

Climate Change as a Threat to Human Security: Challenges for Pakistan's Socioeconomic Structure

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Abstract:

Climate change has become a distressing concern for the world with diverse dispersive effects. It poses severe global, national, and individual security threats of various sorts. Pakistan has a low percentage of carbon emissions but is among the most affected countries by the climatic hazards. The research analyses the role and efficiency of Pakistan's national climate change policy (NCCP) measures, projects, and international commitments. The central argument of the research is to focus on areas that are adversely affected by the climate. It also aims to evaluate the need of policies by analyzing contemporary efficiencies. By using a qualitative research method, this study finds out that the socio-economic structure of Pakistan is at serious risk due to climate change. In recent years, Pakistan faced a significant loss in terms of individuals, economy, infrastructure, natural resources, and agriculture.

Keywords: Pakistan, human security, non-traditional security, regimes, climate change, challenges

INTRODUCTION

By the end of the Cold War, the concept of human security attracted widespread scholarly attention and was categorized into various kinds; among them climate security is considered one of the most dangerous non-traditional security apprehension. Non-traditional security threat (NTST) is not directly related to war but can cause potential damage to human security. Climate change is no longer just an environmental issue but is universally recognized as a crucial NTST. It is a peril that can accelerate other security threats hence exacerbating defense vulnerabilities and human security. Similarly, it can be further defined as a change in global or regional climate patterns (Azeem, 2019).

After the cold war, the concentration of the world has been shifted from the military as a fundamental belief of worldwide security to different non-traditional areas. Not only the states that cause climate change are being affected by its hazards, but countries that are participating significantly less in carbon emissions are also having equal shares of climate dangers. Need for mitigation of climate effects is an obvious incentive of states just as for individuals. The outcomes of this complex internal risk can overflow Pakistan's borders and make difficulties for national security, society, economy, and tranquillity.

Pakistan has also confronted disastrous catastrophic events like seismic earthquakes, floods, and droughts because of climate change. Such problems greatly affected Pakistan's financial and social

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structure. At first, the government was not prepared to acknowledge the dangers of NTST. However, after the earthquake of 2005, the leadership took some mandatory actions to face the difficulties of these shattering events. But they were not so properly managed or well settled and unfortunately, Pakistan faced the disastrous floods in 2010. Such a catastrophe further affected Pakistan's economic and social sectors, ultimately. Currently, the government departments are working on readiness to confront any catastrophic events by national subsidizing and awareness programmes. The main solution for combating the adverse consequences of climate change is to exterminate the use of fossil fuels to meet the energy requirements. Yet, at the same time, it has not been especially fruitful to conquer the droughts and other environment-related issues in different zones of Pakistan. Therefore, a long-lasting initiative needs to be taken to solve the issue (Zulfiqar, 2020).

Theoretical Framework

Neo-realism was articulated by Kenneth Waltz, in 1979, as a product of the balance of power and described power as the most significant element in international relations. Moreover, nation-states are the central unit in international relations that have brought legal authorities into real ability to utilize supremacy for controlling the states and the global system. Furthermore, capabilities are mandatory for states to guarantee their survival. As each state accomplishes an alternate degree of power (which serves its survival objective), states inside the universal framework are separated through their degree of capacity. Neorealist researchers subsequently attempted to illustrate the capabilities each state has at some random time. It is referred to as relative capacity. Neorealists, see the global framework that decides the nation's conduct in the universal context that is anarchic, so there is no focal force that can control administrators over states. At that point, states adjust such sort of practices that suit their own advantages, regardless of how useful or devastating it is for rest of the countries.

This research utilizes the neorealist approach in order to to comprehend of the climate change and its implications on Pakistan's socioeconomic structure and policies and how this danger has made a shift from carbon emitters to undeveloped non-emitters states. Neo-realism distinguishes the main driver of climate change and its adverse effects on Pakistan. Powerful countries like the United States (US) and other states with a substantial impact on the universal framework contribute significantly to environmental degradation. It is because of their overwhelming military, economic and different other ventures, they are central natural contaminating states (Topper, 1998).

Furthermore, these states also consider human and global associations as supplementary units in this manner, focus on their tasks and hence disregard every environmental perspective. Neo-realists contend that each state's activities are indicated by its capacity. This ability decides the character of that state in a worldwide field, and the level of accomplishing these capacities differs from one country to another (Purdon, 2017).

Pakistan is a non-carbon-emitting state, and as of now, it cannot secure its condition; resultantly Pakistan's financial structure is quickly influenced by overall climate change. Moreover, it is also a potential "Threat Multiplier" for Pakistan's national security. Due to limited resources, Pakistan cannot create a sustainable power source that is well disposed of and relies upon petroleum derivatives and other regular energy generation strategies, which is unreasonably hazardous for the

state itself. Each of these elements is an obstacle for Pakistan to securitize its financial structure from the perils of environmental change, which is practically not Pakistan's very own concern rather a global challenge that Pakistan needs to look at with no alternative. Therefore, this theory suits best following the adverse political and economic conditions of Pakistan.

CLIMATE CHANGE: A NON-TRADITIONAL SECURITY THREAT TO THE WORLD

The environmental security hazards include: (i) loss of regional power because of rising ocean levels, (ii) the issue of climate prompted migration, and (iii) natural issues, for example, risk of water emergency which can disappear territory or make another contention (Salako, 2017). Rising ocean levels and expanding serious climate examples will straightforwardly affect military tasks around the world. In the meantime, increasing conflict for resources will sharpen political contrasts and progressively risk internal and external clash in volatile zones ("Climate change: An escalating," n.d.). A feeling of misery is grasping a population of about 160 million individuals due to the hazardous effects of climate change. Their assets and resources are jeopardized and their ability to adapt to this danger is diminished. The climatic vulnerabilities highlight social shakiness and union among networks. The net production and income are other fundamental issues in many areas which are prone to climate change, and have a severe risk for individuals as well as states (Hasina, 2019).

Fatal pandemics and other cataclysmic events can cast impacts similar to weapons of mass destruction (WMD) (Busby, 2007). Numerous army bases are situated in beachfront areas where they face an increased risk from ocean level ascent and tempest flood. The world's most significant maritime base Naval Station Norfolk in Virginia is encountering regular tidal flooding, with the possibilities of almost every day flooding by mid-century. As ocean levels rise, scores of military offices, including the Portsmouth Naval Shipyard and Bath Iron Works, will confront exorbitant and problematic effects from flooding and storms (Natural Resources Council of Maine [NRCM], 2018).

Climate change undermines human security since it weakens livelihood, giveaways culture, and individual personality. It also expands the movement that individuals would prefer to have maintained a strategic distance from. On the grounds, it can undermine the capacity of states to give the conditions essential to human security (Adge & Pulhin, 2014). As per the American Security Project's Global Security Defence Index on Climate Change, most national security, resistance, and insight networks recognize the security measurements of climate change. Some are effectively actualizing approaches to fabricate their strength with the impacts of environmental change, both as far as the foundation and the worldwide working condition is concerned. Numerous militaries have programmes on safety measure missions to upgrade their capacities in working conditions molded by a change in the climate. One part of this is expanding their strength portfolios and progressing far from reliance on non-renewable energy sources, embraced to some extent in light of the dangers of moving fuel (Vivekananda, et al., 2017).

Useable water security might be compromised, for instance through contamination from flooding, ocean level rise, and outrageous climate. Furthermore, with developing masses, it is accepted that environmental change will build water shortage in the coming decades (Fenton, 2014). Change in climate is viewed as the most significant worldwide danger confronting numerous countries, as

indicated by a 26-nation overview discharged by the Pew Research Centre. Thirteen of the countries reviewed recorded an earth-wide temperature increase as their top security concern. Other real problems were the Islamic State (IS), recorded as the top risk by eight nations, cyber-attacks. On the whole, “general atmosphere concerns and explicitly worldwide environmental change” became the top most priority of in the recent past (Rosane, 2019).

An unnatural weather change additionally will begin to emerge the permafrost, which is where fragmenting of the earth to surface stays at a temperature underneath the point of solidification. All things considered for this enormous parts of the cold district have been solidified thousands of years. This permafrost on solidified strata bolts away from a colossal measure of carbon dioxide and methane gas. An augmentation of 1^o C of Global temperature will defrost permafrost and discharge a gigantic step of ozone harming substances (Mukhopadhyay, 2013). According to a report, 67 percent of the establishment evaluated face dangers from flooding, 54 percent face dangers from the dry spell, and 46 percent face dangers from control fires. Those rates hop higher when future vulnerabilities are mulled over. Given that climate change will just increase throughout the following couple of decades, the effects will probably be much more terrible than anticipated (Babson, 2019).

Phenomena like pandemic infection, cataclysmic events, and environmental change, regardless of lacking human deliberateness, can undermine national security. For model, the 2006 US National Security Strategy (NSS) takes note that the Department of Defence has been charged to anticipate “fatal pandemics and other cataclysmic events” that can “produce WMD-like impacts.” It additionally noticed that “ecological demolition overpower the limit of neighborhood experts to react. It is brought by human conduct or destructive super calamities like floods, tropical storms, seismic tremors, or torrents. It may further even strain national militaries, requiring a serious universal reaction like assaults. The impacts of environmental change could quickly execute or jeopardize enormous percentage of individuals. Moreover, it further causes such massive scale interruption that the neighbourhood’s law enforcement and crisis reaction units would not have any option except to contain the danger (Busby, 2007).

As natural resources are believed to diminish due to changes in environmental patterns, common hardship, and the probability for violent conflicts are increasing (Hauer, 2014). Climate change can go about as a risk multiplier for instability and is probably the most unpredictable world region. It presents national security challenges for the US. Also, it is suitable to begin presently to help alleviate the seriousness of these eminent challenges. The choice to act should be made soon to design judiciously for the country's security. The expanding dangers from environmental change, in all likelihood, will worsen if delayed (Nuccitelli, 2019).

The environmental change could intrude on advancement toward a world without appetite. A powerful and cognizant worldwide example is perceivable of the effects of environmental change on harvest profitability that could have ramifications for nourishment accessibility. The steadiness of entire nourishment frameworks might be in danger under ecological change because of fluctuation in supply. Atmosphere fluctuation and change will worsen nourishment frailty in territories, defenseless against hunger and undernutrition. It may be foreseen that nourishment access and use

will be influenced in a roundabout way, using security impacts on the family unit and individual salaries. Moreover, nourishment use could be disabled by losing access to drinking water and harming well-being (Wheeler & Braun, 2013).

The thought of human security welcomes a re-conceptualization of upset atmosphere antipathy from social prosperity and opportunity. Human security to environmental change impacts; for instance, how “opportunity from need” could incorporate expanded asset shortage brought about by declining water accessibility or land profitability, and “opportunity from dread” could incorporate dangers to wellbeing or spot of living arrangement as an outcome of climate prompted harm (Mason, 2015).

IMPACT OF CLIMATE CHANGE ON SOCIO-ECONOMIC STRUCTURE OF PAKISTAN

Pakistan is located in the South Asia between 24-37°N of latitude and 61-76°E longitude. The agricultural sector in Pakistan remains the most significant sector of the economy, as practically 70% of the population directly or indirectly depends on it. With a population of around 160 million (now about 220 million), with 32% living underneath the poverty line, Pakistan has genuine difficulties to survive. Particularly vulnerability of the poor to nutrition weakness will increment as a roundabout impact of diminishing nourishment harvests' yields. Pakistan's climate can be categorized mainland with incredible miscellaneous variety because of various altitudes and topology. It also faces genuine difficulties because of climate change, affecting rising temperatures, floods, dry seasons, and yield disasters. The consistent events of floods in Pakistan and other environmental change effects is costing the nation 14 billion dollars each year, around five percent of gross domestic product (GDP) to its economy (Ahmed, 2011).

Pakistan contributes significantly less to Greenhouse Gas (GHG) outflows, yet remains seriously affected by climate change adverse impacts. Ice sheet softening in the Himalayas is anticipated to cause flooding will influence water assets following a few decades. Contracted waterway streams will trail this after some time as icy masses decrease. Freshwater accessibility is also anticipated to diminish, which will prompt biodiversity disaster and lessen the population's freshwater accessibility. Coastal zones demarcating the Arabian Sea in the south of Pakistan will be at most serious hazard because of expanded flooding from the ocean and now and again, the waterways. The effect of environmental change will likewise bother the current social disparities of asset use and strengthen social components prompting insecurity, clashes, uprooting of individuals, and changes in relocation design (LEAD Pakistan, n.d).

As indicated by global climate change risks, Pakistan positioned ninth in 2013. It has also confronted overpowering misfortunes because of floods and other natural disasters. In 2010 alone, those misfortunes surpassed US\$ 9.6 billion. Since 2010, five back to back floods brought about more than US\$25 billion of monetary loss in damages to various segments like agribusiness, water system, infrastructure, welfare, and educational offices. According to Global Facility for Disaster Reduction and Recovery Association (GFDRR), the temperature will rise by 1.4 to 3.7°C in the south and beachfront districts of Pakistan by the 2060s (Batool, Bashir, & Zahra, 2016). By 2050 it could lose half of its wheat profitability. Late positioning by International Association Maple Croft of UK has put Pakistan at 28th among those most seriously affected. World Bank and climate change specialists

cautioned Pakistan of five noteworthy dangers identified with environmental change (Nazim, 2018). The Ministry of Textile Industry has communicated worry over the drop in cotton generation by 28 percent during 2015-16 caused by environmental change-actuated phenomena ("Climate change playing," 2016). Sindh province is the second-biggest economy among the provinces of Pakistan and contributes 30 percent to the national GDP. Its economy is profoundly expanded, going from overwhelming industry and money revolved around Karachi to a considerable farming base along the Indus River. Changes in precipitation and temperature blocks the future development of industries in this district (Sheikh, 2019).

As indicated by the Pakistan Economic Survey 2015-16, cotton contributes one percent to Pakistan's GDP and five percent to its agriculture worth. The overview shows cotton generation has dropped significantly, with the business missing its 5.5 percent development target due to climate change (Baigel, 2016). Pakistan positions seventh among the most destructively influenced nations by environmental change on the Global Climate Risk Index (GCRI) 2017. It suffered the shocking effects of disastrous incidents and environmental change in the on-going years, seeing a seismic earthquake in 2005 and overwhelming floods in 2010. Climate change quickly expanded in Pakistan, causing and worsening disasters, constraining individuals to evacuate their homes and look for refuge somewhere else, forcing them to seek migration within and outside the country (Ijaz, 2017).

PAKISTAN'S POLICIES RESPONSE TOWARDS CLIMATE CHANGE

Climate change policy is a response to various disasters in Pakistan, which leads the government to take serious actions to combat climate change consequences (Government of Pakistan [GOP], 2012). Mitigation and adaptation are the two principle procedures being used to deal with climate change in Pakistan. (Rifat, 2018). In response to this universal danger, Pakistan effectively adopted a detailed National Climate Change Policy (NCCP) in 2012 and operationalized it in 2013. It was a positive advancement to manage climate change in the country. The policy proposes more than 120 strategy estimate covering zones of Pakistan. The NCCP is a multi-parts strategy that gives mitigation and adjustment measures. The plan weighs on development segments, such as commerce, transport, human well-being, agriculture, energy, forestry, and awareness programmes (Mumtaz, 2018).

Pakistan is accessible to a variety of regular climate risks. The most harmful are tornados, droughts, seismic earthquakes, floods, and storms. In 2005, a high magnitude earthquake caused the worst destruction and trouble recorded in the nation's history: 6,700 individuals died; backhanded income calamities worth of \$576 million; and aid, recuperation, and rehabilitation cost \$5.2 billion (Global Facility for Disaster Reduction and Recovery, 2019). Pakistan has seen a bizarre rise in the floods. From 1973 to 1993, just sixteen floods hit Pakistan, yet in the following twenty years, 54 floods of various power struck Pakistan. It was positioned tenth in GCRI during the time of 1994 to 2013 (Sardar, Javed, & Amir-ud-Din, 2016).

The 2017 Act set up the Pakistan Climate Change Council (PCCC) to approve, consolidate, and display adjustment and lessening GHG strategies by the government and standard services, divisions, offices, and over all segments of the economy. Environmental measures, including

discharge measures and the National Environmental Quality Standards (NEQs), are focal subjects in the Pakistan Environmental Protection Act 1997, which is the essential enactment on natural security in Pakistan (Hassan, 2018). The NCCP gives a structure to contemporary climate issues that Pakistan faces or will confront in future because of the changing atmosphere. In perspective on Pakistan's weak security to the hostile effects of climate change, specifically unusual weather, adapting suitable policy to combat it, is the focal point of the government. The weaknesses of different sectors to environmental change have been stressed and the best possible solutions have been spelled out. These type of measures are aimed at addressing issues in different parts, for example, water, horticulture, seaside territories, biodiversity, and other helpless biological systems.

The planning in this way gives an in-depth system for the improvement of Activity Plans for national activities on regulation and control. This approach archive is a "living" report and will be evaluated and refreshed consistently to address rising ideas and issues in the consistently advancing study of climate change. Moreover, NCCP is a response to various disasters in Pakistan which leads the government to take serious actions to combat serious consequences (GOP, 2012). The Government of Pakistan, in the exercise of the rules presented by Article 90 and 99 of the Constitution, further changed Rules of Business 1973. After the eighteenth amendment. National Disaster Management Authority (NDMA) deals with the entire Disaster Management Cycle (DMC), which incorporates preparedness, pitigation, risk reduction, relief, and rehabilitation (NDMA, n.d). The Prime Minister of Pakistan started the ground service of "Clean and Green Pakistan," aiming to aware masses of Pakistan about global warming and its mitigation tactics (Ashraf, 2018).

Mitigation and adaptation are the two principle procedures left when there is a need to deal with climate change. Since Pakistan has virtually encountered unfavorable environmental change impacts throughout the years, it is fundamental that it adjusts rapidly to the changing condition. It is done to guarantee financial development and a better socioeconomic structure. Accordingly, the Ministry of Climate Change has started some projects that may help set up the nation to have fewer climate change effects.

The significant steps include:

- The efficient implementation of policy throughout different sectors of Pakistan
- Building a strong connection with international climate change regimes and keep in touch with all contemporary global agenda
- The creation of the PCCC and Pakistan Climate Change Authority (PCCA)
- The usage of the Technology Needs Assessment (TNA) in the nation just as the creation of an implementable Technology Action Plan (TAP) following the present approaches
- Launching the UN Environment Program called "Strengthening Pakistan's National Policy Frameworks to Facilitate Resource Efficiency and Sustainable Consumption and Production" (Rifat, 2018).

Climate change is a reality, having unfavorable effects all around, as well as in Pakistan. To react to this universal danger effectively, Pakistan detailed the NCCP in 2012 and operationalized it in 2013. However, it refreshes further examinations and assessments to recognize any un-tended or unidentified measures in the strategy as per the required situation.

The NCCP stresses provincial and national participation in controlling climate change measures, to get benefits from the global financial system, and the foundation of different financial establishments. Pakistan is one of the developing nations that have arranged such a systematic approach or policy on climate change (Mumtaz, 2018).

On sixteenth February 2016, the Parliament collectively endorsed the Sustainable Development Goals (SDGs) as the national improvement motivation (National Initiative for Sustainable Development Goals, n.d.) Goal 13 explicitly calls for “urgent actions to battle climate change and its effects.” Around 45 of the 169 targets identified with this objective feature the need to handle environmental change and turn away effects, especially on nourishment, water, vitality, and monetary improvement. The difficulties of climate change and its inimical effects undermine the capacity to accomplish Vision 2025 - Pakistan's advancement plans (UN, 2019). Roughly six percent of Pakistan's government spending plan from 2010–2014 included climate change-related consumptions, generally in energy and transport. As depicted in its Nationally Determined Commitment to the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), Pakistan expects to reduce 20 percent of its 2030 anticipated ozone harming substance discharges. It is subject to universal awards' accessibility to meet the total reduction expenses adding up to roughly \$40 billion. The nation's adjustment needs have been distinguished to go between \$7 billion to \$14 billion every year (Chaudhry, 2017). Pakistan is the 153rd contributing nation to environmental change worldwide; it is seventh on the number of countries most influenced by it. There is a desperate need to moderate the impacts of this exogenous contamination, basically through a powerful enactment. For example, discussions are boundlessly in-depth and underrepresented in Pakistan's legal scholarly circles (Jamal, 2017).

CONCLUSION

Climate change is a critical issue that represents an imposing danger to all human beings regardless of geographical locations. It adversely affect the states in economic and security terms by causing devastating hurricanes and severe flooding. Similarly, developing countries such as Pakistan are the worst sufferers considering their inability to cope with weather-related disasters. Moreover, Pakistan is seventh on the list of ten countries that have been severely affected by climate change. The lack of resources and initiatives contend that the nation needs support in executing different adjustments to minimize climate change. Here, the developed countries must address the issue and help the developing states dealing with climate change patterns and global warming. The respective governments should implement the measures proposed at the international moots regarding deforestation; however, it requires society's involvement. Therefore, it needs efforts to create awareness among the masses about the seriousness of the issue. This is how we can motivate them to refrain from cutting trees by joining the national efforts to plant trees. Furthermore, it is also encouraging to note that Pakistan's government is doing the maximum to combat climate change hazards with appropriate policies. A full-fledged ministry of climate change has been developed to deal with the issue. But still, some measures need to be taken to improve the situation further. These include establishing Climate Change Cells in sectoral, federal, and provincial ministries and National Climate Change Commission for coordinating all climate change activities at the national and international levels.

Meanwhile, a monitoring, reporting, and verification (MRV) system for evaluating emission reductions to use the UNFCCC REDD+ facility should be established. Inter-ministerial and inter-departmental decision-making and coordination mechanisms on climate change should be improved further at both provincial and federal levels. Furthermore, the provinces must extend full cooperation to the federal government by taking adequate measures under the policy framework. All provinces should coordinate with the central government to follow and implement the necessary rules and regulations at the grass-root level. The primary aim is to develop Pakistan's stand on various international policy issues relating to climate change. The military authorities should strengthen the national institutional framework for undertaking tasks associated with the implementation of UNFCCC to ensure the integration of climate change and overall developmental imperatives. In the same way, district and union councils can also be given specific targets for tree planting and raising awareness among the citizens of their respective areas. Lastly, as the fourth pillar of the state, media should also play a vital role in promoting national causes, including climate change and global warming.

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Date of Publication	September 15, 2020
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