SECURITY AND STRATEGY IN THE HIMALAYAS: EXAMINING INDIA'S APPROACH TO THE CHINA CHALLENGE

A

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LIST OF ABBREVATIONS

AGLS	Advanced Landing Ground
BJP	Bharatiya Janata Party
BRICS	Brazil, Russia, India, China and South Africa
BRO	Border Road Organisation
CAG	Comptroller and Auditor General
CBMs	Confidence Building Measures
CCS	Cabinet Committee on Security
CDRI	Coalition for Disaster Resilient Infrastructure
CPEC	China-Pakistan Economic Corridor
DSDBO	Darbuk-Shyok-Daulat Beg Oldie
ELM	Expert Level Mechanism
GDP	Gross Domestic Product
GLOFs	Glacial Lake Outburst Floods
HKH	Hindu Kush Himalaya
ICBM	Intercontinental Ballistic Missile
ICIMOD	International Centre of Integrated Mountain Development
IHR	Indian Himalayan Region
IISS	International Institute for Strategic Studies
IPCC	Intergovernmental Panel on Climate Change
ISRO	Indian Space Research Organisation
ITBP	Indo-Tibetan Border Police
LAC	Line of Actual Control

LiFE	Lifestyle for Environment
MEA	Ministry of External Affairs
MHA	Ministry of Home Affairs
MoD	Ministry of Defence
MoU	Memorandum of Understanding
MP-IDSA	Manohar Parrikar Institute for Defence Studies and Analyses
NCIWRD	National Commission for Integrated Water Resources Development
NFU	No First Use
NITI	Aayog National Institute for Transforming India
ORF	Observer Research Foundation
PLA	People's Liberation Army
PM	Prime Minister
PRC	People's Republic of China
QUAD	Quadrilateral Security Dialogue
SCO	Shanghai Cooperation Organisation
SR	Special Representative
SUMP	Siang Upper Multipurpose Project
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
VVP	Vibrant Village Programme
WMCC	Working Mechanism for Consultation and Coordination

ABSTRACT

The Himalayas represent one of Asia's most complex security frontiers, where territorial sovereignty, military contestation, ecological fragility, and hydrological interdependence converge within a single, strategically contested space. This study examines four core research objectives: the strategic and territorial significance of the Himalayas in shaping India-China relations; the historical and contemporary drivers of the border dispute; the impact of China's assertiveness on India's territorial, political, and environmental security; and the effectiveness of India's post-2020 deterrence-diplomacy-development response.

Employing a qualitative methodology drawing on government primary sources and peer-reviewed scholarship, the study applies Offensive Realism to explain China's assertive behaviour, Defensive Realism is used to analyse state priorities security under anarchy, Liberal Institutionalism and Complex Interdependence to capture how rivalry coexists with diplomacy and institutional engagement and Environmental Security theory alongside hydro-hegemony to analyse transboundary river governance as an arena of strategic competition.

The findings demonstrate that India's post-Galwan strategy constitutes a coherent, and increasingly integrated response to China's challenge. Notable progress is visible in the strengthening of deterrence capabilities, the expansion of diplomatic engagement, and the consolidation of developmental initiatives in frontier regions. While structural constraints persist-particularly in achieving full deterrence parity, institutionalising transboundary water governance, and enhancing borderland resilience-India's strategic approach reflects growing policy coordination and long-term orientation.

Overall, the dissertation argues that India is not merely managing a protracted contest but progressively enhancing its capacity to shape outcomes in the Himalayan strategic environment, thereby contributing to a more stable and sustainable regional security framework.

Keywords: Border Dispute, Border Governance, Environmental Security, Himalayan Geopolitics, Hydro-Hegemony, India–China Relations, Offensive Realism, Strategic Competition

Chapter I

Introduction

1.1 Background of the Study

The Himalayas, often referred to as the 'Abode of Snow,' constitute one of the most magnificent and strategically crucial mountain systems in the world. Extending over 2,400-2,500 kilometres in a sweeping arc from Nanga Parbat in the west to Namcha Barwa in the east, the range forms a formidable physical barrier between the Indian subcontinent and the Tibetan Plateau. Spanning across five countries - India, Nepal, Bhutan, China (Tibet), and Pakistan- the Himalayas are a defining feature of South Asia's geopolitical landscape. Within India, the thirteen key states and union territories forming part of the Indian Himalayan Region (IHR) include Ladakh, Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, and parts of West Bengal, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, and Assam. For India, the Himalayas hold immense territorial and strategic significance, defining international boundaries, shaping defence strategies, and serving as a critical buffer against external threats, particularly from China and Pakistan (Patel & Shah, 2023).

In Global Politics, Whitham and Heywood (2024) conceptualises 'security' not merely as the protection of sovereignty and territorial integrity but as a multidimensional concept encompassing political, economic, human and environmental dimension. This broader understanding is especially relevant to the Himalayan context, where military deterrence coexists with ecological fragility and political instability. Consequently, Himalayan security extends beyond conventional military concerns to encompass territorial sovereignty and environmental stability. The study therefore examines how India's strategic response toward China in the Himalayas integrates these dimensions, making the region a multidimensional security frontier. India's strategy in the Himalayan context extends beyond traditional military planning; it reflects a comprehensive effort to harmonise deterrence, development, and diplomacy, drawing insights from realism and liberal institutionalism. Alongside security, the concept of 'strategy' requires brief definitional grounding. Following Kennedy (1991) strategy here is understood as calculated coordination of available elements, both military and non-military - towards defined security objectives and

national interest. In the Himalayan context, India's strategy is not limited to military posture alone; it encompasses the calibration of deterrence, the management of diplomatic relationships, and the consolidation of territorial sovereignty through infrastructure and demographic development. This integrated understanding of strategy as a multidimensional instrument of statecraft supports the analytical framework applied across Chapters 3, 4, and 5.

1.2 Significance of Himalayas in India's Security Framework

The Himalayas hold profound geopolitical, and ecological significance for India. They shape India's climatology by acting as a natural barrier and influence the hydrology of South Asia by feeding major rivers such as the Indus, Ganga, and Brahmaputra (Marathe, 2024). The region's biodiversity and natural resources sustain India's ecological balance and economic growth. Geopolitically, the Himalayas lie at the crossroads of India and neighbouring countries- China, Nepal, Bhutan, and Pakistan-forming a zone where national security, territorial sovereignty, and resource competition converge.

For India, this mountain belt is not just a physical boundary but a strategic frontier central to its defence and foreign policy. Persistent border disputes, China's rapid infrastructure development along the Line of Actual Control (LAC), and ecological vulnerabilities have elevated the Himalayas from a peripheral boundary to a core of India's strategic and environmental security concerns. Yet, most existing scholarship focuses primarily on the military-strategic dimension, often overlooking the interconnections between territorial, political, and ecological security. The study bridges this gap by analysing India's approach to the China challenge in the Himalayas through an integrated lens encompassing territorial security as the core dimension, intersecting with political stability and environmental sustainability.

1.3 India's Security Challenges in the Himalayan Landscape

As Herz (1950) and Jervis (1978) observes, a security dilemma arises when one state's efforts to enhance its security provoke countermeasures by another, thereby intensifying mutual insecurity. India faces precisely such a dilemma in the Himalayas, where efforts to strengthen its border defences have triggered counter-militarisation by China. The region's terrain, ecological fragility, and proximity to two nuclear states make it one of Asia's most sensitive and contested security zones.

The rise of China has not only redefined the balance of power in Asia but also presented a series of challenges for India especially in Himalayan region. The Himalayas embody multiple dimensions of security-territorial, political, and environmental. India's challenge lies in maintaining deterrence while promoting regional development and safeguarding fragile ecosystems. The study employs a realist and ecological analytical framework, integrating insights from liberal institutionalism to evaluate India's multilateral engagement in managing the China challenge. The research focuses particularly on territorial-political security and environmental security, the two pillars that supports India's long-term stability in the Himalayan frontier.

1.3.1 Strategic and Territorial Security Challenges

The most persistent source of friction in the India-China relationship is the contested and undefined Line of Actual Control (LAC). Spanning approximately 3,488 kilometres according to India and around 2,000 kilometres according to China, this de facto line remains a persistent site of dispute. The LAC is divided into three sectors: Western sector, covering Ladakh,is the most contentious, with dispute centered around Aksai Chin, where competing colonial era boundaries like the Johnson line (1865) and the Macartney-MacDonald Line (1899) left overlapping territorial claims (Garver,2001; Maxwell,1970). The Middle sector spanning Himachal Pradesh and Uttarakhand, has witnessed comparatively fewer disputes. The Easter sector - covering Sikkim and Arunachal Pradesh - follows the McMohan Line (1914) negotiated between India and Tibet (Lamb,1966). China, however, rejects the legitimacy of the line on the grounds that Tibet lacks sovereign authority claiming Arunachal Pradesh as "South Tibet" (International Crisis Group, 2023).

Recurring military tensions such as the Doklam (2017) and Galwan (2020) confrontations highlight the consequences of these ambiguities. The study analyses India's strategic response to these territorial challenges, including its infrastructure expansion via the Border Roads Organisation (BRO), troop deployments, and surveillance enhancements, and diplomatic measures such as the Corps-Commander-level Talks and Special Representative mechanism. It also assesses how China's 'salami-slicing' (Haddick, 2012) and grey-zone strategies (Hader et al,2025) continue to alter India's traditional advantages, reshaping the strategic balance along the Himalayan frontier.

1.3.2 Hydro-Strategic and Environmental Security Challenges

The study examines the emerging hydro-political dimension of the India-China rivalry, particularly regarding the Yarlung Tsangpo (Brahmaputra). China's plan to build one of the world's largest hydropower projects on the upper reaches of the river has raised regional concerns about water security. As the upper riparian state, China possesses a natural hydrological advantage, influencing waterflow and ecosystem stability for downstream nations such as India and Bangladesh. This dynamic introduces the risk of 'weaponised water' (Manhas & Lad, 2024), reinforcing the concept of 'hydro-hegemony' proposed by Zeitoun and Warner (2006), whereby control over transboundary resources translates into geopolitical power. The analysis further evaluates India's countermeasures-such as the proposed Siang Upper Multipurpose Project and their implications for environmental stability and regional diplomacy.

1.4 Geopolitical and Strategic Responses to China's Challenge in the Himalayas

China's expanding influence in the Himalayan frontier has redefined the regional security order. The study shows how India's geopolitical and strategic response seeks to manage this evolving challenge. It explores how India's policy framework combines deterrence, diplomacy, and development and how these elements interact to reinforce territorial sovereignty and national stability.

The research examines India's external strategies, including its participation in multilateral forums such as the Quadrilateral Security Dialogue (QUAD), BRICS (Brazil, Russia, India, China, and South Africa) and Shanghai Cooperation Organisation (SCO), which collectively signal India's attempt to balance China's regional assertiveness through coalition-building and strategic partnerships. Simultaneously, the study analyses internal measures, such as the strengthening of border infrastructure, defence modernisation, and sustainable development initiatives in frontier areas, aimed at integrating India's territorial control and local resilience.

By situating these strategies within the frameworks of offensive realism (Mearsheimer, 2001) and the Environmental Security Paradigm, the study evaluates how India's multidimensional approach contributes to shaping a stable and secure Himalayan frontier. The research thus provides a comprehensive understanding of how

territorial, political, and environmental factors interact with each other in defining India's response to the China challenge in the Himalayas.

1.5 Review of Literature

1.5.1 Historical Background:

Kumar (2019) examines diplomatic, political, and strategic interactions in India-China relations from the early post-independence period to the contemporary era. The study traces the evolution of relations rooted in anti-colonial sentiments, Asian solidarity and principles of Panchsheel to growing mistrust and strategic rivalry that culminated into the 1962 Sino-Indian War, which diluted the diplomatic relations. The study highlights that strategic rivalry, contested territorial borders, and regional security issues have raised mutual suspicion and mistrust despite periods of normalisation, such as the 1980s. The study also highlights the dual nature of the relationship between India and China - economic interdependence alongside persistent strategic rivalry in the twenty-first century. Overall, it argues that present-day confrontation is rooted in mutual suspicion, territorial disputes, and regional ambition.

Nazli (2023) examines the historical continuities in India-China relations, tracing civilisational, cultural, and religious linkages along the Silk Route from ancient to the modern era. The study situates contemporary tensions within this longue durée perspective, arguing that despite centuries of intellectual and cultural exchange, the emergence of competing nation-state interests has superseded shared heritage as the primary determinant of bilateral relations. The paper also notes that targeted diplomatic agreements - such as the Memorandum of Understanding on the Nathu La route for Kailash Mansarovar Yatra -reflect limited but meaningful avenues for engagement amid broader strategic rivalry.

Bhadauriya (2025) made a deeply contextualised analysis of the colonial roots of ongoing India-China border dispute. The study critiques British imperial boundary-making efforts in the Himalayas, focusing particularly on the establishment of the Johnson Line, McMahon Line, and their derivatives during the Shimla Convention. It highlights that these borders were often mapped with limited local engagement and poor geographical knowledge, sowing confusion that underlies present-day claims and strategic dilemmas. The article uses various secondary literature and archival treaties, illustrating that these documents are interpreted selectively by each country to reinforce

their respective claims, resulting in cycles of militarisation and rivalry in the Himalayas. Incidents such as the Doklam standoff (2017) and Galwan Valley clash (2020)-are direct outcomes of unresolved colonial legacies. Additionally, the article provides a critical analysis that faults the British colonial administration for prioritising imperial security and administrative convenience, rather than sustainable governance or mutual recognition by local communities.

1.5.2 Water Security and Environment:

Mahapatra & Ratha (2015) examine the hydropolitical tensions between India and China over the construction of Chinese mega hydropower dams. Scholars argue that these developments reflect broader territorial and strategic contests in the Himalayas beyond mere water management issues. The paper situates these insights within theories of hydro-hegemony and sovereignty, noting the need for cooperative frameworks to address shared water security risks amid intensifying geopolitical rivalry.

Manhas and Lad (2024) examines how China's control over the Tibetan plateau influences regional geopolitics and security. The paper argues that China dam construction on Brahmaputra, India and Mekong provides China with strategic leverage over downstream nations such as India, Bangladesh, and other Southeast Asian nations. The study highlights concerns regarding lack of hydrological data sharing transparency and absence of water-sharing agreements. It also discusses the growing effect on agriculture, ecology and water availability. A major contribution of the paper is its emphasis on the strategic and security dimensions of the transboundary water governance. The study therefore calls for regional cooperation, improved diplomatic engagement and a long term water management mechanism among Asian states.

Singh et al. (2024) analyses the hydropolitical tensions between India and China over the shared Brahmaputra river system. The paper discusses the concept of hydropolitics and explains how the control over river system creates power asymmetries between upstream and downstream states. A major contribution of this article is its distinction between 'water tensions' and 'water wars'. The paper highlights that although direct conflict over water is unlikely, continuous mispreception and unilateral river management practices may increase diplomatic and strategic tensions. It further highlights the need for real-time data sharing, bilateral cooperation and

stronger regional diplomacy to ensure sustainable management of the transboundary river system.

Pearce (2025) examines the implications of China's large-scale hydropower development on the Yarlung Tsangpo (Brahmaputra) in Tibet, highlighting significant risks for downstream water security in India and Bangladesh. The study underscores that mega dams in this seismically active region could alter hydrology, disrupt sediment flow, and change the timing and volume of monsoon-fed floods-processes essential for agriculture and livelihoods in the eastern Himalayas. Limited transparency from Chinese authorities heightens concerns over the potential strategic 'weaponisation' of water. The article also notes that India and Bangladesh have sought stronger diplomatic mechanisms for transboundary river governance, but their efforts are constrained by the absence of binding multilateral agreements and China's growing regional leverage. The study calls for urgent scientific cooperation and sustained dialogue among riparian states to mitigate shared water-security risks arising from rapid infrastructural expansion in the Himalayas.

1.5.3 Geopolitical and Strategic:

Sawhney and Wahab (2017) offer a critique of India's military and strategic shortcomings in managing Chinese aggression highlighting the persistent need for military modernisation and strategic clarity. They provide a comprehensive analysis of historical tensions, geopolitical shifts and military dynamics examining India's past failure in handling border disputes. While valuable for contextualising India's pre-2020 strategic limitations, this work predates the post-Galwan restructuring and should be read alongside more recent assessments such as Pant and Bommakanti (2019), which document the doctrinal shift toward managed deterrence.

Rossow, Bermudez, & Upadhyaya (2020) analyse the India and China border dispute in the Himalayas by examining the troops deployment, infrastructural development and patrol activities along the frozen contested line - LAC along the Himalayas. Using satellite imagery and geospatial analysis to analyse China's incremental steps of road construction and development of support facilities without formally changing the border line. This has allowed China's ease in conducting operational activities while limiting India's strategic response options. The literature also examines that rather than resolving the border dispute both sides are reinforcing

their military position creating a fragile environment in a heavily militarised yet unresolved border zone.

Gokhale (2021) argues that the Galwan Valley clash of 2020 fundamentally altered the trajectory of India-China relations by eroding the confidence-building measures established after 1988. The study further contends that China's assertive posture under Xi Jinping reflects a shift towards coercive diplomacy and strategic pressure on LAC. He further explains that India's strategic policy must move beyond earlier assumptions of stable engagement and instead focus on defence preparedness and deterrence. The work is important for understanding the post-Galwan transformation of Himalayan security and India's evolving posture towards China.

Surwandono & Silitonga (2022) investigate why China had adopted assertive policy along the Himalayas highlighting a significant shift from passive to assertive especially under Xi Jinping's leadership by analysing it through the lens of offensive realism. China's assertive strategy can be interpreted as its vision in protecting its sovereignty and national interest and increasing its dominance in the sensitive South Asian region. This is evidenced by increasing violations, building of large scale infrastructure, and construction of border defence villages. Ultimately this research concludes that China's strategy is considered as one of the triggers on why every attempt to reach an agreement on the Himalayan border often encounters failure.

International Crisis Group (2023) made a comprehensive analysis of complex territorial conflict in the Himalaya frontier between India and China, narrating from historical origin of war from the 1962 skirmish to the recent Galwan crisis in 2020 highlights how nationalism and mutual distrust have fuelled tensions despite previous rapprochement efforts. Based on interviews with key experts and reviewing the bilateral agreements it recommended measures such as creation of buffer zone, starting talks on demarcating less conflict boundary - middle sector and improving the lines of communication. This report thus warns about strategic competition between the two biggest Asian powers influencing the geopolitical landscape.

Hader et al. (2025) analyses how China leverages dual-use infrastructure as a strategic instrument in the sensitive Himalayan region, focusing on the Tibetan Plateau. Along with the military, China has pursued the construction of highways, railways, border villages, and hydropower dams, while presented as development initiatives,

these projects serve significant strategic purposes. These projects improve Chinese logistical connectivity, enable accelerated military deployments, and consolidate control over contested or sensitive areas. The same infrastructure contributes to China's 'salami-slicing' strategy: a prolonged hybrid strategy implemented through incremental territorial advances along the LAC (Chauhan, 2024). This perspective highlights how infrastructure expansion contributes to China's capacity for rapid military mobilisation and the consolidation of influence in Himalayan region.

Despite these scholarly contributions, there remains a clear scholarly gap a few studies integrate environmental and strategic paradigms in analysing India's response to China's Himalayan challenge. This research fills that gap through a multidimensional analytical framework.

1.6 Statement of the Problem

The India-China conflict in the Himalayas is driven by historical ambiguities, strategic competition, and ecological interdependence. While extensive scholarship focuses on the territorial aspects of the dispute, insufficient attention has been paid to the intersection of political and environmental security. This study argues that India's long-term stability in the Himalayas depends on integrating these dimensions within a cohesive strategic framework. The study also highlights the strategic response combining deterrence, development and diplomacy and interests of India to China's challenge.

1.7 Theoretical Framework

The present study is primarily anchored in Offensive Realism proposed by John Mearsheimer (2001), which explains the assertive behaviour of China in the Himalayan region as a structural consequence of power maximisation and strategic competition under an anarchic international system. The study further incorporates the Defensive Realist perspective of Kenneth Waltz, which emphasises that states prioritise security, territorial integrity, and military preparedness in the absence of a central authority.

The bilateral interaction between India and China is examined through the Security dilemma framework developed by John Herz (1950) and further elaborated by Robert Jervis (1978). The framework explains how defensive measures such as military build-up, infrastructure development, and strategic deployments by one state are

perceived as threats by another, resulting in mutual suspicion and intensifying Himalayan security competition. India's response combining deterrence, development, and diplomacy is analysed as a multidimensional balancing strategy within these structural constraints, drawing upon the strategic insights of Paul Kennedy (1991).

To examine the environmental dimension of Himalayan security, the study employs the Securitization framework developed by Barry Buzan, Ole Wæver, and Jaap de Wilde (1998), which explains how issues such as water resources, border infrastructure, and ecological vulnerability are increasingly treated as matters of national security. This is complemented by the concept of Hydro-Hegemony proposed by Mark Zeitoun and Jeroen Warner (2006), highlighting how upstream control over transboundary rivers may translate into strategic leverage.

The study also incorporates Complex Interdependence developed by Robert Keohane and Joseph Nye (1977), which argues that despite strategic rivalry, states remain interconnected through diplomacy, dialogue mechanisms, and institutional engagement. Together, these theoretical perspectives conceptualise the Himalayas as a multidimensional security frontier where power politics, environmental concerns, resource politics, and diplomatic engagement converge to shape the evolving security landscape between India and China.

1.8 Significance of the Study

The study holds substantial significance in understanding the evolving dimensions of India's national security and regional stability in the Himalayas. The India-China relationship, shaped by territorial contestation and strategic competition, has transformed the Himalayan frontier into one of Asia's most complex security landscapes. Yet, most existing scholarship confines its analysis to the military domain, overlooking the convergence between territorial, political, and environmental security that increasingly defines the region.

This research is significant because it seeks to reinterpret 'security' through a multi-dimensional lens, as conceptualised by Whitham and Heywood (2024), situating the Himalayas not merely as a military frontier but as an integrated strategic ecosystem. By employing offensive realism (Mearsheimer, 2001) and Defensive Realism (Waltz, 1979) alongside the environmental security paradigm, the study contributes to

theoretical debates on how great powers pursue relative advantage while managing ecological interdependence.

At the policy level, the study is relevant to India's long-term strategic planning. It offers insights into how India's approach to the China challenge-through deterrence, diplomacy, and development can inform a coherent framework for Himalayan stability.

1.9 Research Objectives

I. To examine the strategic and territorial significance of the Himalayas in shaping India-China relations.

II. To analyse the historical and contemporary factors underlying the Indo-China border disputes in the Himalayan frontier.

III. To investigate the strategic motivations behind China's increasing assertiveness and assess their impact on India's territorial, political, and environmental security.

IV. To critically evaluate India's multidimensional strategic approach-encompassing deterrence, diplomacy, and development-in maintaining long-term security and stability in the Himalayan region.

1.10 Research Questions

I. How do the Himalayas shape the strategic and geopolitical dynamics of India–China relations?

II. What are the historical and contemporary factors perpetuating the Indo-China border disputes in the Himalayan region?

III. What are the drivers and objectives behind China's assertive behaviour in the Himalayas, and how do they affect India's territorial, political and environmental security?

IV. How effective is India's multidimensional strategic response in addressing China's assertiveness and ensuring long-term stability in the region?

1.11 Methodology and Approach

The study adopts a qualitative research design, grounded in exploratory and historical methods. It examines how territorial, political, and environmental dimensions

intersect within the broader India-China strategic relationship. While the study incorporates descriptive statistical data-such as trends in the India-China trade deficit and India's defence budget allocations-these are used only to support and contextualise the qualitative analysis rather than to conduct independent quantitative testing. The inclusion of such data does not constitute a quantitative methodology but serves to strengthen the empirical grounding of the qualitative insights.

The study draws upon both primary and secondary sources -

Primary Sources: official documents such as Ministry of External Affairs reports, Ministry of Home Affairs reports, treaties, agreements, and policy statements relating to the Himalayan frontier and Indo-China relations. In addition, cartographic maps of the Line of Actual Control (LAC) and river basins are examined to visualise patterns of territorial contestation, infrastructure expansion, and hydro-political vulnerabilities.

Secondary sources: include peer-reviewed scholarly articles, academic journals, books by leading strategic theorists, institutional publications (ORF, CSIS, MP-IDSA), as well as credible news reports and think-tank analyses that provide updated empirical insights.

The analytical framework combines Offensive Realism (Mearsheimer, 2001) which posits that great powers pursue relative power maximisation for survival and Defensive Realism (Waltz, 1979) which emphasis state prioritisation of security with the Environmental Security Paradigm, which views natural resources, climate, and ecosystems as integral to national security. Together, these perspectives facilitate a holistic interpretation of the India-China strategic competition, illuminating how territorial defence, ecological interdependence, and geopolitical ambition converge in shaping India's security strategy in the Himalayas.

1.12 Delimitations of the Study

This study is delimited in the following ways:

- First, although security is understood as a multidimensional concept (Heywood, 2024), the analysis is deliberately restricted to territorial and environmental security. Economic and social dimensions of security are excluded from the analytical framework to maintain conceptual focus.

- Second, the study focuses exclusively on India's strategic response to the China challenge. The foreign and security policies of other regional or global actors are referenced only where directly relevant to India's strategic calculus and do not constitute independent units of analysis.
- Third, theoretical engagement is confined to Offensive Realism, Defensive Realism, Liberal Institutionalism, and the Environmental Security Paradigm. Other IR theories, while potentially applicable, are excluded to preserve theoretical coherence and avoid analytical overextension.
- Fourth, while the study draws on both primary and secondary sources, primary data is restricted to publicly accessible official documents, policy statements, and speeches. No interviews, surveys, or field-based data collection are undertaken.

1.13 Chapterisation

Chapter I: Introduction

This chapter introduces the research context by outlining the geographical, geopolitical, and strategic significance of the Himalayas. It defines key concepts of security and strategy in the Himalayan context, states the research problem, reviews relevant literature, and presents the research objectives, questions, and methodology framing the study's analytical foundation.

Chapter II: Historical Background of India-China Relations

Chapter 2 traces the evolution of India-China relations from ancient civilisational exchanges to post-independence rivalry. It examines key turning points-including Tibet's annexation, the 1962 war, and subsequent confidence-building efforts-culminating in the present security dilemma and strategic competition that define their engagement in the Himalayan frontier.

Chapter III: Strategic and Territorial Security

Focusing on India's territorial security challenges, this chapter examines the disputed and undefined Line of Actual Control (LAC), the implications of recurring border tensions, and the militarisation and infrastructure race in the region. It evaluates how geography, strategic asymmetry, and political dynamics shape India's defence posture toward China.

Chapter IV: Hydro-Security and Environmental Challenges

This chapter explores the emerging dimension of hydro-politics and environmental security in the India-China relationship. It examines China's upstream dam construction on the Yarlung Tsangpo (Brahmaputra) and its geopolitical implications, highlighting the intersection of water security, ecological degradation, and strategic competition in the fragile Himalayan ecosystem.

Chapter V: Strategic Response and Conclusion

The final chapter critically assesses India's comprehensive strategy in managing the China challenge. It evaluates how India integrates deterrence, diplomacy, and development-combining hard and soft power measures-to safeguard territorial integrity while managing environmental vulnerabilities. The chapter concludes with findings, policy evaluation and implications for long-term Himalayan security.

Chapter II

Historical Background of India-China Relations

2.1 Introduction

As two of the world's oldest civilisations and emerging global powers, India and China occupy a central position in shaping the political and security architecture of Asia. The relationship has been operated by a complex interplay of cooperation, competition, and conflict, influenced by historical experiences, territorial disputes and changing global power dynamics. This chapter analyses the trajectory of India-China relations, examining how bilateral interactions have evolved from ancient civilisational linkages to a deeply contested strategic rivalry in the contemporary period. Early India-China contacts through Silk Road and the mutual linkage through Buddhist heritage established a foundational and intellectual exchange, however the modern relationship is marked by asymmetrical power structures, contested territorial claims and structural logic of security dilemma. The optimism of post-independence represented in the Panchsheel Agreement of 1954 and the phrase of 'Hindi-Chini-Bhai-Bhai' was short-lived due to the change in the Himalayan strategic environment resulting from China's annexation of Tibet in 1950 and India's granting asylum to the Dalai Lama in 1959. As a result, an area historically characterised by civilisational interaction evolved into a geopolitical contest. The Sino-Indian War of 1962 marked a crucial turning point that institutionalised mutual suspicion between the two countries and generated a spiral of aggressive and competitive security behaviour that has not been overcome by subsequent phases of growing diplomatic collaboration. Using Herz's (1950) concept of the security dilemma, the chapter illustrates how the security-seeking activities of either state through military buildup, alliance and cooperation with other countries, and acquisition of territory were viewed by the other country as threatening and served to reinforce the country's ongoing rivalry. In addition, the clash between India and China in the Galwan Valley (2020) is not the result of an isolated incident but is the result of unresolved historical border disputes, a transitioning balance of power, and long-standing strategic mistrust - consistent with Garver's (2001) description of India-China relations as prolonged strategic rivalry.

2.2 Ancient and Pre-Colonial Links

India and China are among the world's oldest civilisations, with interactions dating back to the second century BCE. One of the most significant early linkages emerged through the transmission of Buddhism from India to China, which fostered sustained cultural and intellectual exchanges. Chinese monks such as Fa Xian (AD 399-414) and Xuan Zang (Hiuen Tsang) travelled to India to study Buddhist philosophy and texts, including at institutions such as Nalanda University. Their travelogues, including Fo Guo Ji and later narratives such as the Da Tang Xiyu Ji (Great Tang Records on the Western Regions), remain important historical sources for understanding early Indian society and religious life (Nazli, 2023). These exchanges extended beyond religion to philosophy, linguistics, and scientific knowledge.

Cultural engagement continued into the colonial period, particularly during the late nineteenth and early twentieth centuries, when shared experiences of colonial domination fostered renewed intellectual and political solidarity. Figures such as Rabindranath Tagore and Dr. Dwarkanath Kotnis symbolised this phase of Asian cooperation and anti-colonial sentiment (Nazli, 2023). Despite the depth of these civilisational ties, historical bonds proved insufficient to sustain strategic alignment in the post-independence period. As sovereign nation-states emerged, questions of territorial integrity, national interest, and power politics increasingly shaped bilateral relations, limiting the political relevance of cultural bonds. This transition reinforces a central realist insight that shared history and cultural affinity, while symbolically important, are insufficient to override structural constraints imposed by an anarchic international system.

2.3 Colonial Legacies and The Inheritance of Dispute

British strategic engagement in the Himalayan region during the nineteenth and early twentieth centuries was driven primarily by the imperatives of 'Great Game'- the imperial competition with Tsarist Russia for influence over Central Asia and Himalayan borderland compelled, British authorities to formalise boundaries to create buffer zones against perceived external threats. This process culminated in the 1914 Shimla Convention, which produced the McMahon Line demarcating the eastern sector of the India-China boundary (Bhadauriya, 2025). The Johnson line in the Western Sector, drawn by Survey of India officer W.H. Johnson in 1865 placed Aksai Chin within

British India's boundaries but was subsequently modified by the Macartney-McDonald Line of 1899, which proposed ceding the Aksai Chin to China as a part of negotiated boundary settlement but was simultaneously overclaimed on British maps.

These colonial-era boundary arrangements were undertaken with limited geographical knowledge and minimal local engagement, resulting in ambiguities that persist today. China has consistently rejected the legitimacy of these boundaries, particularly the McMahon Line. The unresolved nature of colonial boundary-making laid the foundation for competing territorial claims and enduring mistrust between India and China. Critically, the cartographic legacy was characterised by deliberate ambiguity rather than precision and this ambiguity was not merely the existence of competing claims that makes the boundary dispute resistant to resolution, since neither side can accept a settlement that appears to legitimise the other's colonial-era cartographic assertion (Lamb, 1966; Fravel, 2008).

2.4 Post-Independence Idealism: Panchsheel, Tibet and Path to War (1947–1962)

The early phase of India-China relations following independence was marked by diplomatic optimism and ideological solidarity. India recognised the People's Republic of China in 1950 and supported its integration into the international system, reflecting its commitment to post-colonial solidarity and independent foreign policy (Athwal, 2008). Prime Minister Nehru's conception of India's role in Asia articulated mostly in the Discovery of India (1946) and his speeches in 1955 Bangdung Conference- posited India and China as the twin civilisational pillars of a resurgent Asia that would chart an independent course between American and Soviet Blocs, collectively representing the aspirations of newly decolonised world (Nehru, 1946).

The 1954 Agreement on Trade and Intercourse with the Tibet Region of China formalised bilateral engagement and articulated the principles of Panchsheel - mutual respect for sovereignty, non-aggression, non-interference, equality, and peaceful coexistence (Kumar, 2019). From a realist perspective, however, the agreement lacked effective mechanisms to address unresolved boundary disputes. By accepting Chinese sovereignty over Tibet through the 1954 Panchsheel Agreement without securing reciprocal consensus, Nehru had effectively eliminated Tibet's historical role as a strategic buffer between India and China (Garver, 2001).

Developments in Tibet, particularly the Dalai Lama's flight to India in 1959, intensified Chinese suspicion of Indian interference in Tibetan affairs, further straining bilateral relations (Garver, 2001). The security dilemma is clearly visible here: India's decision to grant asylum to the Dalai Lama was viewed as a humanitarian and normative obligation; from Beijing's perspective, it was a direct strategic threat to China's newly merged control over Tibet (Jervis, 1978). Each side action was interpreted by other as aggressive, generating mutual threat perspectives that made military contests increasingly by late 1950s.

2.5 The Sino-Indian War of 1962 and its Fallout

The Sino-Indian War of 1962 marked a decisive rupture in bilateral relations and exposed the structural limitations of India's idealistic foreign policy. China rejected the McMahon Line and asserted claims over Aksai Chin, while India adopted the Forward Policy in an attempt to assert territorial control by creating additional forward posts and occupying indefensible positions along the disputed border. However, as Raghavan (2009) argues the policy reflected a fundamental doctrinal weakness, as the problem of effectively responding to territorial incursion was largely avoided rather than directly addressed. Furthermore, inadequate military preparedness and the establishment of numerous forward posts without sufficient logistical support left India critically exposed when China launched an attack in October 1962 (Hoffmann, 1990). The conflict resulted in a decisive defeat for India and led to the emergence of an informal ceasefire line, which was later formalised as the Line of Actual Control (LAC) through the 1993 bilateral agreement. The LAC is divided into three sectors: the Eastern sector encompassing Arunachal Pradesh and Sikkim, the Middle sector covering Uttarakhand and Himachal Pradesh, and the Western sector including Ladakh (Mookherjee et al., 2022).

The 1962 defeat also marked a fundamental transformation in India's defence planning. Within two years, China's first nuclear test in October 1964 further enhanced the strategic power imbalance, compelling India to accelerate its own nuclear programme - a trajectory that resulted in the Pokhran-I test of 1974 (Abraham, 1998). Combined with the factors of military defeat and Chinese nuclear capability had permanently changed India's strategic culture, instilling a long-term concern with relative power asymmetry that continues to shape its approach to the China challenge (Garver, 2001).

Scholarly interpretations of the 1962 war remain deeply contested and continue to shape contemporary understandings of Sino-Indian rivalry. In *India's China War*, Neville Maxwell (1970), drawing extensively on the Henderson Brooks–Bhagat Report, attributed primary responsibility for the conflict to Jawaharlal Nehru's Forward Policy and argued that China's military response was largely defensive in nature. In contrast, Allen S. Whiting (1975) offered a more nuanced interpretation, arguing that China's decision to go to war was based on a deliberate strategy of deterrence rather than purely defensive instincts. Similarly, Srinath Raghavan (2010) challenged conventional interpretations of the crisis as 'at best misleading and at worst erroneous,' attributing India's failure in 1962 to its inability to adequately prepare militarily and diplomatically for the challenge posed by China.

2.6 From Enstrangement to Normalisation (1962-1991)

Following the war, India-China relations entered a prolonged phase of estrangement. China's strengthening ties with Pakistan, including the 1963 Sino-Pakistan Boundary Agreement involving the transfer of Shaksgam Tract to China, heightened India's security concerns by introducing a two-front strategic challenge (Senge, 2013). China extended ideological support to insurgent movements in India's northeast and the Naxalbari uprising in West Bengal, while India strengthened its strategic alignment with the Soviet Union, formalised in the Indo-Soviet Treaty of Peace, Friendship and Cooperation of August 1971 (Garver, 2001). The treaty represented India's most significant departure from non-alignment during the Cold War period (Garver, 2016). Although large-scale war was avoided, incidents such as the 1967 clashes at Nathu La and Cho La demonstrated the fragility of the post-war equilibrium (Fravel, 2008).

From a broader strategic perspective, the post-1962 period marked India's gradual shift away from idealism toward a more security-centric worldview (Mohan, 2003; Garver, 2001). Defence preparedness, alliance considerations, and regional balancing became increasingly central to Indian strategic thinking. China, meanwhile, leveraged its growing military and nuclear capabilities to consolidate its position along disputed borders and expand its regional influence (Fravel, 2008). This asymmetry in capabilities and confidence further entrenched the security dilemma, ensuring that stability along the Himalayan frontier remained fragile and contingent. As military consolidation intensified along the Himalayan frontier, the material transformation of

the region through infrastructure expansion and resource utilisation began to introduce new, non-traditional dimensions of security.

The restoration of ambassadorial relations in 1976 and Foreign Minister Vajpayee's visit to Beijing in 1979 marked the beginning of a cautious diplomatic thaw. The PM Rajiv Gandhi visit in 1988- produced an agreement on managing the border dispute through negotiations while expanding bilateral economic and diplomatic ties. The establishment of the Joint Working Group reflected a shared interest in managing, rather than resolving, the dispute (Ramanujam & Dabhade, 2019). The domestic transformation occurring in both countries provided structural support for the normalisation process: China's Reform and Opening Up Policy in 1978 under Deng Xiaoping oriented China's strategic priorities towards economic development and thus limited the ideological adventurism, (Garver, 2016) while India began to liberalise its economy in the 1980s and entered into full-scale economic liberalisation after the balance-of-payments crisis of 1991. Similarly, India reoriented its strategic thinking towards the benefits of economic engagement (Mohan, 2003).

2.7 Confidence-Building Architecture and their Limitations (1993-2013)

The most important institutional development in post-normalisation, was the building of a bilateral confidence-building architecture through a series of border management agreements. The signing of the Peace and Tranquility Agreement along the Line of Actual Control in 1993 by PM Narasimha Rao, established the basic LAC management norms providing framework for pending border security (MEA, 1993). The 1996 Agreement on CBMs in the Military Field further clarified these norms by specifying numerical limits on the size of forces and weapons systems near the LAC and providing for direct communications links between local military commanders (MEA, 1996). The 2003 Declaration on Principles for Relations and Comprehensive Cooperation by PM Vajpayee, and the 2005 Agreement on Political Parameters and Guiding Principles for the Settlement of the India-China Boundary Question signed by PM Manmohan Singh represent the highest point of substantive confidence building between both nations (MEA, 2005). The Border Defence Cooperation Agreement made in 2013 added specific guidance on prohibiting trailing patrols as well as using firearms in border areas to reduce the chance for tactical incidents leading to conflict.

Various researchers have examined the confidence-building framework and have different interpretations about its efficacy. The International Crisis Group (2023) characterised that the 1988 diplomatic framework became the paradigm to manage the relations with China forming the basis for subsequent confidence building measures. Ganiger (2024), however, identifies structural limitations in this framework-concluding that while CBMs facilitated crucial lines of communication and temporarily eased friction, their utility remained limited by unresolved territorial claims and inadequate enforcement mechanisms. The recurring clashes Doklam (2017) and Galwan (2020) further confirmed the limitations of institutional mechanisms designed for managing deeper structural tensions.

Although the post-Cold War period witnessed several diplomatic initiatives and confidence-building agreements aimed at stabilising bilateral relations, these mechanisms failed to resolve the underlying structural sources of mistrust. The persistence of unresolved border disputes, coupled with China's expanding economic and military capabilities, gradually transformed the relationship from cautious engagement to renewed strategic competition. This transition became particularly visible after the 2008 global financial crisis, which altered perceptions of global power distribution and accelerated China's strategic assertiveness (ICG, 2023; Friedberg, 2014).

2.8 Emergence of Strategic Competition

The global financial crisis of 2008 represents a critical turning point in the relationship between India and China. China's rapid recovery strengthened the elite narrative of Chinese rise and Western decline, producing a more assertive foreign policy across multiple domains (Friedberg, 2014). Xi Jinping's consolidation of power in late 2012 was accompanied by the rejection of Deng Xiaoping's 'Hide and Bide' strategy and instead embraced what he called the Chinese Dream - national rejuvenation, a formulation with direct consequences towards territorial disputes, including the Himalayan border.

The 2013 Depsang intrusion, in which PLA forces advanced inside India's claimed territory of LAC and maintained their position for nearly three weeks before withdrawing from diplomatic pressure, established a pattern of coercive and incremental behaviour that Robert Haddick (2012) characterised as 'salami-slicing' that

is the slow accumulation of small actions that does not trigger military conflict but compound overtime into major strategic changes (Chauhan, 2024) . The 2014 Chumar face-off, timed to coincide with Xi Jinping's state visit to India in September 2014, demonstrated Beijing's willingness to use tactical military pressure as a diplomatic instrument - a provocative signal that Indian analysts interpreted as a deliberate test of Prime Minister Modi's resolve (Menon, 2016).

India's refusal to join the Belt and Road Initiative (BRI), formally announced in 2017, rooted principally in its objection to the China-Pakistan Economic Corridor passing through Gilgit-Baltistan, territory that India regards as sovereign jurisdiction, became a persistent source of bilateral friction and aligned regional economic strategy against India's strategic interest across the multiple arenas (Pant & Passi, 2017).

These developments collectively signalled the gradual erosion of the relatively stable border management framework established during the 1990s and early 2000s, setting the stage for a more confrontational phase in bilateral relations after 2014.

2.9 Renewed Strategic Competition and The Galwan Turning Point (2014-2020)

Despite sustained diplomatic engagement, strategic mistrust persisted. China's assertive stance along the LAC grew after India's expanding ties with the United States perceived negatively by China, symbolised by the 2017 Doklam standoff (Gokhale, 2022). The standoff marked a qualitative escalation with India's deployment of troops across the Bhutanese border to halt Chinese road construction on the Doklam plateau driven by its strategic interest in denying China commanding heights over the Siliguri Corridor (Kaura, 2020). The 73-days confrontation ended without any formal resolution but halted Chinese construction, demonstrating that direct military pushback could oblige Chinese restraint. Most critically, Doklam exposed the fundamental inefficiency of the bilateral confidence building measures, which provide no suggestion for Chinese construction in third-country territory threatening India's strategic interest (Ganiger, 2024).

The Galwan Valley clash of June 2020 - resulting in fatalities of twenty Indians and an unacknowledged number of Chinese casualties, constituted the most decisive breakdown in the bilateral relations since 1962. Unlike the previous confrontations, the scale and simultaneity of Chinese military actions indicated a calculated strategic

operation driven by China's assessment of India's border infrastructural development would threaten its strategic interest along the LAC (Verma, 2023). While the confrontation exposed the limits of confidence-building mechanisms, it also demonstrated the role of crisis-management channels in preventing escalation into full-scale war (Ganiger, 2024). Unlike 1962, nuclear deterrence and institutionalised dialogue reduced military options, resulting in managed confrontation rather than decisive conflict (Rajagopalan, 2021).

2.10 Post-Galwan Dynamics and Emerging Challenges

In the post-Galwan phase, relations have remained tense and characterised by limited bilateral engagement. China's reliance on grey-zone tactics, dual-use infrastructure, and upstream hydropower projects has expanded the scope of competition beyond territorial disputes to include environmental and hydro-strategic concerns (Hader et al., 2025; Manhas & Lad, 2024). India's responses reflect an attempt to balance deterrence, diplomacy, and development while safeguarding ecological stability in the Himalayan region (Rajagopalan, 2021). A critical tension in this phase is the paradox of economic interdependence alongside strategic rivalry. Despite the Galwan Valley clash of 2020, India-China bilateral trade reached an all-time high of approximately USD 135.98 billion in calendar year 2022, with India recording a historic trade deficit of over USD 101 billion with China for the first time - underscoring the deepening asymmetry in the trade relationship (Ministry of Commerce and Industry, Government of India, 2023) This economic entanglement constrains India's escalatory options and complicates the deterrence calculation, representing a structural feature of the relationship that any strategic assessment must acknowledge.

Overall, the historical evolution of India-China relations reveals a pattern of managed rivalry shaped by unresolved territorial disputes, shifting power asymmetries, and enduring strategic mistrust. The transformation of the Himalayas from a corridor of civilisational exchange into a militarised strategic frontier underscores the importance of analysing India's security approach through a multidimensional framework (Garver, 2001). In this context, the post-Galwan phase represents not a departure from earlier patterns of interaction, but rather the culmination of a long historical trajectory of strategic competition. The persistence of the security dilemma continues to shape bilateral behaviour across military, diplomatic, economic, and environmental domains. This analytical framework provides the foundation for

Chapters 3 and 4, which examine India's military and environmental responses to the China challenge in relation to Research Objectives II, III, and IV.

2.11 Conclusion

This chapter has traced the evolution of India-China relations from ancient civilisational exchanges and colonial-era boundary ambiguities to the collapse of Panchsheel idealism, the rupture of the 1962 war, the confidence-building phase of 1976-2013, and the structural hardening of strategic contest under leadership of Xi Jinping. The analysis demonstrates that the territorial dispute is not a peripheral issue but lies at the structural core of the bilateral relationship. Consequently, repeated attempts to separate the border issue from broader diplomatic engagement have ultimately reinforced the security dilemma between the two states.

The chapter further argues that the most consequential legacy of the 1962 war was not merely its territorial outcome, but the long-term institutional impact it had on India's strategic culture. The conflict generated prolonged strategic caution, infrastructural neglect, and defensive asymmetry along the Himalayan frontier, conditions that China's increasingly assertive posture progressively exploited. In this context, the contemporary security dilemma differs substantially from the relatively manageable border tensions of the 1993-2013 period. The post-Galwan phase illustrates that confidence-building measures alone are no longer sufficient to stabilise the relationship. Instead, the evolving strategic environment increasingly demands a broader security architecture encompassing military modernisation, multilateral partnerships, economic diversification, and technological self-reliance.

Debates regarding the effectiveness of the confidence-building measures (CBM) framework offer competing explanations for the breakdown witnessed at Galwan in 2020. The International Crisis Group (2023) characterised the post-1988 framework as a successful mechanism that prevented armed conflict for nearly two decades. However, Jon Swartz (2023) provides a more structural explanation, arguing that India's border infrastructure development remained constrained by financial and doctrinal limitations, while China developed extensive logistical and military infrastructure across Tibet, thereby consolidating a long-term positional advantage under conditions of apparent stability. Similarly, Ganiger (2024) argues that although CBMs created communication channels and temporarily reduced friction, they

remained fundamentally limited by unresolved territorial claims, differing perceptions of the Line of Actual Control, and the absence of effective enforcement mechanisms. The evidence examined in this chapter supports this structural critique. A framework originally designed to manage tactical incidents proved increasingly inadequate once bilateral relations shifted from managed rivalry to active strategic competition.

Table 1.1

Evolution of India-China relations*: Key Military and diplomatic events (1950-2024)*

YEAR	EVENT	NATURE
1950	Tibet Annexation	Political
1954	Panchsheel Agreement	Diplomatic
1959	Dalai Lama Asylum	Political
1962	Sino-India War	Military
1967	Nathu La And Cho La Clash	Military
1975	Tulung La Clash	Military
1976	Ambassadorial Restoration	Diplomatic
1986-87	Sumdorong Chu Clash	Military
1988	Rajiv Gandhi Visit	Diplomatic
1993	Peace And Tranquility Agreement	Diplomatic-Legal
1996	CBM Agreement on Military Field	Diplomatic-Legal

2003	Special Representative Mechanism	Diplomatic
2005	Protocol On Political Parameters and Guiding Principles for the Settlement of the India-China Boundary Question	Diplomatic
2013	Depsang Standoff	Military
2014	Demchok Standoff	Military
2017	Doklam Standoff	Military
2018	Wuhan Summit	Diplomatic
2019	Mamallapuram Informal Summit	Diplomatic
2020	Galwan Clash	Military
2022	Tawang Clash	Military
2024	Depsang-Demchok Disengagement	Diplomatic-Military
2024	Kazan Bilateral	Diplomatic

Source: Compiled by author based on Verma (2024) and International Crisis Group (2023)

Table 2.1: The table traces the major confrontation, agreement, and diplomatic milestones that have shaped the Himalayan security environment from establishment of bilateral relations in 1950 to cautious normalisation of 2024.

Chapter III

Strategic and Territorial Security in the Himalayas

The Himalayan frontier remains among the most contested and critical territorial spaces in 21st century international security. India estimates the Line of Actual Control (LAC) between India and China at approximately 3,488 kilometres; the frontier demarcates not merely a geographic boundary but a structural fault line in the Asian geopolitical landscape, one that has become increasingly critical in the post-Galwan era (Ministry of Home Affairs [MHA], 2018). The absence of a formally demarcated mutually agreed boundary between Asia's two giants, both possessing nuclear capabilities and revisionist historical claims, constituted what strategic analysts have termed as 'security dilemma' (Herz, 1950). This chapter directly addresses Research Objective I - the strategic and territorial significance of the Himalayas in shaping India-China relations and Research Objective III - investigating China's assertiveness and its impact on India's territorial, political and environmental security. While the primary focus of this chapter remains territorial and strategic security, the environmental dimensions of Himalayan competition - including hydropolitics, ecological vulnerability, and climate-security implications - are examined separately in Chapter IV. The sectoral analysis evaluates India's deterrence posture against Research Objective IV: how effective is India's multidimensional strategic response in ensuring long-term Himalayan stability? This chapter undertakes a critical, sectoral wise analysis of India's territorial and strategic security framework across the three operational theatres of the Sino-Indian boundary dispute: the Western sector- Ladakh and Aksai Chin, the Middle sector- Himachal Pradesh and Uttarakhand and the Eastern sector- Arunachal Pradesh and Sikkim.

The term 'political dynamics', as employed in this chapter, refers to two intersecting forces. Domestically, it denotes the shift in India's governing ideology under the BJP government since 2014 toward a more assertive conception of territorial sovereignty, which reduced the political space for the accommodationist restraint that characterised pre-Galwan strategy (Mohan, 2015). Bilaterally, it refers to the transformation of China's negotiating behaviour under Xi Jinping from incremental confidence-building to coercive incrementalism, which foreclosed the diplomatic off-ramps that had previously managed LAC tensions (Friedberg, 2014). Together, these

political dynamics explain why the security dilemma along the Himalayan frontier has deepened structurally since 2017, not solely on military incidents, and why the chapter's sectoral analysis must be read as both a military and a political-strategic assessment.

The conceptual framework of this chapter draws upon the realistic balance of power theory as articulated by Mearsheimer (2001). While the Defensive Realist theory (Waltz, 1979) reflects the systemic pressures compelling India towards security maximisation, strategic culture analysis allows appreciation of the historical, normative and doctrinal variables shaping India's response.

In addition, the chapter incorporates insights from frontier governance literature, which argues that territorial control in contested borderlands depends not solely on military control but also on infrastructural development, demographic retention, administrative presence, and state legitimacy in peripheral regions. This perspective is particularly relevant to Himalayan security, where strategic competition increasingly involves governance consolidation alongside military deterrence. India's post-2020 emphasis on border infrastructure, the Vibrant Villages Programme, and civilian connectivity reflects this broader frontier governance logic.

A central feature is that India's approach to China challenge in the Himalayas has undergone a qualitative shift from a predominantly reactive, diplomatic accommodation model- feature of the post-1988 normalisation era-towards a more assertive, infrastructural-driven deterrence posture since 2017, with the Doklam standoff as a critical juncture, and the 2020 Galwan Valley crisis as a structural turning point. This transformation, while apparently enhanced India's deterrence credibility, also established strategic risks, including escalation dynamics, economic costs and the potential foreclosure of diplomatic channels.

3.1 The Western Sector: Ladakh and The Aksai Chin Confrontation

3.1.1 Geographic and Strategic Imperatives

The Western sector encompasses 38,000 km primarily consisting of Aksai Chin and the sub-sector of Depsang, Galwan Valley, Pangong Tso, Gogra, Hot Springs and Demchok area. China's control over Aksai Chin since the 1950s, is strategically vital due to G219 highway connectivity with Xinjiang and Tibet (Garver, 2001). For India, control of the Ladakh plateau provides a strategic position overlooking the Shyok and

Indus river valleys and offers potential leverage against China supply lines (Malik, 2011).

The August 2019 reorganisation of Jammu and Kashmir into two Union Territories-bringing Ladakh under direct central control and incorporating Aksai Chin into India's official map-provoked strong diplomatic protests from Beijing and is widely viewed as a contributing factor to the subsequent deterioration in bilateral relations prior to the 2020 confrontation (Pant & Passi, 2017). Although India framed the move as an internal administrative adjustment, Chinese strategic assessments interpreted it as a unilateral alteration of the territorial status quo, thereby informing a more assertive military posture along the LAC.

3.1.2 A Structural Turning Point: 2020

The Galwan incident marked a decisive turning point, exposing structural vulnerabilities in India's border security architecture. In response, India accelerated infrastructural projects such as the Darbuk-Shyok-Daulat Beg Oldi (DSDBO) road which improved logistical support, increase in border infrastructure expenditure, and faster execution by BRO between 2020 and 2023 (BRO, 2022). India also deployed advanced weapons like T-90 tanks and Bofors howitzers in high-altitude areas, showing its readiness to maintain a strong forward defence despite the high costs (Ministry of Defence, 2021; IISS, 2021). However, this approach has effectively locked both sides into prolonged military deployments under extreme conditions raising risk of escalation.

3.1.3 Infrastructure as Deterrence: BRO's Strategic Role

The Border Road Organisation, established in 1960 following the deteriorating border situation with China has emerged as the most strategically important institution of Indian border security in the current phase. The BRO has been assigned 61 roads with a total length of approximately 3,323.57 kilometres along the LAC under India China Border Road (ICBR) Phase-I; as of March 2021, connectivity has been achieved on 59 of these roads covering around 3,205.16 kilometres, while 42 roads covering 1,530 kilometres has been fully black-topped (Ministry of Defence, 2021). The strategic logic behind this infrastructural development is directly derived from the 1962 experience: the absence of all-weather roads to forward positions left Indian forces unable to reinforce, resupply or sustain combat operations (Malik, 2011). The ongoing

construction of Zoji la tunnel and the Shinku la tunnel are significant for providing all-weather connectivity to Ladakh (NITI Aayog, 2022). However, some caution that infrastructural development alone cannot compensate for the structural asymmetry between Indian Army and PLA in this confrontation, particularly given China's superior rail connectivity to Tibet through the Qinghai-Tibet Railway.

3.1.4 The Ladakh Standoff:

The Depsang Plains in northern Ladakh represent the most strategically sensitive and diplomatically unresolved area along the LAC. China's claim of a 'patrol limit line' has effectively denied Indian forces access to crucial is Depsang patrol points - PP 10, 11, 11A, 12, and 13 since 2013, despite conducting multiple rounds of Corps Commander-level talks, the issue remained unresolved of years (MEA, 2023). In October 2024, however, a major breakthrough agreement between India and China restored Indian patrolling rights at Depsang, with Indian Army resuming access by November 2024. Simultaneously, the parallel standoff at Demchok was resolved under the same agreement. The Depsang Standoff further highlights a broader dynamic that Chauhan (2024) defined as 'salami-slicing'. Verma (2023) similarly argues that China's approach in Ladakh reflects a deliberate effort to 'create new realities' along the LAC while maintaining plausible deniability of aggressive intent. Significant challenges persists- the patrolling moratoriums in buffer zones at Galwan Valley, Pangong Tso and Gotra Hot Springs remains and India is yet to restore its pre-2020 patrolling patterns in these areas. India's strategic challenge is to develop responses that are assertive enough to challenge China without triggering escalation.

3.2 The Middle Sector: The Forgotten Frontier

3.2.1 Geographic Characteristics and Strategic Neglect

The middle sector, spanning approximately 625 kilometres from Shipki La Pass in Himachal Pradesh to the Lipulekh Pass at the Nepal-India-China trijunction in Uttarakhand, has historically received relatively less analytical and political attention of the three sectors (Menon, 2021). The LAC alignment there is more clearly defined and less disputed than Western and Eastern Sector. Thus, this relative neglect may constitute a strategic vulnerability, as the sector provides important mountain passes that could serve as infiltration passes during high intensity conflict scenarios.

3.2.2 Lipulekh Controversy and Nepal Dimension:

The 2020 Kalapani-Lipulekh-Limpiyadhura highlighted the complexity of India's territorial strategic environment. Nepalese release of a revised political map and formally amended the Constitution revealed a structural weakness in India's regional diplomacy. Simultaneously, China's growing economic and infrastructural engagement with Nepal through the Belt and Road Initiative (BRI) has expanded its strategic influence (Bhattarai & Adhikari, 2023; Dixit, 2003). Nayak (2021) of the Manohar Parikkar Institute of Defence Studies and Analyses (MP-IDSA) pointed out that China's ground economic assistance in Nepal, reflects an indirect strategic challenge to India's security perimeter in the Middle Sector. This risks deteriorating India's bilateral relations with neighbouring smaller South Asian countries while giving greater priority to a direct military-strategic relationship with China.

3.3 The Eastern Sector: Arunachal Pradesh and Sikkim

3.3.1 The Territorial Dispute and China's Escalation Claims:

The Eastern Sector, particularly Arunachal Pradesh constitutes the most extensive territorially disputed region. China claims Arunachal Pradesh as 'South Tibet' (Zangnan) (MEA, 2021), and is reinforced by military presence and symbolic pressure such as renaming of locations. Analysts such as Manoj Joshi interpret China renaming of as a form of cartographic assertiveness attempt to delegitimise India's claims in the international arena and to complicate India's ability to govern the state through legal and diplomatic means (Joshi, 2017). The strategic importance of the region is further enhanced by its proximity to the Siliguri Corridor, which connects mainland India with northeastern states.

3.3.2 The Tawang Clash Of 2022

The Tawang confrontation of 2022 involved PLA troops attempting to unilaterally change the status quo near the Yangtse underscored continued volatility. This clash revealed logistical vulnerabilities, particularly India's dependence on limited connectivity routes. The Sela Tunnel Project, inaugurated in March 2024, partially addressed the vulnerability by providing all-weather road connectivity to Tawang, however, military planners argued that the broader logistical limitations in force

mobility and road connectivity across the Eastern Sector remained unresolved (BRO, 2024).

3.3.3 Bhutan as Strategic Buffer and Doklam Standoff

Bhutan remains as a strategic buffer state and serves as an important strategic pivot between Chinese-administered Tibet and the sensitive Siliguri Corridor. In 2017, India's intervention to stop the PRC's road construction in the disputed Doklam plateau led to a 73-day military standoff between the Indian and Chinese militaries. However, the continued evolution of the China-Bhutan boundary negotiations has led to increasing strategic tensions in India. The PRC signing of MoU with Bhutan in 2021 for framework to establish a boundary between the two states, without the involvement of India, has viewed by many analysts as PRC action to pry Bhutan away from India and thus raise the possibility that, through its actions, the PRC will gain Bhutan's tacit acceptance upon territory raising concern about India's long-term stability (Stobdan, 2021).

Figure 3.1

Sectoral division of the India-China Line of Actual Control (LAC)



Source: International Crisis Group (2023), *Thin Ice in the Himalayas: Handling the India-China Border Dispute,* Asia Report No. 334

Figure 3.1 illustrates the geographic distribution of disputes across the Western (Ladakh), Middle, Eastern (Arunachal Pradesh) sectors. The map also highlights key friction points including Depsang, Galwan Valley, Pangong Tso, Demchok and Tawang.

3.4 The ITBP: Structural Role and Capability Gaps

The Indo-Tibetan Border Police (ITBP) occupies a structurally ambiguous position in India's Himalayan security architecture. As the designated first-responder to Chinese incursions along the LAC, the ITBP manages initial confrontations before Army reinforcement arrives - a bifurcation that reduces resource burden but creates response-time vulnerabilities during rapidly escalating incidents, as the Galwan clash demonstrates. Post-Galwan modernisation has improved surveillance and communications capacity, yet a significant capability asymmetry with China's People's Armed Police persists (Kanwal, 2018). Beyond its security mandate, the ITBP's civic action programme - operating schools, hospitals, and supporting the Vibrant Villages Programme across border districts - directly embodies the development pillar of India's deterrence-diplomacy-development framework, linking frontier governance to strategic consolidation (NITI Aayog, 2022; MHA, 2023). The structural gap between the ITBP's constabulary mandate and the military-grade threats it now faces represents a critical inconsistency in India's border management architecture that post-2020 reforms have addressed only partially (Kanwal, 2018; International Crisis Group, 2023).

3.5 Cross - Sectoral Analysis: India's Evolving Strategic Posture

3.5.1 From Accommodation to Deterrence: A Doctrinal Shift

Analysing India's strategic conduct across its three Himalayan territories shows a significant change in its strategic doctrine. Historically, India followed a strategy defined by (Rajagopalan, 2021) as ‘restraint’ where it sought to achieve its security aims through diplomatic means, made asymmetric concessions to achieve security, and avoided going to war at any cost. In this way, India viewed military restraint not as weakness but rather as a strategic investment toward long-term stability. Although analysts today refer to this strategy as either ‘managed deterrence’(Pant and Bommakanti, 2019) or’competitive coexistence’, it constitutes a significant shift away from prior accommodationist logic, driven by two structuring pressures converging into each other. The first structuring pressure is Xi Jinping's transformation of Chinese strategic behaviour under which China has taken a more assertive position on territorial disputes (Fravel, 2008; Verma, 2023). Another significant factor affecting the changing dynamics of India-China relations since 2013 is the evolution of India's political landscape under the Bharatiya Janata Party (BJP) government, which has fostered a

much more aggressive and visceral form of nationalism around the question of territorial sovereignty (Mohan, 2015).

India's earlier preference for crisis management, confidence-building measures, and avoidance of military escalation reflected a strategic culture shaped by post-colonial restraint, developmental priorities, and the political memory of the 1962 war. The post-2014 transition toward forward deterrence and infrastructure-led balancing therefore represents not merely a policy adjustment but a partial transformation in India's strategic culture regarding territorial sovereignty and border management.

As a result of this doctrinal reorientation, the evidence of changes in Indian policy towards China is substantial and multifaceted. For instance, in Ladakh, India has implemented an explicit 'mirror deployments' strategy by matching Chinese troop deployments and military capability to the Chinese forces to counter, rather than relying on confidence-building measures (Philip, 2020). However, they have also increased logistical and fiscal costs in the long-term . Development of advanced landing grounds (ALGs), the purchase of the S-400 missile system, Apache helicopters, partial re-invigoration of the Mountain Strike Corps to conduct offensive operations in high-altitude mountainous terrain, conveys India's readiness to incur the high costs of strategic forward deterrence (MoD, 2022; Kanwal, 2018).

Nevertheless, an adequate scholarly evaluation cannot conclude that the doctrinal change from restrained realism to managed deterrent has inherently improved Indian security without first determining its analytical deficiencies and associated risks. The most prominent cautionary comment on this point is offered by Menon (2021), who argues that the complete militarisation of India's policy towards China carries possibility of generating a security dilemma where Beijing interprets Indian defensive expenditures as preparations for offensive actions, which will, in turn, provide further incentive for China to deploy more forwardly and thus reinforce this spiral.

The introduction of 'Atmanirbhar Bharat' indigenous defence supplies have faced capability gaps during the transition away from import dependence and immediate operational condition of forward deterrence, which demand a mature field system rather than developmental programmes. This has raised the concern that unless the deterrent aspect has the risk of establishing a politically declared but materially

unsupported, Indian deterrence will lead to unexpected Chinese actions that would not be countered with adequate capability to manage escalation.

A possible third significant critique relates to the declining diplomatic avenues. The comprehensive competitive scheme created after 2020, has removed much of the economic interdependency between China and India (Pant & Joshi, 2017). While there is an appropriate security rationale for many of the policies taken, the totality of the impacts of those policies may dramatically limit the use of diplomatic or economic methods. Thus, in the short run, the transition to managed deterrence may be necessary, but on a longer range, a strategically limiting response if there is not an equivalent commitment to build up the diplomatic or economic means of supporting the political sustainability of that deterrent effort.

3.5.2 The Nuclear Dimension of Himalayan Security

An analysis of India's strategic security in the Himalayas must include consideration of nuclear issues. China maintains 'no first use' (NFU) nuclear policy although India's defence analysts have doubts about Chinese adherence; which have been compounded by developments in the PLA Rocket Forces and introduction of dual capable missiles. India's own nuclear posture reaffirms the NFU policy, however, the 2003 Cabinet Committee on Security statement allows for nuclear retaliation in the event of a major chemical or biological weapons attack against India or Indian forces (Government of India, 2003). This posture reflects what Basrur (2001) characterises as India's culturally embedded strategic minimalism- doing the least militarily necessary to achieve security- a tradition that shapes India's nuclear restraint as much as its doctrinal commitments do. The unique Himalayan geography creates challenges to stability. The distance and speed at which missiles can be launched creates a very less time warning to reach their targets. This reduces the decision-making time in a crisis environment and creates a greater opportunity for judgment errors or unintentional launch of nuclear weapons (Narang, 2014).

Conventional military forces along the LAC and ambiguity about the nuclear capabilities of certain missile systems create 'use it or lose it' pressures that classical deterrence theory identifies as escalation risks. India's development of the Agni-V intercontinental ballistic missile (ICBM) -first tested in 2012 and demonstrated with Multiple Independently Targetable Re-entry Vehicle (MIRV) capability through

Mission Divyastra in March 2024, has been intended to strengthen India's second-strike capability (CSIS, 2024). This offers strategic stability at the expense of limited utility for limited-warfare scenarios that are more operable in Himalayan region (Narang, 2014).

India's nuclear posture and its conventional military strategy along the LAC are distinct but connected. The Agni-V's assured second-strike capability means that full-scale war between India and China is effectively off the table - both sides know escalation to that level carries existential costs. This strategic stability at the nuclear level is, however, precisely what enables China's grey-zone tactics below it. Because neither side will allow a border clash to escalate into nuclear exchange, China can engage in incremental land-grabbing - salami-slicing (Chauhan, 2024) - with limited fear of catastrophic retaliation. India's challenge, therefore, is not nuclear deterrence, which functions adequately, but the absence of a coherent doctrine for the space between a minor border incursion and a full conventional military response. Galwan exposed this gap directly: India had no established playbook for a violent but sub-war confrontation that fell below the threshold of conventional war yet well above routine patrolling. Developing such a doctrine - one that specifies graduated, credible responses to grey-zone provocations - is among the more pressing requirements of India's post-2020 strategic posture (Narang, 2014).

3.6 Conclusion

This chapter had undertaken a sector-wise analysis of India's territorial and strategic security across the Himalayan frontier. In the Western sector, the Galwan crisis revealed deep institutional deficiencies in intelligence, infrastructure and crisis management while catalysing significant border security investment. The Middle sector's strategic neglect and deteriorating India-Nepal relations demonstrates the Himalayan security extends beyond bilateral India-China relationship. In the Eastern sector, China's cartographic assertion, the 2022 Tawang confrontation and border development programme reflects a long-term territorial consolidation strategy. The cross-sectoral analysis reveals a genuine doctrinal shift from restrained realism towards managed deterrence (Pant & Bommakanti, 2019; Saran, 2021), reflected in mirror deployment, reinvigorated Mountain Strike Corps, accelerated BRO infrastructure and modernised weapons procurement (Gadzala Tirziu, 2023). The ITBP remains strategically indispensable yet chronically under-resources relative to threats it faces.

A dimension of Research Objective III that the sectoral analysis above addresses implicitly but must be stated explicitly is the impact of China's assertiveness on India's 'political security' - defined here as India's ability to maintain influence, legitimacy, and strategic partnerships within its own neighbourhood. This dimension is analytically distinct from territorial or environmental security and is directly addressed by Research Question III. China's Himalayan assertiveness has produced measurable erosion of India's political security across three vectors. First, through the Doklam standoff and subsequent China-Bhutan boundary negotiations - the 2021 Three-Step Roadmap signed without Indian involvement, Beijing has systematically worked to reduce Bhutan's security dependence on India, challenging India's strategic buffer on the Siliguri Corridor (Panda, 2022). Second, China's increasing economic engagement with Nepal through BRI infrastructure initiatives - including the proposed Trans-Himalayan Multi-Dimensional Connectivity Network - has provided Kathmandu with an alternative patron, enabling Nepal to adopt more assertive position on territorial disputes such as Kalapani and Lipulekh that would previously have been diplomatically untenable (Sigdel, 2018). Third, China's simultaneous role as Bangladesh's largest trading partner and primary infrastructure financier has structurally constrained Dhaka's ability to align with India on shared hydro-security concerns, effectively neutralising the downstream coalition strategy that Indian analysts have proposed (Zeitoun & Warner, 2006). Taken together, these three vectors reveal that China's grey-zone assertiveness in the Himalayas extends beyond territorial incrementalism into a deliberate strategy of neighbourhood fragmentation - reducing India's political standing among its own immediate neighbours and complicating any collective South Asian response to Chinese regional primacy. This directly addresses Research Question III's concern with political security impacts, and underscores that India's strategic response must include a neighbourhood diplomacy dimension that the deterrence-diplomacy-development framework, as presently operationalised, does not adequately address.

Three structural vulnerabilities persist across all sectors: the enduring force asymmetry with the PLA; governance deficits in border districts through demographic decline and administrative constraints; and the intelligence inability to provide adequate strategic warning. India's territorial security posture has strengthened considerably since 2020 in the deterrence dimension but remains structurally weak in diplomacy and uneven in development. As Menon (2021) cautions, tactical deterrence gains must not

be conflated with strategic stability- until India develops deterrence concurrent with investments in governance, intelligence, and diplomacy, its Himalayan security posture will remain structurally incomplete.

Overall, the Himalayan frontier demonstrates that contemporary territorial competition between India and China is no longer defined solely by conventional military contest, but by the interaction between deterrence, infrastructure race, political influence, frontier governance, and environmental vulnerability within a broader strategic rivalry.

Chapter IV

Hydro-Security and Environmental Challenges

Water, a foundation of civilisation, has emerged as an increasingly contested area of hydro-strategic competition in the modern-day geopolitical context of the Himalayas. This chapter analyses three interconnected dimensions: China's dam construction strategy on the Yarlung Tsangpo known as Brahmaputra in India and its coercive implications; the institutional deficit in India-China hydro-diplomacy; and the ecological fragility of the Brahmaputra basin under compounding pressures of dam construction and climate change. Together, these dimensions directly engage Research Objective III, China's assertiveness and its environmental security impact and Research Objective IV, the effectiveness of India's multidimensional strategic response.

The chapter argues that China's upstream dam construction constitutes a form of Hydro-Hegemony (Zeitoun & Warner, 2006), a structural condition whereby the upstream state is able to utilise its geographical positions to influence strategic options for the downstream nations without necessarily having to coerce it. Drawing on Strange's (1994) concept of structural power, adapted here to hydro-political context, the analysis demonstrates that China's water infrastructure strategy is inseparable from its broader strategic position against India. Simultaneously, India's vulnerability is aggravated by the lack of bilateral water sharing treaty, inadequacy of data-sharing mechanism and ecological sensitivity of the Brahmaputra river. The chapter proceeds through analysis of China's dam building architecture, the geopolitical dimension of upstream control, the institutional gaps in India-China hydro-hegemony, the environmental consequences of Himalayan ecosystem and India's strategic responses.

4.1 China's Dam Construction: Scale, Strategy, And Significance

Since the late 1990s, China has steadily invested in its water infrastructure on the Tibetan Plateau. While officially framed as energy security and regional development initiatives, these projects have enhanced China's strategic capabilities in the region (Chellaney, 2011). The proposed Great Bend project to be constructed in Metog County, Tibet (Motuo region), represents a qualitative escalation in China's hydro-structural leverage due to its scale and hydropower's potential. As an upper

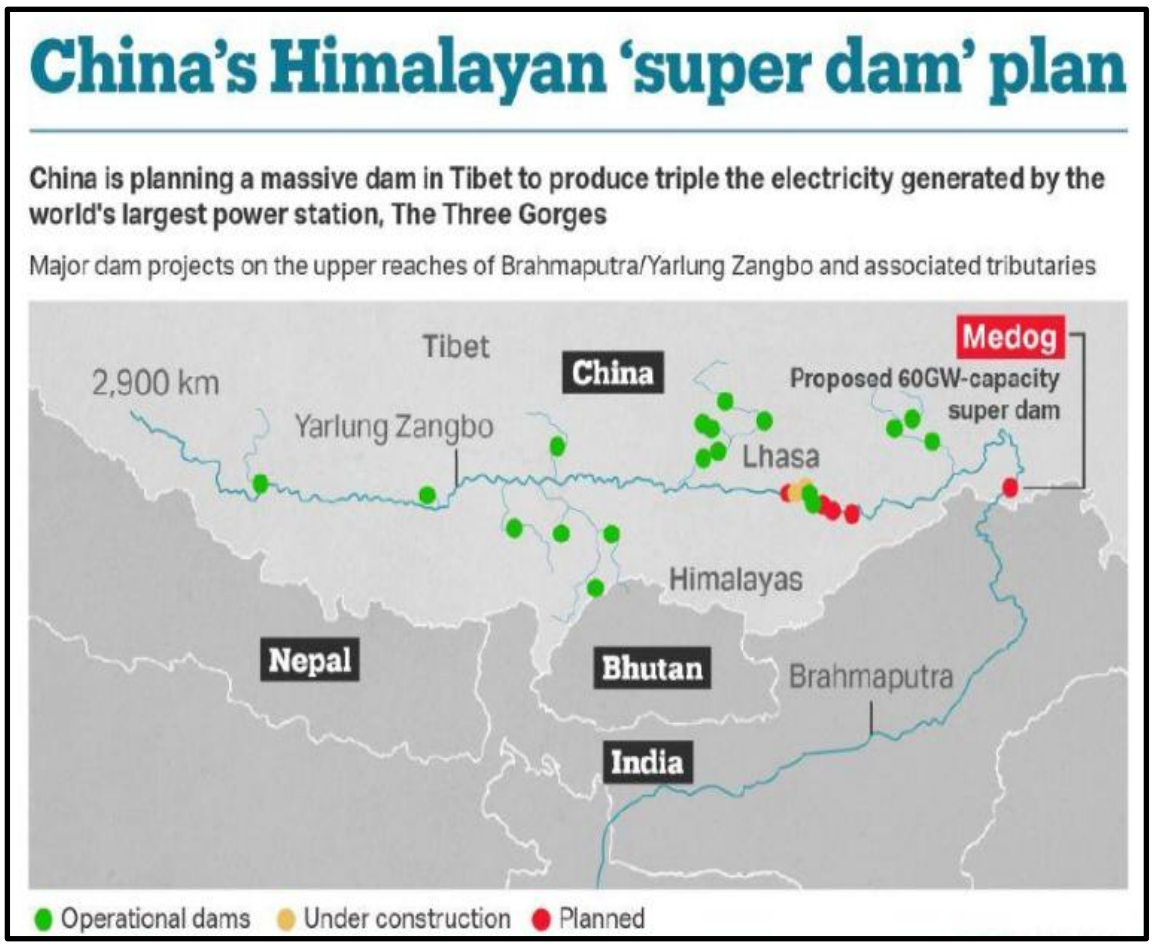
riparian state, China has a natural strategic advantage to convert its geographical position into operational control over water.

Chellaney (2011) characterised upstream dam infrastructure as a form of 'water nationalism', reflecting the use of hydrological sovereignty as an instrument of geopolitical leverage. This analysis is consistent with Strange's (1994) concept of structural power dynamic that directly manifests Research Objective III's concern with China's assertiveness and its environmental security impact on India.

China has consistently refused to sign a formal water-sharing agreement with India, arguing that such an arrangement would limit its sovereignty rights over domestic waterways. This reflects what Zeitoun & Warner (2006) refers to as 'hydro-hegemony behaviour', where the dominant upstream resists binding constraints in order to preserve its strategic advantage.

Figure 4.1

China's proposed Super Dam on the Yarlung Tsangpo



Source: Donnellon-May, G. (2022, December 9). China's super hydropower dam and fears of Sino-Indian water wars. *The Diplomat*.

Figure 4.1 illustrates the location of China's proposed super dam on the Yarlung Tsangpo river near Medog. The map also shows existing, under-construction and planned hydropower projects along the river and its courses into India and neighbouring regions.

China upstream dam construction strategy also extends beyond the Yarlung Tsangpo basin to the western Himalayan frontier adjoining Ladakh (Gangadharan, 2025). A medium-scale dam on the Indus river near Demchok – a disputed point of LAC in eastern Ladakh- was documented by the Institute for Defence Studies and Analyses as early as 2010 (Sering, 2010), constructed without bilateral notification and in absence of water sharing treaty mechanism with India. This demonstrate that China's hydro-structural leverage is not confined to the Brahmaputra alone, but constitutes a pan-Himalayan upstream control.

4.2 Geopolitical Dimensions of Upstream Control

In the hydro-political literature, the concept of 'hydro-hegemony' developed by Zeitoun and Warner (2006), explains how countries located upstream use their advantageous position to exert political pressure without resorting to overt military force. In the India and China context, this manifests primarily through data asymmetry; and flow regulation during high military tensions.

The 2017 suspension of hydrological data sharing following the Doklam incident demonstrates how even non-physical elements of river governance can acquire strategic significance (Singh et al., 2024). India's response was limited to diplomatic protest highlighting a broader structural weakness: the absence of an independent real-time monitoring capability leaves India structurally dependent on Chinese cooperation precisely during periods of bilateral tension. (Ministry of External Affairs, Annual Report 2018-19). Addressing this vulnerability through the deployment of satellite-based hydro-monitoring systems and the National Hydrology Project remains an urgent policy priority consistent with Research Objective IV (Mahapatra & Ratha, 2015).

The limitations of existing arrangements further reinforce this asymmetry. The 2002 Memorandum of Understanding on Hydrological Data Sharing, despite periodic renewals, lacks enforcement mechanisms. Data provision is restricted to a limited

number of stations and to the monsoon season excluding winter flows and tributary systems. As a result, India is fundamentally reliant on the cooperation of China. However, deteriorating bilateral relations particularly after the 2020 Galwan clash, this dependency represents a strategic vulnerability to India (Ghosh et al., 2019).

The geopolitical dimensions of Brahmaputra hydropower diplomacy are beyond bilateral arrangements. The construction of dams by China is part of a larger regional infrastructure strategy that includes initiatives such as the Belt and Road Initiative (BRI), the China-Pakistan Economic Corridor (CPEC), and increased Chinese engagement with Bangladesh and Nepal.

4.3 The Institutional Deficit: Absence of Treaty Architecture and Data-Sharing Inadequacies

The absence of a legally binding treaty governing water-sharing arrangements between China and India is a defining structural element of their hydro-political relationship. Although there have been many attempts to define and create a framework for hydro-cooperation between India and China; however, these have resulted only in non-binding Memorandum of Understanding that have limited technical scope and provide no basis for independent monitoring and audit. The Expert Level Mechanism (ELM), established in 2006 is unable to initiate binding outcomes due to its focus on protocol rather than substance (Ministry of External Affairs Annual Report 2022-23). China has generally preferred bilateral and technical arrangements on transboundary river rather than broader multilateral river-governance mechanisms involving downstream stakeholders.

The asymmetrical hydrological data-sharing mechanism between India and China constitutes a significant structural weakness in Brahmaputra basin governance. India receives real-time hydrology data from a limited number of Chinese hydrological stations, insufficient for accurate flood forecasting in the Brahmaputra River. The lack of upstream hydrological data from China is the most significant barrier that reinforces India's dependency on Chinese cooperation (Barua, Vij, & Rahman, 2018). A recent report by the Parliamentary Standing Committee on Water Resources (2021) highlighted that while China provides hydrological data on the Brahmaputra, the existing arrangement remains dependent on Chinese cooperation, with the committee recommending that India 'constantly monitor Chinese actions' to ensure no major

interventions adversely affect Indian interests. (Standing Committee on Water Resources, Lok Sabha, 2021).

According to a liberal institutionalist view, the lack of a legally-enforceable accord reflects asymmetric capabilities among nations. As adopted by Keohane and Nye (1977), liberal institutionalism posits that international institutions arise out of an agreement amongst states regarding the potential for mutual benefits derived from co-operative arrangements, outweighing the transaction costs associated with negotiating them. In the situation regarding the Brahmaputra, as the upstream nation, China has relatively less incentive to bind itself to treaty obligations which would constrain its development rights than India. This explains why bilateral negotiations repeatedly fail.

The UN Convention on the Law of the Non-Navigational Uses of International Watercourses, 1997, outlines the principles on the equitable use of water and no significant harm to the water, although neither India nor China has ratified the Convention. The absence of comparable structures in the Brahmaputra basin reinforces existing asymmetries and limits the prospects for predictable and rule based cooperation (UN Doc A/51/869, 1997; Salman & Uprety, 2002).

4.4 Ecological Fragility and Environmental Security of The Brahmaputra Basin

Constructing large dams on the upper Yarlung Tsangpo poses significant ecological hazards to Himalayan ecosystem, particularly the disruption of sediment movement. The Brahmaputra river basin carries one of the highest sediment loads which is ecologically and agriculturally critical. Reduced sediment transport can lead to long-term ecological degradation, including loss of soil fertility and altered flood regimes in downstream regions such as Assam (Wasson et al., 2022).

The ecological fragility is exacerbated by climate change, leading to complex and effects. The Tibetan Plateau is warming at rates above global average, accelerating glacier retreat and altering seasonal river flows. In the short term, glacial retreat leads to increased dry season river flow due to melting ice; long term glacial loss is likely to reduce dry-season flows and increase variability. According to the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (2022), the Himalayan region is expected to see a substantial increase in extreme precipitation events, glacial lake outburst flooding (GLOFs) and seasonal flow of Brahmaputra river. Although

policy frameworks such as the National Water Policy 2012 emphasise ecological flow requirements. The combined effects of dam construction and climate change are transforming the Brahmaputra into a more variable and less predictable system, increasing India's vulnerability and reinforcing hydro-political asymmetry with China.

4.5 The Triangular Dynamic: India, Bangladesh and China in the Brahmaputra Basin

Bangladesh is the terminal riparian of the Brahmaputra-Ganga-Meghna river system- largest fresh water river system originating from the Hindu Kush Himalayas. The extreme water dependency makes Bangladesh acutely vulnerable to upstream governance decisions made by China- yet it remains outside of the formal institutional architecture shaping those decisions (Rasul, 2015). Chinese upstream dam construction on the Yarlung Tsangpo primarily affects Bangladesh in two pathways: altered seasonal flow regimes and amplified flood risk. Given Bangladesh's dense population and ecological dependence on river regimes, even moderate hydrological shifts can produce significant socio-economic effects.

Bangladesh's ability to challenge China's upstream decision-making remains highly constrained by its deep economic relationship with Beijing. China is not only Bangladesh's largest trading partner, but also one of its most important sources of development finance and infrastructure investment. This economic dependence creates clear structural limits on Dhaka's willingness to openly criticise Chinese dam construction on the upper reaches of the Brahmaputra or to fully align with India in demanding stronger multilateral or legally binding water-sharing commitments. At the same time, bilateral tensions between India and Bangladesh over the unresolved Teesta water-sharing dispute have weakened the level of trust required for the two countries to build a coordinated downstream position against China (Ministry of External Affairs, India, 2023).

This triangular relationship highlights the practical limitations of the downstream coalition model often proposed by Indian strategic thinkers. Several scholars and policymakers have argued that India, Bangladesh, Nepal, and Bhutan could collectively exert diplomatic pressure on China as downstream riparian states under the framework of the United Nations Watercourses Convention (1997). However, while the proposal carries analytical value, it faces two major structural obstacles.

First, China's asymmetrical economic engagement with Bangladesh significantly reduces the likelihood of a unified downstream front. This reflects what Zeitoun and Warner (2006, p. 446) describe as a "divide-and-contain" strategy in hydro-hegemonic politics, where a dominant state sustains differentiated bilateral relationships with weaker riparian countries in order to prevent the emergence of a coordinated counter-hegemonic coalition. Second, India's own unresolved water dispute with Bangladesh over the Teesta undermines New Delhi's credibility as the natural leader of such a coalition.

Taken together, these dynamics suggest that effective Brahmaputra water diplomacy cannot rely solely on downstream alignment against China. India must first address its bilateral disputes with Bangladesh, particularly the Teesta issue, to rebuild regional trust and cooperation. More importantly, Brahmaputra governance needs to be reconceptualised as an inherently trilateral issue involving India, Bangladesh, and China, because any governance framework that excludes China is likely to remain structurally incomplete.

4.6 India's Strategic Countermeasures: Siang Project, Diplomacy, and Monitoring Gaps

India's response to the hydro-security challenge has unfolded along three tracks, each with significant limitations. First, the proposed Siang Upper Multipurpose Project (SUMP) in Arunachal Pradesh - a 11,000 MW hydropower and storage project on the Siang River - is conceived as both a strategic signal and a structural counterweight to Chinese upstream storage capacity (Mahapatra & Ratha, 2015). However, as of 2024, the project has faced significant delays due to environmental clearance issues, opposition from the Adi tribal community, and funding constraints (Mitra, 2025). The gap between SUMP's strategic rationale and its implementation status represents a tangible weakness in India's hydro-deterrence posture.

Second, India's diplomatic track has focused on bilateral MoU renewals and the Expert Level Mechanism (ELM), neither of which has produced binding data-sharing obligations or treaty-based water rights. Existing arrangements focus mainly on hydrological data exchange and exclude broader multilateral participation, including downstream nations such as Bangladesh (Ministry of External Affairs, Annual Report 2022-23). India's failure to internationalise this issue through the UN Watercourses

Convention framework or through ICIMOD represents a missed diplomatic opportunity.

Third, India's monitoring capacity remains critically deficient. ISRO's satellite-based monitoring of the Brahmaputra basin, while improving, does not yet provide the real-time upstream flow data necessary for accurate flood modelling. Bridging this monitoring gap through autonomous satellite hydrology is the most immediate and achievable countermeasure available to India (Krishnan et al., 2020; ISRO Annual Report, 2023).

4.7 Environmental Governance and Limits to Bilateral Diplomacy

The Brahmaputra hydro-security challenge exists in an overarching context of environmental governance problems in the Himalayas. The Himalayas constitute one of the world's most ecologically significant mountain systems that are important environmentally as they are called the 'Third Pole' because it contains the largest reserves of freshwater outside of the Arctic and Antarctica, supplying the world's major river systems that provide water to more than three billion people throughout Asia (Wester et al, 2019). Despite this profound ecological significance, the governance architecture established for the Himalayan biome remains among the weakest of any equivalent ecosystem in the world.

There is neither an environmental convention for the Himalayas nor is there a treaty framework for the equitable and cooperative management of the Hindu Kush-Himalayan ecosystem. Furthermore, there is no system in place to resolve conflicting claims to shared water resources for India and China.

ICIMOD, which is based in Kathmandu, and composed of a multi-national membership representing eight countries of India, China, Nepal, Pakistan, Bangladesh, Myanmar, Afghanistan and Bhutan, is the most significant multilateral organisation remaining for the purposes of Himalayan environmental governance. ICIMOD has produced numerous research and assessments on glacial dynamics, river hydrology and ecosystem services relative to the HKH region. Wester et al. (2019) Hindu Kush Himalaya Assessment provides a comprehensive and scientific assessment to be made of all aspects of environmental change that is occurring in the region. However, ICIMOD has no power to force member states, such as the People's Republic of China, to change their decisions regarding how they develop infrastructure or to share

information about their river basins. According to former ICIMOD officials, the interaction of the People's Republic of China with ICIMOD has been selective and constrained, with the former state rejecting any discussions of how development at the Tibetan Plateau may impact China's internal management of hydrologic resource flows to other countries.

There is a structural basis that limits bilateral diplomatic efforts to resolve these kinds of issues. The People's Republic of China and India share a border that is disputed, a history of military conflict, an extremely asymmetrical record of economic growth, the GDP of the PRC is approximately five times the GDP of India. In this context, a purely diplomatic solution to resolving these disputes regarding hydro-security is less likely to be successful if the necessary incentives for the PRC to cooperate are not developed - these may include establishing issue linkages, internationalising the dispute in a manner that creates reputational costs for the PRC, or developing India's own capabilities so as to reduce its downstream vulnerabilities to PRC actions. Although significant structural limitations constrain the effectiveness of a downstream coalition, a limited multilateral framework may still enhance India's diplomatic leverage by increasing reputational and normative pressure on China.

As noted above, from a liberal institutionalist perspective (Keohane & Nye, 1977), India's most effective diplomatic strategy would be to shift the Brahmaputra governance question from a bilateral to a multilateral frame. Engaging Bangladesh, Bhutan, and Nepal - all downstream states with shared hydro-security interests - in a coalition approach to demand Chinese compliance with the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (1997) principles would create collective reputational pressure that bilateral negotiations cannot. India's reluctance to pursue this multilateral approach, partly driven by concerns about Bangladesh's growing alignment with China under BRI financing, is a strategic miscalculation that leaves it isolated and structurally vulnerable (International Crisis Group, 2023).

4.8 Conclusion

This chapter has demonstrated that China's upstream dam strategy on the Yarlung Tsangpo constitutes a deliberate exercise of structural power, shaping India's strategic environment without overt coercion and exposing the fundamental inadequacy

of India's current institutional and diplomatic responses. The Brahmaputra River's hydro-political issues have been among the more complex and less studied aspects of the India-China strategic relationship. The absence of a binding water sharing framework and the limitations on the existing data-sharing mechanism reinforce India’s dependence on upstream cooperation. This institutional deficit, combined with environmental sensitivity and climate induced variability, amplifies India's vulnerabilities within the Brahmaputra basin. This vulnerability is further compounded by China’s extension of upstream dam construction beyond the Brahmaputra to the Indus near Demchok, supporting that China’s hydro-structural leverage operates across the entire Himalayan frontier. The issue is therefore not merely hydrological, but fundamentally strategic, linking geography, ecology and power.

From a theoretical perspective, China's dam construction represents an example of utilising geographic advantage to create structural power while asymmetrical incentives constrain the bilateral relationship. Environmental change further intensifies this dynamic, transforming water security into a key component of regional strategic competition.

In concrete terms India’s response should be based on four priority policy measures: first, fast-tracking satellite-based real-time hydro-monitoring of the Yarlung Tsangpo basin to reduce Chinese data cooperation (Singh et al., 2024); second, expediting the Siang Upper Multipurpose Project (Mitra, 2025); third, forming a South Asian Brahmaputra coalition with Bangladesh, Bhutan, and Nepal to collectively press China on adherence to UN Watercourses Convention (1997) principles; and fourth, formally designating Brahmaputra water security as a tier-one national security priority in India’s National Security Strategy.

Chapter V

Strategic Response and Conclusion

5.1 Introduction

The four preceding chapters have outlined the four key factors related to the structure of the current state of Indo-China rivalry in the Himalayas: an unresolved boundary along the LAC, deep asymmetry in military modernisation, aggressive attempts by China to build out the infrastructure across the Tibetan plateau and the environmental vulnerabilities surrounding the strategic competition. This concluding chapter draws these threads together to assess whether India's reaction particularly after 2020 represents a coherent strategy posture or whether it remains an under-resourced and fragmented reactive posture.

The analytical question is not whether India has responded- the evidence is extensive and documented in preceding chapters- but whether the response has been effective. Effectiveness is evaluated here against three explicit benchmarks: deterrence credibility (has China's coercive incrementalism been constrained?), diplomatic manageability (have crisis-management mechanisms prevented escalation into full-scale confrontation?), and structural resilience (has India reduced its long-term strategic vulnerabilities in the territorial, demographic, and environmental dimensions?). The findings indicate partial success across all three benchmarks - progress that is real and measurable, but incomplete and asymmetric.

5.2 The Deterrence Dimension: Infrastructure, Posture and Modernisation of Forces

5.2.1 Border Infrastructure as a Strategic Tool

The most significant strategic change within India since 2020 is the accelerated pace of border infrastructure development. For decades, India has underinvested in forward roads, tunnels, bridges and airstrips along the LAC, constrained by Cold War-era assumptions that such constructions would facilitate rather than impede adversary advance, compounded by bureaucratic inertia (Swartz, 2023). China suffered no such constraint and systematically converted the Tibetan Plateau into a logistical powerhouse- a process that Garver's foundational analysis traced from the 1950s,

identifying it as onfe of China's most deliberate and strategically consequential investments (Garver, 2001, p.77).

The post-Galwan response has partially closed this gap. In the financial year 2023-24, the BRO completed 125 infrastructural projects - including roads, tunnels and bridges- valued approximately Rs 3,611 crore (Press Information Bureau, 2024). This reflects a marked increase in the pace of construction compared to earlier periods, although it entails substantial logistical and financial commitments (Ministry of Defence, 2023). The inauguration of Sela Tunnel in Arunachal Pradesh in March 2024 provided all weather connectivity to strategically sensitive Tawang sector for the first time, reducing deployment times from hours to minutes. The fully operationalised of Darbuk-Shyok-Daulat Beg Oldie (DSDBO) Road and the reactivation of advanced landing grounds in Arunachal Pradesh further transformed the operational calculus along the LAC (Ministry of Defence, 2023, pp. 117-125). These are not cosmetic improvements; they represent a structural reversal of the access asymmetry that China had exploited in 2020.

5.2.2 Force Re-Constructing and High-Altitude Operational Capability

Deterrence is not solely based on the presence of infrastructure but must also be backed up by credible military capabilities. The acquisition of Chinook and Apache helicopters, Dhanush 155mm artillery systems, K-9 Vajra self-propelled howitzers and deployment of T-90 tanks above 14,000 feet in Ladakh collectively signalled India's commitment to a credible high-altitude warfighting capability (MOD, 2024, pp. 29-36). The integration of ITBP forward deployments with Army formations under unified command protocols represents an important institutional step towards a whole-of-government border security architecture (MoD, 2023). The successive three Positive Indigenisation Lists published by the Ministry of Defence since 2020 identified hundreds of defence items that must be procured domestically to achieve strategic self-reliance and operational supply-chain security.

5.3 The Diplomatic Axis: Bilateral Management and Multilateral Hedging

5.3.1 Special Representative Mechanism and Corps-Commander Level Talks

Since 2020, India has engaged with China diplomatically through two different tracks: military-level disengagement negotiations via the Corps Commander mechanism- which completed 21st round by February 2024 and 22nd round in October 2024. Through this mechanism, partial disengagement was achieved at Galwan Valley, Pangong Tso, Gogra Post and Gogra-Hot Springs. However, in all four cases, disengagement resulted in creation of buffer zones with patrolling moratoriums. The more substantive breakthrough was achieved in October, 2024, when full patrolling rights was restored at Depsang and Demchok ahead of the BRICS Kazan (Chadha, 2024). MEA statement confirming this disengagement linked the normalisation of border issues with broader bilateral recovery, thus linking border normalisation to broader bilateral recovery on principled terms (MEA, 2024).

The Special Representatives framework, suspended in 2019, restarted in December 2024 after a suspension for more than five years- reflecting both states' acknowledgment that there must be a political channel above the military level necessary to provide operational foundation for disengagement. International Crisis Group (2023) authoritative account notes that the Special Representative Mechanism represents India's most institutionally mature tool for managing the disputes at political level, though its effectiveness heavily depends on China's willingness to engage substantially rather than a gesture (ICG, 2023).

5.3.2 Multilateral Hedging: The QUAD, SCO, BRICS, BIMSTEC and Strategic Partnerships

At the multilateral level, India has pursued a calibrated hedging strategy through selective and complementary partnerships. India's multilateral engagement reflects a combination of Realist balancing and Complex Interdependence, where strategic competition coexists with diplomatic and institutional engagement (Keohane & Nye, 1977; Waltz, 1979). Within the Shanghai Cooperation Organisation (SCO) and BRICS, India seeks to maintain diplomatic engagement with China on regional security issues while simultaneously preventing Beijing from unilaterally shaping the institutional architecture of Asian multilateralism (Jaishankar, 2020; Menon, 2021). These forums also provide India with diplomatic space to engage China on issues linked to border stability, counterterrorism, and regional connectivity while reducing the risks of

strategic isolation in continental Asia. India's participation further enables it to make dialogue with Russia and Central Asian states whose geopolitical relevance has implications for wider Himalayan strategic environment, particularly in relation to Eurasian connectivity and regional power balancing (Mohan, 2015).

BIMSTEC provides India with a complementary regional platform that excludes China and strengthens cooperation with Bangladesh, Nepal, and Bhutan, whose geopolitical and hydro-strategic significance remains crucial for India's Himalayan security interests. This engagement also reflects India's effort to counter potential Chinese hydro-hegemonic influence through regional coordination and strategic outreach. BIMSTEC also supports India's efforts to improve cross-border connectivity, energy integration, and economic interdependence in the Eastern Himalayan region, thereby reinforcing political stability and reducing opportunities for external strategic penetration (Mohan, 2015; Pant & Passi, 2017).

Simultaneously, the Quadrilateral Security Dialogue (QUAD), elevated to summit-level status in 2021, has emerged as an instrument of indirect deterrence and strategic signalling. India's participation in the QUAD remains guided by its own strategic priorities, including maritime security, critical and emerging technologies, climate resilience, and regional stability, although the grouping's maritime orientation limits its direct applicability to Himalayan territorial and hydro-security challenges. The QUAD also reinforces diplomatic signalling by demonstrating that India possesses multiple strategic partnerships capable of balancing Chinese influence across the Indo-Pacific region (Mohan, 2015).

S. Jaishankar's articulation of the three "mutuals" - mutual respect, mutual sensitivity, and mutual interests - during the India-China foreign minister meeting on the sidelines of the G20 Foreign Minister Meeting in Bali in 2022 (MEA, 2022). However, this engagement continues to operate under significant structural constraints, including the unresolved boundary dispute, asymmetry in military capabilities, and recurring patterns of Chinese incremental assertion along the Line of Actual Control (LAC), all of which limit the practical scope of sustained diplomatic cooperation (Jaishankar, 2020; Fravel, 2008).

5.4 The Development Axis: Border Infrastructure and Strategic Demography

5.4.1 The Vibrant Village Programme

China's model village (Xiaokang Cun) programme has demonstrated that demographic consolidation creates territorial facts more durable than military presence alone - permanent civilian settlements with administrative infrastructure and road connectivity that are difficult to contest diplomatically or militarily (Furtado, 2021). India's Vibrant Villages Programme (VVP), launched under the 2022-23 Union Budget and operationalised from April 2023, targets 2,967 border villages across Ladakh, Himachal Pradesh, Uttarakhand, Arunachal Pradesh, and Sikkim for basic infrastructure delivery, livelihood generation, and service provision sufficient to reverse the depopulation that has left large sections of the frontier strategically vacant (Ministry of Home Affairs [MHA], 2023; Rajya Sabha Starred Question No. 3251, 2023).

Prime Minister Modi's characterisation of border residents as 'Living Sentinels of National Security', marks a fundamental reframing of the relationship between civilian welfare and national defence that Das (2022) had identified as necessary correction to India's historically centralised, military paradigm of border security that viewed border regions primarily as military zones rather than inhabited territories requiring civilian investment (Das, 2022). Fravel's comparative analysis of the Chinese territorial disputes which establishes that states achieve credible deterrence through physical presence, legal assertion and civilian investment significantly outperform those relying on military posture alone (Fravel, 2008, p.63). Whether the VVP will deliver on this promise or replicate the implementation gaps that characterised the earlier Border Area Development Programme - documented comprehensively by the National Institute of Rural Development and Panchayati Raj - remains an open question that hinges on multi-year funding continuity and outcome-based monitoring insulated from electoral cycles (MHA, 2022; Bajpai, 2014). While territorial control and demographic consolidation remain central to Himalayan strategy, long-term competition in the region is increasingly shaped by environmental and hydro-political vulnerabilities.

5.5 Environmental Strategy: Cooperation, Competition and Himalayan Hydro-Security

5.5.1 Transboundary River and Politics of Water Weaponisation

The Himalayas constitute not only contested political-military boundaries but a shared ecological system upon which water security of South and East Asia depends. Climate change driven glacier retreat is accelerating this vulnerability, compressing the timeline within which transboundary water governance must be established before downstream consequences become irreversible (Wester et al., 2019, pp. 3-17). Chellaney demonstrates that China has built dams on virtually all major rivers originating from the Tibetan plateau without negotiating downstream, thus creating structural dependencies that can be utilised as means of coercion during periods of political unrest (Chellaney, 2011). The Expert Level Mechanism (ELM) on trans-boundary river issues established in 2006, carries no enforcement authority and had experienced periodic disruption following the deterioration of India-China relations after 2017 Doklam crisis, thus demonstrating that ecological interdependence does not inherently lead to cooperation, but rather is an additional area of strategic rivalry (MEA, 2021). China's approval for the Medog (Motou) Hydropower Station in Yarlung Tsangpo in December, 2024 and commencement of construction in July,2025. With a planned generation capacity of 60 GW- would, if completed, give China unprecedented operational power over transboundary water flows in Arunachal Pradesh and Assam, raising serious concerns for India and Bangladesh (Chellaney, 2011).

5.5.2 India's Environmental Leadership as Strategic Signalling

India has sought to translate its Himalayan ecological commitment into strategic legitimacy through multilateral environment leadership – including the foundation of the Coalition for Disaster Resilient Infrastructure (CDRI) in 2019, and engaging consistently with ICIMOD and UNFCCC scientific governance; and advancing the Lifestyle for Environment (LiFE) initiative as a normative framework grounded in Himalayan ecological coexistence. The structural contradiction between India's multilateral environmental leadership and its absence of a bilateral water treaty with China represents, however, the most significant unresolved weakness in the post-2020 strategic architecture (Ministry of External Affairs, 2021; Prime Minister's Office, 2022).

5.6 Summary: How the Research Objectives and Questions are Addressed

This dissertation set out with four Research Objectives and four corresponding Research Questions. The foregoing analysis enables us to assess how comprehensively each has been addressed.

Research Objective I focused on examining the strategic and territorial significance of the Himalayas in shaping India-China relations. The answer, drawn from across all five chapters, is that the Himalayas are not merely a geographic backdrop to this rivalry but its primary structural determinant. Unlike other theatres of great-power competition, the Himalayan frontier compresses territorial sovereignty, hydrological interdependence, nuclear stability, and civilisational memory into a single physically bounded space that neither side can fully control or abandon. Every military move carries ecological consequence; every infrastructure project simultaneously signals deterrence and creates environmental impact; every diplomatic gesture operates under the shadow of an undefined boundary disputed for over a century. It is this multidimensional complexity - and not simply the raw power asymmetry between a rising China and a developing India - that the Himalayas impose on the bilateral relationship.

Research Objective II analysed the historical and contemporary factors underlying the Indo-China border disputes. Chapter 2 demonstrated that the Galwan crisis of 2020 was not an isolated incident but the product of four intersecting structural conditions: colonial-era boundary ambiguities that left overlapping territorial claims unresolved at independence; the 1962 war's institutionalisation of mutual suspicion and strategic asymmetry; the confidence-building framework's structural inadequacy in the face of China's logistical superiority and Xi Jinping's coercive turn; and the transitioning balance of power that led Beijing to pursue positional advantage while the bilateral relationship appeared stable. The ICG (2023) and Ganiger (2024) debate, on the adequacy of the CBM framework, reflects a core tension between diplomatic optimism and realism that Chapter 2 adjudicates firmly in favour of the latter: the framework was designed to manage tactical incidents, not structural competition.

Research Objective III centred to investigate the drivers of China's assertiveness and assess their impact on India's territorial, political, and environmental

security. Chapter 3 established that China's behaviour follows a discernible pattern tied to domestic legitimacy pressures and perceived windows of relative power advantage, as Friedberg's analysis of Chinese territorial disputes confirms (Friedberg, 2014). The sectoral analysis revealed distinct but interconnected vulnerabilities: in the Western sector, Galwan crisis exposed the limits of denial-based deterrence; in the Eastern sector, China's cartographic assertion and 2022 Tawang confrontation underscored the fragility of Arunachal Pradesh's connectivity; in the political dimension, China's engagements with Bhutan, Nepal, and Bangladesh through the BRI framework represent a systematic effort to encircle India's strategic periphery. Chapter 4 demonstrated that the hydro-political dimension of this assertiveness - expressed through dam construction without downstream consultation - represents China's most consequential and least reversible strategic intervention.

Research Objective IV critically evaluated the effectiveness of India's multidimensional strategic response. The three-benchmark framework applied in this chapter enables a direct and explicit answer. On deterrence credibility, India's response is partially effective: the infrastructure acceleration, platform acquisitions, and greater ITBP-Army integration have raised the cost of transgression and restored a measure of credible deterrence absent since 1962. Yet the LAC alignment is unresolved, and China's significant logistical advantage supported by infrastructure such as the Qinghai-Tibet Railway means that India currently deters escalation rather than transgression - a structurally incomplete posture (IISS, 2021). On diplomatic manageability, India's response is moderately effective: the October 2024 disengagement, the Kazan summit, and the WMCC-SR mechanism have successfully prevented the Galwan crisis from escalating into sustained armed conflict, though the boundary remains undefined and CBMs repeatedly violated (Fravel, 2008; Garver, 2001). On environmental security, India's response is least effective: the absence of a Brahmaputra water treaty, the inadequacy of the ELM, and the delays in India's own dam projects collectively constitute a structural vulnerability that grows more consequential with each year of Chinese upstream construction (Chellaney, 2011).

5.7 Policy Assessment

The analysis above suggests four priority policy directions for India's long-term Himalayan strategy.

First, on water diplomacy, India requires an urgent and dedicated policy architecture for transboundary river governance that currently does not exist. This entails three actions: fast-tracking the deployment of satellite-based real-time hydro-monitoring of the Yarlung Tsangpo basin to reduce dependence on Chinese data cooperation; forming a South Asian Brahmaputra coalition with Bangladesh, Bhutan, and Nepal to collectively press China on the principles of equitable and reasonable utilisation enshrined in the 1997 UN Watercourses Convention; and formally designating Brahmaputra water security as a tier-one national security priority in India's National Security Strategy. As Chellaney argues, India's strongest long-term leverage on this issue lies in internationalising the dispute in a manner that creates reputational costs for Beijing that bilateral negotiations cannot (Chellaney, 2011, p. 289).

Second, on border development, the Vibrant Villages Programme requires institutional safeguards to avoid replicating the implementation failures documented by the National Institute of Rural Development and Panchayati Raj's evaluation of the earlier Border Area Development Programme (MHA, 2022). Multi-year funding continuity, a dedicated parliamentary oversight mechanism, and outcome-based monitoring focused on demographic retention rather than infrastructural completion alone would insulate the programme from electoral volatility. Without these design corrections, the strategic objectives will not guarantee operational delivery (Bajpai, 2014, p. 167).

Third, on military modernisation, the most critical structural reform warranting direct attention is the establishment of a unified Himalayan theatre command integrating the Army, Air Force, ITBP, and relevant intelligence agencies under a single operational authority. As MP-IDSA's task force report recommends, the command fragmentation that has historically degraded India's border management responsiveness must be resolved as a matter of structural priority, not administrative convenience (MP-IDSA, 2022, pp. 44-49). Sustainable capital expenditure above current levels - with ring-fenced procurement for mountain warfare platforms, high-altitude logistics, and electronic warfare capability - is an attendant requirement.

Fourth, on diplomatic leverage, India may benefit from deepening the operationalisation of its Quad partnerships to deliver concrete strategic benefits: satellite intelligence sharing, critical supply-chain alternatives, and connectivity investment in partner countries adjacent to the Himalayas. The three mutuals

framework provides a normative foundation for bilateral engagement with China, but the structural conditions of Galwan - undefined boundaries, asymmetric capability, and authoritarian incrementalism persist.

5.8 Limitations of the Study

This study is subject to four inherent limitations that should inform how its findings are interpreted.

First, it relies primarily on secondary sources, including official reports, academic literature, reports from think tanks and policy analyses, which restricts the ability to capture ground-level realities and operational perspectives from border regions.

Second, the temporal scope (2017-2025) limits the capacity to assess the long-term effectiveness of India's post-Galwan strategy, particularly in relation to evolving infrastructure and environmental changes.

Third, the study focuses predominantly on India's strategic response, with comparatively limited engagement with Chinese primary sources and internal strategic discourse, which may constrain a fully symmetrical analysis.

Finally, the environmental dimension, while incorporated analytically, is not supported by primary scientific modelling, thereby limiting the precision of hydro-strategic projections.

5.9 Future Research Directions

Several productive avenues exist for future scholarly inquiry building on this study.

First, field-based research examining the implementation of border development initiatives, particularly the Vibrant Villages Programme, would provide valuable insights into the gap between policy design and ground-level outcomes.

Second, interdisciplinary studies integrating hydrological modelling with international law could help develop a comprehensive framework for managing transboundary river disputes in the Himalayan region.

Third, comparative analyses of China's behaviour across other contested theatres-such as the South China Sea and the China-Bhutan boundary-would enhance

understanding of whether its tactics along the LAC represent a broader strategic doctrine.

Fourth, the nuclear dimension of the India-China-Pakistan triangle warrants deeper investigation, particularly in relation to escalation dynamics under conditions of conventional confrontation.

Finally, long-term studies integrating climate change projections with strategic analysis are essential to understand how ecological transformation will reshape the geopolitical landscape of the Himalayas.

5.10 Conclusion

The analysis across five chapters supports a nuanced but ultimately affirmative overall assessment. India's post-2020 Himalayan strategy is the most integrated and consequential strategic formulation that India has brought to bear on the China challenge in the six decades since the 1962 war. It has moved beyond the previous compartmentalisation of deterrence, development, diplomacy, and environmental management - the compartmentalisation that made Galwan possible - and recognises these dimensions as components of a single integrated strategic problem. Scholars who have previously documented the historical disjunction between India's declaratory ambition and its operational commitments in the Himalayan theatre (Bajpai, 2014, p. 18) would find in the post-2020 record tangible, if partial and contested, evidence of that disjunction narrowing. The presence of all-weather roads where seasonal tracks once stood, border villages where emptiness once invited transgression, and ITBP posts where strategic vacuum once persisted - these are not cosmetic advances; they represent a qualitative shift in India's strategic posture that must not be minimised.

And yet an honest assessment must confront structural limitations that no tactical or operational improvement can resolve. Garver's description of India-China relations as a 'protracted contest' rather than a resolvable dispute (Garver, 2001) remains the most accurate characterisation of the challenge. That characterisation imposes particular requirements on a parliamentary democracy: sustaining political will, institutional focus, and funding commitments across electoral cycles and cabinet changes - precisely the continuity that democratic systems structurally struggle to provide. India's greatest risk in the Himalayas is not dramatic military defeat but the slow erosion of strategic resolve: deferred infrastructure projects, under-resourced

border development, postponed water diplomacy, and procurement delays that allow the asymmetry to widen incrementally. The return to strategic inaction that produced Galwan remains a live possibility, not a safely surpassed historical lesson.

Returning to Research Question I - how do the Himalayas shape the strategic and geopolitical dynamics of India-China relations? - the answer that emerges from this study is this: the Himalayas do not merely frame the rivalry; they constitute it. The mountain range compresses into a single bounded space all the forces - territorial sovereignty, hydrological control, nuclear deterrence, civilisational identity - that define what is at stake between Asia's two largest powers. India's strategic task is therefore not to resolve the Himalayan contest - which may be structurally irresolvable in the medium term - but to manage it simultaneously across all its dimensions, preserving territorial integrity, ecological stability, and political standing long enough for the structural balance of the relationship to evolve in India's favour. Whether the deterrence-diplomacy-development framework, as presently constituted and resourced, is adequate for that generational task is the central question this dissertation has sought to illuminate. The answer, on the evidence available, is: not yet - but more so than at any point since 1962.

The Himalayas are not merely India's northern boundary. They are its ecological inheritance, its civilisational identity, and, in the most immediate strategic sense, the terrain on which India's capacity to govern, develop, and secure its most distant frontier is continuously tested. The challenge China poses in this space is not merely military or territorial; it is, in the deepest sense, a challenge to India's adequacy as a state. Since 2020, India's response has been stronger and more coherent than either its detractors anticipated or its pre-Galwan record suggested it could be. Whether that strength will be sustained, deepened, and institutionalised across the decades ahead is the question that will determine not only the security of the Himalayan frontier but the character of Asia's emerging strategic order.

Summary of the Dissertation

Brief Background

The Himalayas constitute one of Asia's most strategically significant and contested frontiers wherein territorial sovereignty, military contest, ecological vulnerability and geopolitical rivalry converge. The rise of China and persistence of unsolved border disputes have transformed the Himalayan region into a zone of critical security for India. Incidents such as Doklam standoff (2017) and Galwan clash (2020) have deepened strategic tensions and highlighted the multidimensional nature of Himalayan security. Against this background, the study, titled *Security and Strategy in the Himalayas: Examining India's Approach to the China Challenge*, examines how India has responded to China's increasing assertiveness through deterrence, development, diplomacy and environment governance.

Statement of the Problem

The India-China conflict in the Himalayas is driven by historical ambiguities, strategic mistrust, infrastructural competition and ecological interdependence. While extensive scholarship focuses on the territorial aspects of the dispute, insufficient attention has been paid to the intersection of political and environmental security. This study argues that India's long-term stability in the Himalayas depends on integrating these dimensions within a cohesive strategic framework. The study also highlights the strategic response combining deterrence, development and diplomacy and interests of India to China's challenge.

Research Objectives and Research Questions

Research Objectives

I. To examine the strategic and territorial significance of the Himalayas in shaping India-China relations.

II. To analyse the historical and contemporary factors underlying the Indo-China border disputes in the Himalayan frontier.

III. To investigate the strategic motivations behind China's increasing assertiveness and assess their impact on India's territorial, political, and environmental security.

IV. To critically evaluate India's multidimensional strategic approach-encompassing deterrence, diplomacy, and development-in maintaining long-term security and stability in the Himalayan region.

Research Questions

I. How do the Himalayas shape the strategic and geopolitical dynamics of India–China relations?

II. What are the historical and contemporary factors perpetuating the Indo-China border disputes in the Himalayan region?

III. What are the drivers and objectives behind China's assertive behaviour in the Himalayas, and how do they affect India's territorial, political and environmental security?

IV. How effective is India's multidimensional strategic response in addressing China's assertiveness and ensuring long-term stability in the region?

Methodology

The study adopts a qualitative search methodology grounded in historical and exploratory approaches. It draws upon both primary and secondary sources, including official government documents, Ministry reports, treaties, policy statements, institutional publications, scholarly articles, books, and strategic studies. The research employs Offensive Realism, Defensive Realism, the Security Dilemma framework, Securitization Theory, Hydro-Hegemony, and Complex Interdependence to analyse the territorial, strategic, diplomatic, and environmental dimensions of the India-China rivalry in the Himalayas. The study further incorporates sectoral analysis of the Western, Middle, and Eastern sectors of the Line of Actual Control (LAC) along with examination of hydro-security and environmental governance issues.

Main Findings

The study finds that the Himalayas have evolved from a traditional geographical barrier into a multidimensional strategic frontier central to India-China relations. The historical analysis demonstrates that unresolved colonial legacies, competing territorial claims, Tibet's strategic significance, and shifting power asymmetries continue to sustain the security dilemma between the two states. The sectoral analysis in Chapters

III and IV further reveals that China's increasing assertiveness is reflected through military modernisation, grey-zone tactics, salami-slicing strategies, and hydro-political leverage in the Himalayan region.

The study further finds that the Galwan Valley clash of 2020 constituted a structural turning point in India's strategic thinking, leading to a qualitative shift from reactive border management toward a more integrated strategy of deterrence, infrastructure expansion, diplomatic balancing, and frontier development. India's strengthening of border infrastructure, military modernisation, multilateral engagement through forums such as the QUAD and BRICS, and initiatives such as the Vibrant Village Programme demonstrate a more coordinated and long-term strategic approach.

At the environmental level, the research finds that China's upstream dam construction on the Yarlung Tsangpo (Brahmaputra) introduces significant hydro-political and ecological concerns for downstream states, particularly India and Bangladesh. The absence of binding water-sharing treaties and institutionalised river governance mechanisms further intensifies strategic uncertainty in the region.

The study ultimately concludes that although India has made substantial progress in enhancing deterrence capabilities, strategic coordination, and border infrastructure, structural asymmetries and environmental vulnerabilities continue to constrain long-term Himalayan stability.

Conclusion

The dissertation concludes that the Himalayan frontier has become one of the most significant strategic theatres in contemporary Asian geopolitics. The India-China rivalry in the region is no longer confined solely to territorial disputes but increasingly encompasses military competition, infrastructural race, hydro-politics, ecological vulnerability, and geopolitical influence. The study argues that India's post-Galwan strategy reflects a transition toward a more comprehensive and adaptive security framework integrating deterrence, diplomacy, development, and environmental considerations.

However, the research also concludes that military preparedness alone cannot ensure long-term Himalayan stability. Sustainable security in the region requires continued infrastructural development, stronger diplomatic engagement, regional cooperation on transboundary water governance, and greater integration of

environmental concerns into strategic planning. The study therefore emphasises that India's long-term success in addressing the China challenge will depend not only on military capability but also on its ability to balance strategic competition with regional stability, ecological sustainability, and diplomatic resilience in the Himalayan frontier.

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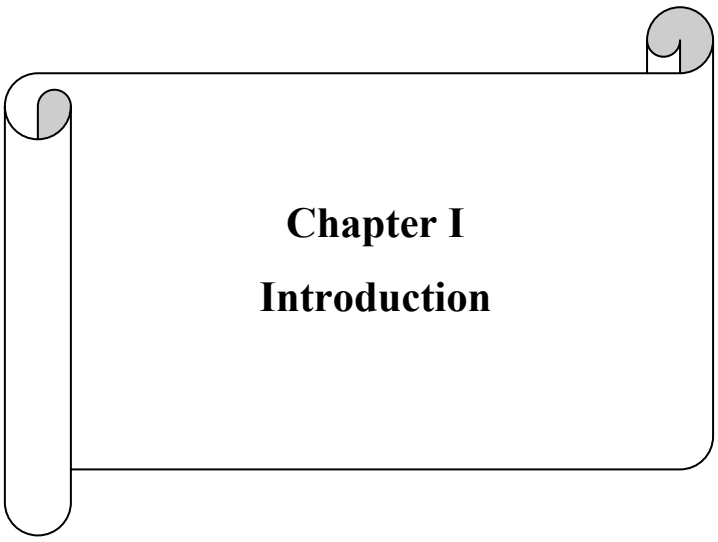
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