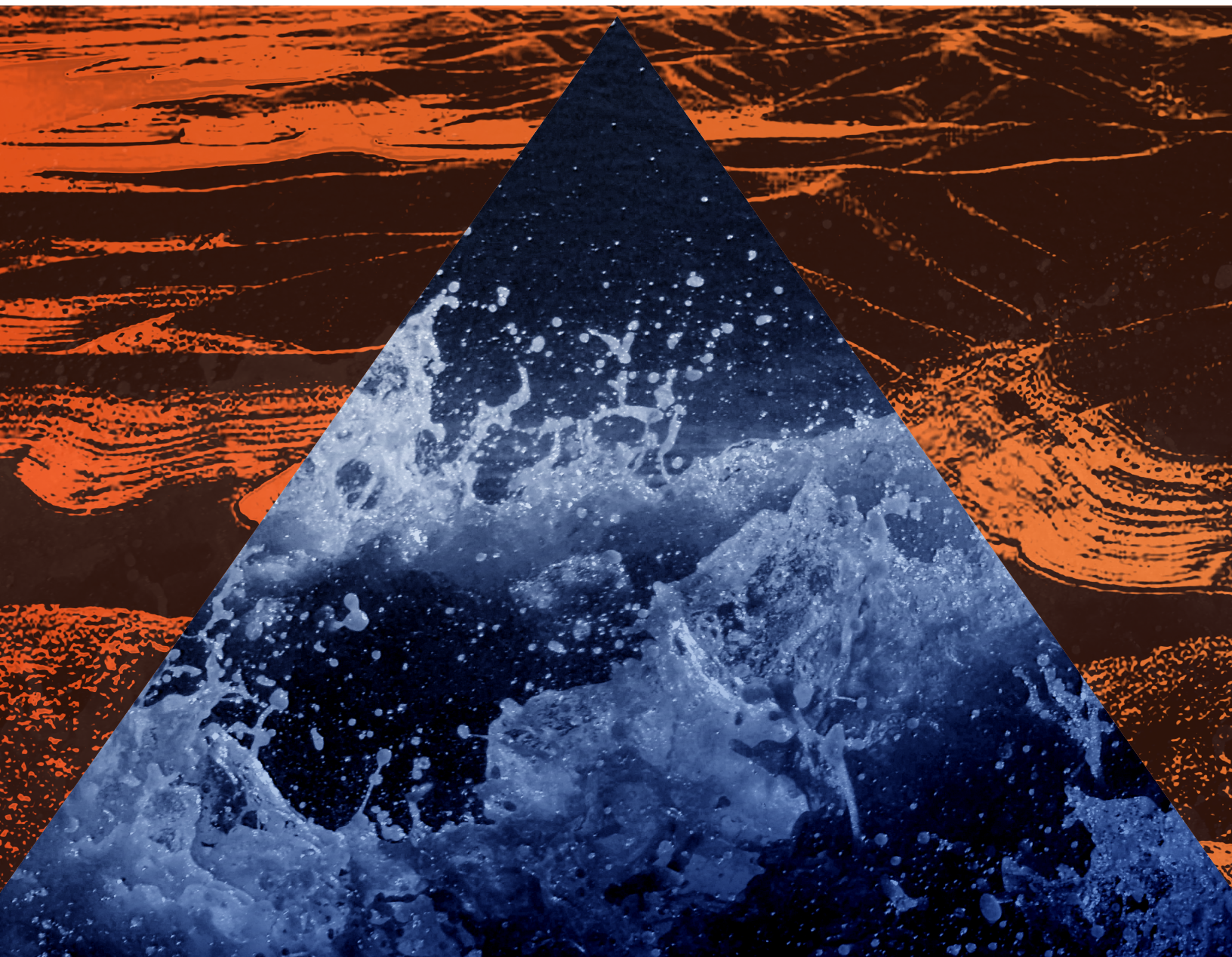


ANDIANA FOUNDATION

**Navigating Afghanistan's Water Crisis:  
Sustainable Solutions Amidst Governance Challenges  
and Climate-Induced Vulnerabilities**

**Marzia Hussaini**





**ANDIANA FOUNDATION**

# **Navigating Afghanistan's Water Crisis:**

## **Sustainable Solutions Amidst Governance Challenges and Climate-Induced Vulnerabilities**

**Marzia Hussaini**

PhD Candidate, Water Security and Sustainable Development,  
National University of Iran, Georgetown University

The authors are responsible for the content of this report, as they reflect their personal views.  
Andiana Foundation is not liable for the content.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher. The authors are responsible for the content of this report, as they reflect their personal views. Andiana Foundation is not liable for the content,

© 2025 by the Andiana Foundation  
January 2025

Layout and Design | Natalia Kopytnik  
Cover | Natalia Kopytnik | Image Credits: Wikimedia Commons; Adobe Stock



# Table of Contents

<b>2</b>	<b>Introduction</b>
<b>5</b>	<b>Current Water Management Challenges</b>
<b>7</b>	<b>The Current Water Crisis Under the Taliban</b>
<b>8</b>	<b>Water Diplomacy and Resource Allocation</b>
<b>11</b>	<b>Water Dynamics Between Afghanistan and Pakistan</b>
<b>13</b>	<b>Afghanistan and Central Asia:</b>
<b>15</b>	<b>Afghanistan's Water Crisis in the Context of Taliban Isolation and Global Non-Recognition</b>
<b>19</b>	<b>Conclusion</b>

# Introduction

On the third anniversary of the Taliban's return to power, Afghanistan's water crisis has intensified, becoming increasingly severe and complex. The country's major river systems, including the Helmand, Kabul, and Amu Darya, depend heavily on seasonal rainfall and snowmelt from mountainous regions, making them crucial for agriculture, energy production, and drinking water supply. Agriculture, a backbone of the Afghan economy, supports nearly 60% of the population and relies primarily on these water resources. However, the Taliban's governance has been characterized by inadequate responses to water scarcity, insufficient sanitation services, and poor management of vital water resources. This failure has worsened existing challenges, placing immense burdens on communities and threatening food and water security nationwide (UNDP, 2023; World Bank, 2024).

Afghanistan ranks among the top five countries most vulnerable to climate-related risks globally, with droughts and floods posing severe threats to communities. Since the Taliban's takeover in 2021, Afghanistan's GDP has significantly contracted, falling by 20.7% in 2021 and a further 6.2% in 2022. This economic downturn has led to increased poverty, with the percentage of households unable to meet basic food needs rising from 16% to 36% (UNAMA, 2023). The economic distress facing Afghanistan's people is closely linked to the effects of climate change, such as rising temperatures and altered precipitation patterns. These changes have resulted in more frequent floods, prolonged droughts, and significant disruptions in water availability.

The average temperature in Afghanistan has risen by 1.8 degrees Celsius since 1950—

more than double the global average. Forecasts from international organizations, including the World Bank and the Asian Development Bank, predict that temperatures could rise by an additional 1.7 to 2.3 degrees Celsius by 2050, further impacting Afghanistan's precipitation patterns and river flows (Kumar, 2023; WFP et al., 2016).

**Afghanistan ranks among the top five countries most vulnerable to climate-related risks globally, with droughts and floods posing severe threats to communities.**

These climatic changes have already led to recurring droughts and flooding events, exacerbating the vulnerability of Afghan communities, particularly those dependent on agriculture. The reduction in snowpack and irregular precipitation patterns have resulted in a 12% decline in annual precipitation from 2012 to 2023, while snowfall decreased by 19% between 2014 and 2020. The northern regions have been most affected, where these declines limit access to water for both drinking and agricultural purposes (NEPA AF, 2017). This uneven distribution of water resources and variability in water availability threaten economic growth, environmental sustainability, and socio-economic stability.

Adding to these internal challenges are transboundary water disputes with neighboring countries, particularly Iran and Pakistan, over critical shared water resources like the Helmand River. The Taliban's limited capacity to

engage diplomatically—due to their non-recognition status, international sanctions on some leaders, and a lack of technical expertise—has made it difficult to manage these disputes effectively. This has heightened geopolitical tensions, increasing the risk of regional instability. (World Bank, 2024). Addressing these complexities requires strategic investments in irrigation infrastructure and developing comprehensive governance frameworks that adapt to Afghanistan's political and environmental realities. Multilateral cooperation and international diplomatic engagement are essential to stabilizing water access and mitigating the ongoing crisis's effects. Such measures are crucial not only for enhancing agricultural productivity but also for supporting Afghanistan's long-term economic recovery and regional stability (World Bank, 2023; UNESCO, 2024).

## Current Water Management Challenges

Afghanistan's water management challenges are multifaceted, stemming from infrastructural deficiencies, governance shortcomings, and the compounded effects of climate change. Much of the country's water infrastructure, including irrigation systems and dams, was built in the 1960s and 1970s, and it is now outdated and unable to meet current demands for irrigation, energy production, and drinking water. The rehabilitation and modernization of these facilities, many of which are over 50 years old, are urgently needed. The aging and inadequate infrastructure limits the country's ability to store and distribute water effectively, causing significant losses, especially during peak agricultural seasons. Insufficient storage capacity also affects water

management during droughts and floods, making Afghanistan highly vulnerable to changing climate conditions (UNDP, 2024; UN-Water, 2024).

Additionally, Afghanistan lacks a cohesive governance framework for managing water resources, leading to fragmented and unregulated management practices. Disputes over water use are common, both between communities and across regions, as local and provincial authorities often operate independently regarding water management without a unified national policy. This fragmentation contributes to inefficiencies and limits coordinated responses to water crises, further worsening the socio-economic and environmental impacts of water scarcity (IHE Delft, 2024).

**Climate change has amplified these structural and governance challenges, causing severe disruptions in water availability across Afghanistan.**

Climate change has amplified these structural and governance challenges, causing severe disruptions in water availability across Afghanistan. Over the past decade, extreme droughts have affected approximately 67% of households, leaving nearly 79% of the population without reliable access to water resources. Afghanistan's precipitation levels have become increasingly unpredictable, leading to extended dry spells that deplete groundwater reserves and increase reliance on already scarce surface water. The decline in snowfall and the irregular



Dam in Khost Province of Afghanistan. (Staff Sgt. Julianne Showalter (U.S. Armed Forces))

timing of snowmelt further complicate water availability, as these are crucial for maintaining river flows during the dry season (Salam Watandar, 2024; NEPA AF, 2017).

Flooding is another major challenge, with 16% of Afghan communities reporting damage to critical water infrastructure, including irrigation canals and drinking water facilities. These flood events strain an already fragile infrastructure network, requiring immediate and large-scale interventions for repair and reinforcement. Flood damage also disrupts agricultural production cycles, impacting food security and the livelihoods of millions (Salam Watandar, 2024). Vulnerable populations, such as female-headed households, are disproportionately affected by these disruptions, as they face heightened barriers in accessing public water services and lack the resources to mitigate the impacts of water scarcity and infrastructure damage (IHE Delft, 2024).

The UN World Water Development Report (2024) and other international studies emphasize the interconnectedness among sustainable water management, security, and regional stability. Poor management, coupled with climatic pressures, can escalate geopolitical tensions, particularly in Afghanistan, where disputes over transboundary water resources remain unresolved. The Helmand River, a critical water source, continues to be a focal point of tension with neighboring Iran and Pakistan. The Taliban's ineffective handling of these disputes raises questions about whether they genuinely lack the ability to manage water-sharing issues or if they are choosing to act without concern for the consequences. This situation highlights the urgent need for technical engagement and cooperative agreements to address water sharing and infrastructure development. Without international support and collaborative frameworks, the risk of further destabilization and conflict in the region remains high (UNESCO, 2024; UN-OCHA, 2024; World Bank, 2024)."

# The Current Water Crisis Under the Taliban:

## Implications of Inefficient or Nonexistent Water Management

Afghanistan's water sector is plagued by inefficient governance and poor management, reflecting broader systemic issues under Taliban rule. Since the Taliban's takeover, the de facto authorities have largely retained the water management framework established by the previous government, making only minor structural changes. The National Water Affairs Regulations Authority (NWARA) has been reabsorbed into the Ministry of Energy, and the previously dissolved Ministry of Energy and Water was reinstated. Abdul Latif Mansour, who was appointed as the minister, is a senior Taliban figure with past roles as the Minister of Agriculture in the 1990s and a commander in eastern Afghanistan. His appointment is significant because he remains on the United Nations sanctions list (UNSC, 2001), raising concerns about the international legitimacy and technical capacity of the current leadership in managing Afghanistan's critical water sector.

High-ranking roles regarding water management, such as deputy ministers and river basin director generals, have been filled by Taliban members, many of whom possess religious titles like mawlawi, quari, or mullah. These appointments indicate that most of these individuals have backgrounds in religious studies rather than possessing the technical education necessary for managing water resources effectively. This lack of expertise

among senior officials undermines the management capacity at the top level of Afghanistan's water sector.

The reliance on the remaining technical staff is limited in scope and impact, as many experienced professionals have either left the country or face restrictions due to their gender (UNSC, 2001; Water, Peace, and Security, 2024). While some technical staff from the previous government have been retained in lower-level roles, the Taliban's ban on female workers has further reduced the available expertise.

**Afghanistan's water sector is plagued by inefficient governance and poor management, reflecting broader systemic issues under Taliban rule.**

In the environmental sector, the National Environmental Protection Agency (NEPA) was reopened several months after the Taliban's takeover, with Hafiz Azizrahman, a former Taliban diplomat also on the UN sanctions list, appointed as its head. This delay in reopening NEPA highlights the Taliban's insufficient understanding of water and environmental management issues. The reliance on personnel with religious rather than technical backgrounds further underscores these challenges (UNSC, 2001; Water, Peace, and Security, 2024).

Regarding the management of water infrastructure, the Taliban authorities have made only minimal changes. Notable exceptions include the release of water from the Kamal Khan Dam in March 2022

and the Darunta Dam toward Pakistan in June 2022. These actions highlight their limited technical capacity because they were carried out without comprehensive assessments of water availability or long-term planning. The decision to release water seemed politically motivated rather than based on technical expertise, which raises concerns about Afghanistan's long-term water security. Such unplanned water releases could lead to shortages in the future, impacting agriculture and drinking water. This lack of technical planning also has serious implications for regional stability, as it could heighten tensions with neighboring countries that rely on shared water resources (Water, Peace, and Security, 2024)."

The years 2021 and 2022 were relatively wet due to an unusually long monsoon season in eastern and central Afghanistan, which may have masked the severity of the Taliban's inadequate water management practices. If normal or dry years occur, the consequences of these inefficiencies are likely to become more pronounced, further exacerbating Afghanistan's water crisis and contributing to broader socio-economic instability (Water, Peace, and Security, 2024; UNDP, 2023).

## Water Diplomacy and Resource Allocation in Afghanistan-Iran Relation

The water conflict between Iran and Afghanistan, particularly over the Helmand River, has persisted for over 150 years, with tensions escalating since the Taliban regained power in 2021. Despite the existence of the 1973 Helmand River Treaty,

outdated treaty terms and inconsistent implementation have led to frequent clashes. The historical roots of the conflict stem from British-drawn borders in the 19th century and unratified agreements in the 1930s. The issue resurfaced in the 1950s when Afghanistan constructed dams on the Helmand River. Although the bilateral treaty was signed in 1973, it has failed to prevent disputes, especially as climate change and water scarcity intensify. Mismanagement and infrastructure challenges further strain water availability, affecting both countries. In 2023, a violent incident at the border between Nimroz and Zabul resulted in casualties on both sides, demonstrating the fragile state of relations. Former Iranian President Ebrahim Raisi demanded that the Taliban respect Iran's water rights, while the Taliban's response remained defiant, dismissing Iran's concerns.

**Without active diplomatic efforts or a clear strategy from the Taliban, future management of the Helmand River could worsen downstream water shortages in Iran.**

Western Afghanistan and eastern Iran are currently facing increasing water scarcity due to prolonged droughts and climate change. The Helmand River, which is managed under the only existing legal agreement between Afghanistan and Iran, continues to be a contentious issue, with implementation largely ineffective. Without active diplomatic efforts or a clear strategy from the Taliban, future management of the Helmand River could worsen





An Afghan Uniformed Police patrolman overlooks the Helmand River in Nawa district, Helmand province, 2011. (Cpl. Tommy Bellegarde/Wikimedia Commons)

downstream water shortages in Iran. In the past, Afghanistan was willing to cooperate with Iran on politics, security, and trade. However, under Taliban rule, the focus seems to have shifted toward Pakistan and China as key economic partners. The Taliban's intent to join the China-Pakistan Economic Corridor (CPEC) may reduce the strategic importance of Iran's Chabahar Port for Afghanistan, thereby weakening Iran's influence over the Taliban. Moreover, while Iran previously used the presence of millions of Afghan refugees—many fleeing Taliban rule—as leverage, the current Taliban leadership appears less concerned about the refugees' status in Iran. This suggests that the Taliban may not prioritize Iran's needs or concerns. The impacts of climate change, combined with the lack of an effective cooperation framework, could further increase tensions between Iran and the Taliban.

The Taliban has taken steps to address water shortages, particularly for irrigation

in regions downstream of the Salma Dam in Herat Province. Improved security in these areas, now that the Taliban is no longer pursuing its insurgency, has created opportunities for the Taliban to expand irrigation infrastructure, an initiative the previous government was unable to accomplish. However, it remains uncertain whether the Taliban can mobilize sufficient resources or engage neighboring countries - particularly Iran and Turkmenistan- to develop cooperative solutions, especially given the absence of a formal transboundary water agreement. During a recent visit to Herat Province, the de facto Minister of Energy and Water announced the completion of work on the Pashdan Dam along the Harirud River, presenting it as a crucial economic development initiative aimed at improving Afghanistan's water management capabilities (8 AM Daily, 2021). The Deputy Minister of Water later confirmed the continuation of the Pashdan Dam project, which had been 85% complete before the Taliban assumed



The Kajaki Dam in Helmand Province of Afghanistan in 2007. (USAID Afghanistan/Wikimedia Commons)

control (GMIC, 2023). Despite severe financial constraints, the Taliban may prioritize the completion of this project using national resources over an extended timeframe, given its strategic importance. The dam, with a storage capacity of 50 million cubic meters (MCM) and a total management capacity of 150 MCM, could further deplete the already scarce resources in the basin.

Iran, struggling with water shortages in Mashhad, views its water supply from Afghanistan as a national security priority (Faizee, 2022). The intensifying impacts of climate change, alongside the absence of a comprehensive cooperation framework, increase the likelihood of conflict between Iran and Afghanistan over water resources. Long-standing tensions over the Helmand River are also likely to escalate, as both countries dispute whether Iran is receiving its legally entitled share under the current treaty. The Kamal Khan Dam, inaugurated in early 2021 before the Taliban's rise to power, has the capacity to divert substantial

volumes of floodwater into Afghan wetlands, rather than allowing it to flow into Iran. Previously, such floodwaters flowed toward Iran, satisfying Iran's water rights and being stored in Iranian reservoirs, known as Chah e Nima (artificial lakes). Additionally, the Taliban has resumed Phase II of the Kajaki Dam project on the Helmand River, awarding the contract to a Turkish company previously involved in the project. This phase includes raising the dam's crest, which would expand its storage capacity by an additional one billion cubic meters (BCM) and increase its electricity generation by 100 megawatts. Security concerns and land acquisition issues previously hampered progress on this project, but the Taliban's control over the area may facilitate its implementation. Although the completion of this dam could significantly enhance Afghanistan's agricultural output and contribute to economic development, it is also likely to heighten tensions with Iran over water allocation (UNODC, 2022).

Kandahar and Helmand provinces, traversed by the Helmand River, are strategic areas for the Taliban's administration. These provinces not only serve as a core support base but are also critical for Afghanistan's poppy cultivation industry. Opium production in these regions increased by 32% in 2022 under the Taliban's rule (UNODC, 2022), with much of the cultivation taking place in the Helmand River Basin. Ensuring a reliable water supply for these provinces is essential for sustaining both the Taliban's support base and the opium trade. The Taliban's prioritization of water resources for these regions, particularly through the management of the Kajaki Dam, will be critical. Iran's heavy dependence on the Helmand River intensifies its concerns over any alterations in river flow, creating potential for increased conflict if cooperative management is not established (Faizee & Schmeier, 2023). The limited storage capacity of the Kamal Khan Dam means that managing the river's flow effectively is crucial for meeting Iran's water needs, underscoring the importance of diplomatic engagement.

## Water Dynamics Between Afghanistan and Pakistan:

### A Complex Relationship

The Kabul River Basin, Afghanistan's most populated river system, is a crucial shared water source with Pakistan. Other smaller rivers, such as the Gomal and Khuram, also originate in Afghanistan and flow downstream to Pakistan, providing essential freshwater supplies to its

communities. Since the Taliban's rise to power, Pakistan has shown a noticeable interest in establishing a formal water agreement, as reported by Pakistani media (Ali, 2022).

In June 2022, the Taliban released water from the Darunta Dam on the Kabul River, directing it toward Pakistan. This move received considerable backlash from Afghan citizens on social media, with many accusing the Taliban of prioritizing Pakistan's interests over those of Afghanistan. The Taliban defended the action, claiming it was necessary to clear sediment from the reservoir, a task typically performed during seasons with less agricultural activity, such as fall or winter (8 AM Daily, 2022). The absence of any significant water projects affecting flows to Pakistan suggests that the status quo, which largely benefits Pakistan, will likely remain unchanged.

**The absence of any significant water projects affecting flows to Pakistan suggests that the status quo, which largely benefits Pakistan, will likely remain unchanged.**

A major development has been the suspension of the Shahtoot Dam project on the Maidan River, a tributary of the Kabul River. Initially financed by India, the project was halted following the Taliban's takeover, likely due to India withdrawing support under the current political circumstances. The Kabul River Basin's water flow is also undergoing changes

due to climate change, with glacier melt in the Hindu Kush increasingly affecting the river systems in both Afghanistan and Pakistan. Both countries have experienced frequent and devastating floods, damaging infrastructure and causing casualties, underscoring the need for better management and potential cooperation.

### **China's expertise in hydroelectric development positions it as a potential partner in these endeavors.**

Despite these challenges, opportunities for Afghanistan and Pakistan to engage in limited technical cooperation may arise, especially if Pakistan's downstream water supply remains undisturbed. Small-scale projects within Afghanistan might receive support if they align with Pakistan's interests. Additionally, Chinese companies could become involved in developing Afghanistan's water infrastructure. At a regional meeting in Tunxi Anhua Province on March 31, 2022, Chinese officials expressed support for enterprises looking to invest in Afghanistan, contingent upon improved security conditions (Chinese MFA, 2022). China's expertise in hydroelectric development positions it as a potential partner in these endeavors. Given Pakistan's strategic partnership with China, any large-scale project in the Kabul River Basin involving Chinese firms would likely require Pakistan's consent and collaboration.

While Pakistan is interested in a formal water-sharing agreement with the Taliban, the political landscape presents significant barriers. The Taliban's need to maintain an image of sovereignty, coupled with the geopolitical dynamics involving China's investments, complicates the prospects

for cooperation. Although Pakistan may seek to protect its water interests through regional engagements, the immediate outlook suggests that current arrangements will persist.

## **Hydroelectric Development on the Kunar River and Regional Tensions**

The Taliban's proposal to construct a hydroelectric dam on the Kunar River in eastern Afghanistan illustrates their efforts to develop energy infrastructure despite significant financial and technical limitations. The Kunar River, a tributary of the Kabul River, is an important water resource as it flows downstream into Pakistan. According to the Taliban's Water and Energy Ministry, the dam is aimed primarily at generating electricity to address Afghanistan's energy needs. Afghan water-management experts, argue that the dam will be relatively small and designed to store minimal water, minimizing its impact on downstream flows to Pakistan. They contend that the project focuses on electricity generation rather than large-scale water storage or diversion. Despite these assurances, Pakistani officials have expressed concern, viewing the dam as a potential threat to their water security. The development of this hydroelectric project reflects the Taliban's broader strategy to control Afghanistan's natural resources and infrastructure to achieve energy self-sufficiency. However, the group faces challenges related to expertise, funding, and international recognition.



Panj River on the border between Tajikistan and Afghanistan. (Ninara/Flickr)

## Afghanistan and Central Asia:

### The Qushtepa Canal Project and Regional Water Dynamics

In northern Afghanistan, the Panj-Amu River system is shared with several Central Asian countries, presenting complex challenges and opportunities for transboundary water management. The Taliban's takeover has introduced new dynamics into these fragile but previously stable relations. Central to this shift is the Qushtepa irrigation canal project, a large-scale infrastructure endeavor originally conceptualized in the 1970s. Supported by a feasibility study conducted by USAID in 2018, the Qushtepa Canal is designed to span approximately 285 kilometers in length and 100 meters in width, aimed

at irrigating about 550,000 hectares of agricultural land in northern Afghanistan. The canal's intake point will be situated along the Amu River in Kunduz Province, which borders Tajikistan. The project plans to divert around 10 billion cubic meters (BCM) of water annually from the river. Initial construction began before the collapse of the Afghan republic, under the oversight of the Afghan National Development Corporation Agency.

In March 2022, Mullah Baradar, the de facto Deputy Prime Minister for Economic Affairs, and other Taliban officials formally launched the Qushtepa canal project (Ariana News, 2022). The project builds on the previously conducted feasibility study and has progressed rapidly, with Phase One—including 108 kilometers of the main canal, associated roads, and a bridge—already ahead of schedule. However, social media criticism about potential damage to a historic site in Balkh Province led the Taliban to alter portions of the canal's route to mitigate these impacts (Ariana News, 2023).

To fund the project, the Taliban have used revenue from the Mazar-e-Sharif coal mine, mirroring practices of the previous government. Global coal prices surged in 2022 due to the Ukraine conflict, increasing Afghanistan's coal exports to Pakistan and driving up local prices. Given that the Taliban's national budget does not allocate funds for development projects, other revenue sources are necessary. One such source is proceeds from an oil extraction contract in the Amu River Basin signed with the Chinese company Xinjiang Central Asia Petroleum and Gas Co (CAPEIC) in January 2023 (Al Jazeera, 2023). The Taliban deny any foreign involvement in the Qushtepa canal, asserting that it is an Afghan-funded and Afghan-designed initiative.

The Qushtepa canal represents the largest irrigation project ever undertaken in Afghanistan. If completed, it promises to provide significant employment opportunities and support local agriculture, addressing food insecurity in the region. The Taliban have emphasized the project as a symbol of their commitment to national development and as a gesture of service to Afghanistan's ethnic minorities, who stand to gain from the project despite being largely excluded from the Taliban's power structure. Additionally, the project offers the Taliban a means of gaining legitimacy and consolidating control in northern Afghanistan.

A key technical challenge in the project is constructing the canal intake, given the region's susceptibility to severe riverbank erosion, resulting in the loss of thousands of hectares of land annually. Furthermore, the high sediment load in the Amu River could quickly clog the intake if not properly designed. The intake's location near the borders of Tajikistan and Uzbekistan necessitates cross-border cooperation and coordination. Although the 1958 border treaty between Afghanistan and the Soviet Union provides a legal framework for collaboration, the issue remains largely

political, especially for Tajikistan, given its complicated relations with the Taliban and other riparian states like Uzbekistan and Turkmenistan.

## **The Qushtepa canal represents the largest irrigation project ever undertaken in Afghanistan.**

Uzbekistan has expressed concerns over the canal's water efficiency. During a diplomatic visit to Kabul, an Uzbek delegation led by the country's national security advisor offered technical assistance for the canal's development (Pajhwok, 2023). Turkmenistan has also raised official objections through its embassy in Kabul, citing potential downstream impacts. Despite these engagements, no substantial cooperation has been established between the countries thus far.

Concerns also arise about the canal's construction potentially increasing salinity levels and further degrading the Amu River's water quality (Ibraimov Bakyt, 2023). Once completed, the Qushtepa canal is expected to divert between 10 and 13 BCM of water annually from the Amu River. This significant volume of diversion could impact Uzbekistan and Turkmenistan, disrupting existing water-sharing arrangements in Central Asia. The Amu River's resources, already stressed due to climate change and glacial melt, could face further degradation without effective transboundary coordination.

Addressing the potential reduction in water flow would require substantial investment for Uzbekistan and Turkmenistan, whether through improving irrigation efficiency



Abandoned ship near Aral, Kazakhstan. (Staecker/Wikimedia Commons)

or reducing agricultural water use. Such measures might also result in population displacement. Additionally, the situation in the Aral Sea could worsen, reversing ongoing efforts by international actors, including the World Bank, to restore and manage the basin's ecosystem. The canal project could also interfere with regional efforts to reform existing water governance mechanisms in the Aral Sea basin.

While the project could benefit from international technical expertise and support, the lack of recognition for the Taliban's government and existing sanctions limit international engagement. Public opposition from neighboring countries could, paradoxically, strengthen the Taliban's narrative of national independence, bolstering domestic support. The Taliban may use such disputes to demand diplomatic recognition as a prerequisite for cooperation over shared water resources in the Amu River basin.

## Addressing Afghanistan's Water Crisis in the Context of Taliban Isolation and Global Non-Recognition

Given the complexities of engaging with an unrecognized Taliban government, solutions must be principled but practical, aligning with international frameworks and in particular support from multilateral organizations like the World Bank. The focus should be on building resilience, supporting communities, and enhancing water management without directly funding or legitimizing the Taliban. Below are realistic, actionable solutions:

### 6.1. Indirect Support Through International Organizations

The World Bank and other international organizations can work through non-governmental channels and local entities to deliver water infrastructure projects and climate adaptation programs:

- Partnering with Local NGOs and Civil Society Organizations: The World Bank can channel funds and technical support through established Afghan NGOs with local credibility and expertise in water management.
- Implementing Projects Through Regional Cooperation Platforms: Collaborating with regional bodies like the Central Asia Regional Economic Cooperation (CAREC) to deliver cross-border water projects, ensuring funds are properly utilized.
- Funding Climate Resilience Programs: Investing in projects focused on rainwater harvesting, groundwater recharge, and community-based flood protection measures, ensuring these initiatives operate independently of Taliban control.

## Building Capacity and Technical Support Without Direct Government Engagement

To avoid legitimizing the Taliban while improving Afghanistan's water management, the World Bank can:

- Train Afghan Water Experts Remotely: Provide online training and resources for Afghan engineers and water managers, including female experts. Remote training can offer a more accessible option for women who face restrictions in attending in-person sessions, ensuring that all qualified individuals, regardless of gender,

have the skills needed to operate and maintain water systems.

- Regional Capacity Building Programs: Host training programs in neighboring countries like Uzbekistan or Tajikistan, allowing Afghan water experts to participate without direct Taliban involvement.
- Deploying Mobile Technical Teams: Use international and Afghan experts to offer temporary support in critical regions, focusing on improving water infrastructure such as dams and irrigation canals.

## Leveraging Multilateral Cooperation for Transboundary Water Management

The World Bank can facilitate diplomatic engagement and regional cooperation without directly engaging with the Taliban government:

- Reviving and modernizing the 1973 Helmand River Treaty: Collaborate with Iran and other regional players to revise and implement the treaty under an internationally monitored framework. If the Taliban are not recognized as legitimate signatories, an alternative representative body, such as a UN-appointed transitional authority or an internationally recognized Afghan delegation, could be tasked with signing the revised agreement, ensuring that Afghanistan fulfills its obligations.
- Forming a Transboundary Water Commission: Establish a commission that includes Iran, Pakistan, and Central Asian states to manage shared water resources collaboratively, serving as a neutral platform for water-sharing negotiations, supervised by international organizations.



- Mediating Disputes Through International Forums: Utilize platforms like the UN or regional economic forums to mediate disputes and support water-sharing agreements, ensuring Afghanistan's water management aligns with international standards.

#### 6.4. Focusing on Community-Based Water Management Projects

Investing in community-driven projects ensures that aid reaches Afghan citizens without direct Taliban interference:

- Funding Village-Level Water Systems: Develop small-scale, community-managed water systems that focus on local needs, such as clean drinking water, operated by local councils or NGOs.
- Supporting Agricultural Cooperatives: Provide funding and technical support to cooperatives operating independently from the Taliban, helping farmers implement water-efficient practices and improve crop resilience.
- Engaging Women-Led Initiatives: Support women-led organizations and cooperatives to manage local water resources, ensuring marginalized groups are included and benefit directly from international assistance.

By employing these solutions, the World Bank and the international community can navigate the challenges posed by sanctions and an unrecognized Taliban government, ensuring that water management efforts in Afghanistan remain effective, targeted, and independent of direct Taliban influence.

## Conclusion


Afghanistan's water crisis, deeply intertwined with its political instability, climate vulnerabilities, and regional geopolitics, presents an urgent challenge that demands multifaceted, sustainable solutions. The Taliban's governance has exacerbated existing water management inefficiencies, compounded by its self-imposed isolation from the international community. This resulting lack of recognition limits the country's ability to secure essential international aid and technical expertise, further straining Afghanistan's already fragile water infrastructure. As climate change accelerates, with increased droughts, erratic precipitation patterns, and rising temperatures, Afghanistan's capacity to manage its vital water resources has become a pressing concern not only for domestic stability but for regional security as well.

The country's dependence on its primary rivers—Helmand, Kabul, and Amu Darya—highlights the need for strategic investment in both infrastructure and governance. However, the Taliban's limited technical capacity, coupled with its lack of diplomatic engagement, has hindered the development of effective solutions to these challenges. The situation is further complicated by transboundary water disputes with neighboring countries, particularly Iran and Pakistan, where regional tensions over water resources continue to rise. The absence of a robust and cooperative transboundary water management framework has left Afghanistan vulnerable to diplomatic isolation, while climate-induced water scarcity threatens to further destabilize the region.

Addressing Afghanistan's water crisis requires a coordinated international effort that avoids legitimizing the Taliban while directly supporting Afghan communities. Multilateral cooperation, led by international organizations such as the World Bank and UN agencies, must prioritize resilience-building projects that focus on enhancing Afghanistan's water management capacity at the community level. By working through local NGOs and civil society organizations, these projects can deliver essential water infrastructure and climate adaptation programs without engaging directly with the Taliban regime.

1973 Helmand River Treaty, and fostering dialogue through international forums can pave the way for more effective water-sharing agreements between Afghanistan and its neighbors.

Ultimately, Afghanistan's water crisis is a global concern. Its resolution depends on innovative approaches that bridge the gap between domestic needs and international diplomatic realities. By leveraging community-driven projects, technical expertise, and multilateral cooperation, the international community can help Afghanistan navigate its water challenges.

This approach offers a path forward that strengthens water security, supports sustainable development, and fosters regional stability, all while maintaining the delicate balance of not legitimizing the Taliban's governance. 

**Ultimately, Afghanistan's water crisis is a global concern. Its resolution depends on innovative approaches that bridge the gap between domestic needs and international diplomatic realities.**

Capacity-building initiatives, particularly through remote and regional training programs, are essential to sustaining Afghanistan's water sector. Afghan professionals need the technical expertise to manage and maintain critical water infrastructure, and targeted training programs can ensure these skills are developed without direct Taliban involvement. Simultaneously, regional cooperation is crucial for mitigating transboundary water disputes. Reviving and modernizing historical treaties, such as the

## References

- Afghanistan International. (2021). Taliban's water strategy: Dams and oil exchange. Afghanistan International. Retrieved from <https://afghanint.com/>
- Ali, A. (2022). Pakistan's strategic interest in water cooperation with Afghanistan post-Taliban takeover. Islamabad Policy Research Institute.
- Aljazeera. (2023). Taliban sign oil extraction deal with Chinese company. Retrieved from <https://aljazeera.com/>
- Ariana News. (2022). Taliban inaugurate Qushtepa canal project. Retrieved from <https://ariananews.af/>
- Ariana News. (2023). Alterations in Qushtepa canal route following social media criticism. Retrieved from <https://ariananews.af/>
- Chinese Ministry of Foreign Affairs (MFA). (2022). Joint communique from the regional meeting on Afghanistan. Retrieved from <https://fmprc.gov.cn/>
- Faizee, S. (2022). Water shortages in Mashhad: Iran's national security concern. Iran International. Retrieved from <https://iranintl.com/>
- Faizee, S., & Schmeier, S. (2023). Water security and conflict in the Helmand River Basin. Water, Peace, and Security Partnership. Retrieved from <https://waterpeacesecurity.org/>
- GMIC. (2023). Progress report on Afghanistan's water infrastructure projects. Government Media and Information Center (GMIC). Retrieved from <https://gmic.gov.af/>
- Hindustan Times. (2021). Taliban's shift towards Pakistan and China: Impact on Iran-Afghanistan relations. Hindustan Times. Retrieved from <https://hindustantimes.com/>
- Ibraimov, B. (2023). Water quality concerns in the Amu River Basin: Impact of the Qushtepa canal. Central Asian Journal. Retrieved from <https://centralasianjournal.com/>
- IHE Delft. (2024). Afghanistan's water crisis: A regional security threat. IHE Delft Institute for Water Education. Retrieved from <https://ihe-delft.com/>
- Kumar, R. (2023). The impact of climate change on Afghanistan. Afghanistan Research Center. Retrieved from <https://afghanresearchcenter.org/>
- National Environmental Protection Agency of Afghanistan (NEPA AF). (2017). Water management and environmental sustainability in Afghanistan. Retrieved from <https://nepa.af/>
- Pajhwok. (2023). Uzbekistan offers technical support for Qushtepa canal project. Pajhwok Afghan News. Retrieved from <https://pajhwok.com/>
- Salam Watandar. (2024). Water crisis in Afghanistan: 67% of households affected. Salam

Watandar. Retrieved from <https://salamwatandar.com/>

UNAMA. (2023). Afghanistan humanitarian needs overview. United Nations Assistance Mission in Afghanistan. Retrieved from <https://unama.unmissions.org/>

UNDP. (2023). Climate risk assessment report for Afghanistan. United Nations Development Programme (UNDP). Retrieved from <https://undp.org/afghanistan>

UNDP. (2024). Afghanistan water crisis: Impact of drought and flooding. United Nations Development Programme (UNDP). Retrieved from <https://undp.org/afghanistan>

UNESCO. (2024). World Water Development Report: Water for prosperity and peace. UN-Water. Retrieved from <https://unesco.org/>

United Nations Office on Drugs and Crime (UNODC). (2022). Afghanistan opium survey 2022. Retrieved from <https://unodc.org/>

UNSC. (2001). Security Council sanctions list. United Nations Security Council. Retrieved from <https://un.org/securitycouncil/>

Water, Peace and Security Partnership. (2024). Navigating water (in)security in Taliban's Afghanistan: Insights into local, national, and regional water security challenges. Retrieved from <https://waterpeacesecurity.org/>

World Bank. (2023). Afghanistan development update. World Bank. Retrieved from <https://worldbank.org/>

World Bank. (2024). Macro poverty outlook for Afghanistan. World Bank. Retrieved from <https://worldbank.org/>

WFP et al. (2016). Climate projections for Afghanistan. World Food Programme. Retrieved from <https://wfp.org/>



## ANDIANA FOUNDATION

Andiana Foundation is a 501(c)(3) nonprofit, public policy and research organization. We are an independent think tank with a mission to educate and connect through in-depth research and analysis, specialized training, and strategically exchange ideas.

The Andiana Foundation was founded in 2022 and stands for values such as equality, justice, peace and integrity.

We are a group of experts, analysts, civil society practitioners, and academics specializing in peace, security, and international development. Leveraging our extensive experience and connections, we provide thematic expertise and locally sourced data to support the Foundation's mission.

Our goals are to contribute to knowledge creation, support public policy formulation, and facilitate dialogues among practitioners, policymakers, and academicians to exchange knowledge and policy innovation.

**[andianafoundation.org](https://andianafoundation.org)**



ANDIANA FOUNDATION

[andianafoundation.org](http://andianafoundation.org)