

CLIMATE CRISIS IN THE HIGHLANDS: DISPLACEMENT, MIGRATION, AND THE QUEST FOR HUMAN SECURITY

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DOI: <https://doi.org/10.5281/zenodo.15672585>

Keywords

climate change, displacement, migration, Gilgit-Baltistan, Chitral, liberalism theory, human rights, human security.

Article History

Received on 08 May 2025

Accepted on 08 June 2025

Published on 16 June 2025

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Abstract

This research paper examines the far-reaching repercussions of climate change on displacement and migration in Gilgit-Baltistan and Chitral, located in Northern Pakistan at the convergence of the Karakoram, Himalaya, and Hindukush Mountain ranges. Grounded in liberalism theory, it argues that climate change presents a global challenge requiring collective action, human rights protection, and the promotion of human security. Using a mixed-methods approach combining literature review and case studies, the study investigates the causes, outcomes, and responses to climate-induced displacement and migration in these regions. The analysis reveals that climate change triggers devastating disasters, including landslides, flooding, glacier melt, erratic weather patterns, and land erosion by high water flow in rivers, resulting in:

- Destruction of settlements, agricultural lands, housing, and irrigation systems
- Blocking of rivers, creating lakes, and submerging settlements
- Cutting off roads and communication systems
- Exacerbating existing vulnerabilities, such as poverty, housing and food insecurity, and water scarcity
- Leading to increased displacement and migration

The study underscores the pivotal roles of international institutions, non-governmental organizations (NGOs), and the Government of Pakistan in addressing climate-induced displacement and migration, and advocates for a collaborative, human rights-based approach that prioritizes dignity, security, sustainable development, and climate resilience.

INTRODUCTION

This research study aims to investigate the relationship between vulnerability and climate change-induced human displacement and migration, with a specific focus on Gilgit-Baltistan and Chitral regions. Using Liberalism theory as a theoretical framework, the study will examine the role of Government, international institutions, and NGOs in addressing climate-induced displacement and

migration in these regions. The research will employ a mixed-methods approach, including qualitative interviews, and document analysis, to gather comprehensive data. The findings from this study will enrich our understanding of the intricate dynamics involved in climate-induced displacement and migration. Moreover, they will serve as a valuable repository of information for

policymakers and interventionists seeking to develop effective strategies to mitigate the adverse impacts of these phenomena.

Climate change is a pressing global issue with far-reaching consequences for human security, dignity, and rights. Climate change-induced human displacement and migration have emerged as significant global challenges, particularly in regions vulnerable to environmental degradation and natural disasters. Gilgit-Baltistan and Chitral, situated at the juncture of the three highest mountain ranges (i.e. Karakorum, Himalaya, and Hindukush), are among the most climate-vulnerable regions in the world susceptible to climate change impacts such as landslides, frequent floods, land erosions, glacial melting, erratic weather patterns, and increased frequency of natural disasters. This study aims to explore the relationship between vulnerability and climate change-induced displacement and migration in these regions, with a focus on the role of Government, international institutions, and NGOs in addressing these challenges.

2. Literature Review

Understanding the Complexities of Climate-Induced Displacement and Migration

Climate change, a global phenomenon, precipitates devastating local consequences, foremost among them being human displacement and migration. Defined by the Intergovernmental Panel on Climate Change (IPCC) as the involuntary movement of people from their homes or communities due to climate change impacts (IPCC, 2019), this form of migration poses significant challenges to both affected populations and policymakers worldwide. The World Bank projects that by 2050, climate change will displace an estimated 143 million people globally (World Bank, 2018), underscoring the urgent need for comprehensive strategies to address this burgeoning crisis.

Theoretical Framework: Liberalism Theory and its Application

Within the realm of international relations theory, liberalism underscores the importance of United Nations relevant agencies, international cooperation, the role of non-governmental organizations (NGOs), and the protection of human rights in addressing

global challenges such as climate change (Burchill, 2013). Organizations like the United Nations Framework Convention on Climate Change (UNFCCC) embody these principles by facilitating collaboration among nations to mitigate greenhouse gas emissions and adapt to climate change impacts. Concurrently, NGOs such as the FOCUS Humanitarian an agency of Aga Khan Foundation (AKF), Oxfam, the Red Cross, SAVE the Children, and CARE International, play pivotal roles in implementing projects, advocating for policy change, and safeguarding human rights in the context of climate-induced displacement and migration (UNFCCC, 2020; AKF, 2022).

Vulnerability of Gilgit-Baltistan and Chitral to Climate Change

Gilgit-Baltistan and Chitral are highly vulnerable to climate change due to their geographical location and fragile ecosystems. Unpredictable weather patterns, Flooding, Landslides, melting glaciers, land erosion, and extreme weather events have led to increased displacement and migration in these regions (Hassan et al., 2020). A study by the Pakistan Meteorological Department found that temperatures in Gilgit-Baltistan have risen by 1.5°C in the past century, leading to rapid glacier melting and altered precipitation patterns (PMD, 2020). Extreme weather events like floods, landslides, and land erosions by rivers are displacing communities, with women, children, and the elderly being disproportionately affected (UNICEF, 2020).

The Government of Pakistan has developed the "Framework for Implementation of Climate Change Policy 2014-2030" to address climate change challenges, including human displacement and migration (Government of Pakistan, 2013). The National Climate Change Policy (2021) acknowledges the impacts of climate change on displacement and migration but lacks effective implementation strategies (Government of Pakistan, 2021). The National Disaster Management Authority (NDMA) plays a vital role in disaster response, rehabilitation, and climate change adaptation, yet gaps remain in translating policies into actionable measures at the local level (NDMA, 2020).

Role of UN Agencies, International Organizations and NGOs

International organizations, relevant UN Agencies, and NGOs are instrumental in addressing climate-induced displacement and migration in vulnerable regions. For instance, the AKF implements projects aimed at bolstering resilience, diversifying livelihoods, and reducing disaster risks in affected areas (AKF, 2022). Similarly, entities like FOCUS, Oxfam, CARE International, and the Red Cross provide humanitarian aid, spearhead community-based adaptation initiatives, and advocate for policy reforms to address the needs of displaced populations.

3. Factors Influencing Vulnerability

The vulnerability of communities to climate-induced displacement and migration is shaped by various interrelated factors, including socioeconomic status, gender dynamics, and access to resources and infrastructure (Jayawardhan, 2017). Climate-related disasters in Gilgit-Baltistan and Chitral expose factors that heighten a community's susceptibility to displacement and migration (Khan & Salman, 2012). Some of the key factors shaping vulnerability to climate-induced displacement and migration based on analysis of past climate-related disasters and events in the region include:

Geographical Vulnerability: Gilgit-Baltistan and Chitral, located in the mountainous region of northern Pakistan, are particularly susceptible to various climate-related hazards such as floods, landslides, glacial lake outburst floods (GLOFs), and avalanches (IPCC, 2014). The rugged terrain exacerbates the impact of such events, often leading to severe damage to infrastructure and human settlements (Adger et al., 2007).

Glacial Retreat and GLOFs: Rising temperatures accelerate glacial retreat, forming unstable glacial lakes. GLOFs, like the 2010 Shishper glacial lake outburst flood, unleash sudden, catastrophic floods that can devastate entire villages and infrastructure (Huggel et al., 2012).

The formation of glacial lakes and the risk of GLOFs are increasing, in Gilgit-Baltistan, where numerous glacial lakes are expanding (Immerzeel et al., 2020). The downstream communities face the imminent

danger of displacement in the event of a glacial lake outburst flood (Hewitt, 2005).

Floods, Landslides, and Infrastructure: The formation of Attabad Lake in January 2010, following a massive landslide in the Hunza Valley, has significantly altered the landscape and livelihoods of the region. Erratic precipitation patterns lead to more frequent and intense floods and landslides. These events, as seen in the devastating 2015 Chitral floods, destroy homes, and farmland, and disrupt livelihoods (Asian Development Bank, 2016). Limited infrastructure, including roads and bridges, hampers access to essential services and exacerbates vulnerability during and after disasters (Wamsler et al., 2013). Poorly developed infrastructure like roads and bridges hampers access to essential services and limits escape routes during disasters (World Bank, 2010).

Dependency on Natural Resources: Subsistence agriculture, livestock grazing, and forestry are primary livelihood sources for communities in Gilgit-Baltistan and Chitral (Rasul, 2016). Mountain communities often rely heavily on agriculture and tourism for income. Climate change disrupts these sectors, as evidenced by water scarcity impacting agriculture, forcing people to migrate for better opportunities (The Impacts of Climate-induced Changes and Related Disasters on Socioeconomic Conditions and Livelihood Sources of the Mountain Communities, [n.d.]). Climate-related changes such as alterations in precipitation patterns and increased frequency of droughts threaten these livelihoods, leading to economic displacement (Mustafa & Wrathall, 2014).

Socioeconomic Factors: Poverty, inadequate access to education and healthcare, and poor housing conditions contribute to the vulnerability of communities (Nawaz et al., 2018). Limited resources and lack of adaptive capacity intensify the impacts of climate-induced disasters, resulting in higher levels of displacement (Nawaz et al., 2018). Existing poverty makes communities less able to invest in disaster preparedness and adaptation measures, increasing vulnerability (Islamic Relief Worldwide, 2021). Moreover, climate change exacerbates pre-existing vulnerabilities in regions, amplifying issues such as

poverty, food insecurity, and water scarcity (Cornforth et al., 2023).

Cultural and Social Dynamics: Indigenous knowledge and cultural practices play a crucial role in shaping resilience to climate-induced displacement (Pandey et al., 2017). However, traditional housing materials and construction techniques may be insufficient to withstand extreme weather events, increasing vulnerability (Mustafa et al., 2018). Lack of awareness about climate risks and limited access to resources for mitigation and adaptation make communities more susceptible to displacement.

Political Context: Political instability and governance challenges further exacerbate vulnerability to climate-induced displacement (Wamsler et al., 2013). Inadequate governance structures and weak enforcement of policies hinder effective adaptation and mitigation efforts (Siddiqui et al., 2019). The complex political landscape in the region can hinder regional cooperation and resource allocation for climate action (ReliefWeb, 2023). Conflict dynamics further compound vulnerability, particularly concerning resource scarcity exacerbated by climate change, thus contributing to heightened levels of displacement and migration (Hunzai, 2013).

Limited governance capacity: Weak institutions struggle to provide effective disaster response, early warning systems, and long-term adaptation strategies (World Bank, 2010).

Gender and Environmental Migration: A field trip report by Giovanna Gioli found that gender plays a significant role in environmental migration in the Karakoram region, with women often being disproportionately affected by climate change-related displacement and migration (Gioli, 2015).

4. Addressing Climate-Induced Displacement: The Crucial Role of International Laws and Protocols

The escalating concern of climate change-induced migration necessitates a robust framework of international laws and protocols to safeguard the rights and dignity of displaced individuals. Key among

these are the 1951 Refugee Convention, the UN Guiding Principles on Internal

Displacement, and International Humanitarian Law (IHL), each playing a pivotal role in addressing the multifaceted challenges posed by climate-induced displacement and migration.

The 1951 Refugee Convention, though not explicitly addressing climate change, lays down foundational principles for protecting refugees and can be extrapolated to apply to climate-induced displacement. Defined within the convention, a refugee is someone with a "well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion" (United Nations, 1951). While climate change per se is not mentioned, its ramifications, such as persecution and violence stemming from resource scarcity and environmental degradation, render the convention relevant in this context.

Offering more explicit guidance, the UN Guiding Principles on Internal Displacement emphasize the imperative of safeguarding internally displaced persons (IDPs) and preventing displacement whenever possible. Principle 6 underscores the obligation of all authorities and parties to respect and protect the human rights of IDPs (United Nations, 1998), thereby placing a strong emphasis on upholding human dignity amidst displacement.

International Humanitarian Law (IHL) complements these principles by prohibiting displacement except in cases of imperative military necessity or the protection of civilians (International Committee of the Red Cross, 2020). This legal framework is instrumental in addressing climate change-induced migration by prioritizing the protection of civilians and minimizing unnecessary displacement.

At the national level, laws and protocols, such as those advocated by the Representative of the Secretary-General on the Human Rights of Internally Displaced Persons, play a vital role in ensuring that programs for displaced persons do not exacerbate risk and vulnerability to hazards. By prioritizing the protection of human rights and dignity, these national laws and protocols augment the efficacy of international frameworks in addressing climate-induced displacement.

The relevance and application of these international laws and protocols are indispensable in mitigating the

impacts of climate-induced displacement and migration. As climate change continues to escalate, displacing millions globally, these frameworks provide a crucial foundation for safeguarding the rights and dignity of affected individuals. The versatility of the 1951 Refugee Convention, the specificity of the UN Guiding Principles on Internal Displacement, and the protective measures outlined in International Humanitarian Law collectively contribute to a comprehensive approach to addressing climate-induced displacement and migration.

5. Use Case Attabad Lake: Analyzing Climate-Induced Displacement Through a Liberalization Theory Framework

Attabad Lake, formed after a massive landslide in the Hunza Valley of Gilgit-Baltistan, Pakistan, serves as a compelling case study for analyzing the role of liberalism theory in disaster management and resettlement efforts. This use case provides a detailed analysis of the environmental, social, and economic impacts of Attabad Lake formation, highlighting the contributions of various stakeholders and the lessons learned from the resettlement process.

The formation of Attabad Lake in January 2010, following a catastrophic landslide, has had far-reaching consequences for the residents of the Hunza Valley. From a liberalism theory perspective, which emphasizes individual liberties, property rights, and the role of government in protecting these rights, this paper aims to examine the responses of various stakeholders to the Attabad Lake disaster, including government agencies, non-governmental organizations (NGOs), and affected communities.

This disaster resulted in the casualties of 20 lives who got buried under the rubble of the slide and the displacement of approximately 6,000 residents from villages situated upstream of the lake. These villages, including Attabad, Sarat, Shishkat and up to Gulmit were directly affected by the sudden inundation of their homes, farmlands, and infrastructure as the rising waters submerged entire settlements. The displacement of these residents resulted in the loss of their livelihoods, social networks, and cultural heritage, as they were forced to evacuate to safer areas. In addition to the immediate displacement of residents from the affected villages, an estimated 25,000 individuals found themselves stranded due to

the disruption of land transportation routes caused by the landslide and subsequent formation of Attabad Lake. The landslide blocked the flow of the Hunza River and submerged a section of the Karakoram Highway, the main road connecting Pakistan to China through the Khunjerab Pass. As a result, communities living downstream of the lake, including the town of Shishkat and Gulmit to Chupursan and Misgar were cut off from essential supplies, medical services, and communication networks.

The stranded individuals faced numerous challenges, including limited access to food, clean water, and shelter, as well as the inability to travel to other regions for employment or educational opportunities. Moreover, the uncertainty surrounding the stability of the natural dam created by the landslide heightened concerns about the potential for a catastrophic glacial lake outburst flood (GLOF), further exacerbating the plight of the stranded population.

Efforts to address the displacement and stranded population included emergency relief operations led by government agencies, non-governmental organizations (NGOs), and the military. Temporary shelters were set up in unaffected areas to accommodate displaced families, while airlifts and boat services were organized to provide essential supplies to stranded communities. Additionally, alternative routes were explored to restore connectivity and facilitate the movement of people and goods between the affected areas and the rest of the country.

Despite these efforts, the displacement caused by the formation of Attabad Lake and the disruption of land transportation routes had profound and long-lasting impacts on the affected communities. Many residents lost their homes, lands, and livelihoods, and struggled to rebuild their lives in the aftermath of the disaster. The challenges faced by the displaced and stranded population underscored the importance of comprehensive disaster preparedness and response mechanisms to mitigate the impacts of climate-induced displacement and protect the rights and well-being of affected individuals and communities.

Environmental Impacts of Attabad Lake Formation:

The formation of Attabad Lake has resulted in significant environmental changes, including the submersion of vegetation, alteration of riverine

ecosystems, and increased risk of glacial lake outburst floods (GLOFs). Government agencies and environmental NGOs have played a key role in monitoring and mitigating these impacts through measures such as reforestation, habitat restoration, and early warning systems for GLOFs.

Social and Economic Consequences: The social and economic impacts of Attabad Lake formation have been profound, with thousands of residents displaced from their homes and livelihoods. Government agencies, NGOs, and international donors have collaborated to provide temporary shelter, food assistance, and livelihood support to affected communities. Efforts to resettle displaced families have focused on promoting economic self-sufficiency and community empowerment.

Role of Various Stakeholders: Various stakeholders have been involved in the response to the Attabad Lake disaster, including:

Displaced Communities: The primary stakeholders are the thousands of people displaced by the landslide and subsequent lake formation. They face loss of homes, livelihoods, and cultural heritage. Their role is to advocate for their rights to compensation, resettlement, and active participation in decision-making processes, community-based initiatives, and resilience-building activities. The people displaced by the Attabad Lake faced significant challenges in accessing basic necessities like food, water, and shelter. They were forced to relocate to temporary camps, where they lacked access to healthcare, education, and economic opportunities.

Provincial Government of Gilgit-Baltistan: The provincial government plays a crucial role in managing local resources, infrastructure, and disaster response within Gilgit-Baltistan. Their role includes collaborating with the national government, relevant international and national agencies, NGOs, and the local communities, to ensure effective resource allocation and address the specific needs of the displaced communities. The government responded to the crisis by establishing the Attabad Lake Affected People's Organization (ALAPO) to oversee the

resettlement and rehabilitation of displaced people (ALAPO, 2020). However, the government's response was criticized for being slow and inadequate (Khan et al., 2019).

Pakistani Government: The government has the primary responsibility to protect citizens, ensure social welfare, and manage national resources. Their role involves providing emergency relief, resettlement planning, infrastructure development, and long-term climate adaptation strategies, and provision of essential services to affected communities.

Non-Governmental Organizations (NGOs): NGOs engaged in relief and rehabilitation efforts, community mobilization, and advocacy for the rights of displaced persons. They provide vital support in areas like emergency relief, healthcare, education, and livelihood restoration for displaced communities. Their role is to work collaboratively with the government and displaced communities to address their needs. NGOs including FOCUS, , AKF and the Pakistan Red Crescent Society (PRCS) provided critical support, including healthcare, education, and livelihood assistance, to the displaced people (AKF, 2020; PRCS, 2020)

International Aid Organizations: These organizations supplement national and local efforts by providing financial assistance, technical expertise, and best practices in disaster management, resettlement and logistical support for disaster response and recovery efforts. The United Nations Development Programme (UNDP) and the World Food Programme (WFP) provided humanitarian assistance, including food and shelter, to the displaced people (UNDP, 2020; WFP, 2020).

Protests and Unrest at Attabad Lake: A Chronicle of Frustration

The formation of Attabad Lake in 2010 not only displaced thousands but also triggered a series of protests against the perceived inaction and mismanagement by the local government. The displaced communities faced a multitude of issues such as inadequate compensation for lost land, delays in resettlement plans, and lack of infrastructure in resettlement areas. These factors fueled frustration

and a sense of injustice, leading to protests demanding timely action from the government. The governments lackluster approach resulted in eruption of public demonstration and the protesters blocked the Karakoram Highway, a vital artery for trade and tourism, causing significant economic disruption. Unfortunately, some of the protests were met with forceful crackdowns by the local authorities which cost the lives of two people. Reports emerged of excessive use of force, arrests, loss of life, and injuries inflicted upon protestors. These actions further strained the relationship between the government and the displaced communities. The protests and subsequent crackdowns drew national and international media attention. Scrutiny intensified as visuals and reports of clashes between authorities and protestors emerged. This media coverage exposed the plight of the displaced communities and put pressure on the government to address their concerns.

The Human Cost: The forceful crackdowns on protests came at a human cost. Loss of lives and injuries sustained by protestors and the psychological impact of such actions added to the existing burden of displacement. This highlights the importance of peaceful dialogue and a rights-based approach in addressing the grievances of displaced communities.

Turning Point: While the initial response to protests might be seen as heavy-handed, the media attention and public pressure eventually nudged the government towards a more conciliatory approach. Negotiations with community representatives followed, leading to some progress in addressing their demands. The Attabad Lake protests serve as a stark reminder of the human cost of climate disasters and the importance of responsive governance. It underscores the need for open communication, transparency, and respect for the rights of displaced communities in finding lasting solutions.

Displacement and Resettlement:

Displaced people from the Attabad Lake disaster have been resettled through a collaborative effort involving government agencies, NGOs, and affected communities. Temporary shelters were provided in relief camps, followed by the construction of permanent housing units in safer locations.

Livelihood support programs, vocational training, and microfinance initiatives have been implemented to help displaced families rebuild their lives and achieve economic stability.

Some facts about the displacement and resettlement:

- The Attabad Lake displaced over 30,000 people from several villages. Resettlement efforts faced numerous challenges:
- Land Availability: Finding suitable land for resettlement in the mountainous terrain proved difficult, creating tensions between displaced communities, existing residents as well as Government and NGOs.
- Infrastructure Development: Building new infrastructure like roads, schools, and healthcare facilities in a remote location was costly and time-consuming.
- Livelihood Restoration: Displaced communities lost their agricultural land and traditional livelihoods. Providing alternative income opportunities in the new settlements was crucial.
- Social Cohesion: Rebuilding social networks and community structures in new locations posed a significant challenge.

Lessons Learned:

The experience of resettling displaced people from Attabad Lake offers several valuable lessons for disaster management and liberalism theory. The Attabad Lake case study illustrates the practical application of liberalism theory in disaster management, highlighting the roles of government, NGOs, and affected communities in responding to and mitigating the impacts of natural disasters. By prioritizing individual liberties, property rights, and economic freedoms, policymakers and practitioners can foster resilience, promote social justice, and achieve sustainable development in disaster-affected regions. The need for collaboration and coordination among various stakeholders to ensure effective disaster response and recovery. The significance of community empowerment and participation in decision-making processes for sustainable resettlement and rehabilitation efforts.

6. Case Study of FOCUS Approach to Addressing Climate-Induced Displacement and Migration in Chitral

Chitral District, nestled in the Koh Hindu Kush range of Pakistan, faces recurrent threats from natural hazards, particularly flash floods. With a diverse population of over 450,000 people, the district's economy predominantly relies on agriculture, making it vulnerable to the impacts of flash floods. One significant event occurred in July 2015 when Chitral was devastated by flash floods, resulting in a substantial loss of life and infrastructure. The floods swept away 200 houses, and destroyed 10 bridges, and numerous roads, leaving communities stranded and isolated. Over 300,000 people were stranded in small, fragmented villages across various landlocked valleys, rendering them inaccessible to each other and to the rest of the country. Additionally, the water supply was interrupted or completely cut off in several villages including Broze, Orghuch, Ushusht, Nisur Gol, and Mastuj. This catastrophic event underscored the urgent need for effective disaster preparedness and response measures in the region. This study explores the efforts undertaken to mitigate flash flood risks in Chitral, emphasizing community engagement and liberalism theory to understand the roles of stakeholders.

Flash Flood Early Warning System: Flash floods, glacial lake outburst floods, and other natural hazards threaten lives and livelihoods annually, necessitating effective risk reduction measures.

Focus Humanitarian Assistance (FOCUS) Pakistan, in collaboration with local communities, initiated a project to develop a flash flood early warning system and enhance community response capabilities. Through mosque announcements, mobile alerts, and volunteer training, efforts were made to minimize vulnerability across the district. Additionally, capacity-building initiatives targeted volunteers, equipping them with essential skills for first response and evacuation.

Agriculture and Livelihoods: Agriculture serves as the primary livelihood source in Chitral, with approximately 60% of the area dedicated to cropping. However, recurring flash floods disrupt agricultural activities, leading to economic losses and food

insecurity. Efforts to mitigate these risks include structural measures such as protective walls and non-structural approaches like community-based preparedness.

Methodology: The project employed a participatory approach, engaging stakeholders at various levels. Hazard and risk assessments, capacity-building workshops, and awareness-raising activities formed the core of the intervention. Technical studies and social hazard mapping provided valuable insights into risk-prone areas, guiding the development of mitigation strategies.

Best Practices and Lessons Learned: The case study underscores the importance of holistic approaches, community participation, and the integration of traditional knowledge with scientific expertise. Lessons learned highlight the need for multi-stakeholder collaboration, effective risk communication, and sustainable land use planning. The case study exemplifies the effectiveness of community-based approaches in mitigating flash flood risks in Chitral. By harnessing local knowledge, fostering partnerships, and implementing targeted interventions, significant progress has been made in enhancing resilience and reducing vulnerability. However, sustained efforts and collective action from all stakeholders are essential to address ongoing challenges and build a safer, more resilient Chitral. Effectively addressing climate-induced displacement and migration necessitates a holistic approach that encompasses environmental, social, economic, and political dimensions. Key recommendations for policymakers and practitioners include enhancing institutional capacity and coordination, bolstering community resilience, promoting gender-sensitive interventions, investing in sustainable infrastructure, and fostering international collaboration (IOM, 2019).

7. Discussion of Case Studies:

Case Study 1: Attabad Lake Disaster

Effectiveness of Government: The government's response to the Attabad Lake disaster was initially slow and inadequate, leading to protests from displaced communities. However, efforts were eventually made to provide emergency relief, establish

temporary shelters, and explore alternative routes for restoring connectivity. The formation of the Attabad Lake Affected People's Organization (ALAPO) demonstrated a step towards community engagement in the resettlement process.

Effectiveness of International Institutions and NGOs: International organizations such as the United Nations Development Programme (UNDP) and the World Food Programme (WFP) provided crucial humanitarian assistance to displaced communities. NGOs like FOCUS and the Aga Khan Foundation (AKF) also played significant roles in providing relief, healthcare, education, and livelihood assistance to affected populations.

Comparison of Approaches: While government interventions focused on emergency relief and infrastructure restoration, NGOs and international institutions emphasized community empowerment, livelihood support, and capacity-building initiatives. Best practices observed include participatory approaches in resettlement planning and collaboration between stakeholders to address the specific needs of displaced communities.

Case Study 2: FOCUS Approach in Chitral

Effectiveness of Government: The effectiveness of government interventions in Chitral varied, with limited infrastructure development and response capabilities. However, collaborations with NGOs like FOCUS helped enhance community resilience through initiatives such as the flash flood early warning system and livelihood support programs.

Effectiveness of International Institutions and NGOs: FOCUS's community-based approach effectively engaged local stakeholders in disaster risk reduction efforts. By combining traditional knowledge with scientific expertise, FOCUS facilitated sustainable solutions to mitigate flash flood risks and enhance community response capabilities.

Comparison of Approaches: FOCUS's approach in Chitral showcased the importance of community participation and local knowledge in disaster management. Unlike top-down government responses, FOCUS prioritized bottom-up approaches

and tailored interventions to address the specific needs of vulnerable communities.

8. Policy Implications:

National and Local Policy Changes: Policy changes are needed to improve preparedness and response to climate-induced displacement, including comprehensive frameworks for compensation, resettlement planning, livelihood restoration, and infrastructure development. Local governments should prioritize community-based approaches and involve affected populations in decision-making processes.

9. Human Rights Approach:

Reflection on Human Rights Approach: The case studies highlight both successes and shortcomings in upholding the rights of displaced communities. While interventions like emergency relief and resettlement efforts aimed to protect basic rights to life and security, challenges remained in ensuring meaningful participation and property rights. Future policies should prioritize a rights-based approach, ensuring the active involvement of affected communities in all stages of intervention.

10. Adaptation and Resilience:

Building Community Resilience: Research findings underscore the importance of early warning systems, climate-smart agriculture practices, and livelihood diversification in reducing displacement risks. Policies should promote community-led adaptation strategies and invest in resilient infrastructure to enhance adaptive capacity in disaster-prone areas.

11. Economic Vulnerability:

Addressing Economic Factors:

Economic vulnerability exacerbates the risk of displacement in vulnerable communities. Policy measures such as social safety nets, vocational training, and income-generating opportunities can mitigate the impacts of poverty and limited livelihood options. Investments in sustainable economic development are crucial for reducing vulnerability and enhancing resilience.

12. Cross-Border Responses:

Need for Cross-Border Cooperation: In light of the transboundary nature of climate impacts, fostering cross-border cooperation and establishing regional frameworks becomes imperative for addressing climate-induced displacement effectively. Such collaborative endeavors should prioritize the sharing of resources, exchange of knowledge, and joint efforts in both mitigation and adaptation strategies to enhance resilience across borders. By engaging in regional cooperation, nations can better tackle shared challenges and uphold the rights of displaced populations. A notable example illustrating the significance of cross-border cooperation is evident in the case of Attabad Lake. Here, the unprecedented support from China, in terms of providing food and essential supplies to the local community for an extended duration, underscored the pivotal role such cooperation can play in mitigating the adverse effects of climate-induced disasters.

13. Implications:

Climate Change as a Driver: Climate change emerges as a significant driver of displacement and migration in Gilgit-Baltistan and Chitral. The region experiences rising temperatures, erratic weather patterns, and extreme events like floods and landslides, exacerbating vulnerabilities and disrupting livelihoods.

Vulnerability of Mountainous Regions:

The mountainous terrain and fragile ecosystems of these regions compound the impacts of climate change, rendering them highly vulnerable. Socioeconomic inequalities and limited access to resources further heighten displacement risks, especially among marginalized communities.

Weak Governance and Disaster Preparedness:

Weak governance structures and inadequate disaster preparedness mechanisms hinder effective responses to climate-induced disasters. The lack of institutional capacity and resources undermines resilience-building efforts and exacerbates the challenges faced by displaced populations.

Challenges Faced by Displaced Communities:

Displaced communities encounter numerous

challenges, including loss of homes, livelihoods, and social networks. Resettlement efforts are often complex and fraught with difficulties, necessitating comprehensive support and long-term solutions.

14. Recommendations:

Strengthen Climate Action Strategies: Enhance climate change adaptation and mitigation strategies by investing in renewable energy, promoting sustainable land management practices, and developing early warning systems for extreme weather events. Integration of climate considerations into development planning is crucial for building resilience.

Enhance Disaster Preparedness and Response:

Improve infrastructure resilience, establish evacuation plans, and build capacity for emergency response to mitigate the impacts of climate-induced disasters. Prioritize community-based approaches and ensure the active participation of local stakeholders in disaster risk reduction efforts.

Address Socioeconomic Vulnerabilities:

Invest in education, healthcare, and social safety nets to enhance resilience and empower communities to cope with climate change impacts. Economic diversification and livelihood restoration programs are essential for promoting sustainable development and reducing vulnerability.

Strengthen Governance and Institutional Capacity:

Enhance institutional capacity for effective disaster management and resource allocation. Ensure transparency, accountability, and inclusivity in decision-making processes to build trust and foster community resilience.

Develop Legal Frameworks for Displacement:

Advocate for national policies that recognize and address the rights and needs of displaced populations. Develop legal frameworks and mechanisms to protect the rights of climate-induced migrants and facilitate their resettlement and integration into host communities.

Promote International Cooperation:

Foster international collaboration to support climate action

and adaptation efforts in vulnerable regions like Gilgit-Baltistan and Chitral. Exchange best practices, share resources, and mobilize funding to strengthen resilience and build adaptive capacity.

Focus on Livelihood Restoration: Provide displaced communities with opportunities to rebuild their livelihoods and achieve economic security in resettlement areas. Promote climate-smart agriculture, sustainable income generation activities, and vocational training programs to enhance resilience and promote self-reliance.

Prioritize Gender Equality: Integrate gender considerations into all aspects of climate action and displacement responses. Women are often disproportionately affected by climate change and displacement, and their needs require specific attention. Ensure the meaningful participation of women in decision-making processes and prioritize their access to resources and support services

15. Conclusion

The convergence of the Karakoram, Himalaya, and Hindukush Mountain ranges in Northern Pakistan has created a region of unparalleled beauty and ecological significance. However, beneath this natural splendor lies a pressing concern – the far-reaching repercussions of climate change on displacement and migration in Gilgit-Baltistan and Chitral. This research paper has delved into the multifaceted dimensions of this issue, grounded in liberalism theory, to argue that climate change is not merely a localized problem but a global challenge that demands collective action, human rights protection, and the promotion of human security.

Drawing upon a mixed-methods approach that combines literature review and case studies, this study has provided a comprehensive analysis of the causes, outcomes, and responses to climate-induced displacement and migration in these regions. The case studies of Attabad Lake disaster and the FOCUS approach in Chitral have served as poignant illustrations of the complex interplay between environmental degradation, socio-economic vulnerabilities, and governance inadequacies.

Through the lens of liberalism theory, it becomes evident that climate change-induced displacement

and migration transcend national boundaries and necessitate international cooperation and solidarity. The principles of liberalism, with its emphasis on individual rights, freedom, and collective responsibility, underscore the imperative for coordinated efforts at the global level to address the root causes of climate change and its attendant consequences.

Moreover, this research underscores the need for a rights-based approach to climate-induced displacement, one that places the dignity, security, and well-being of affected communities at the forefront of policy and action. By integrating human rights principles into climate adaptation and mitigation strategies, policymakers can ensure that the rights of vulnerable populations are protected, and their voices are heard in decision-making processes.

The findings of this study have significant implications for policy, practice, and future research. It highlights the importance of strengthening climate resilience, enhancing disaster preparedness, addressing socio-economic vulnerabilities, and promoting cross-border cooperation in vulnerable regions like Gilgit-Baltistan and Chitral. Moreover, it underscores the need for gender-sensitive interventions, sustainable livelihood strategies, and inclusive governance mechanisms to build adaptive capacity and foster community resilience.

In conclusion, this research paper serves as a call to action for policymakers, practitioners, and researchers to recognize the urgency of addressing climate-induced displacement and migration in Gilgit-Baltistan and Chitral. By embracing the principles of liberalism, upholding human rights, and fostering international cooperation, we can work towards a more just, equitable, and sustainable future for all.

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