



Kardan Journal of Social Sciences and Humanities (KJSSH)

ISSN: 2616-8707 (P) 2958-9908 (O), Journal homepage: kjsch.kardan.edu.af

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To cite this article: Akhtar, Imranullah, and Nazifullah Niazi. "Building Resilience: The Need for International Cooperation in Afghanistan's Climate Change Adaptation Post-2021." *Kardan Journal of Social Sciences and Humanities* 8, no. 1 (2025): 85–99.
DOI: [10.31841/KJSSH-8.1-2025-86](https://doi.org/10.31841/KJSSH-8.1-2025-86)

To link to this article: <http://dx.doi.org/10.31841/KJSSH-8.1-2025-86>



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Published by Kardan University



Published online: 30 June 2025



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Kardan Journal of Social Sciences and
Humanities
8 (1) 85 – 99

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Kardan Publications
Kabul, Afghanistan

<http://dx.doi.org/10.31841/KJSSH-8.1-2025-86>
<https://kardan.edu.af/Research/CurrentIssue.aspx?j=KJSSH>

Received: 11 Nov 24
Revised: 16 Jun 25
Accepted: 28 Jun 25
Published: 30 Jun 25

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Abstract

This study examines the critical role of international cooperation in adaptation to climate change impacts in Afghanistan. It aims to explore how international cooperation adapts to Afghanistan's climate challenges and builds resilience by leveraging resources, technical expertise, and technology. This study employs a qualitative approach to evaluate climate change and international cooperation in Afghanistan post-2021. Secondary data were gathered from published reports, journal articles, and official documents. Qualitative data were analysed through thematic content analysis and neoliberal institutionalism theory to identify key patterns and insights. The findings reveal that Afghanistan faces significant challenges in adapting to climate change due to inadequate infrastructure and political uncertainty. The paper argues that international support in renewable energy, disaster management, and sustainable agriculture can effectively reduce Afghanistan's climate risks. In addition, the paper argues that building climate resilience in Afghanistan cannot be achieved solely through domestic efforts. International cooperation is essential for developing technical capacity, securing financial resources, and implementing effective long-term adaptation strategies. A multi-stakeholder approach is necessary, with government and non-governmental organisations coordinating international cooperation, implementing disaster warning systems, and aligning climate adaptation policies with the National Development Strategy.

Keywords: *Afghanistan, Adaptation, Climate Action, International Cooperation, Post-2021*

1. Introduction

Climate change is an emerging transnational threat that crosses national borders, impacting the lives of human beings, with far-reaching consequences for the entire world. The detrimental and far-reaching effects of it are felt worldwide, which include increased heat, the rise in temperatures, drought, and disruptions and disturbances in rainfall patterns.¹ Afghanistan is not immune to these changes and has suffered much in this regard due to its limited resources and political unpredictability. In 2021, with the

¹ Marie-Claire Cordonier Segger and Christina Voigt, eds., *Routledge Handbook of Climate Law and Governance: Courage, Contributions and Compliance* (Taylor & Francis, 2024).

collapse of Afghanistan's republican system and the rise of the Islamic Emirate to power, a notable ambiguity is apparent, especially about the recognition of de facto authorities by the international community, which remains a significant obstacle to the delivery of international aid, cooperation and assistance in handling climate change. Cooperation among countries is vital to achieving the agreed goals of the Paris Agreement and the Sustainable Development Goals (SDGs).² Therefore, the need for international cooperation in implementing climate change mitigation efforts in Afghanistan is a pressing necessity. The purpose of this study is to highlight how the international community can assist Afghanistan in coping with climate change, even if the de facto authorities are not officially recognised. The importance of this study lies in the fact that Afghanistan requires urgent measures, international cooperation, and assistance in handling the impacts of climate change. The international community must recognise that there is a pressing need to assist Afghans in handling the impact of climate change, and neglecting this aspect can pose significant threats to the region and the world. This research provides a roadmap that can help improve living conditions for Afghans, enhance international relations and cooperation, and help stabilise the region, particularly concerning climate change. This study argues that although the world has not officially recognised the Islamic Emirate of Afghanistan, the international community can help combat climate change and increase the country's climate resilience. This research employs qualitative methods to assess climate change and prospects of international cooperation in Afghanistan in the post-2021 transition. Thematic analysis identifies themes such as international cooperation, climate change, and non-recognition. Content and descriptive analysis highlight the need for international cooperation in Afghanistan. Based on the neoliberal institutionalism theory, it is suggested that international organisations can support Afghanistan in its fight against climate change, even without official recognition.

2. Afghanistan's Vulnerability to Climate Change

The unfriendly environmental activities release carbon dioxide, methane, and nitrogen oxides, contributing to global warming, sea level rise, and unpredictable climatic events, including droughts, floods, and storms.³ These changes threaten human rights, basic physical and physiological needs, and the lives of the common people. According to Toraldo, the "Climate Justice Theory" and the "Human Rights-Based Approach (HRBA)" highlight that climate change is not just an environmental crisis, but directly impacts human rights.⁴ In addition, Fischer states that climate change violates human rights in several ways, including the displacement of people due to natural disasters, which undermines their rights to shelter and security. In addition, food shortages lead to hunger, which violates the "right to food".⁵ Similarly, lack of access to clean water induced by climate change undermines the right to health of the vulnerable population,

² Ibid.

³ Mohammad Imran Azizi et al., "Impacts of Climate Change in Afghanistan and an Overview of Sustainable Development Efforts," *European Journal of Theoretical and Applied Sciences* 2, no. 4 (July 1, 2024): 495-516, [https://doi.org/10.59324/ejtas.2024.2\(4\).42](https://doi.org/10.59324/ejtas.2024.2(4).42).

⁴ Stefania Toraldo, "Towards a Universal Climate Justice through a Human Rights-Based Approach," *The Denning Law Journal* 33 (2025): 145-60, <https://doi.org/10.5750/dlj.v33i1.2175>.

⁵ L. J. Fischer, *Demanding Justice: Corporate Responsibility for Climate Change Impacts on Human Rights* (School of Global Studies, 2019), https://gupea.ub.gu.se/bitstream/2077/62367/1/gupea_2077_62367_1.pdf.

mainly women and children, thus violating the principles of equality and non-discrimination.⁶

Afghanistan is one of the countries that emits very little greenhouse gases, but it is among the top ten countries that are affected and impacted most due climate change.⁷ Efforts to reduce the effects of climate change can generally be divided into two areas: climate change mitigation and climate change adaptation. Climate change mitigation depends on regulating economic activities to reduce the production of greenhouse gases, thereby releasing fewer gases into the atmosphere.⁸ However, this is a low priority for Afghanistan, as the country accounts for only 0.19% of the world's greenhouse gas emissions. Therefore, adapting to climate change is crucial and urgent, and Afghanistan must adopt necessary measures and be supported in regulating the economy, agriculture, water management, energy, and the environment so that the damage is reduced and the society can find resilience.⁹

Although Afghanistan signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, it ratified it in 2002. However, due to the decades-long war and isolation, Afghanistan has done very little about climate change and its negative consequences. With the establishment of an internationally backed Republic in late 2001, environmental laws were gradually introduced. The National Environmental Protection Agency of Afghanistan (NEPA) was established in April 2005.¹⁰ Afghanistan passed its first environmental law in early 2007, which defined the duties, powers, and status of the NEPA as an organisation that formulates and implements the country's environmental policies. The powers and administrative framework of NEPA were gradually strengthened, and in 2010, the Department of Climate Change was established as one of the six key departments.¹¹

Before 2021, the former Republic of Afghanistan had taken several important steps to address climate change. In addition to the UNFCCC, the government ratified the Kyoto Protocol in 2013, the Paris Agreement in 2017, activated the NEPA, and passed an environmental law. However, these measures were not very practical due to insecurity, weak governance, and the high level of dependence on foreign aid.¹² The former Republic of Afghanistan employed efforts to mitigate the impact of climate change through policies and plans, legislation, and fact-finding,¹³ however, with little practical success. Despite the efforts, the former Republic of Afghanistan made little progress in adapting to climate change, despite receiving financial and technical support.

⁶ Abdul Alim Shaikh et al., "A Critical Review of Community Resilience Building Framework: Contexts of Climate Change and Disasters in Bangladesh," *Journal of Geoscience and Environment Protection* 12, no. 9 (2024): 315–34, <https://doi.org/10.4236/gep.2024.129017>.

⁷ Imranullah Akhtar, "The Significance of International Cooperation on Climate Change Mitigation in Afghanistan," *Nangarhar University International Journal of Biosciences* 3, no. ICCS (special) (February 10, 2024): 456–59, <https://doi.org/10.70436/nuijb.v3i02.263>.

⁸ Segger, *Routledge Handbook of Climate Law and Governance*.

⁹ Shanthie Mariet D'Souza, "Meeting the Climate Crisis in Afghanistan," *The Diplomat*, April 29, 2024.

¹⁰ Aysha Saifudeen and Monto Mani, "Adaptation of Buildings to Climate Change: An Overview," *Frontiers in Built Environment* 10 (February 16, 2024): 1327747, <https://doi.org/10.3389/fbuil.2024.1327747>.

¹¹ Judy Lawrence, Paula Blackett, and Nicholas A. Craddock-Henry, "Cascading Climate Change Impacts and Implications," *Climate Risk Management* 29 (2020): 100234, <https://doi.org/10.1016/j.crm.2020.100234>.

¹² Akhtar, "The Significance of International Cooperation on Climate Change Mitigation in Afghanistan," 457.

¹³ Mhd Assem Mayar, "Economy, Development, Environment," accessed November 19, 2024, <https://www.afghanistan-analysts.org/en/reports/economy-development-environment/the-climate-change-crisis-in-afghanistan-the-catastrophe-worsens-what-hope-for-action/>.

Climate change poses significant threats to Afghanistan, affecting its living standards and economic situation, making it a particularly vulnerable country to global environmental and economic challenges. Afghanistan ranks fourth on the INFORM Risk Index 2023, indicating a risk of crisis, and eighth on the Notre Dame Global Adaptation Index, which identifies it as susceptible to climate change and exposes the population to significant losses.¹⁴ Afghanistan has witnessed at least 38,000 deaths in the first six months of 2023, with 50% of the displaced people being children, according to a Save the Children report.¹⁵ The NEPA reported that due to climate change, 21 million people do not have access to clean drinking water, 2.5 million were displaced, and \$250 million loss in annual agricultural production for farmers.¹⁶ Rain-fed agriculture supports the livelihoods of around 60% of Afghanistan's population;¹⁷ however, climate change is severely affecting this sector, reducing crop yields, increasing food insecurity, and contributing to malnutrition and the spread of diseases.¹⁸

Afghanistan ranks sixth globally in the Global Climate Risk Index and is among the most vulnerable and least prepared countries worldwide.¹⁹ According to the 2021 German report on climate risk figures, Afghanistan is the sixth most vulnerable country in the world due to the effects of climate change, following Mozambique, Zimbabwe, Japan, and Malawi.²⁰ The World Food Organisation also stated in a report that Afghanistan is the sixth most vulnerable country in the world due to climate change.²¹ Likewise, according to the report published by the International Federation of Red Cross (IFRC) in 2020, Afghanistan was affected by natural disasters from 2012 to 2019.²² At the same time, as per the European Union's representative in Kabul, Afghanistan is the most vulnerable country to climate change. According to a report by Roza Otunbayeva, the Deputy Director of the United Nations Assistance Mission in Afghanistan (UNAMA), who attended an international climate change conference in Dubai in 2023, approximately 20 million Afghans are facing a severe food shortage.²³

Afghanistan's households are increasingly experiencing drought, with 25 out of 34 provinces experiencing severe impacts and thus affecting over 50% of the population.²⁴ In 2022, the frequency of drought-related shocks experienced by households in Afghanistan increased from 39% in 2021 to 64%.²⁵ In addition, Afghanistan faces severe water shortages, floods, and climate-related pressures, with 70% of its 40 million rural residents relying on agriculture, and 40% already experiencing high levels of food insecurity.²⁶ The UN reports a 1.8°C increase in the country's mean annual temperature,

¹⁴ Angela Lehmann, *Climate Change Policies and Global Cooperation*; United Nations Office for the Coordination of Humanitarian Affairs (OCHA), "Afghanistan: The Alarming Effects of Climate Change," August 1, 2023, accessed March 15, 2025, <https://www.unocha.org/news/afghanistan-alarming-effects-climate-change>.

¹⁵ "Climate Crisis Displaced 38,000 Afghans This Year," *Salam Watandar*, accessed November 19, 2024.

¹⁶ Daniel F. Runde, Annie Pforzheimer, Thomas Bryja, and Caroline Smutny, "The Future of Assistance for Afghanistan: A Dilemma," June 13, 2024, <https://www.csis.org/analysis/future-assistance-afghanistan-dilemma>.

¹⁷ Abubakar Siddique, "The Azadi Briefing: COP29 Highlights Afghanistan's Climate Woes," November 15, 2024.

¹⁸ Lehmann, *Climate Change Policies and Global Cooperation*.

¹⁹ European Commission, "Inform Country Risk Profile," 2023, accessed March 15, 2024, <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Country-Risk-Profile>.

²⁰ Akhtar, "The Significance of International Cooperation on Climate Change Mitigation in Afghanistan," 478.

²¹ Siddique, "The Azadi Briefing: COP29 Highlights Afghanistan's Climate Woes."

²² "Natural Disasters Dashboard," *ReliefWeb Response*, accessed November 20, 2024.

²³ Roza Isakovna Otunbayeva, "https://Unama.Unmissions.Org/", accessed November 20, 2024.

²⁴ European Commission, "Rozama's Story: How Afghanistan's Climate Crisis Is Affecting Vulnerable Populations," August 12, 2024.

²⁵ Emma Batha, "Afghanistan: Here's Why Climate Change Has Global Repercussions," *PreventionWeb*, November 27, 2023.

²⁶ Qiyamud Din Ikram and Jocelyn Perry, "In Global Climate Talks, Let Afghanistan In," *Refugees International*, November 30, 2023.

causing glacier and snow melt, which supplies summer river water.²⁷ UNICEF reports that eight out of every 10 Afghans are currently drinking unsafe water due to the significant reduction in freshwater resources.²⁸

Therefore, Afghanistan needs urgent international cooperation to combat climate change and achieve the SDG 13 goal. However, this situation may become more complicated or cooperation may be delayed as Afghanistan receives limited development aid, particularly since the Taliban regained power in August 2021. The government's non-recognition by the international community has made it difficult to find ways to deal with the impact of climate change in Afghanistan. The paper argues that there are alternative ways to help combat climate change, enabling Afghanistan to progress in achieving the SDGs even without the official recognition of the Islamic Emirate of Afghanistan.

3. Post-2021 Geo-political Shifts and Their Impact on Climate Initiatives

Post-2021, Afghanistan was not invited to the COP26, COP27, and COP28 conferences because the UN member states had not officially recognised the Taliban government. For this reason, Afghanistan could not participate as a state, although some Afghan climate activists had attempted to participate informally; however, they were unable to be effective.²⁹ Afghanistan's disconnection from its former donors or the international system in general has impacted many climate change mitigation measures. Furthermore, after the fall of the Republic on August 15, 2021, donor countries are less willing to finance anything involving the Taliban administration. Although some measures to mitigate climate change, such as flood protection and drought resilience, are included in the humanitarian aid package; however, major climate crisis programs that were already agreed upon or underway have been suspended.

However, Afghanistan can benefit from the already existing agreements by receiving financial, technical, and capacity-building assistance from developed countries. However, due to the international community's non-recognition of the Islamic Emirate, Afghanistan has not yet been able to benefit from these protocols properly. Afghanistan was not even invited to participate in the three United Nations Climate Change Conferences in 2021, 2022, and 2023.³⁰ Afghanistan has various laws, regulations, and policies related to environmental protection, forestry, oil and gas, mining, water, energy, and air pollution, demonstrating its commitment and willingness to handle the impacts of climate change. However, despite the threats of climate change, the lack of technical capabilities, the international non-recognition of the Islamic Emirate, and the limited international attention to cooperation, the future of Afghanistan is a concern.

Afghanistan's absence from COP26, COP27, and COP28 since the Taliban's return to power in August 2021 was due to a lack of international recognition. However, in November 2024, Afghanistan attended COP29, marking its first appearance at a COP event since the Taliban's takeover in 2021.³¹ Afghanistan's delegation laid out the plans to strengthen international cooperation on environmental protection and climate change,

²⁷ OCHA, "Afghanistan: The Alarming Effects of Climate Change," accessed November 19, 2024.

²⁸ Shaikh et al., "A Critical Review of Community Resilience Building Framework."

²⁹ Ikram and Perry, "In Global Climate Talks, Let Afghanistan In."

³⁰ Hadia Ziaei, "Afghan Delegation Attends COP29 Meeting in Baku," *TOLOnews*, November 12, 2024.

³¹ Daniel Bellamy, "Afghanistan's Taliban to Attend Their First UN Climate Conference," November 10, 2024.

discussed Afghanistan's needs for financial mechanisms, and explored adaptation and mitigation efforts in response to the negative impacts of climate change.³²

4. International Cooperation on Climate Change in Afghanistan

Transnational threats like climate change necessitate international collaboration, and countries like Afghanistan should receive technical and financial support through international organisations, strengthening regional cooperation, and benefit from international programs.³³ Climate change poses a global threat, necessitate and requiring international cooperation and climate adaptation strategies. International principles and agreements offer guidelines for global cooperation to mitigate their effects. The Paris Agreement, a significant catalyst for international cooperation, a global framework for mitigating and adapting to climate change, provides financial support and technical assistance to member countries to adapt to climate change.³⁴

Similarly, the purpose of the UNFCCC is to establish climate adaptation measures for all countries, and it calls upon all member states to cooperate in coordinating efforts to combat climate change. Under the Convention, developed countries are required to provide financial support and technology to developing countries, enabling them to adapt to the impacts of climate change.³⁵ In addition, as financial cooperation is important for climate change adaptation, the Green Climate Fund provides financial support to developing countries in adapting to climate change. Through the Grid Fund, developed countries can develop programs and strategies for regions affected by climate change. Likewise, organizations like the World Bank and the International Civil Aviation Organisation (ICAO) are working to provide technical and financial support in the field of climate adaptation.³⁶ These organisations cooperate with developing countries in climate change research and offer adaptation measures by introducing new technologies.³⁷ International cooperation for climate adaptation should be in harmony with various aspects, including politics, economy, social, and cultural structures. International cooperation strategies should support countries' economic adaptation to the risks of climate change. Through these strategies, consideration should also be given to the development of knowledge, education, and skills for adaptation to climate change.³⁸ International cooperation for climate adaptation is a pressing need, based on international principles and agreements; therefore, the international community should work together.³⁹ The Paris Agreement, the Climate Change Convention, financial support measures, and the development of international cooperation organisations are all important steps for climate adaptation and mitigation.⁴⁰

³² Ibid.

³³ Segger, *Routledge Handbook of Climate Law and Governance*.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Abdullah Fahimi, "International Organizations and Energy Transitions in Afghanistan," 2023.

³⁸ Florian Krampe, Elizabeth S. Smith, and Mohammad Daud Hamidi, "Security Implications of Climate Development in Conflict-Affected States: Implications of Local-Level Effects of Rural Hydropower Development on Farmers in Herat," *Political Geography* 90 (October 2021): 102454, <https://doi.org/10.1016/j.polgeo.2021.102454>.

³⁹ Sofia Ramirez, "Impact of Climate Change on Global Security and Cooperation in Mexico," *Journal of International Relations* 4, no. 1 (February 25, 2024): 9–21, <https://doi.org/10.47604/jir.2347>.

⁴⁰ Segger, *Routledge Handbook of Climate Law and Governance*.

4.1 Adaptation, Resilience, and UNFCCC Bodies

The Adaptation Committee (AC) was established in 2010 to promote coordinated action on adaptation, providing technical support, information sharing, and recommendations for incentivising actions.⁴¹ It requires the parties to submit and update adaptation communications periodically. The aim is to strengthen adaptation actions and support developing countries.⁴² In addition, the Facilitative Working Group (FWG) of the Local Communities and Indigenous Peoples Platform (LCIPP) established at COP 24 in 2018 aims to promote the sharing of experiences related to climate change, build capacity for engagement, and incorporate diverse ways of knowing into climate policy design and implementation.⁴³ Likewise, the Global Green Alliance (GGA), established by the Paris Agreement, provides guidance for adaptation and resilience-building efforts. In addition, at CMA 5, the UAE Framework for Global Climate Resilience and the UAE-Belém work program were adopted, focusing on thematic and dimensional targets for climate adaptation and resilience.⁴⁴

Similarly, in 2001, the Least Developed Countries Expert Group (LEG) was established to provide technical guidance and support to LDCs in formulating and implementing national adaptation plans (NAPs). The group works on accessing Green Climate Fund funding, sharing best practices, and promoting coherence. It uses various methods, including technical guidance, training, workshops, and NAP Central.⁴⁵ The NAPs process enables parties to develop and reduce climate change vulnerability, build resilience, and integrate climate change adaptation into policies and programs.⁴⁶ Likewise, the Nairobi Work Program (NWP) is a network of over 400 organisations dedicated to climate adaptation and resilience. Their Adaptation Knowledge Portal offers free access to a range of resources, including case studies and technical documents.⁴⁷

SDG 13 goals require sustained international cooperation, urgent action on emission reduction, the development of green alternatives, mitigation, and adaptation to ensure sustainable progress. Afghanistan faces climate-induced challenges, including droughts, floods, and extreme weather events, as well as socio-political instability and limited institutional capacity. Effective adaptation strategies are crucial to reduce vulnerability. International mechanisms, such as AC, Adcoms, and LEG, etc. offer valuable resources, but their application in Afghanistan presents unique challenges. Afghanistan's climate change adaptation requires a comprehensive strategy that addresses institutional weaknesses, enhances community engagement, and leverages international support mechanisms to improve resilience and mitigate climate-related vulnerabilities.

⁴¹ Saifudeen and Mani, "Adaptation of Buildings to Climate Change."

⁴² United Nations, "The Paris Agreement."

⁴³ Clionadh Raleigh et al., "Climate Finance and Conflict: Adaptation amid Instability," *The Lancet Planetary Health* 8, no. 1 (January 2024): e51–60, [https://doi.org/10.1016/S2542-5196\(23\)00256-5](https://doi.org/10.1016/S2542-5196(23)00256-5).

⁴⁴ Azizi et al., "Impacts of Climate Change in Afghanistan and an Overview of Sustainable Development Efforts."

⁴⁵ Qurban Aliyar et al., "Perceptions of and Adaptation to Climate Change in Mountainous Agro-Pastoral Communities: The Case of the Afghan Central Highlands," *Climate Risk Management* 45 (2024): 100639, <https://doi.org/10.1016/j.crm.2024.100639>.

⁴⁶ Akhtar, "The Significance of International Cooperation on Climate Change Mitigation in Afghanistan," 457.

⁴⁷ Lehmann, *Climate Change Policies and Global Cooperation*.

4.2 Challenges to International Cooperation Post-2021

After August 2021, Afghanistan faced one of the most complex and sensitive periods, during which various challenges arose for international cooperation and aid. In 2021, with the Taliban coming back to power, Afghanistan faced political instability as the international community had not yet officially recognised the Taliban government. This situation has presented Afghanistan with a significant challenge to international cooperation and aid. In addition, due to the lack of international cooperation, humanitarian aid and essential facilities for people in need, such as healthcare, education, and food supplies, are decreasing. Likewise, restrictions on the work of international organisations and aid agencies, as well as security problems, especially in the delivery of humanitarian aid, the suspension of international aid, frozen foreign reserves (approximately \$9.5 billion), and the departure of skilled professionals create further problems for the Afghan people.⁴⁸

The country remains heavily reliant on humanitarian aid, yet access is limited due to sanctions, political uncertainty, and restrictions on women's participation in the aid sector.⁴⁹ Although Afghanistan faced an acute economic collapse immediately after the Taliban took power in August 2021 – driven by the sudden halt in foreign aid, freezing of over \$9.5 billion in foreign reserves, and withdrawal of international institutions – the situation today is partially stabilised, yet remains critically fragile. The *Afghani* currency, which had plummeted to nearly AFN 130 per USD, later stabilised due to tight currency controls and limited imports, not due to actual economic recovery.⁵⁰ Currently, according to the World Bank (2024) and UNDP, the economy remains stagnant, with poverty affecting the population, unemployment at record highs, and the private sector paralysed due to sanctions and reduced international engagement. Humanitarian aid continues to sustain essential services, but it is insufficient for long-term development and sustainable growth.

Additionally, due to the country's limited international investment and trade relations, its development and stability have been delayed.⁵¹ Therefore, while macroeconomic indicators, such as currency value, may suggest short-term stabilisation, the underlying structural crisis remains, making the situation different in form but not in substance from the initial collapse. The lack of formal recognition, ongoing political isolation, and gender-based restrictions continue to deter investment, banking, and economic recovery.⁵² The international community is putting pressure on the Taliban, especially regarding the education and employment of women and girls. However, this pressure has led to many complications, mainly in aid delivery and international cooperation.⁵³ In addition, post-2021, many Afghans left their country and migrated to other countries. The increase in migration poses a significant challenge for the international community, which must be effectively managed, as it creates difficulties for host countries. The paper argues that the aforementioned internal and external issues in Afghanistan hinder

⁴⁸ Human Rights Watch, "A Disaster for the Foreseeable Future: Afghanistan's Healthcare Crisis," February 12, 2024, <https://www.hrw.org/report/2024/02/12/disaster-foreseeable-future/afghanistans-healthcare-crisis>; Runde et al., "The Future of Assistance for Afghanistan: A Dilemma"; World Food Programme, "Afghanistan Hunger Snapshot," 2023, <https://www.wfp.org/publications/afghanistan>.

⁴⁹ International Monetary Fund, "Islamic Republic of Afghanistan: Macroeconomic Developments Report," 2023, <https://www.imf.org/en/Countries/AFG>.

⁵⁰ Runde et al., "The Future of Assistance for Afghanistan: A Dilemma"; Reuters, "Afghani Drops 11% after Taliban Takeover," 2021, <https://www.reuters.com/world/asia-pacific>.

⁵¹ World Bank, "Afghanistan Overview: Development News, Research, and Data," accessed November 19, 2024.

⁵² Ibid.

⁵³ Mayar, "Economy, Development, Environment."

cooperation on climate change and its impact in Afghanistan. The interplay of internal issues (socio-political) and external issues (non-cooperation, non-recognition, and their impact), mainly post-2021, is exacerbated by the ill effects of climate change, which amplifies the problems faced by the people. Therefore, there is a critical need for attention to climate change adaptation for a sustainable Afghanistan.

4.3 The Way Forward: Strengthening International Cooperation

For transnational issues like climate change, strengthening international cooperation is one of the most pressing needs. In the post-2021 geo-political realities, the international community should expand its cooperation in Afghanistan across various areas, including climate change, humanitarian aid, economic development, and security. Dialogue and negotiations should be initiated on fundamental issues between the government of Afghanistan, the international community, and other stakeholders. Such negotiations should aim to create consensus and understanding among Afghans in order to promote a solution to the political crisis and instability. The international community should support positive negotiations in this area, thereby providing conditions for long-term political stability in Afghanistan and effective climate change management. The international community should enhance its cooperation in providing technical assistance and necessary aid to address climate change in Afghanistan. In addition, cooperation and assistance are needed in humanitarian areas, especially in areas such as health, education, food, and support for mitigating the refugee flow in Afghanistan. The dual approach could pave the way for a stable and sustainable Afghanistan.

5. Results and Discussion

The findings of this study show that Afghanistan, despite its relatively small contribution to global greenhouse gas emissions, is among the countries most susceptible to climate change. The impacts of climate change—such as droughts, floods, rising temperatures, and threats to food security—have exacerbated the country's agricultural economic problems. The study also shows that, following the cessation of international aid in 2021, the non-recognition of the Taliban government and its impact has had a profoundly negative impact on the implementation of climate-related programs. However, the findings show that some climate assistance is still being implemented indirectly, through international organisations (such as UNEP, UNDP) and local non-governmental organisations. Although the international community has not officially recognised the current Afghan government, several international and regional institutions are implementing climate change mitigation and adaptation projects indirectly. For example, UNDP is implementing climate-resilient agriculture, water management, and drought-resilience projects in the western and southern provinces of Afghanistan through its Community-Based Rural Agriculture and Development (CBARD) program. The CBARD program and anti-drought activities are being implemented impartially through humanitarian assistance. These projects are implemented in coordination with local non-governmental organisations (NGOs) and provide humanitarian assistance without direct involvement from the current government, adhering to the principle of political neutrality. Similarly, UNEP and FAO have also funded drought mitigation and reforestation activities through Afghan civil society. These institutions can undertake climate change projects in cooperation with local humanitarian aid and non-governmental organisations in Afghanistan, providing direct assistance to the Afghan people.

To combat climate change, particularly in a country like Afghanistan, which faces significant political and economic challenges that impact the international arena, a comprehensive and multifaceted approach is necessary. Establishing and developing an institutional framework for Afghanistan to combat climate change is important. Although the lack of political recognition is a major obstacle, there are opportunities for indirect assistance through regional and international organisations such as UNEP. Such organisations can work with local NGOs and charities, and create systems of transparency and accountability. Afghanistan's political uncertainty and weak institutional framework, which undermines the trust of international partners, need to be addressed. Specific laws and climate protection policies are necessary to address climate change, based on international agreements can attract international support. The constraints include a lack of law enforcement and inadequate local coordination for implementing policies; however, Afghans should be equipped with skills in water management, land and forest conservation, and air pollution control through technical education. This will give Afghans the opportunity to solve their problems in the long run, but the lack of professional trainers and consistent programs is a constraint. International private companies and industrial institutions can help by investing in climate projects. This will help provide employment opportunities to local people and accelerate the climate protection process; however, a lack of security and political stability discourages global investors.

The paper argues that regional countries such as China, Iran, and Pakistan, although they do not officially have comprehensive climate programs, must include Afghanistan in regional climate negotiations. Iran, Pakistan, and China have close geographical relations with Afghanistan, and can cooperate with Afghanistan in the field of climate action. These countries can expand their climate programs to Afghanistan by leveraging their existing efforts, as regional environmental problems and solutions often require joint development. These countries share common challenges with Afghanistan's climate, so joint projects are beneficial to both sides; however, the existence of regional competition and political distrust presents a problem. The sharing of climate research by international research institutions, such as the Intergovernmental Panel on Climate Change (IPCC), can provide Afghan officials and scientists with opportunities to make more informed decisions. This will help obtain accurate information, leading to better strategies for solving climate problems; however, a lack of tools and capacities for scientific research is a constraint. These projects will directly benefit the Afghan people, regardless of political considerations. For instance, China has informally included Afghanistan in the regional climate negotiations. China has informally included Afghanistan in discussions on jointly confronting climate risks in the region under the "Belt and Road Initiative (BRI), which focuses on transboundary water management and climate coordination.

Although the *de facto* authorities are not officially recognised, the international community can implement projects in Afghanistan through international environmental initiatives like the 2030 Sustainable Development Goals and the implementation of the Paris Agreement. Such projects receive support through the Paris Agreement and other international agreements and can contribute to mitigating the effects of climate change in Afghanistan. The international community can help through technical know-how and capacity building, rather than direct financial aid. Through technical training, Afghans should be taught water management, soil and forest protection, air pollution control, and other important environmental skills. International private companies and industrial institutions with the necessary technology and budget for environmental protection can

directly or indirectly implement projects in Afghanistan. These companies can invest in climate change projects in Afghanistan and collaborate with local communities on activities. International institutions, such as the IPCC and other environmental research institutions, can start sharing climate research and information with Afghanistan, enabling Afghan scientists and officials to make informed decisions about the effects of climate change. The United Nations can launch neutral projects to achieve international environmental and humanitarian goals, including those in Afghanistan. Through these projects, the international community will provide impartial aid to the people of Afghanistan and reduce the effects of climate change. Adaptation actions vary depending on a community, business, organisation, country, or region, ranging from flood defences to drought-resistant crops. While many nations are already building resilient societies, greater action is needed to manage risks effectively. Afghanistan faces challenges in implementing climate change projects due to unrecognised needs, limited resources, specialised skills, public participation, technical limitations, and a lack of long-term plans, despite its commitment to addressing climate change. International cooperation is vital for Afghanistan's climate change projects, which involve ensuring political stability, securing financial assistance, upskilling, raising public awareness, facilitating technical cooperation, and strengthening planning processes, with support from the World Bank.

Although Afghanistan faces a lack of official recognition, the international community can still support Afghanistan's climate adaptation and resilience through humanitarian assistance, technical training, and regional cooperation. This assistance should be organised through local civil society institutions, transparent mechanisms, and a humanitarian perspective. The study's findings show that, although the Taliban government did not participate in the COP conferences (2021–2023) due to its lack of official recognition, international organisations still implemented climate-related projects through local non-governmental organisations (NGOs). The study concludes that, despite political constraints, alternative avenues for international cooperation exist; humanitarian, informal, and technical mechanisms can help Afghanistan build resilience to climate change. Combating climate change requires multifaceted measures, including institutional development (encompassing institutional frameworks, policies, strategies, plans, and procedures or practices), legislation, capacity building, and investment in physical infrastructure. Therefore, a comprehensive approach should be developed and implemented to cover all affected sectors. Although formal government-to-government cooperation is limited, it does not mean there is no international support. Through local communities, non-governmental organisations, and neutral mechanisms, cooperation on climate change is possible.

6. Conclusion

Combating climate change requires institutional development, legislation, capacity building, and investment in physical infrastructure. Afghanistan attracts international cooperation through international organisations like the UN Environment Programme, as well as humanitarian aid and regional countries such as Iran, Pakistan, and China. International environmental projects like the 2030 SDG Goals and the Paris Agreement can help Afghanistan adapt to climate change. Technical know-how and capacity building can also be provided through technical training. Private companies and industrial institutions can invest in climate change projects in partnership with local people. International institutions can share climate research and information to help Afghan scientists and officials make informed decisions. Afghanistan faces challenges in

implementing climate change projects due to non-recognition, limited resources, and technical limitations, necessitating international cooperation for achieving political stability and effective planning. Afghanistan requires a comprehensive climate change strategy, despite its ongoing political instability and a weak institutional framework. Specific laws and policies, technical education, investment in climate projects, joint projects with neighbouring countries, and UN-launched climate-neutral initiatives are necessary. However, challenges include a lack of professional trainers, regional competition, and security threats. The Afghan government and international organisations should enhance climate change resilience through image-based mechanisms, joint geo-programs, capacity-building, capital management, forest restoration, water quality improvement, and a climate change monitoring system. Afghanistan should seek international financial resources for climate change adaptation, revise its curriculum to include climate change-related topics, and establish research collaborations with international universities to raise awareness and address climate problems. The study highlights the need for further exploration of specific climate resilience models in Afghan communities, emphasising the need for future research to document their experiences.

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