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THE GEOPOLITICAL IMPLICATIONS OF CLIMATE CHANGE FOR PAKISTAN; ANALYSIS OF SECURITY THREATS IN WAKE OF CLIMATE CHANGE

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ABSTRACT

Pakistan is especially vulnerable to increased security challenges as a result of climate change due to its geographical location, socioeconomic structure, and political instability. Pakistan's melting glaciers, floods, droughts, and altered monsoon patterns have significant impacts on security, economy, and people. Against this backdrop, this study seeks to examine the geopolitical ramifications of climate change for Pakistan. For this reason, the article will thoroughly investigate its environmental conditions, temperatures, and natural disasters. It also examines the food and water concerns associated with climate change, which leads to population relocation and international conflict. Finally, this study discusses various geographical conflicts between India and Afghanistan as a result of climate-related security issues. The report provides policy proposals for improving Pakistan's climate and minimizing security threats related to it.

Keywords: *Geopolitical, implications, climate change, Pakistan, security threats.*

INTRODUCTION

To global security, climate change is increasingly becoming a significant contributor and leading to security risks. It is therefore directly changing the geopolitical dimensions of the globe. With the increase in the temperatures, the weather patterns are changing and the natural resources are depleting. Various countries are confronting unprecedented dangers to their political, social, and economic security because of climate change. Pakistan is also vulnerable to climate-related threats. Its geographical location, fragile socioeconomic, and political instability make it even worse for the impacts of climate change and security issues. Climate change effects in Pakistan are melting glaciers, causing frequent floods, happening lengthy droughts, and altering monsoon patterns. The country is seeing the real effects of climate change on its security, resources, economy and population. All these impacts are demanding national security considerations, in addition to addressing environmental issues (Kugelman, 2018).

Pakistan's borders India, China, Afghanistan, and Iran in South Aisa and thus has a strategic location. This geopolitical location puts the country in the centre of a long-standing politically problematic region. As climate change results in resource shortages, notably water, and food hunger, current geopolitical tensions between Pakistan and its

neighbours is likely to worsen (Chatha & Sheikh, 2018). The country's reliance on the Indus River system is also a critical vulnerability because changes in water supply due to melting glaciers and changed rain patterns might result in conflicts not only with neighbours but within the provinces in Pakistan (Siddiqi & Wescoat, 2020). Climate-induced displacement, economic instability, and rivalry over decreasing natural resources may also hamper the country's internal security and grounds for extremism, insurgency, and conflicts may be created.

This paper aims to investigate Pakistan's direct and indirect security concerns as a result of climate change. It further aims to examine how these issues may give the country's geopolitical and regional dynamics new dimensions. The special focus for this study will be the food and water security, migration patterns, and border conflicts and through analysis, the paper will try to assess the implications of climate change for Pakistan keeping its geography and politics in concern. Furthermore, the study will help to decide policy actions that are required to address these security concerns and climate issues. By focusing on climate change as a non-traditional security threat, this paper aims to provide a comprehensive analysis of its potential to influence Pakistan's future geopolitical strategy and stability.

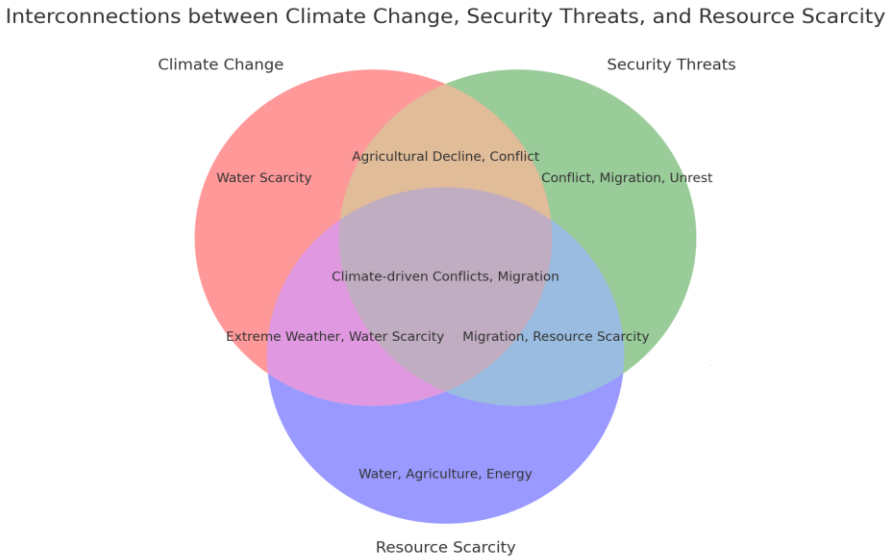

Figure 1: Venn diagram showing the interconnections between climate change, security threats, and resource scarcity

Review of the Related Literature:

Climate change and security have been a major concern in recent years as scholars and policymakers have been investigating about varied effects of climate change on global stability because the repercussions are now visible, particularly in South Asia, where Pakistan is one of the most vulnerable countries. This literature review addresses the global and regional perspectives on the climate-security nexus, the distinct issues faced by climate change in Pakistan, and the gaps that remain in the existing corpus of research.

i. **Global Perspectives on Climate Change and Security:** Climate change and security have long been linked in academic and policy circles around the world. Scholars such as Homer-Dixon (1999) and Barnett (2003) have underlined how environmental stress, particularly resource shortage, can worsen conflict, migration, and political instability. Homer-Dixon's theory on environmental scarcity contends that competition for key resources such as water and arable land can lead to civil unrest, greater militarization, and even state collapse, especially in fragile or undeveloped areas. Similarly, Barnett

(2003) describes how climate change, as a "threat multiplier," exacerbates existing socioeconomic and political problems, especially in regions with weak governance.

The hazards presented by increasing sea levels, droughts, floods, and altered weather patterns are frequently highlighted in global climate change and security discussions (Gleick, 2014). The Intergovernmental Panel on Climate Change (IPCC) has frequently highlighted the serious effects of these environmental shifts, particularly in places that rely significantly on natural resources (Kugelman, 2018). The IPCC's Sixth Assessment Report (2021) underlines that climatic consequences are inextricably linked to social, economic, and political systems, resulting in the destabilization of nations and regions. While much of this literature has traditionally focused on concerns such as migration and resource conflicts, more recent research emphasizes the importance of non-traditional security risks such as pandemics, food security, and state instability about climate change.

ii. **South Asia's Vulnerability:** South Asia is usually identified as one of the world's most climate-vulnerable regions. Kelkar and Bhadwal (2007) argue that the region is especially vulnerable to the effects of climate change due to its high population density, reliance on agriculture, and geopolitical conflicts. Rising temperatures, altered monsoon patterns, and glacial melt have already had a substantial impact on food security, water resources, and economic stability in India, Pakistan, Bangladesh, and Nepal.

Figure 2: Indus River Basin and major rivers (Siddiqi & Wescoat, 2020)

The regional literature also emphasizes how climate-induced relocation can worsen political and ethnic tensions. Reuveny (2007) emphasizes the significance of environmental migration in escalating cross-border tensions, notably in South Asia, where boundaries are already politically sensitive. The possibility of mass relocation due to climate-related disasters in Bangladesh, for example, might put additional strain on both India and Pakistan, thereby stoking regional hostilities and domestic instability.

Climate change is especially concerning in Pakistan, which is located near both the Himalayas and the Arabian Sea. As its glaciers melt, river systems such as the Indus see more fluctuation, perhaps leading to tensions with neighbouring India over shared water

resources. Pakistan's reliance on agriculture, which contributes over 20% of its GDP, further increases its vulnerability, as climate-induced changes in water availability and crop yields could have devastating economic consequences (Siddiqi & Wescoat, 2020).

iii. **Climate Change and Security Nexus in Pakistan:** There is a growing amount of study examining the effects of climate change on Pakistan's security landscape. Ahmed and Saleem (2016) believe that the country's unique combination of environmental, socio-political, and economic elements renders it especially vulnerable to climate-related insecurity. They see water scarcity as one of Pakistan's most important challenges, compounded by climate change and population expansion. This scarcity could exacerbate domestic instability, as well as disputes with neighbouring India over shared water supplies (Kugelman, 2018).

Furthermore, Mustafa (2013) and Gul (2020) investigate how climate change-related natural disasters, such as floods, droughts, and heat waves, affect Pakistan's internal security. The 2010 floods, which uprooted millions and caused enormous infrastructure damage, served as a vivid reminder of the challenges that extreme weather occurrences provide. These calamities disproportionately affect Pakistan's rural and underprivileged inhabitants, causing internal displacement, increased migration to urban areas, and putting further strain on already overburdened city infrastructure.

A major amount of the literature also examines the link between climate change and extremism in Pakistan. According to Abid and Ashfaq (2015), environmental deterioration and resource shortages may serve as accelerators for radicalization, especially in rural areas with limited economic possibilities. The absence of governmental capacity to handle these difficulties, along with the presence of extremist groups, heightens the likelihood that disenfranchised people may turn to violence. This problem is exacerbated by Pakistan's inadequate governance systems and insufficient capacity to respond to large-scale environmental catastrophes.

Gaps in Current Research: Although the research on the relationship between climate change and security has been extensively carried out, the existing literature indicates significant research gaps in the context of Pakistan. Mostly the research focuses on water security and the possibility of conflicts with neighbouring countries and there is no in-depth research about how climate-induced migrations could affect Pakistan's internal security systems. Millions of people are migrating from rural to urban areas and the long-term influence of this urbanization on the political and economic stability of the country is still underexplored.

Another area where current research is lacking is the geopolitical impacts of climate change on Pakistan's relations with Afghanistan and China. There is almost no detailed research on how Pakistan's overall regional strategy and international alliances are being impacted due to climate change. Furthermore, the impact of the United States and China on Pakistan's climate adaptation initiatives also is yet to be investigated.

Pakistan's Vulnerability to Climate Change:

Geographically, environmentally, socioeconomically, and politically, Pakistan is very vulnerable to the impacts of climate change. The country is experiencing harsh weather and several disasters as a result of these weathers including floods, droughts, and heat waves. It has poor infrastructure, weak administration, and a rising population together all of which raise the negative effects of the climate change manifold. The following sections describe the country's key vulnerabilities, focusing on geographical and environmental considerations, economic and social consequences, and political and governance issues:

Geographical and Environmental Factors: Pakistan's diversified geography, ranging from the towering peaks of the Himalayas and Karakoram to the low-lying Indus River basin and coastal areas along the Arabian Sea, makes it particularly vulnerable to climate change-related calamities. The country is already facing rising temperatures, irregular rainfall patterns, and catastrophic weather events, with substantial implications for its natural ecosystem and inhabitants.

i. **Glacial Melting and Water Availability**: Pakistan relies largely on the water of the Indus River system, which is fed by glaciers in the Himalayas,

Karakoram, and Hindu Kush mountain ranges. The glaciers that supply 80 % of the Indus River water, melt with the global temperatures rising, (World Bank, 2022), and their fast receding is jeopardizing the country's long-term water supplies. In the short term, glacial melt leads to devastating floods, as seen in 2010 when Pakistan experienced the worst flooding in its history, affecting over 20 million people. In the long term, as glaciers deplete, reduced river flow will cause severe water shortages, particularly for agriculture and hydropower, both of which are crucial to Pakistan's economy (Siddiqi & Wescoat, 2020).

ii. **Flooding and Droughts**: The unpredictable nature of Pakistan's monsoon season is another significant vulnerability. Shifts in monsoon patterns have led to both excessive rainfall, resulting in flash floods, and periods of drought, which harm agricultural productivity. Flooding events, like the 2022 flash floods, displaced millions and destroyed vast swathes of agricultural land and infrastructure. On the other hand, droughts, particularly in arid regions such as Balochistan and Sindh, are becoming more frequent, leading to crop failures, water scarcity, and food insecurity. These climate extremes are placing Pakistan's agricultural sector—on which around 40% of the population depends for their livelihood—under immense pressure (Chatha & Sheikh, 2018).

iii. **Coastal and Urban Vulnerabilities**: Rising sea levels pose a significant threat to Pakistan's coastal areas, particularly Karachi, the country's largest city and financial hub. The United Nations Framework Convention on Climate Change (UNFCCC) warns that coastal erosion, seawater intrusion, and the flooding of low-lying areas are serious risks, with the potential to displace millions of people. Karachi is also vulnerable to extreme heat waves, which are becoming increasingly frequent and deadly. The 2015 heat wave, for example, killed over 1,200 people, mainly due to poor infrastructure and lack of preparedness.

Economic and Social Impacts: Climate change is not only an environmental issue for Pakistan; it is also a significant economic challenge. The country's economy is heavily reliant on climate-sensitive sectors such as agriculture, which employs a large proportion of the population and contributes over 20% of its GDP. Climate-induced disruptions to this sector could have severe social and economic ramifications.

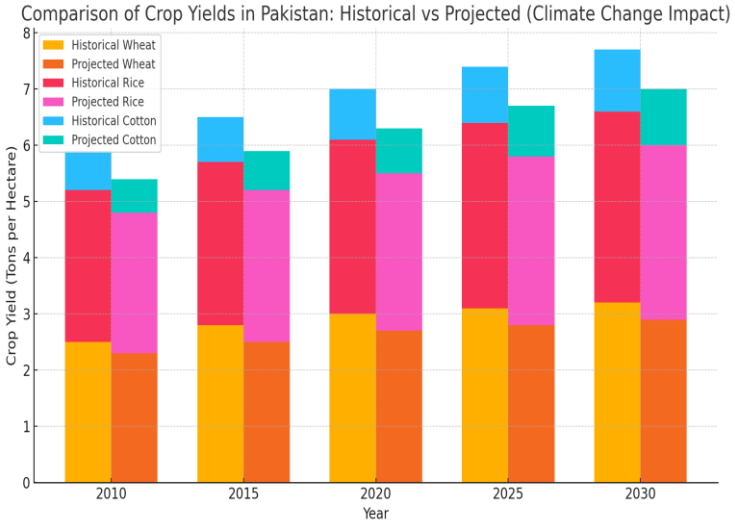

Figure 3: a comparison of historical crop yields and projected declines

i. **Agriculture and Food Security**: Agriculture in Pakistan is dependent majorly on Indus River water and climate change is leading to water scarcity and flooding. Major crops especially wheat, rice, and cotton, are at high risk due to changes in weather patterns. In fact, by 2050, climate change could reduce wheat and rice production by up to 12% and 17% respectively. This would also lead to less or reduced export capabilities, especially for cotton which is a critical cash crop for Pakistan (Siddiqi & Wescoat, 2020).

ii. **Water Scarcity**: Pakistan's per capita water availability is declining from 5,300 cubic meters in 1951 to less than 1,000 cubic meters today principally because of population growth and inefficient water management. Added to this, climate change has its impacts too, together with poor water infrastructure, significant water loss, and inefficient irrigation systems. There is already tension between provinces over water scarcity especially between provinces, such as Punjab and Sindh, because both provinces are dependent on the Indus River water supply. These conflicts will further intensify due to climate change which is likely to reduce water availability (Siddiqi & Wescoat, 2020).

iii. **Health Impacts**: Climate change also has certain effects on public health in Pakistan. The heat related diseases and illnesses are increasing. The rising temperature and rainfall pattern changes have already contributed to malaria, typhoid and dengue, particularly in humid weather. Densely populated cities like Karachi, Lahore Faisalabad etc. are always at serious health risks, especially when the population is without adequate healthcare (Chatha & Sheikh, 2018).

iv. **Poverty and Vulnerability of Marginalized Communities**: Poor and vulnerable communities are the most affected in Pakistan due to climate change. The rural areas where the population is dependent on agriculture comprise smallholder farmers lacking the resources to cope with the changing climate. Women and children are also vulnerable to climate change and displacements due to food and water shortages and health issues (Raza & Ullah, 2021). The displacement due to any condition caused by climate change, including floods, droughts, or sea-level rise, leads to an increase in rural-to-urban migration and results in overburdening the already densely populated cities.

v.

Figure 4: Regions in Pakistan Most Affected by Climate Change

Political and Governance Challenges:
Pakistan is also unable to address climate change issues due to several political and governance problems. These issues can be summarised as follows:

i. **Weak Governance and Institutional Capacity**: Weak governance in Pakistan has always been the most significant hindrance to adapting to climate change despite that it has a National Climate Change Policy and a Framework for Implementation (2014-2030). The implementation of this policy and framework is always disturbed because of a lack of funds. The provincial governments, which should act responsibly often fail in capacity and resources to implement climate change strategies effectively. Corruption and political instability also add to the problems (Chatha & Sheikh, 2018).

ii. **Resource Allocation and Financial Constraints**: As a developing country, Pakistan has limited finances to deal with climate change and its mitigation strategies. It is among the top 10 most affected countries but it gets a small amount from international climate finances (Eckstein et al., 2022). The expenses on poverty and security make it almost impossible for the country to prioritize climate risks.

iii. **Climate-Induced Migration and Displacement**: Climate change results in natural disasters and environmental degradation, which leads to the displacements of population on a large scale. The rural areas become less liveable and the population migrate due to water shortages and extreme weather. The cities which are already populated are becoming overcrowded, the infrastructure is becoming insufficient and the public services are declining. There is a lack of a cohesive national policy which could address climate-induced migration and meet the needs of displaced people (Chatha & Sheikh, 2018).

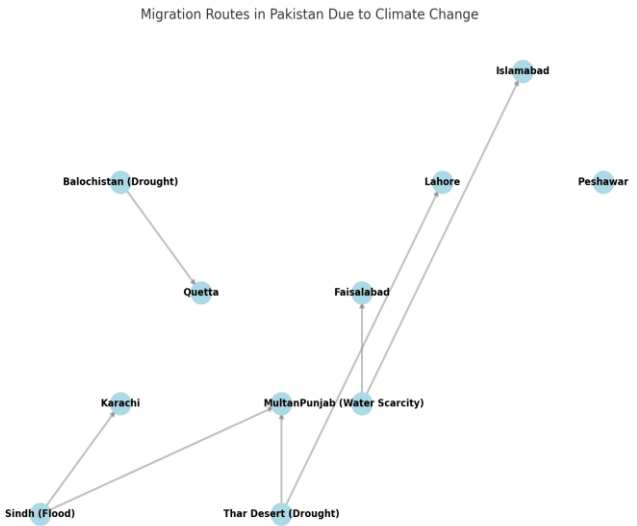

Figure 5: Diagram showing migration routes within Pakistan due to climate change

Analysis of Security Threats Arising from Climate Change:
The climate change in Pakistan not only poses economic and political challenges but also manifests significant security threats, both domestic and regional and leads to serious implications for stability, governance, and foreign relations especially with its neighbours. Climate change acts as a "threat multiplier" for Pakistan so far the country's security is concerned. Following is a brief about major security threats:

i. Pakistan is heavily dependent on the Indus River for its agriculture and freshwater supply. The climate changes affect its water resources leading

towards water scarcity, food insecurity and instability. The water security of the country is deeply linked to the water availability from the Indus River and Himalayan glaciers (Ahmad & Afzal, 2020). Due to the melting of glaciers, the water level in the Indus is becoming erratic (Siddiqi & Wescoat, 2020). Pakistan will experience "extreme water stress" by 2040 because its demand will exceed its water supply. The population growth, inadequate irrigation system, and mismanagement of resources will further degrade the situation and enhance the tensions between Punjab, Sindh, and Baluchistan (Raza & Ullah, 2021).

ii. Pakistan's crops are directly affected because of climate change. 40% of the country's workforce is connected with agriculture contributing significantly to its economy. Changes in weather patterns, monsoon rains and droughts, are reducing crop production. Wheat, rice, and cotton are the country's main crops and climate change is making them more and more vulnerable to extreme temperatures and water unavailability. The reduced agricultural productivity is increasing food insecurity and making it difficult for rural areas with higher poverty rates. Food shortages are leading to inflation, and social unrest, increasing instability and conflict (Kugelman, 2018).

iii. Climate-induced migration and displacement are also among the most critical security challenges due to climate change (Gleick, 2014). Floods, droughts, and rising sea levels are resulting in displacing a large ratio of the population. The 2010 floods displaced over 20 million people while flooding in 2022 also forced millions to abandon their places. This influx of migrants into cities places additional strain on already overburdened infrastructure and services, leading to increased competition for resources and heightened tensions between residents and newcomers (Chatha & Sheikh, 2018).

iv. Pakistan, which shares a porous border with Afghanistan, could see a surge in climate-induced migration as environmental conditions deteriorate in its northern neighbour. This would place additional strain on Pakistan's resources and could exacerbate existing security concerns, particularly in border regions where militant groups operate. Furthermore, increased migration could lead to tensions between Pakistan and Afghanistan, as well as with India, where border disputes are already a source of conflict (Kugelman, 2018).

Figure 6: The Geopolitical Map Showing Regions Where Pakistan And India Share Common Natural Resources

v. The Indus River, Pakistan's lifeline, originates in India, making the two countries heavily dependent on cooperation for water management. The Indus Waters Treaty (IWT), signed in 1960, governs the allocation of water from the Indus River system between India and Pakistan. However, as climate change exacerbates water scarcity, the treaty is coming under strain. Glacial melt, reduced river flow, and growing population in both India and Pakistan are leading to acute water shortages. India is constructing dams and hydroelectric projects on those rivers that flow into Pakistan while the Pakistan government fears that this could lead to reduced water supply. The issue over shared resources has always been politicized increasing the already tense relations between these two nuclear-armed states (Siddiqi & Wescoat, 2020).

vi. Pakistan is also facing cross-border migrations from the western side. Afghanistan has always been a source of concern due to climate-induced migration and insurgency. When the environmental conditions deteriorate, there is a huge influx of migrants from Afghanistan increasing strain on the country's resources and security. FATA particularly is already unstable due to chaos caused by various militant groups. Therefore, the security situation is further complicated along the Pakistan-Afghanistan border also due to a shortage of water and other resources (Chatha & Sheikh, 2018).

vii. Extremist groups in Pakistan have always been exploiting the social and economic conditions of people to gain their objectives, especially in rural and impoverished areas of the country. Poverty, unemployment, and displacement due to climate change provide these groups with opportunities for new recruitment leading to security concerns (Kugelman, 2018).

viii. Competition between provinces for water, food, and land is on the rise with a growing risk of extremist groups exploiting it further, particularly in Baluchistan and Khyber Pakhtunkhwa. This helps them to destabilize local governments and obtain control in neglected areas. There thus becomes a connection between climate change and extremism in Pakistan.

ix. The Pakistan Army always plays an important role in disasters that happen as a result of climate change, especially floods. There is a lack of civil infrastructure to deal with disasters due to which the military is involved in disaster relief. This involvement diverts the military's attention from other security issues and terrorism operations and puts a strain on the military.

x. Pakistan's government due to climate change is also forced to reallocate resources for disaster management. In this way, the resources are taken away from defence and security and spent on climate adaptation. This affects the defence capabilities of the country at a time when it is facing several security challenges.

Geopolitical Implications of Climate Change for Pakistan:

Climate change is giving global politics a new dimension and Pakistan's geopolitical position on the globe is heavily affected by the environmental challenges it is facing now. The country is reshaping its diplomatic, economic, and security preferences, especially with its neighbouring countries. With India and Afghanistan particularly, Pakistan's relationships are impacted by climate-related risks. A gist of the geopolitical implications of climate change for Pakistan is as follows:

i. **The strain on the Indus Waters Treaty (IWT)**: The IWT between India and Pakistan is the cornerstone of peace between these two neighbours for the use of the Indus River water and its tributaries. According to this, India has control over the eastern rivers[1] while Pakistan has control over the western rivers[2] but the climate change affecting both countries is a threat to the implementation of this treaty now as the competition over water resources is intensified manifold. India is constructing dams and hydroelectric projects on the western rivers which is a matter of concern in Pakistan because India could through these projects easily manipulate the flow of rivers and as a geopolitical tool, this would result in conflicts between India and Pakistan (Siddiqi & Wescoat, 2020).

[1] Ravi, Beas, and Sutlej

[2] Indus, Jhelum, and Chenab

ii. **Water as a Geopolitical Lever**: Pakistan and India's relationships as neighbouring countries are already tense and water scarcity as a result of climate change is helpful for India as it is in an upstream position. This has resulted in territorial disputes, perceiving by Pakistan that India is deliberately manipulating river flows and the situation is heading towards diplomatic and military confrontations. The lack of trust between the two countries and the politicization of water resources is making water a key geopolitical concern in this part of South Asia.

iii. **Afghanistan and the Durand Line**: Pakistan's border with Afghanistan is porous, volatile and vulnerable to the impacts of climate change. Both countries are facing water shortages and have a shared river system. Kabul River, flowing from Afghanistan into Pakistan, is also a source of tension because of its water Afghanistan wants to develop its infrastructure through building dams over the river. This has raised concerns for Pakistan as this construction can lessen the flow of water into the KPK province. Both Pakistan and Afghanistan are concerned with their water shortage, the water-related disputes are negatively impacting Pakistan-Afghanistan relations. People from Afghanistan are also taking refuge in Pakistan due to climate change and this movement is further complicating the security situation along the Durand Line (Kugelman, 2018).

iv. **China-Pakistan Economic Corridor (CPEC) and Climate Vulnerabilities**: Pakistan's geopolitical strategy has an important aspect with its neighbouring country China i.e. the China-Pakistan Economic Corridor commonly called CPEC. As a key component of China's Belt and Road Initiative, the CPEC comprises heavy infrastructure projects, such as roads, railways, and energy projects (Hassan & Batool, 2016). These projects will boost Pakistan's economy but climate change has resulted in threats to this project's success. Climate change has made these projects vulnerable to glacial melt, floods, and landslides, particularly in the north of Pakistan and has severe impacts on infrastructure development and investments. There is a need to integrate climate resilience into CPEC planning so that the long-term viability of the partnership between the two countries may be ensured.

v. **Regional Cooperation through SAARC and SCO**: Pakistan has certain geopolitical interests in the South and Central Asian regions. The country especially needs to actively participate in various engagements with regional organizations, such as SAARC and SCO because these organizations provide platforms for climate-related issues and focus on cooperation for water resources, disaster, and energy management. However, because of tensions between India and Pakistan, the effectiveness of SAARC is always negatively impacted and the scope for meaningful collaboration between member countries has become limited. The SCO also offers a platform for Pakistan China and other Central Asian countries to engage in climate resilience and infrastructure development. Therefore there is a need for Strengthening regional cooperation for Pakistan to address the across boundary impacts of climate change.

vi. **Hydropower and Water Scarcity**: The melting of glaciers and changes in monsoon patterns are also disturbing the hydroelectric projects and threatening the country's energy security. In this way, Pakistan is increasing its dependency on fossil fuels and this situation is complicating all efforts for cleaner energy sources. Growing population and industrialization are also increasing the energy demands and the country is trying to diversify its energy with the help of solar and wind power. Climate change is impacting all its efforts and Pakistan is facing energy shortages, leading to economic instability and regional conflicts (Hassan & Batool, 2016).

vii. **Geopolitical Competition for Energy Resources**: Globally, climate change is also driving countries to shift toward renewable energy. This shift is leading to the completion of to access minerals and technologies critical for the change. Due to its geopolitical positioning, Pakistan must prove to be able to secure partnerships and investments in renewable energy because its strategic location and access to Central Asia's energy resources and China's renewable energy expertise will make it a hub for regional cooperation. If not dealt with

smartly, the complex relationships between India and Iran will impact its opportunities to exploit its geopolitical positioning (Hassan & Batool, 2016).

viii. **Climate Vulnerability and International Support**: Various governments have always been vocal on the global platform about the impact of climate change on developing countries. Pakistan has asked for increased finances from developed nations to increase efforts for climate-related issues. Pakistan has actively participated in international forums such as UNFCCC and COP and advocated for climate justice and equity. To ensure its geopolitical resilience, Pakistan needs to be able to secure finances and technology transfer to address the impacts of climate change.

ix. **Climate Diplomacy and Relations with Western Powers**: Pakistan is engaged in global climate diplomacy because it is also affecting its relationships United States and the European Union. The country's alignment with climate goals is critical to its diplomatic standing and collaboration on clean energy, technology, and resilience-building. At the same time, Pakistan must balance its collaborations with the West strategic relationship with China.

Analytical Findings:

Through the detailed analysis above, the following are the findings regarding the geopolitical implications of climate change for Pakistan and various security threats for the country in the wake of climate change:

i. The climate changes are affecting Pakistan's water resources leading towards water scarcity, food insecurity and instability.
ii. The water security of the country is deeply linked to the water availability from the Indus River and Himalayan glaciers.
iii. The reduced agricultural productivity is increasing food insecurity.
iv. Climate-induced migration and displacement are also among the most critical security challenges due to climate change.
v. The influx of migrants due to climate change into cities is resulting in heightened tensions between residents and newcomers.
vi. Pakistan's porous border with Afghanistan due to climate-induced migration places additional strain on Pakistan's resources and and exacerbates existing security concerns.
vii. As climate change exacerbates water scarcity, the IWT is coming under strain this is increasing the already tense relations between these two nuclear-armed states.
viii. FATA already unstable due to chaos caused by various militant groups, is facing deteriorated security along the Pakistan-Afghanistan border also due to a shortage of water and other resources.
vii. Poverty, unemployment, and displacement due to climate change provide extremist groups opportunities for new recruitment leading to security concerns.
ix. Competition between provinces for water, food, and land is on the rise with a growing risk of extremist groups exploiting it further, particularly in Baluchistan and Khyber Pakhtunkhwa.
ix. The Pakistan Army's involvement in disaster management diverts the military's attention from other security issues and terrorism operations.
x. Due to climate change resources are taken away from defence and security and spent on climate adaptation affecting the defence capabilities of the country.
xi. Construction of dams and hydroelectric projects on the western rivers is raising concerns in Pakistan manipulating the geopolitical issues between India and Pakistan.
xii. Pakistan and India's relationships as neighbouring countries are hampered due to water scarcity as a result of climate change.
xiii. Kabul River water flowing from Afghanistan into Pakistan, is also a source of geopolitical tension because Afghanistan wants to develop dams over the river.
xiv. The CPEC projects as climate change are under threat and vulnerable to glacial melt, floods, and landslides, particularly in the north of Pakistan impacting the long-term viability of the partnership between the two countries.
xv. Because of tensions between India and Pakistan, the effectiveness of SAARC is always negatively impacted and the scope for meaningful

collaboration between member countries for climate change and disaster management has become limited.

x. Pakistan's energy security is threatened by the melting of glaciers and changes in monsoon patterns.
xi. There is an increased geopolitical competition for energy resources and Pakistan's geopolitical and strategic location, with access to both Central Asia's energy resources and China's renewable energy expertise makes it a hub for regional energy cooperation.
xii. Pakistan's leadership has been increasingly vocal on the global stage about the disproportionate impact of climate change on developing countries, particularly those that contribute minimally to global emissions.
xiii. Pakistan's engagement in global climate diplomacy also affects its relationships with major powers, particularly the United States and the European Union.
xiv. Pakistan's alignment with global climate goals could enhance its diplomatic standing and provide opportunities for collaboration on clean energy, technology, and resilience-building.

Policy Response and Recommendations:

Addressing the security and geopolitical challenges posed by climate change in Pakistan requires an active and practical policy framework. Following are some recommendations to address security and geopolitical issues:

i. Both federal and provincial governments in Pakistan must have a great mechanism of coordination for the effective implementation of climate policies.
ii. The Ministry of Climate Change should collaborate with provincial authorities to execute policies across agriculture, water, planning, and disaster management sectors.
iii. A task force of representatives from all provinces and sectors may be created for national climate resilience.
iv. The capacity of the National Disaster Management Authority (NDMA) and the Pakistan Climate Change Authority should be increased to respond to climate-induced disasters.
v. The Indus Water Treaty between Pakistan and India must be used to enhance cooperation over water resources.
vi. India and Pakistan should be involved in diplomatic relations to sort out challenges like the construction of new dams, hydroelectric projects, and river flows.
vii. Pakistan and Afghanistan should solve disputes over water usage to avoid future conflicts over water.
viii. Pakistan should actively engage with SAARC and SCO to promote collaboration on climate and water management.
ix. Joint monitoring of water systems, sharing climate data, and developing regional disaster response strategies should be adopted.
x. Collaboration between the military and civilian institutions should be strengthened to deal with climate change.
xi. Pakistan must accelerate investments in renewable energy sources.
xii. The government should incentivize private sector investment in renewables through subsidies, tax breaks, and public-private partnerships.

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