Notably, General Electric has submitted an application for a joint production license in the United States, with potential implications for equipping Indian jet aircraft with American-made jet engines (Bukhari, 2020).

The United States has assured a prompt consideration of this application. Furthermore, the initiative seeks to bolster long-term collaborative efforts in research and development (R&D), with a specific focus on identifying operational applications in maritime security, intelligence, surveillance, and reconnaissance (ISR). An "Innovation Bridge" has been introduced to foster collaboration between American and Indian military firms (Bukhari, 2020).

Advancing cooperation in the domain of human spaceflight involves measures such as reciprocal exchanges, wherein an astronaut from India's Space Research Organization (ISRO) is set to undergo advanced training at the Johnson Space Center. Facilitating collaboration between businesses in both countries, particularly in projects such as NASA's Commercial Lunar Payload Services (CLPS), is of paramount importance. To this end, a joint meeting is scheduled between American CLPS stakeholders and Indian aerospace firms, organized jointly by NASA and ISRO in the forthcoming year (Dayma, 2023).

This initiative encompasses the broadening of NASA's Professional Engineer and Scientist Exchange Program (PESEP) to encompass space, Earth, and human spaceflight realms. Correspondingly, ISRO has received an open invitation to participate in NASA's biannual International Program Management Course. Notably, a fresh project led by the U.S. Department of Commerce and the Indian Department of Space, under the U.S.-India Civil Space Joint Working Group, aims to enhance bilateral commercial space collaboration (Satyanath, 2023).

The commercial space industries in both the United States and India are poised to reap substantial benefits from these collaborative efforts. The current visit of ISRO's Chairman to the United States and the forthcoming visit of NASA's Administrator to India in 2023 are both greeted with enthusiasm. To further broaden the scope, planetary defense has been incorporated into the agenda of the U.S.-India Civil Space Joint Working Group (Foust, 2023).

The initiative also seeks to foster dialogue between governmental bodies and the telecom industry, with an emphasis on achieving global economies of scale within the sector, advancing collaboration on 5G and 6G R&D, and facilitating the deployment and adoption of Open RAN technology in India. The upcoming iCET conference, slated for later in 2023 and to be held in New Delhi, will see participation from both the United States and India. Prior to this event, the National Security Councils of both nations will work collaboratively with their counterparts across various ministries, departments, and agencies to intensify collaboration efforts and engage stakeholders in the pursuit of these ambitious objectives ("'Tremendous opportunities exist,'" 2020). The extensive technological cooperation with the United States in the realm of emerging technologies is poised to significantly enhance India's conventional and nuclear capabilities. The Indian military is actively pursuing the integration of AI, space technology, and quantum technology within its military domain. The incorporation of these cutting-edge technologies has the potential to bolster India's hard power capabilities, consequently potentially upsetting the strategic equilibrium in South Asia. For this Pakistan will need to increase the defense budget and needs a strong economy.

This accentuates the second economic ramification of climate change, wherein the allocation of resources to defense endeavors could encounter resistance due to mounting concerns and resource constraints. It is essential to acknowledge that India's superior military might positions it more favorably, rendering Pakistan potentially more vulnerable in the wake of stymied economic growth.

Furthermore, the relentless march of technological progress acquires a pronounced dimension within the military context. The swift integration of new technologies can exert profound influences, potentially heralding transformations that surpass those witnessed in the preceding decades. Innovations spanning robotics, cybersecurity, and AI can revolutionize military strategies, accentuating the pivotal role of technological advancement (O'Hanlon, 2018; Bistron & Piotrowski, 2021).

As research indicates, the reduction in Pakistan's economic vitality holds repercussions for its conventional military equilibrium, thereby augmenting India's strategic alternatives (Qureshi & Shah, 2019). A crucial determinant of technological supremacy is research and development (R&D), an arena where Pakistan's persistent underinvestment undermines its technological trajectory. With R&D funding lagging, Pakistan's technological growth has stagnated, exacerbated by an average annual growth rate of a mere 0.38percent between 2005 and 2017 (Jawaid, 2020). Economic damages due to climate change are going further these trends.

Integral to Pakistan's security apparatus are humanitarian aid operations, exemplified by its engagement in nationwide anti-terrorist initiatives (“Pakistan Army launches,” 2022). Pertinently, climate change engenders a multiplier effect on unconventional risks, wherein Pakistan's position at 144 out of 187 on the Human Development Index underscores the vulnerability of its human security landscape (Ahmar, 2022; Niazi, 2022). Concomitantly, the nation grapples with a substantial hunger problem, ranking 92nd out of 116 on the Global Hunger Index in 2015. Alarming data from the State Bank of Pakistan (SBP) in 2019 unveils a stark reality, with 37percent of Pakistani households contending with food insecurity, despite the nation's noteworthy agricultural production (Niazi, 2022). The predicted intensification of climate change-driven food supply challenges augments the specter of adversity.

Furthermore, climate change reverberates across sectors with intricate societal linkages. The potential decline in fisheries due to climate change in regions like Sindh and Punjab introduces profound sociopolitical ramifications, disrupting economies and impacting livelihoods (Hasnain, 2010). These interconnected challenges contribute to an unemployment crisis, where the adverse impacts on Pakistan's agricultural sector ricochet through the secondary sector reliant on raw materials (“Economic loss due,” 2022).

The implications for Pakistan's national security are intricate and multifaceted. In an environment marked by resource shortages and population displacement exacerbated by climate change, the risk of extremism and terrorism taking root and proliferating looms ominously. The nexus between climate change-induced adversities, social discontent, and extremist proclivities underscores the urgency of comprehensive policy responses (Bellinger & Kattelman, 2021).

In conclusion, climate change's ramifications are poised to reverberate through Pakistan's national security landscape in a multipronged manner. From disrupting conventional military exercises to influencing disaster relief operations, economic challenges, technological vulnerabilities, and sociopolitical disruptions, the interplay between climate change and national security is complex and dynamic. As Pakistan navigates these challenges, an integrated strategy encompassing interdisciplinary collaboration, risk mitigation, and resilience enhancement becomes imperative.

Failure to address these interconnected challenges could not only undermine Pakistan's national security but also amplify existing vulnerabilities and introduce new ones.

CONCLUSION

This study underscores the profound and multifaceted ramifications that climate change would inflict upon Pakistan's national security and economic stability. Climate change's impact extends beyond the environmental sphere, exerting far-reaching implications for the country's military capacity and the broader security landscape.

The concept that climate change acts as a "threat multiplier" has been extensively researched, and its application to Pakistan unveils a complex web of challenges to be addressed. Climate change casts a significant shadow over the nation's future, encompassing potential economic consequences, eroded military capabilities, heightened vulnerability to regional power dynamics, disruptions in agriculture, inflation, and myriad other concerns.

Pakistan's already delicate economy faces further jeopardy due to the severe economic repercussions of climate change. These repercussions encompass infrastructure destruction, livelihood loss, and escalating costs stemming from natural catastrophes. Given the intrinsic connection between economic vitality and military strength, an ailing economy promptly translates into a diminished national security capacity.

Furthermore, the interplay between climate change, emerging technologies, and strategic relationships in the region, notably between the United States and India, carries the potential to alter the balance of power. This poses additional challenges to Pakistan's national security, especially in light of the evolving strategic partnership between the United States and India in recent years. Climate change makes it difficult for Pakistan to invest in emerging technologies and compete with India.

The impact of climate change on people's lives, including reduced access to food and forced displacements, fosters fertile ground for radical ideologies and social unrest, compounding the threats to national security. It is imperative for Pakistan to adopt a comprehensive and adaptable strategy as it endeavors to grapple with these intricate and interconnected issues.

To ensure the safety and well-being of its citizens, Pakistan must accord high priority to its ability to withstand the effects of climate change. This entails investments in the development of innovative technologies and active participation in diplomatic efforts aimed at addressing regional power dynamics. Moreover, to effectively combat the global issue of climate change, international cooperation and support from nations across the world are imperative.

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