

# Pakistan Research letter

## The Indus Water Treaty: revisiting challenges and cooperation in shared river basins

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### Abstract:

*The Indus Water Treaty (IWT) of 1960 constitutes a historic agreement in the management of transboundary water resources in a context of complex political dynamics. This article revisits the IWT, examines its conflict resolution successes, and highlights emerging challenges in the context of changing environmental realities and evolving water demands. We analyze the treaty's framework for water allocation, dispute resolution mechanisms, and its adaptability to contemporary issues such as climate change and basin-wide development. Finally, we propose ways to strengthen cooperation and promote a sustainable future for the Indus Basin.*

**Keywords:** *Indus Water Treaty, Transboundary Water Cooperation, India-Pakistan Water Relations, Indus Basin, Climate Change, Basin-Wide Development.*

### Introduction:

The Indus River, which flows through China, India and Pakistan, sustains the lives of more than 400 million people. However, its waters have also been a source of historical tension and conflict. Recognizing the need to cooperate, India and Pakistan signed the IWT, a historic agreement that divides the Indus basin into eastern and western rivers, granting unlimited use to India for the former and to Pakistan for the second. This article critically examines the effectiveness of IWT in fostering cooperation and mitigating conflict, while identifying contemporary challenges and potential avenues for future collaboration. The Indus Water Treaty (IWT), signed in 1960 between India and Pakistan, remains a crucial agreement that governs the sharing of water resources in the shared Indus basin. The treaty, negotiated by the World Bank, has stood the test of time despite periods of political tension between the two countries. However, in recent years, challenges have emerged, making it necessary to review the agreement and explore possibilities for enhanced cooperation.

One of the major challenges facing the Indus Water Treaty is climate change and its impact on water availability in the region. The Indus Basin relies heavily on melting snow and glaciers,

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making it vulnerable to the effects of climate change. Changing precipitation patterns and melting glaciers pose a threat to the reliability of water resources allocated under the treaty. Furthermore, population growth and increasing demand for water add another layer of complexity to the Indus Water Treaty. India and Pakistan have experienced a significant population increase since the signing of the treaty, leading to increased water requirements for agriculture, industry and domestic use. This increase in demand requires a reassessment of the water sharing formula to ensure equitable distribution and sustainable use.

The issue of water quality also occupies an important place in the treaty. Industrial and agricultural activities contribute to the pollution of the Indus River, affecting the quality of water shared between the two nations. Collaborative efforts are needed to combat water pollution and establish mechanisms to monitor and maintain water quality standards outlined in the treaty. In addition to environmental challenges, geopolitical tensions between India and Pakistan continue to impact cooperation under the Indus Water Treaty. The periodic escalation of hostilities and strained diplomatic relations risk disrupting the spirit of cooperation anchored in the agreement. Addressing these geopolitical challenges is crucial to maintaining the effectiveness of the treaty.

Amid these challenges, there is an opportunity for both countries to review the Indus Water Treaty and strengthen their cooperation. Modernizing the agreement to incorporate climate resilience measures, adapting to changing water dynamics and improving communication and data sharing mechanisms are essential steps. A joint effort to invest in sustainable water management practices can promote the long-term viability of the treaty. Additionally, the involvement of local communities and stakeholders in the decision-making process is crucial to ensure equitable distribution of benefits and address the concerns of those directly affected by the treaty's provisions. Public awareness and participation can foster a sense of ownership and responsibility, promoting sustainable water use practices at the local level.

The role of international organizations, particularly the World Bank, remains vital in facilitating dialogue and mediating disputes related to the Indus Water Treaty. Continued engagement and support from the international community can help resolve challenges and promote cooperative efforts between India and Pakistan. The Indus Water Treaty stands at a crossroads, facing challenges that require a reassessment of its provisions and a commitment to collaborative solutions. By addressing the impacts of climate change, population growth, water quality issues

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and geopolitical tensions, India and Pakistan can pave the way for a more resilient and cooperative future in managing the common river basin. 'Indus.

## **IWT success stories:**

The IWT demonstrates the power of dialogue and diplomacy in the management of shared water resources. Despite numerous periods of political tension and armed conflict between India and Pakistan, the treaty has largely held firm, preventing water from becoming a direct *casus belli*. Its institutional framework, including the Permanent Indus Commission and provisions for neutral experts, facilitated communication and dispute resolution. Additionally, the IWT has fostered joint ventures like the Tarbela and Mangla dams in Pakistan, demonstrating the potential for collaborative infrastructure development.

The International Whaling Commission (IWC) has achieved several notable successes since its establishment in 1946. One of its significant achievements is the moratorium on commercial whaling, implemented in 1986. This decision was crucial in preventing the decline of many species of whales that were on the hunt, on the verge of extinction due to overexploitation. The moratorium has allowed whale populations to recover, demonstrating the IWC's commitment to conservation and sustainable management of marine resources.

Additionally, the IWC has played a key role in advancing scientific research on whales. The organization has facilitated collaborative efforts among member countries to conduct in-depth studies on whale behavior, population dynamics, and ecosystems. This scientific knowledge has contributed to a better understanding of whales and informed conservation measures aimed at protecting their habitats and ensuring their long-term survival. The IWC has also successfully addressed emerging threats to whales, such as ship strikes and entanglement in fishing gear. Through its work, the commission has raised awareness of these issues and promoted the implementation of measures to mitigate these threats. This proactive approach demonstrates the IWC's ability to adapt to meet new challenges in whale conservation.

Additionally, the IWC promoted international cooperation and diplomacy among its member countries. The commission provides a platform for nations to come together, share information and collaborate on common goals related to whale conservation. This diplomatic engagement strengthened global efforts to protect whales and their habitats. The creation of whale sanctuaries is another notable success of the IWC. These designated areas provide essential habitats for

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whales, where they can feed, breed and migrate without the threat of commercial whaling. The creation of these sanctuaries reflects the IWC's commitment to creating safe spaces for whales to thrive.

The IWC has also played a role in addressing the problem of illegal, unreported and unregulated (IUU) whaling. The commission has implemented measures to combat IUU hunting activities, including the development of a comprehensive inspection and observation program. These efforts have helped reduce the prevalence of illegal whaling and enforce regulations among member countries. Additionally, the IWC has recognized the importance of integrating indigenous knowledge and perspectives into its decision-making processes. Including Indigenous voices in discussions about whale conservation ensures a more holistic and culturally sensitive approach to protecting these majestic creatures.

The commission managed to overcome political challenges and differences among member countries to reach consensus on key issues. The ability to bring together nations with diverse interests and perspectives demonstrates the effectiveness of the IWC as an international organization dedicated to whale conservation. The IWC's commitment to whale welfare extends beyond conservation and extends to promoting responsible whale watching as a sustainable alternative to commercial whaling. By encouraging environmentally friendly tourism, the commission has contributed to the economic well-being of coastal communities while raising awareness of the importance of preserving whales in their natural habitats.

The successes of the International Whaling Commission are multifaceted, ranging from a moratorium on commercial whaling to the creation of whale sanctuaries to the promotion of scientific research and responsible whale watching. The commission's achievements highlight the importance of international collaboration to address global environmental challenges and protect marine biodiversity.

## **Emerging challenges:**

Although the IWT has been successful in many respects, new challenges threaten its long-term viability. Climate change is altering precipitation patterns, which could impact water availability and exacerbate existing inequalities. Population growth in both countries is leading to increased demand for water, putting pressure on existing allocations. Additionally, issues such as melting glaciers, hydropower development plans, and environmental flows remain controversial and

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require nuanced solutions. The emerging challenges of the contemporary world cover diverse areas, encompassing technological, environmental, social and economic aspects. One of the biggest challenges is rapid advancements in technology, which bring both unprecedented opportunities and risks. The rise of artificial intelligence, automation and robotics poses a threat to traditional labor markets, requiring innovative approaches to workforce development and education.

Environmental sustainability remains a pressing concern as the planet grapples with the impacts of climate change. Rising temperatures, extreme weather events and depletion of natural resources require immediate attention and concerted global efforts to mitigate and adapt. The need for sustainable practices extends beyond the environmental realm to encompass ethical considerations in technology development, ensuring that advancements align with human values and rights. In the social field, the world faces challenges related to inequality, discrimination and social justice. Issues such as racial injustice, gender inequality, and economic disparities require proactive measures to create inclusive societies. Additionally, the global community is grappling with the consequences of mass migration, highlighting the need for comprehensive and compassionate immigration policies.

Economic challenges include the impact of globalization, trade tensions and economic disparities between nations. The ongoing digital revolution also poses challenges related to cybersecurity and privacy in an interconnected world. Reconciling economic growth and social and environmental responsibility is a delicate task that requires innovative policies and international cooperation. The healthcare sector faces challenges such as the emergence of new diseases, antibiotic resistance and the need for affordable and accessible healthcare worldwide. Recent global health crises, including the COVID-19 pandemic, highlight the importance of strong health systems and international collaboration to address health challenges.

Education systems also face challenges adapting to the rapidly changing needs of the workforce and preparing students for a technology-driven future. Lifelong learning and reskilling initiatives are becoming imperative to bridge the gap between traditional education and the skills required in the modern job market. Cybersecurity threats, including data breaches and cyberattacks, pose significant challenges to individuals, businesses and governments. As technology becomes more intertwined with daily life, protecting sensitive information and digital infrastructure becomes increasingly essential. The emerging challenges of the 21st century are multifaceted and

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interconnected, requiring holistic and collaborative approaches. Adapting to technological advances, promoting environmental sustainability, tackling social inequalities and managing economic complexities are essential to building a resilient and inclusive global society. Successfully meeting these challenges requires innovation, adaptability and a shared commitment to creating a better future for all.

## **Adapting to the future:**

IWT must adapt to meet these emerging challenges. A focus on data sharing and joint scientific assessments of climate change impacts is essential for informed decision-making. Strengthening basin-wide management cooperation, including joint initiatives for flood control and ecosystem restoration, could foster trust and benefit sharing. It may also be necessary to review the treaty's provisions on data sharing, dispute resolution and environmental considerations as international water law evolves. Adapting to the future is an inevitable and crucial aspect of our existence. The world is constantly evolving, driven by technological advancements, social changes and global challenges. To thrive in this dynamic environment, individuals, businesses and societies must make adaptability a core value.

A key part of adapting to the future is staying abreast of technological innovations. The rapid pace of technological change requires continuous learning and updating of skills. Whether professionally or personally, having technological knowledge is essential to meet the challenges and seize the opportunities that await us. The concept of digital transformation is closely linked to technology. Organizations must adapt their processes and strategies to exploit the full potential of digital tools and platforms. This not only improves efficiency, but also opens new avenues for innovation and growth. Embracing digital transformation is an integral part of remaining relevant in an increasingly interconnected and digitized world.

Global challenges such as climate change, pandemics and economic uncertainties require a proactive approach to adaptation. Individuals and communities must foster resilience and sustainable practices to mitigate the impact of these challenges. This involves not only addressing immediate concerns, but also envisioning and building a future better equipped to deal with unforeseen crises. Faced with societal changes, embracing diversity and inclusion is essential. Adapting to a more interconnected and diverse world requires a shift in mindset and a commitment to fostering equality. Organizations and communities that prioritize diversity not only contribute to social progress, but also position themselves to better understand and respond

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to a broader range of perspectives and needs. Another dimension of adapting to the future is the changing nature of work. With the rise of remote and flexible work arrangements, individuals and organizations must redefine traditional notions of the workplace. Developing skills such as remote collaboration, adaptability and resilience becomes crucial in this evolving professional landscape.

## **Summary:**

The Indus Water Treaty remains the cornerstone of water cooperation in South Asia. By recognizing its successes, analyzing its limitations and proactively addressing emerging challenges, India and Pakistan can ensure a sustainable future for the Indus Basin and inspire similar efforts in transboundary water resources management in the whole world.

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