

POLICY BRIEF, FEBRUARY 2024

Climate-Conflict Disasters: A Global Threat Gaining Momentum in Pakistan

IQRA BANO SOHAIL

About the Author

Ms. Iqra Bano Sohail completed her LLB (Hons) from the University of London in 2021 and was awarded achievement awards for being one of the highest performing student around the globe in the subjects of criminal and contract law. With her experience in the International Law think tank industry, she has worked on various projects such as developing Pakistan's First National Action Plan on Business and Human Rights and reviewing the Counter Terrorism and Anti Money Laundering Regime of Pakistan. Currently she is working as a Research Associate for International Law at IPRI with her areas of interests being International Humanitarian Law, Human Rights Law, Cyber Laws and Water Laws.

About IPRI

The Islamabad Policy Research Institute (IPRI) is one of the oldest non-partisan think tanks on all facets of National Security, including international relations and international law, strategic studies, governance, public policy, and economic security in Pakistan. IPRI exemplifies two decades of rigorous and timely analysis of crucial strategic agendas and inter-governmental processes that influence national and regional policy community. Recognized for its objectivity and policy relevance, IPRI's publications offer current, up-to-date, and high-quality research in the form of authoritative journals, books, monographs, and policy briefs. The Institute's events vary from seminars on current international and national affairs to large-scale international conferences that attract renowned leaders, academics, and policymakers from all over the world. The Institute also house two specialized Chairs for International Law and Economic Security.

Table of Contents

Executive Summary.....	3
I The Global Threat.....	4
II The Climate-Conflict Links.....	4
The Role Played by Climate Change.....	4
The Role Played by Armed Conflict.....	5
III The Legal Gaps in International Law.....	6
IV The Threat that the Interplay Poses for Pakistan.....	6
Climate Induced Migration.....	7
Floods and Drought.....	7
Nuclear Security at Risk.....	8
Political Instability.....	8
Shortcomings in the Pakistani Legal Framework.....	8
V Recommendations.....	9
VI Action Matrix.....	11

Executive Summary

Issue

Climate change and armed conflict, due to their grave impacts, stand out as two of the most serious challenges faced by the world today. While they both have their own standings in generating humanitarian and environmental crises, the interplay between the two is something that cannot be ignored. This newly accepted phenomenon is yet to be explicitly recognized under International Law. Pakistan being a part of the top 10 most vulnerable countries on the Climate Risk Index¹ must take measures to deal with the inconsistencies in its legal framework to combat the emerging threat of climate induced conflicts.

Recommendations

Pakistan has the following available options:

1. Develop an Early Warning System for Disaster Preparedness and Risk Mitigation
2. Improve Disaster Response and Recovery
3. Increase Funding of the National Disaster Management Authority
4. Update the National Security Policy of Pakistan to Include Climate Induced Threats
5. Integrate Climate Change Adaptation Measures into the National and Subnational Policies in the Education Sector
6. Develop A Climate Change Specific National Command and Operation Centre (NCOC)
7. Improve Infrastructural Climate Resilience
8. Shift Focus Towards Climate Financing

¹ 'Devastating Floods in Pakistan' (*UNICEF*) <<https://www.unicef.org/emergencies/devastating-floods-pakistan-2022>> accessed 17 January 2024

I) The Global Threat

Over the past few decades, the world has witnessed a global shift towards the acceptance of climate change as a reality. The World Meteorological Organization² (WMO) has observed that the past decade i.e. 2011-2020, was the “warmest decade on record” for land and ocean with increased emissions acting as a catalyst for climate driven disasters. Such catastrophes, consequently, have much wider impacts on a state's economic, political and social viability. For instance, the world's costliest weather disaster, Hurricane Katrina, occurred in 2005, however, the next four costliest disasters were all witnessed in the past decade alone.

Armed Conflict, on the other hand, has also continued to dominate the world in recent years. Importantly, the conflicts have grown more intense with the number of fatalities increasing by 14 percent on a yearly basis³. This signifies the prevalence of humanitarian, stabilization and reconstruction challenges around the globe. Russia's invasion of Ukraine, the war crimes being committed by Israel against Palestine, the Syrian civil war are all conflicts that are being witnessed by the world recently.

II) The Climate-Conflict Links

The interconnected nature of climate change and armed conflict can be explained on various footings as they share a complex intersection with political, social, economic and demographic factors.

The Role Played by Climate Change

It is pertinent to note that climate change acts as a “threat multiplier”⁴ by multiplying both the primary causes of conflict and institutional weaknesses especially

² ‘The Global Climate 2011-2020: A decade of accelerating climate change’, World Meteorological Organization (2023)

³ ‘The Armed Conflict Survey 2023’, International Institute for Strategic Studies (2023)

⁴ ‘Threat Multiplier: Climate Change, Disasters, and Poor People’, World Bank Group, November 2015

in countries that are susceptible to the impacts of climate change. Its impact has the potential to generate various conflict drivers such as resource scarcity and migration. With essential resources, such as water and agriculture at stake, human security is threatened which consequently leads to an increased risk of armed conflict. Evidence suggests that even changes in rainfall patterns can contribute to amplifying conflict.

One of the prime examples include the role played by scarcity of water in Syria's civil war⁵. The drought led to agricultural failure causing civilians to migrate to urban areas. This added to the already existing challenge of unemployment and economic distress in the State. Evidently, countries such as Syria are often highly vulnerable to the effects of climate change, because they get caged in a vicious circle where conflict corrodes a country's potential to deal with climate impacts, while simultaneously those same climate impacts fuel conflict patterns and governance failures⁶. A Stanford led study⁷ pertaining to this issue highlighted that climate change has influenced between 3% and 20% of armed conflict risk over the last century and that the influence will likely increase dramatically.

The Role Played by Armed Conflict

Contrastingly, armed conflict can inflict severe and lasting damage to the environment leading to long term implications for ecosystems and living conditions. The means and methods used to inflict the armed conflict can result in water and soil contamination, burning of fossil fuels, greenhouse gas emissions, deforestation and habitat destruction. One example of the devastating impacts of armed conflict on climate change is the first Gulf War⁸. 700 oil fields in Kuwait were intentionally set on fire resulting in smoke covering over 800 miles of the area. Additionally, 11 million barrels of crude oil were spilled into the Persian Gulf creating a slick on the surface of the desert and nearly 300 oil lakes formed in the desert and this polluted the soil for decades.

⁵ Peter H. Gleick, 'Water, Drought, Climate Change, and Conflict in Syria', [2014], Vol. 6, No. 3, Weather, Climate and Society.

⁶ 'The Armed Conflict Survey 2023', International Institute for Strategic Studies (2023)

⁷ Devon Ryan, 'Does Climate Change Cause Armed Conflict'. [2019], Nature Journal

⁸ Linden O, Jerneloiev A, and Egerup J 'Interim Report on The Environmental Impacts of the Gulf War 1991' [2004], International Institute for Applied Systems Analysis

III) The Legal Gaps in International Law

Although International Law has encapsulated various instruments to tackle climate change, there remains a common gap in all of them: they fail to highlight the status of their applicability during armed conflict. This climate change regime includes the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol (1997) and the Paris Agreement (2015). The absence of any legal clarity results in ambiguity regarding the obligation of states to respect this framework in times of armed conflict. Although IHL does talk about the protection of the environment, there are debates about the adequacy of these due to their unclear excessively restrictive nature. The unclarity stems from the fact they only talk about climate change in the context of collateral damage due to armed conflict and fail to stress on its complete prevention.

However, recommendations have been given by various academics as to how the current climate change regime can apply to armed conflict. For instance, Article 43⁹ The Hague Convention establishes obligations for occupying powers, including respecting "laws in force" in the occupied territory. This can act as a door for the climate change regime to enter. Furthermore, The International Law Commission (ILC) emphasizes that for widely ratified environmental treaties with global scope, it might be challenging to envision suspending such treaties exclusively between the parties involved in the armed conflict, as these obligations protect a collective interest extending beyond those engaged in the conflict or occupation.

IV) The Threats that the Interplay Poses for Pakistan

Over the course of the past two decades, Pakistan has remained to be a part of the top 10 most vulnerable countries on the Climate Risk Index. Within this timeframe, 10,000 individuals have lost their lives to climate-related disasters, while

⁹ "(The Occupant) shall take all the measures in his power to restore, and ensure, as far as possible, public order and safety, while respecting, unless absolutely prevented, the laws in force in the country"

173 extreme weather events have led to financial damages of approximately \$4 billion¹⁰.

Climate Induced Migration

Climate induced migration has morphed into a reality for Pakistan now and this leads to conflicts between migrants and settled communities. Due to Glacier Lake Outburst Floods in 2010, more than 20 million people migrated from Khyber Pakhtunkhwa and Gilgit-Baltistan. In 2018, as a result of water scarcity, around 33,000 residents from Nokshi Village of Balochistan had to migrate to other districts. A study¹¹ conducted on district Thatta revealed that areas with a high density population and lack of resources led to conflict between migrants and host communities. Alongside this, a boost was also observed in energy and water insecurity which can be attributed to poor governance.

Floods and Drought

The fluctuations of monsoon weather and rainfall has recently caused many catastrophes including fatal floods and widespread droughts. One of the world's deadliest floods in 2022 submerged one third of Pakistan consequently affecting 33 million people. This consequently compelled over 5.4 million individuals, including 2.5 million children, to depend exclusively on polluted water sourced from ponds and wells¹². The Pakistan Institute of Development Economics has highlighted that the country ranks 14th in the list of high risk countries affected by water scarcity because of the lack of storage facilities for water causing more than one-third of it to go to waste¹³.

¹⁰ 'Devastating Floods in Pakistan' (*UNICEF*) <<https://www.unicef.org/emergencies/devastating-floods-pakistan-2022>> accessed 17 January 2024

¹¹ Faizan Ali, Tooba Asim Khan, Aamir Alamgir, Moazzam Ali Khan, 'Climate Change-Induced Conflicts in Pakistan: From National to Individual Level' [2018], *Journal of Earth Systems and Environment*.

¹² *ibid*

¹³ Bukhari S, Ur Rehman A. 'Water crisis in Pakistan and India: an emerging non-traditional threat in South Asia' [2022] *Al-Hikmah Islamic Research Journal*

Nuclear Security at Risk

Nuclear plants in coastal areas are at a greater risk of being influenced by climate change. “We are likely profoundly underestimating climate change risk and damages in coastal areas.” says Michael Mann, director of the Earth System Science Center at Pennsylvania State University¹⁴. A number of nuclear power plants in Pakistan are situated a few meters above sea level, making them vulnerable to flooding. This susceptibility poses a threat to the electrical systems of these nuclear plants, potentially disabling their cooling mechanisms and resulting in overheating, a scenario that could lead to a meltdown and the release of radioactive materials¹⁵. A notable example is the Fukushima Daiichi Nuclear Plant in Japan, which suffered severe damage during the country's tsunami in March 2011. This incident resulted in a catastrophic discharge of radioactive material, potentially necessitating the evacuation of 50 million people.

Political Instability

Pakistan is a state that is sensitive to political instability. This can disrupt long-term planning and hinder the implementation of sustainable policies pertaining to climate change. A stable political environment is crucial for the continuity of climate change initiatives. Climatic changes induce social and economic stresses, which can be mitigated only if a political system is flexible enough to recast the national narrative around climate adaptation and the conservation of resources.

Shortcomings in the Pakistani Legal Framework

Although Pakistan has encapsulated various legislations and policies on climate change and armed conflict, the interdependent nature of the two has been left unaddressed. Some of these include the National Security Policy 2022, Pakistan Climate Change Act 2017, National Forest Policy 2015, National Nuclear Safety Policy

¹⁴ ‘What Are Coastal Nuclear Power Plants Doing to Address Climate Threats?’ (Ensia, 16 August 2018) <<https://ensia.com/features/coastal-nuclear/>> accessed 16 January 2024

¹⁵ ‘Flood Risk at Nuclear Power Plants’ (Union of Concerned Scientists) <<https://www.ucsusa.org/resources/flood-risk-nuclear-power-plants>> accessed 16 January 2024

2020, the National Climate Change Policy 2021, and the Khyber Pakhtunkhwa Monsoon Contingency Plan 2022.

The National Security Policy of Pakistan (2022-2026) centers economic security as the foundation of national security, giving prominence to a geo-economic vision alongside the traditional emphasis on geo-strategy. It acknowledges that sustainable and inclusive economic growth is essential to broaden our national resource base. However, it fails to take into account the devastating influence that climate change can have and how such non-traditional security threats are to be dealt with. Furthermore, the Policy fails to consider the notion of strengthening the state's institutional capacity which would assist in dealing with the climate induced threats and difficulties.

The National Climate Change Policy (2021) encapsulates a framework highlighting the climate change related issues faced by Pakistan with the aim of making the state climate-resilient while eradicating social disparities. This policy is also not free of criticism. Firstly, the policy fails to identify vulnerable sectors and parties that would be at the highest risk of suffering the consequences of climate change including climate induced conflicts. Additionally, there was an absence of any inter-coordination with other relevant sectors such as agriculture. The implementation can be further disrupted by the lack of any defined target oriented actions.

The Khyber Pakhtunkhwa Monsoon Contingency Plan (2022) aims to achieve the goal of disaster risk reduction and preparedness. The province has also been exposed to anthropogenic disasters in shape of terrorism and militancy. However, the focus of the document is narrow in the sense that it fails to account for economic zones, or adequate financing mechanisms to achieve the objectives discussed in the document. The integration of climate financing is crucial in such documents however the 2022 plan fails to shed light on it.

V) Recommendations:

Pakistan can take the following measures:

- Develop an Early Warning System for Disaster Preparedness and Risk Mitigation by Referring to the UNISDR Checklists.
- Improve Disaster Response and Recovery by Proactive Institutionalization of Recovery Measures.
- Increase Funding of the National Disaster Management Authority by Developing a National Strategy Based on the CAREC and Nat Cat Models.
- Update the National Security Policy of Pakistan to Include Climate Induced Threats.
- Integrate Climate Change Adaptation Measures into the National and Subnational Policies in Education Sector by Following the UNESCO Guidelines for Educational Planners and Ministries of Education.
- Develop A Climate Change Specific National Command and Operation Centre (NCOC) by Referring to the COVID-19 NCOC.
- Improve Infrastructural Climate Resilience by Incorporating the Principle for Resilience Infrastructure published by UNDRR.
- Shift Focus towards Climate Financing.

Action Matrix

Options for Pakistan

Option	Pathways to Solution	Implementation of Solution	Actors Responsible	Implementation Timelines
Establishing Early Warning Systems	<p>Early warning systems play a crucial role as an adaptive measure for climate change. These systems utilize integrated communication platforms to assist diverse sectors and communities. The UNISDR has published checklists for developing early warning systems.</p>	<p>Pakistan should take the following measures:</p> <ol style="list-style-type: none"> 1- Establish a database accessible to all which includes credible national climate data. 2- Develop an early warning system specifically for natural disasters with the relevant innovation and technology. This could include sending updates by various means such as SMS, Television or Radio 	<ol style="list-style-type: none"> 1. National Disaster Management Authority 2. Provincial Disaster Management Authorities 3. Ministry of Climate Change and Environmental Coordination 4. Local Government Departments 	<p>6-12 Months for establishing a data base</p> <p>6-8 Months for developing an early warning system</p>
Better Disaster Response and Recovery	<p>To fortify preparedness for disasters and facilitate effective responses, as well as to enhance the "Build Back Better" approach during recovery, rehabilitation, and reconstruction, it is crucial to integrate risk-informed</p>	<p>Pakistan has the capacity to formulate a Multi-hazard vulnerability and risk assessment at both nationwide and district levels. This assessment will be presented in a spatial-temporal format, while also</p>	<ol style="list-style-type: none"> 1. National Disaster Management Authority 2. Provincial Disaster Management Authorities 3. Ministry of Climate Change and Environmental Coordination 	<p>12 to 18 Months to draft the assessment</p>

	<p>methodologies into these processes. Addressing the risk of delays in post-disaster relief, recovery, and planning involves the proactive institutionalization of recovery measures well before the occurrence of any disaster.</p>	<p>referring to detailed and location-specific evaluations. This would assist in enhancing disaster responses.</p>		
<p>Increase Funding of the National Disaster Management Authority</p>	<p>The CAREC (Central Asia Regional Economic Cooperation) Model, an extensive framework for fostering regional economic integration and collaboration in South Asia, fosters regional cooperation and advocates for sustainable risk sensitive developments.</p> <p>The National Catastrophe Model (Nat Cat) model developed by National Disaster Risk Management Fund to cater to Pakistan's specific requirements.</p> <p>These two models can be</p>	<p>Pakistan can formulate a disaster risk finance strategy. This national strategy should entail identifying suitable instruments for various risk levels, utilizing multi-hazard loss curves. It should consider factors such as the funding scale needed for each risk level, the urgency of disbursement, and the cost-effectiveness of alternative financial instruments for specific loss layers.</p> <p>This financing strategy can be used for proposals of funding.</p>	<ol style="list-style-type: none"> 1. National Disaster Risk Management Fund 2. Ministry of Climate Change and Environmental Coordination 3. Finance Division of the Government of Pakistan. 	<p>6-12 Months to formulate a finance strategy.</p>

	used to formulate a disaster risk finance strategy.			
Updating the National Security Policy of Pakistan	Effective framing of climate and environmental changes can direct policy responses in the direction of averting human suffering and conflict.	The policy should be updated to include non-traditional security threats such as the ones caused by climate shocks. Focus needs to be drawn towards developing robust institutions that deal with such threats	<ol style="list-style-type: none"> 1. National Security Division 2. Ministry of Law and Justice 3. Ministry of Climate Change and Environmental Affairs 	6-8 Months to propose amendments
Integrate Climate Change Adaptation Measures into the National and Subnational Policies in Education Sector	UNESCO has published guidance notes for educational planners and ministries of education to incorporate conflict and disaster risk reduction measures into an education sector plan to promote mutual understanding and that help to prevent conflict	Pakistan can develop a curriculum pertaining to the climate conflict threats overlooked by a joint steering committee	<ol style="list-style-type: none"> 1. Ministry of Education 2. Ministry of Climate Change and Environmental Affairs 3. Ministry of Finance 4. Higher Education Commission 	<p>1-3 Months for establishing a joint steering committee</p> <p>12-18 Months for developing the curriculum</p>
A Climate Change Specific National Command and Operation Centre (NCOC)	The COVID-19 NCOC can be referred to as a model where the entire government was involved and it proved to be successful in combatting the pandemic.	Pakistan can develop this Centre and this could guarantee the allocation of ample resources to tackle the repercussions of climate change within the country,	<ol style="list-style-type: none"> 1. Ministry of Planning Development and Special Initiatives 2. Ministry of Climate Change and Environmental Affairs 	12-18 Months to develop the NCOC

		fostering coordinated efforts that cultivate political consensus. This would also help in preventing climate induced conflicts.	3. Local Government Departments 4. NGOs	
Improved Infrastructural Climate Resilience	The Principles for Resilient Infrastructures have been published by UNDRR to ensure implementation of the he Sendai Framework for Disaster Risk Reduction 2015-2030	By utilizing these guidelines, the State can enhance their roads, watersheds, water supply systems, power generation and healthcare facilities. This would reduce climate induced migrations and consequently conflict.	1. Ministry of Planning Development and Special Initiatives 2. Ministry of Climate Change and Environmental Affairs 3. Public Works and Communication Departments 4. Local Government Departments	6-10 Months to update infrastructural policies to include UNDRR guidelines. 12-24 Months to make the existing infrastructure climate resilient, starting with the most vulnerable areas susceptible to climate change impacts.
A Focal Shift Towards Climate Financing	UNDP has developed a guidebook on how to access climate finance for member states of the association of southeast Asian states. It offers guidance on climate finance in the region, detailing the sources of climate finance flows.	Pakistan can modify the design of specific policies and schemes to align them more closely with climate financing goals. It must refer to the UNDP guidelines to ensure an effective transition.	1. Ministry of Financing. 2. Ministry of Climate Change and Environmental Affairs 3. Ministry of Law and Justice 4. Ministry of Planning Development and Special Initiatives	3-6 Months to propose amendments.