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Water Resources and Geopolitical Tensions in the Himalayas: Analysing Nepal's Mediating Role

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Abstract

The Himalayan region, often regarded as the 'water tower' of Asia, is crucial for sustaining millions of people across Asia. As climate change exacerbates water scarcity, competition over shared water resources has intensified geopolitical tensions between India and China, particularly concerning the Indus and Brahmaputra river basins. This research posits that the escalating competition over shared water resources in the Himalayan region, intensified by climate change and nationalistic narratives from India and China, necessitates an exploration of Nepal's mediating role, cooperative frameworks from other regions, and sustainable practices to alleviate tensions and promote regional stability, ultimately informing policymakers on effective strategies for conflict resolution and governance amid growing geopolitical challenges. Furthermore, it examines Nepal's diplomatic strategies aimed at balancing its relationships with both powers while asserting its own interests. By analysing successful frameworks for mediation and cooperation from other regions, such the Mekong River basin**,** this study proposes actionable strategies for enhancing collaborative water management among India, China, and Nepal. This article is based on both secondary information as well as primary data sources. Under primary sources, in-depth interview has been taken from the three selective experts. Such experts were selected purposively on the basis of their fields of expertise. Similarly, for the secondary information, previously published articles and journals of the scholars from the diverse background has been reviewed and critically analysed. Their views are compared and contrasted to come to the logical conclusion regarding this field. The findings of this research suggest that the regional disputes in the twenty first century is an established fact, and one of the reasons of this tension is, of course, not other than the water resources and geopolitical strategies. Fostering sustainable practices and establishing transparent data-sharing mechanisms can alleviate such tensions and promote regional stability between and among the countries. Ultimately, this research emphasizes the importance of cooperative frameworks in addressing the challenges posed by water resource competition in the Himalayas and calls for further exploration of Nepal's role in facilitating peace and conflict management in the region. This study contributes to the understanding of the intersection between water resources and geopolitics, providing insights that are critical for policymakers and stakeholders invested in the sustainable management of shared water resources in the Himalayas.

Keywords : water resources, geopolitics, Himalayas, , conflict management, mediation

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Introduction

The Himalayas, often referred to as the 'water tower' on earth and without doubt, of Asia too has been playing a pivotal role in sustaining the hydrological systems of South Asia. With glaciers and snowfields feeding major rivers such as the Indus, Ganges, and Brahmaputra, this region is vital for the livelihoods of over a billion of people in the regions. Moreover, these river systems are also the backbone of the diverse civilizations since thousands of years across the countries. However, the strategic importance of these water resources has also made them a source of intense geopolitical competition, particularly between India and China in recent decades. As both countries vie for regional influence, the management of shared water resources has emerged as a critical flashpoint, exacerbated by factors such as climate change, population growth, and increasing industrial demands.

In recent years, the dynamics of water resource competition have intensified. China's ambitious hydropower projects in Tibet, including dam constructions on the Brahmaputra, have raised alarms in India regarding potential reductions in water flow and the implications for agricultural and urban water supply (Saha, 2020). Concurrently, India has adopted a more assertive stance on water security, viewing these developments as direct threats to its sovereignty and regional stability (Mishra, 2021). River link project of India, the rhetoric surrounding these issues often intertwines with nationalist sentiments, framing water as a matter of national security, thereby complicating diplomatic negotiations. Nepal occupies a unique geopolitical position in this complex landscape. Nestled between India and China, it serves as a critical source of water flowing into both countries. This geographic advantage allows Nepal to play a potentially transformative role as a mediator in disputes over water resources. Historically, Nepal has sought to maintain equidistant relations with both powers, leveraging its position to advocate for collaborative approaches to water management. However, the challenges are significant; Nepal must navigate its own domestic needs while managing external pressures from both India and China.

This research argues that the escalating competition over shared water resources in the Himalayan region, exacerbated by climate change and framed through nationalistic narratives by India and China, necessitates a comprehensive examination of Nepal's unique mediating role, potential frameworks for cooperation from other regions, and the importance of sustainable practices to alleviate tensions and promote regional stability in water management. By understanding these dynamics, the study aims to inform policymakers on effective strategies for conflict resolution and collaborative governance in the face of increasing geopolitical challenges.

By analysing case studies of successful mediation efforts from other regions, this paper will propose strategies for enhancing cooperation among India, China, and Nepal. The findings aim to contribute to the broader discourse on water resource management in the context of international relations, highlighting the intricate interplay between environmental sustainability, national interests, and regional stability. Ultimately, this research underscores the significance of Nepal's mediating role in fostering dialogue and cooperation in an increasingly contentious geopolitical environment.

Methodology

This study employs a mixed-methods approach to examine water resource conflicts in the Himalayas, focusing on the dynamics between Nepal, India, and China. The qualitative component

includes semi-structured interviews with key stakeholders such as policymakers, environmental scientists, and community leaders, using purposive sampling to gain in-depth insights into water resource management challenges. Thematic analysis is applied to identify key patterns. Document analysis of policy reports and academic literature further contextualizes the findings. The quantitative component involves the collection of data from government and NGO sources, analysed through statistical software to identify correlations between factors like water scarcity and support for cooperative management. Ethical standards, including informed consent and confidentiality, are maintained throughout. This methodology aims to provide a holistic understanding of the geopolitical, environmental, and technological factors driving water resource conflicts, offering insights for effective policy recommendations. Geopolitical Context of Water Resources in the Himalayas.

Context

Water resource management in the Himalayas has a multifaceted history influenced by colonial legacies, evolving national policies, and international agreements. The Indus Water Treaty (1960) between India and Pakistan remains a cornerstone for water sharing in the Indus Basin, yet many disputes persist, often stemming from differing national priorities and regional politics (Gleick, 2016). The Brahmaputra River, shared by India, China, and Bangladesh, adds complexity to the situation as competing interests in dam construction and water diversion fuel tensions. For instance, scholars like M. S. Swaminathan have emphasized the importance of regional cooperation in managing transboundary Rivers to mitigate conflicts and promote sustainable development (Swaminathan, 2018).

In recent years, tensions have escalated over water management strategies, particularly with China's aggressive development of hydropower projects in Tibet. India views these initiatives as direct threats to its water security, prompting a strategic military response along its borders (Saha, 2020). The construction of dams by China on the Brahmaputra, referred to as the Yarlung Tsangpo in Tibet, raises concerns over potential reductions in downstream water availability for India and Bangladesh, which depend heavily on the river. Moreover, water scarcity, exacerbated by climate change, complicates these geopolitical dynamics. Climate-induced changes in precipitation patterns and glacial melt threaten the reliability of water resources, particularly for agrarian communities in the region (Mishra, 2021).

The Himalayan region, rich in water resources, is increasingly marked by geopolitical tensions among India, China, and Nepal, driven by competition over water access, national security concerns, and environmental challenges. Geopolitically, water management is often framed within nationalist narratives, with India and China prioritizing territorial claims over cooperative governance, exacerbated by projects like China's dams on the Brahmaputra River (Biswas, 2019; Saha, 2020). Mishra (2021) and Gleick (2016) highlight the risks of water disputes escalating into broader conflicts, underscoring the need for proactive diplomacy and regional cooperation. Environmentally, climate change is altering hydrological patterns, intensifying water scarcity, and increasing competition for resources (Bashar & Bhat, 2022; Shrestha, 2017), while also threatening food security and economic stability. Swain (2019) and Mishra (2021) advocate for sustainable, cooperative water management strategies to address these environmental pressures.

Technologically, innovations like remote sensing and GIS offer opportunities for improved water management, but technological disparities among nations can deepen mistrust (Le & Tuong, 2021; Kumar, 2020). Nepal, strategically positioned at the source of major rivers, plays a key role in mediating these disputes, with its equidistant diplomacy potentially facilitating cooperation between India and China (Kumar, 2020; Saha, 2020). Nepal's involvement in joint water resource management frameworks is crucial for fostering regional trust and stability (SAARC, 2021).

Despite extensive literature, gaps remain in evaluating the effectiveness of Integrated Water Resource Management (IWRM) frameworks, particularly in the context of geopolitical and environmental changes. Existing studies often focus on state-level dynamics, neglecting local community perspectives. Longitudinal research is needed to track the impacts of climate change and geopolitical shifts over time. Additionally, while technological advancements are frequently discussed, empirical studies on their implementation and role in conflict resolution are scarce. More interdisciplinary research integrating political science, environmental studies, and technology is needed to develop holistic solutions for managing water resource conflicts in the region.

The Role of Water Resources in Regional Conflicts

Water resources in the Himalayan region are not merely natural assets; they are deeply intertwined with geopolitical stability and national security. As competition for these resources intensifies, understanding the implications of water scarcity and the role of nationalism becomes crucial. Climate change has a profound impact on the hydrology of the Himalayas, altering glacial melt rates and precipitation patterns. This phenomenon is leading to increased water scarcity, which, in turn, drives competition among nations for control and management of these critical resources. According to Bashar and Bhat (2022), the depletion of water resources due to changing climatic conditions not only affects local communities but also influences national security policies. For instance, India has expressed significant concern over potential reductions in water flow from the Brahmaputra River, primarily due to Chinese dam construction in Tibet.

China's ambitious hydropower projects along the Brahmaputra have raised alarms in India regarding the potential for decreased water availability during critical agricultural seasons. India relies heavily on the Brahmaputra for irrigation and domestic water supply, making it a national security issue (Mishra, 2021). On the other hand, The Ganges Linking Project in India seeks to interlink rivers to combat water scarcity, enhance irrigation, and manage flooding. However, this initiative has ignited significant controversy over water rights and regional equity in South Asia. Critics argue that diverting river flows could exacerbate tensions among states, negatively impact downstream ecosystems, and threaten the livelihoods of communities reliant on natural water sources (Mishra, 2016). The project faces opposition from various stakeholders, including farmers, environmentalists, and indigenous communities who fear that their water access and agricultural practices will be compromised. Additionally, concerns about the potential displacement of populations and the socio-economic implications of large-scale infrastructure projects are prominent (Ghosh, 2019).

Key conflicting parties include the Indian government, advocating for the project as a solution to water scarcity, and several Indian states, such as Bihar and Uttar Pradesh, which express concerns over reduced water availability. Neighbouring countries like Bangladesh voice strong reservations, fearing that the project could diminish the Ganges' flow, exacerbating water stress and

affecting agriculture and fisheries in their regions (Rahman, 2020). Furthermore, Nepal, which shares the Ganges basin, could see its own water resources impacted, as alterations in river flows might affect agricultural outputs and hydropower projects dependent on consistent water levels.

China, on the other hand, is strategically positioned upstream, and any changes to water management in the Ganges could influence broader regional water dynamics, especially if China considers diversifying its own river management strategies (Singh, 2021). This geopolitical dimension adds layers of complexity to the conflict, highlighting the need for cooperative governance and equitable resource management across the region. Without effective dialogue and equitable practices, the Ganges Linking Project risks escalating tensions both within India and with its neighbours, underscoring the urgent need for collaborative solutions to transboundary water issues. Similarly, India has ramped up its military presence in the north-eastern states and has sought to bolster infrastructure and irrigation systems to mitigate the risks associated with reduced water flow. Disputes, such as the ongoing tensions over the Indus Water Treaty between India and Pakistan, exemplify how water scarcity can lead to violent confrontations. As Bashar and Bhat (2022) note, the scarcity of water resources has often been a flashpoint for broader geopolitical conflicts, highlighting the urgent need for cooperative management frameworks that can help alleviate tensions.

Nationalistic sentiments play a significant role in shaping water resource policies in both India and China. In these countries, water issues are often framed within the context of national security, emphasizing sovereignty over shared water bodies. According to Biswas (2019, p. 554), both nations utilize rhetoric that portrays water as a national asset, leading to heightened tensions and complicating diplomatic negotiations. In India, water is often viewed through a lens of national pride and security, particularly regarding the country's rivers, which are considered integral to its cultural and historical identity. The portrayal of water resources as essential for national survival has led to a more aggressive stance on water management policies. For instance, during periods of drought, Indian officials have publicly emphasized the need to safeguard water resources from perceived threats, including those posed by upstream activities in China (Saha, 2020, p. 128).

Similarly, China frames its water policies through the lens of national interests and sovereignty. The construction of dams and water diversion projects in Tibet is often justified as a means of ensuring water security for its own population. This framing serves to rally domestic support and reinforces the government’s legitimacy. However, it also exacerbates tensions with downstream countries like India and Bangladesh, as these nations fear that such projects will undermine their own water security (Mishra, 2021, p. 5). Arun Kumar Subedi argues that China doesn't provide hydrological data which could assist to India and Bangladesh to utilise flood control measures along Brahmhoputra river basin. The nationalist framing of water issues complicates diplomatic negotiations and increases the likelihood of conflict. When both nations perceive water resources as vital to their national interests, it creates an environment ripe for confrontation. For instance, the rhetoric surrounding the Brahmaputra River has intensified as India and China engage in a war of words over water management, with both sides emphasizing their historical rights to these shared resources (Biswas, 2019, p. 555).

Some relevant case studies of water conflicts can be cited in this context

The role of water resources in regional conflicts is not merely theoretical; it is illustrated through numerous case studies across South Asia. One notable example is the ongoing dispute over the Indus River System between India and Pakistan. The Indus Water Treaty, established in 1960, was designed to allocate water resources between the two nations. However, rising tensions due to water scarcity and infrastructure projects on both sides have led to repeated conflicts, with both countries accusing each other of violating the treaty (Gleick, 2016, p. 425). The construction of dams and irrigation projects by India, such as the Kishanganga Hydroelectric Project, has further strained relations, as Pakistan argues these developments threaten its water supply (Shah, 2019, p. 50).

Another significant example is the Brahmaputra River, where Chinese dam projects have sparked fears in India regarding the potential for reduced water flow. India's apprehensions are not unfounded; in 2020, China announced plans to divert a portion of the Brahmaputra for its hydropower needs, raising alarms in New Delhi (Saha, 2020, p. 162). This move was perceived as a direct threat to India's water security, prompting calls for a more proactive stance in safeguarding its interests. Additionally, Bangladesh, as a downstream neighbour, has voiced concerns about the implications of Chinese projects on water availability, underscoring the transboundary nature of these conflicts (Miah, 2021, p. 721).

The dispute over hydroelectric projects between Nepal and India primarily centres on the Arun III project, which faced delays and controversies regarding funding and environmental concerns. While India has historically supported Nepal's hydro development, local opposition in Nepal arose over issues related to land acquisition, revenue sharing, and the perceived lack of benefits for local communities. The project has been criticized for potentially displacing residents and impacting ecosystems, leading to calls for more transparent negotiations and equitable terms (Poudel, 2020). In the case of Nepal, the construction of large hydropower projects, such as the Upper Karnali Hydropower Project, (900 MW) has led to tensions with India. While these projects are intended to enhance Nepal's energy capacity and economic development, local communities have raised concerns about environmental impacts and the displacement of people. Indian companies involved in these projects have faced criticism, with accusations of insufficient engagement with affected communities (Pandey, 2020, p. 225). The potential for water-sharing agreements between Nepal and India could either exacerbate or alleviate these tensions, depending on the approach taken (Bhatia & Shrestha, 2021, p. 111).

In contrast, Nepal's engagement with China for hydroelectric development, such as the 1,200 MW Budhi Gandaki project, has also sparked controversy. While this partnership aims to boost Nepal's energy capacity, it has been marred by allegations of lack of due diligence and transparency. Critics argue that the project could lead to significant environmental degradation and insufficient compensation for affected communities. Additionally, concerns about excessive reliance on Chinese investment have fuelled fears of sovereignty and long-term economic dependency (Shrestha, 2021). The Saptakoshi River also serves as a focal point for conflict, particularly between Nepal and India. India's construction of embankments along the Saptakoshi has led to flooding issues in Nepal, raising alarms over cross-border water management and the need for cooperative strategies to address such disputes (Tiwari, 2020, p. 40). As climate change intensifies the

variability of monsoon rains, the management of rivers like the Saptakoshi will become increasingly critical, highlighting the importance of collaboration among neighbouring countries (Khanal, 2022, p. 84).

The issue of the Ganges River basin demonstrates the complexities of water management in a multi-nation context. India and Bangladesh have engaged in negotiations over the sharing of the Ganges' waters, particularly concerning the Farakka Barrage, which India constructed to divert water for irrigation. While the Ganges Water Sharing Agreement of 1996 was a step toward cooperation, ongoing disputes and concerns about water quality and seasonal flow continue to challenge the relationship between the two nations (Rahman, 2021, p. 90).

Mutual Interests of India and Nepal in Water Resource Management

India and Nepal share a deep interdependence concerning water resources, driven by geographical proximity, cultural ties, and economic considerations. Collaborative water management presents opportunities for both nations, particularly in hydropower generation, irrigation, and flood management. One significant example of mutual interest is the development of the Mahakali River, which flows between India and Nepal. The Mahakali Treaty, signed in 1996, aims to utilize the river's resources for mutual benefit. The agreement provides for the construction of the Pancheshwar Multipurpose Project, which is expected to generate substantial hydropower while also aiding irrigation in both countries (Bhatia & Shrestha, 2021, p. 115). This project exemplifies how cooperative management of shared river systems can bolster economic development while ensuring water security.

Another key area of collaboration is in flood management. The Saptakoshi River has historically been a source of flooding in Nepal, impacting communities on both sides of the border. India and Nepal have engaged in discussions to develop a comprehensive flood management strategy, which could include the construction of embankments and drainage systems to mitigate flooding impacts (Tiwari, 2020, p. 42). By working together on these issues, both nations can protect vulnerable populations and infrastructure while fostering regional stability. Additionally, the collaboration on smaller rivers, such as the Gandaki and the Karnali, presents opportunities for joint irrigation projects. These rivers are critical for agricultural productivity in both countries. For instance, joint irrigation projects could enhance agricultural output in Nepal while ensuring a reliable water supply for Indian farmers downstream (Pandey, 2020, p. 227). Such initiatives not only promote food security but also strengthen economic ties between the two nations.

The potential for joint ventures in hydropower development is another area of mutual interest. Nepal has immense hydropower potential, estimated at around 83,000 MW, of which approximately 43,000 MW is considered economically feasible (Khanal, 2022, p. 82). India, with its growing energy demands, stands to benefit from this collaboration. By investing in Nepal’s hydropower projects, Indian companies can secure a stable energy supply while supporting Nepal’s economic growth. Moreover, both countries recognize the importance of environmental sustainability in their water management practices. Collaborative efforts in managing the ecological health of shared rivers can mitigate the adverse effects of climate change. For instance, joint research initiatives focused on the impact of climate change on the Himalayan glaciers and river systems can lead to more effective adaptation strategies (Miah, 2021, p. 724).

Lastly, cultural and historical ties between India and Nepal often translate into public support for cooperative water management. The shared heritage of the Ganges and its tributaries fosters a sense of community and mutual responsibility for these vital resources (Shah, 2019, p. 55). This cultural connection can be a powerful driver for continued collaboration on water issues, ensuring both nations remain committed to joint solutions. These examples underscore the potential for India and Nepal to work together in a manner that promotes mutual interests and benefits, ultimately fostering a more stable and prosperous region.

The Role of International Law

The complexities of water resource management are further compounded by the lack of effective international legal frameworks governing transboundary rivers. While various treaties exist, such as the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, enforcement mechanisms remain weak, leaving nations to navigate disputes largely on their own terms (Gleick, 2016). Prof. Dr. Hem raj Subedi believes that Upper Riverian country must follows the international convention to address the rights of downstream nation.

This absence of robust international governance often leads to unilateral actions that exacerbate tensions. For instance, when China embarked on the construction of dams on the Brahmaputra, it did so without consulting India, which views this as a violation of international norms (Mishra, 2021). Consequently, the lack of collaboration not only heightens the risk of conflict but also undermines long-term sustainability of water resources in the region.

Nepal's Unique Position

Nepal's geographic and political significance in the Himalayan region cannot be overstated. Arun Kumar Subedi argues that until Nepal changes its water philosophy, she cannot impress much to India and China to resolve the water related issues. As a crucial source of several major rivers, the country plays an essential role in the hydrological dynamics that influence water availability for its neighbours, India and China. This strategic position allows Nepal to act as a potential mediator in the often-contentious water resource disputes between these two regional powers. Prof. Dr. Hem raj Subedi suggests Government of Nepal to take primitive step to minimise hydro related tension with its neighbours. Dr. Moti Lal Rijal believes Nepal's unique position as a neutral party capable of facilitating dialogue and cooperation, balancing its own water needs while advocating for sustainable practices in the region.

Geographic and Political Significance

Nepal is situated at the heart of the Himalayan watershed, making it a vital player in the management of water resources. The rivers originating from Nepal, including the Koshi, Gandaki, and Karnali, flow into India and contribute significantly to its river systems. As Shrestha (2017) notes, Nepal's topography and hydrology provide it with significant leverage over downstream water availability. This situation gives Nepal a unique role, as decisions made within its borders directly impact water security for millions in India.

The geographical advantage is further accentuated by the looming threats posed by climate change. With glaciers melting at accelerated rates and changing precipitation patterns affecting river flows, Nepal's role as a steward of water resources has become even more critical. The country's ability to manage these resources sustainably will be pivotal for regional stability, making its political relationships with both India and China crucial (Mishra, 2021). However, Nepal's

geopolitical significance is tempered by the complexities of its diplomatic relationships. Historically, Nepal has maintained a delicate balancing act between India and China, two countries that have substantial influence over its economic and political affairs. This dynamic often puts Nepal in a challenging position, as it seeks to assert its sovereignty while catering to the interests of both powerful neighbours.

Diplomatic Strategies of Nepal

To navigate the complex geopolitical landscape, Nepal has adopted a policy of equidistance, aiming to balance its relationships with both India and China. This approach is evident in several diplomatic initiatives aimed at enhancing economic ties without alienating either country. One notable example is the Nepal-China Transit and Transportation Agreement signed in 2016, which allows Nepal access to Chinese ports for trade. This agreement not only opens up new avenues for economic growth but also serves as a counterbalance to India's traditional dominance in Nepalese trade (Kumar, 2020). By enhancing its economic ties with China, Nepal aims to reduce its dependency on India, thereby gaining more leverage in its negotiations with both nations. Moreover, Nepal's participation in China's Belt and Road Initiative (BRI) has raised both opportunities and concerns. While the BRI offers significant infrastructure investment, it also poses risks of increased Chinese influence in Nepalese affairs. However, Nepal has been cautious in managing this relationship, asserting its independence by advocating for projects that prioritize local benefits and sustainable development (Shrestha, 2017).

Another key aspect of Nepal's diplomatic strategy involves leveraging international organizations and regional platforms. Nepal is an active member of the South Asian Association for Regional Cooperation (SAARC) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Through these platforms, Nepal advocates for collaborative approaches to water management and regional development, emphasizing the importance of mutual cooperation among South Asian nations. Nepal's unique geopolitical position is underscored by various case studies that illustrate its potential as a mediator in water disputes. One notable instance is the 2017 agreement between India and Nepal to develop the Koshi River. This agreement aimed to establish a framework for joint management of the river, emphasizing collaborative approaches to address flood control and irrigation needs (Gleick, 2016). Nepal played a vital role in this negotiation, showcasing its capability to facilitate discussions on water management.

Additionally, Nepal has been involved in discussions regarding the Mahakali River, which flows between Nepal and India. The Mahakali Treaty, signed in 1996, aimed to regulate the water use of the river for mutual benefit. While the treaty has faced challenges in implementation, it exemplifies Nepal's potential to mediate between its larger neighbors and advocate for equitable resource management (Mishra, 2021). Furthermore, Nepal's proactive stance in addressing climate change impacts on water resources positions it as a crucial player in regional discussions. The country has participated in international forums, such as the United Nations Framework Convention on Climate Change (UNFCCC), advocating for cooperative strategies to manage transboundary water resources in light of climate-induced challenges (Bashar & Bhat, 2022).

Challenges and Future Directions

Despite its strategic advantages, Nepal faces numerous challenges in fulfilling its potential as a mediator. Political instability, infrastructural deficits, and economic dependency on its neighbours complicate its diplomatic manoeuvres. Additionally, rising nationalistic sentiments in

both India and China can hinder Nepal's efforts to maintain equidistance and promote collaborative frameworks. To strengthen its mediating role, Nepal must focus on developing robust domestic institutions capable of managing water resources sustainably. Furthermore, fostering public awareness and engagement on water issues can empower communities to advocate for their rights, thereby reinforcing Nepal's position in regional negotiations.

In conclusion, Nepal's unique geographic and political significance offers it a pivotal role in the management of Himalayan water resources. Through a balanced approach to diplomacy, active participation in regional frameworks, and commitment to sustainable practices, Nepal can enhance its capacity to mediate disputes and promote stability in this vital region.

Nepal as a Mediator

Nepal's strategic position between India and China offers it a unique opportunity to act as a mediator in the increasingly contentious arena of water resource management in the Himalayas. By leveraging its relationships and geographic advantages, Nepal can facilitate dialogue, promote cooperative frameworks, and enhance regional stability. Dr. Motilal Rijal argues that impact of climate change on water availability, the necessity of holistic, cooperative frameworks for transboundary water management, and the importance of public perception and nationalism in shaping policy. Hence, Nepal needs to change its water philosophy and strategic policy to act as a mediator among conflicting nations.

Frameworks for Mediation

To effectively mediate water disputes between India and China, Nepal can implement structured frameworks that facilitate collaboration and conflict resolution. One such framework is joint river basin management (JRBM), which emphasizes cooperative approaches to managing shared water resources. JRBM involves stakeholders from all countries sharing a river basin, encouraging them to work together on issues such as water allocation, pollution control, and disaster management (Mishra, 2021). This approach not only fosters mutual understanding but also builds trust among nations, reducing the likelihood of conflict. Nepal's role in JRBM can be crucial, given its position as a source of major rivers flowing into both India and China. By establishing platforms for regular dialogue and collaborative planning, Nepal can facilitate discussions that consider the needs and concerns of all parties involved. This could involve creating technical committees that focus on data sharing, hydrological studies, and joint monitoring efforts to ensure equitable resource management.

Engaging international organizations, such as the United Nations, can further bolster Nepal's mediation efforts. The UN has a wealth of experience in conflict resolution and can provide technical support, funding, and legitimacy to mediation initiatives. For instance, the UN Environment Programme (UNEP) can assist in developing environmental assessments and sustainability criteria that guide water management practices in the region. By involving global stakeholders, Nepal can elevate the importance of its mediation efforts and garner broader support for sustainable practices.

Case Studies of Successful Mediation

Examining successful mediation efforts from other regions can provide valuable lessons for Nepal as it seeks to establish effective frameworks for managing water resources. One notable example is the Mekong River Commission (MRC), which facilitates cooperation among the countries sharing the Mekong River—namely, Cambodia, Laos, Thailand, and Vietnam. The MRC

operates on principles of mutual benefit and collective decision-making, allowing member countries to collaborate on sustainable management practices while addressing individual national interests (Le & Tuong, 2021).

The MRC has successfully implemented joint projects focused on environmental sustainability, flood management, and fisheries resources. For instance, the Commission's integrated water resources management approach has enabled member states to work together on flood forecasting and risk reduction, which has significant implications for agricultural planning and disaster preparedness. This collaborative governance model not only mitigates conflicts but also enhances regional resilience to climate change impacts (Le & Tuong, 2021).Nepal could draw several lessons from the MRC's experience. First, establishing a formal mechanism for regular dialogue and collaboration can help foster trust and transparency among stakeholders. By engaging in continuous communication, Nepal can create an environment where India and China feel comfortable discussing sensitive issues related to water management. Second, implementing a framework for shared data collection and monitoring can enhance understanding of hydrological dynamics in the region. By promoting transparency, Nepal can help alleviate fears regarding unilateral actions that could threaten water security for either India or China. Lastly, Nepal should focus on capacity-building initiatives that empower local communities to engage in water management discussions. By including local perspectives and traditional knowledge, Nepal can foster a more inclusive approach that enhances the legitimacy of mediation efforts. Dr. Moti Lal Rijal's perspectives could shed light on innovative, sustainable practices for water storage and distribution in the Himalayan region, such as multi-purpose storage systems and seasonal water management strategies.

Challenges and Considerations

While Nepal has the potential to play a mediating role, several challenges must be addressed to realize this vision. Political instability within Nepal, coupled with external pressures from both India and China, can complicate its ability to act as a neutral facilitator. Moreover, rising nationalistic sentiments in both neighbouring countries may hinder cooperative efforts, as each nation prioritizes its own interests over collective well-being. To navigate these challenges, Nepal must strengthen its internal governance structures and ensure that it presents a united front in its mediation efforts. By fostering political stability and promoting a national consensus on water resource management, Nepal can enhance its credibility as a mediator. Dr. Moti Lal Rijal believes this research would emphasize the need for both dialogue and forward-thinking strategies to secure shared water resources in an increasingly volatile geopolitical landscape.

Findings, Conclusion and Recommendations

Findings

This research underscores the intricate relationship between water resources and geopolitical tensions in the Himalayan region, particularly among India, China, and Nepal. The findings reveal that water scarcity, exacerbated by climate change and competing national interests, significantly contributes to regional conflicts. As both India and China intensify their focus on water security, the potential for disputes over shared resources increases, necessitating effective conflict management strategies. Nepal's unique geographic position enables it to act as a critical mediator in this complex landscape. By leveraging frameworks such as joint river basin management and promoting bilateral agreements focused on data sharing and monitoring, Nepal can facilitate

constructive dialogue between its larger neighbours. The case studies of successful collaborative governance models, like the Mekong River Commission, offer valuable insights into how Nepal can implement similar strategies to foster cooperation and reduce tensions.

Moreover, the emphasis on sustainable practices in water management is crucial for long-term stability. Initiatives that prioritize the needs of local communities and promote eco-friendly projects can create mutually beneficial outcomes for all stakeholders involved. By empowering local populations and encouraging participatory decision-making, Nepal can enhance the legitimacy and effectiveness of water management efforts. Nepal can and should play the mediating roles between the two global giants, China and India, regarding the tension resolution, by applying strategic methods, that not only resolves the conflicts between these countries.

Conclusion

In conclusion, the path toward resolving water-related conflicts in the Himalayas lies in fostering cooperation and adopting sustainable practices. By positioning itself as a mediator and advocating for collaborative frameworks, Nepal can play a pivotal role in promoting regional stability and ensuring the sustainable management of shared water resources. This approach not only addresses immediate tensions but also lays the foundation for long-term peace and cooperation in a rapidly changing geopolitical landscape. Nepal's unique geographic and political position allows it to serve as an effective mediator in the complex landscape of water resource management in the Himalayas. By implementing structured frameworks such as joint river basin management and learning from successful international models like the Mekong River Commission, Nepal can facilitate dialogue and cooperation between India and China. Through these efforts, Nepal not only enhances its diplomatic standing but also contributes to regional stability and sustainable resource management in the face of growing challenges.

Recommendations for Conflict Management

To address the complex challenges surrounding water resource management in the Himalayas, it is essential to implement effective conflict management strategies. Given the intricate interplay between national interests and regional stability, enhancing cooperation among India, China, and Nepal is crucial, along with promoting sustainable practices. Enhancing cooperation among India, China, and Nepal is vital for effective water management. A fundamental recommendation is the establishment of bilateral and multilateral agreements that focus on data sharing and joint monitoring of river flows. Such initiatives can help mitigate tensions and build trust among the countries involved. For instance, agreements that mandate real-time data sharing about water levels, flow rates, and weather patterns can provide all parties with a clearer understanding of hydrological conditions. This transparency can significantly reduce suspicions and foster collaboration.

In practice, this could involve the creation of a regional water monitoring body, comprising representatives from India, China, and Nepal, to oversee and manage data collection. Furthermore, engaging local communities in monitoring efforts can enhance the legitimacy of these agreements, as grassroots involvement fosters a sense of ownership and responsibility. Additionally, Nepal can serve as a facilitator for establishing a Himalayan Water Resource Cooperation Framework, similar to existing models in other regions. By involving international organizations, such as the United Nations or regional development banks, Nepal can attract funding and technical expertise to support these initiatives. This collaborative framework would not only address current water management

challenges but also lay the groundwork for long-term cooperation in the face of climate change and growing water demands.

Promoting Sustainable Practices. The adoption of sustainable practices in water management is essential for ensuring long-term stability and reducing the potential for conflict. Implementing eco-friendly projects that prioritize local communities' needs can create a win-win situation for all parties involved. For instance, investing in community-based water management initiatives can empower local populations and provide them with the tools needed to manage resources sustainably. Moreover, Nepal can advocate for eco-tourism and sustainable hydropower projects that provide economic benefits while minimizing environmental impacts. By promoting projects that involve local communities in decision-making processes, Nepal can ensure that development aligns with the interests and needs of its citizens. This participatory approach can help reduce resistance to water management initiatives and foster a collaborative spirit among the involved countries.

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