

**THE ACQUISITION OF MODERN TECHNOLOGIES BY THE INDIAN
MILITARY: STRATEGIC, SECURITY, AND GEO-POLITICAL
IMPLICATIONS FOR PAKISTAN**



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DEDICATION

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TABLE OF CONTENTS

Dedication	iii
Acknowledgement	iv
Table of Content	v
List of Abbreviations	xvii
List of Tables	xx
List of Figures	xxi
Abstract	xxii
Chapter One: Introduction	1
1.1 Introduction	1
1.2 Problem Statement	2
1.3 Research Objectives	2
1.4 Research Questions	3
1.5 Significance of the Study	4
1.6 Limitations of the Study	4
1.7 Delimitations	5
1.8 Literature Review	6
1.8.1 Theoretical Frameworks for Military Modernization and Security Dilemmas	6
1.8.2 Evolution of India's Military Technology Acquisition	11
1.8.3 Strategic Motivations behind India's Military Modernization	13
1.8.4 Impact on South Asian Strategic Stability	15
1.8.5 Geopolitical Implications in South Asia and Beyond	15
1.8.6 Policy and Diplomatic Pathways for Regional Stability	16
1.9 Research Gap	17
1.10 Theoretical Framework	18
1.11 Research Methodology	21
1.12 Ontological Reasoning behind the Methodology	21
1.13 Methodology and Epistemological underpinning	21
1.14 Research Design	22
1.15 Data Collection Methods	22
1.16 Data Analysis	23
1.17 Data Collection Tools	24
1.18 Operational Definitions	24
1.19 Organization of the Study	26

Chapter Two: Theoretical Framework	29
2.1 Introduction to the Security Dilemma	29
2.1.1 The Role of Emerging Technologies	33
2.1.2 India's Niche and Modern Technologies	34
2.1.3 Third-Party Influences and Historical Incidents	34
2.1.4 Case Study: Operation Bunyan um Marsoos	35
2.1.5 Domestic Dynamics and Mitigation Efforts	37
2.2 Security Dilemma Theory	37
2.2.1 Conceptual Foundations and Evolution	38
2.2.2 Key Theorists and Their Insights	38
2.2.3 Critiques and Theoretical Contestation	39
2.2.4 The Offense-Defense Balance in South Asia	40
2.2.5 Psychological Dimensions and Cognitive Biases	40
2.2.6 Third-Party Influences and Regional Complexity	41
2.2.7 Case Studies: Kargil and Balakot	41
2.2.8 Alternative Theoretical Lenses	42
2.2.9 The Role of Alliances and Regional Dynamics	43
2.2.10 Cognitive Biases in Crisis Decision-Making	44
2.2.11 Implications for Policy and Arms Control	45
2.3 Offensive Realism and Its Implications for Indian Military Doctrines	46
2.3.1 Core Principles of Offensive Realism	46
2.3.2 Application to India's Military Strategy	47
2.3.3 Illustrative Examples	48
2.3.4 Technological Superiority and Multi-Domain Dominance	48
2.3.5 Nuclear Doctrine and Strategic Deterrence	49
2.3.6 Alliances and Strategic Partnerships	50
2.3.7 Economic Foundations of Military Power	50
2.3.8 Historical Context: Military Modernization Timeline	51
2.3.9 Regional Power Projection and Indo-Pacific Ambitions	52
2.3.10 Operation Sindoor: A Case Study in Offensive Realism	52
2.3.11 Critiques and Regional Implications	53
2.4 History of Indo-Pak Relations	54
2.4.1 Origins of the Rivalry	55
2.4.1.1 Diverging National Identities	55
2.4.2 Major Wars and Strategic Lessons	56

2.4.2.1 The 1965 War	56
2.4.2.2 The 1971 War and Bangladesh's Creation	57
2.4.2.3 The 1999 Kargil Conflict	57
2.4.2.4 The 2001–2002 Military Standoff	58
2.4.2.5 The 2008 Mumbai Attacks	58
2.4.2.6 The 2016 Uri Attack and Surgical Strikes	58
2.4.3 Nuclearization and Escalation	59
2.4.3.1 India's 1974 Nuclear Test	59
2.4.3.2 The 1998 Nuclear Tests	59
2.4.4 Diplomatic Efforts and Stalemates	60
2.4.4.1 Key Initiatives	60
2.4.4.2 Persistent Mistrust	60
2.4.5 Military Doctrines and Technological Shifts	60
2.4.5.1 India's Proactive Posture	60
2.4.5.2 Pakistan's Countermeasures	61
2.4.6 Contemporary Flashpoints	61
2.4.6.1 The 2016 Uri Attack and Surgical Strikes	61
2.4.6.2 The 2019 Balakot Airstrike	61
2.5 Strategic Stability in South Asia	62
2.5.1 Introduction	61
2.5.1.1 Defining Strategic Stability	62
2.5.2 Nuclear Deterrence Dynamics	63
2.5.3 Third-Party Influences	64
2.5.4 Regional Challenges	64
2.5.5 Asymmetric Stability: A New Perspective	65
2.5.6 Escalation Ambiguity: An Original Framework	66
Chapter Three: The Engines of Ambition—Drivers of India's Military Modernization	69
3.1 Introduction to India's Military Modernization	69
3.2 Economic and Political Drivers	75
3.2.1 India's Economic Foundation: A \$4 Trillion Powerhouse	76
3.2.2 Defense Budget: Priorities, Trade-offs, and Challenges	78
3.2.3 Hindutva Nationalism: A Political Catalyst	80
3.2.4 Modi's Policies: Vishwaguru and Defense Reforms	81
3.2.5 Private Sector: Tata, Reliance, HAL, and Emerging Startups	82

3.2.6 Policy Initiatives: Atmanirbhar Bharat and Beyond	83
3.2.7 R&D Budgets: DRDO, ISRO, and Academic Collaboration	84
3.2.8 Pakistan's Economic Strain: A Contrast	85
3.3 Geopolitical Drivers and International Partnerships	86
3.3.1 Sino-Indian Rivalry: Ladakh and Technological Competition	88
3.3.2 India-Pakistan Tensions: Kashmir, Balakot, and Sindoor	91
3.3.3 United States: MQ-9B Drones and Strategic Alignment	91
3.3.4 Russia	92
3.3.5 Israel: Cyber Technologies and Drones	93
3.3.6 France: Rafale and Maritime Satellites	93
3.3.7 Other Partnerships: UK, Japan, Australia, Sweden, South Korea	94
3.3.7.1 United Kingdom	94
3.3.7.2 Japan	94
3.3.7.3 Australia	94
3.3.7.4 Sweden	95
3.3.7.5 South Korea	96
3.3.8 India's Inventory: Strategic Capabilities	97
3.4 Doctrinal Integration and Military Exercises	99
3.4.1 A Formation Model as a Legitimation of Doctrinal Integration	99
3.4.2 Cold Start Doctrine: Rapid Response to Pakistan	100
3.4.3 Joint Doctrine of the Indian Armed Forces (JDIAF) 2017	101
3.4.4 2018 Land Warfare Doctrine: Multi-Domain Warfare	101
3.4.5 Integration of AI: Real-Time Decision-Making	102
3.4.6 Integration of Cyber Capabilities: Network-Centric Warfare	103
3.4.7 Integration of Hypersonics: Rapid Strike Capabilities	103
3.4.8 Bharat Shakti Exercise: Integrated Warfare Demonstration	104
3.4.9 Gagan Shakti Exercise: Air and Joint Operations	104
3.4.10 Strategic Implications	105
3.5 Case Studies and Conclusion	106
3.5.1 Case Study 1: Operation Sindoor (2025)	106
3.5.1.1 Overview and Context	106
3.5.1.2 Technological and Doctrinal Integration	108
3.5.1.3 Drones	108
3.5.1.4 BrahMos Missiles	108
3.5.1.5 S-400 (Sudarshan Chakra)	109

3.5.1.6 ISRO Satellites	109
3.5.1.7 Cyber Operations	110
Chapter Four: India Modernisation of the Armed Forces – An Analysis	111
4.1 Introduction	111
4.1.1 Early Modernisation (1947–1971)	112
4.1.2 Nuclear and Space Development (1971–1998)	113
4.1.3 Conventional and Cyber Expansion (1998–2010)	113
4.1.4 Space and Precision Warfare (2010–2019)	113
4.1.4 Space and Precision Warfare (2010–2019)	113
4.1.5 Multi-Domain Warfare (2019–2025)	114
4.1.6 Hypersonic Advancements	115
4.1.7 Path to Indeginization	115
4.1.8 Pakistan’s Security Dilemma	115
4.1.9 Operation Marqa e Haq	116
4.1.10 Historical and Cultural Context	117
4.2 Early Modernization: 1947–1971	117
4.3 Nuclear and Space Development: 1971–1998	118
4.3.1 Strategic Context: Motivations and Regional Tensions	118
4.3.2 The “Smiling Buddha” Nuclear Test: A Strategic Milestone	120
4.3.2.1 International Backlash and Strategic Messaging	120
4.3.2.2 Pakistan’s Reaction and Nuclear Acceleration	121
4.3.3 Space Program Beginnings: Military ISR Foundations	121
4.3.3.1 Aryabhata: India’s Orbital Debut	122
4.3.3.2 SLV-3: Indigenous Launch Capability	122
4.3.3.3 Pakistan’s Space Lag and Strategic Concerns	122
4.3.4 Missile Programs: Prithvi and Agni Systems	123
4.3.4.1 Prithvi-I: Tactical Precision	123
4.3.4.2 Agni-I: Nuclear Reach	123
4.3.5 Pakistan’s Missile Response	124
4.3.6 Pokhran-II: Nuclear Power Declared	124
4.3.6.1 Political Climate and Execution	124
4.3.6.2 International Fallout and Doctrine	125
4.3.7 Pakistan’s Counter: Chagai Tests and Beyond	125
4.3.7.1 Technical Details and Challenges	125
4.3.7.2 Missile Developments	126

4.3.8 Space Advancements: India's Strategic Edge	126
4.3.9 An Escalating Dilemma	126
4.4 Conventional and Cyber Expansion: 1998–2010	126
4.4.1 The 1999 Kargil War: A Turning Point for Modernization	127
4.4.1.1 Post-Kargil Acquisitions: Strengthening Ground and Naval Power	128
4.4.2 Operation Parakram: A Shift to Rapid Offensives	128
4.4.2.1 The Cold Start Doctrine: Redefining Warfare	129
4.4.3 Post-2008 Mumbai Attacks: Coastal Security Overhaul	129
4.4.4 Cyber Warfare: Pioneering Network-Centricity	130
4.4.4.1 Pakistan's Cyber Disadvantage	130
4.4.5 Strategic Deterrence: Missiles and Submarines	131
4.4.5.1 Agni-III: Long-Range Precision	131
4.4.5.2 INS Arihant: Completing the Nuclear Triad	131
4.4.6 Pakistan's Countermeasures: Limited but Targeted	131
4.4.7 Escalating the Security Dilemma	132
4.5 Space and Precision Warfare: 2010–2019	132
4.5.1 The Uri Surgical Strikes: Precision in Cross-Border Operations	133
4.5.2 The Balakot Airstrike: Precision Strikes and Escalatory Risks	133
4.5.3 Mission Shakti: Asserting Space Dominance	134
4.5.4 NavIC: Precision through Indigenous Navigation	135
4.5.5 Naval and Air Force Modernization: Power Projection	135
4.5.6 Pakistan's Strategic Counteractions	136
4.5.7 An Escalating Divide	136
4.6 Multi-Domain Warfare: 2019–2025	136
4.6.1 Emergence of Multi-Domain Warfare: A New Operative Strategic Paradigm	137
4.6.2 Technological Foundations: Building a Multi-Domain Arsenal	138
4.6.2.1 Hypersonic Technology: HSTDV and Beyond	138
4.6.2.2 S-400 Triumph: Redefining Air Defense	138
4.6.2.3 AI and Cyber: The Digital Frontier	139
4.6.2.4 Space Capabilities: Orbital Advantage	139
4.6.3 Operational Milestones: Sindoor and Bunyan-um-Marsoos	140
4.6.3.1 Operation Sindoor: Multi-Domain in Action	140
4.6.3.2 Operation Bunyan-um-Marsoos: Pakistan's Retaliation	140
4.6.4 Strategic Implications: Power and Peril	140
4.6.4.1 India's Ascendancy	140

4.6.4.2 Pakistan's Predicament	141
4.6.5 Broader Dimensions	141
4.6.5.1 Global Reactions	141
4.6.5.2 Economic Trade-offs	141
4.7 Historical and Cultural Influences	141
4.7.1 Historical Influences	141
4.7.2 Cultural Drivers: Hindu Nationalism and Global Aspirations	142
4.7.3 Technology and Cultural Symbolism	143
4.7.4 Pakistan's Perspective: Victimhood and Resilience	143
4.7.5 Security Dilemma and Regional Implications	143
Chapter Five: Transformation of Pakistan's Strategic Culture and Security Response	145
5.1 Introduction	146
5.2 Pakistan's Threat Perceptions: India's Technological Superiority	147
5.2.1 Historical Roots Condensed	147
5.2.2 Psychology for Cold Start and HSTDV	148
5.2.2.1 Strategic and Societal Resonance	148
5.2.3 Operational Concerns: Air Superiority	149
5.2.3.1 India's Rafale Jets: A Strategic Challenge	150
5.2.3.2 S-400 Triumph: A Defensive Shield with Offensive Implications	151
5.2.3.3 Impact on Pakistan's Airspace Control	152
5.2.3.4 Threat to Pakistan's Nuclear Deterrence	152
5.2.3.5 Pakistan's Countermeasures	153
5.2.3.6 Countermeasures and Future Challenges	153
5.2.4 India's ASAT Capability: A Strategic Disruptor	155
5.2.5 NavIC System: Precision and Control	155
5.2.6 Strategic Implications: Defense Spending and Modernization	156
5.3 Nuclear Responses: Full-Spectrum Deterrence	156
5.3.1 Evolution of Full-Spectrum Deterrence (FSD)	156
5.3.1.1 Pre-1998 Foundations: Nuclear Ambiguity and Strategic Imperatives	157
5.3.1.2 1998–2003: Minimum Credible Deterrence and Early Challenges	158
5.3.1.3 2004–2011: Transition to Full-Spectrum Deterrence	159
5.3.1.4 2019–2025: Refining FSD against India's Triad and Beyond	161
5.3.1.5 Strategic and Regional Implications	161
5.3.1.6 Future Risks and Strategic Stability	162

5.3.2 MIRV (Multiple Independently Targetable Re-entry Vehicles) Development:	162
Ababeel Missile	
5.3.2.1 Technical Specifications of the Ababeel Missile	163
5.3.2.2 Strategic Rationale: Countering India's BMD	163
5.3.2.3 Strategic and Societal Implications	164
5.3.3 Doctrinal Debates: Escalation Risks	165
5.3.3.1 Regional and International Perspectives	166
5.4 Budget Limitations: Conventional Forces	166
5.4.1 Naval and Ground Forces	167
5.4.2 Drone and Cyber Capabilities	167
5.4.3 Strategic Trade of Prioritization	168
5.5 Constraints and Challenges	169
5.5.1 Defense Budget Limitations	169
5.5.1.1 Budget Allocation and Salary Dominance	169
5.5.1.2 Operational Impacts	169
5.5.1.3 Strategic Consequences	170
5.5.2 Debt and Inflation Pressures	170
5.5.2.1 Debt Composition and Fiscal Constraints	170
5.5.2.2 Inflation and Economic Impacts	171
5.5.3 Space Technology Gaps	171
5.5.3.1 Budget and Program Disparities	171
5.5.3.2 Budget Constraints and Strategic Gaps in SUPARCO's	172
Operational Capabilities	
5.5.3.3 Limitations of Pakistan's Space Program	173
5.5.3.4 Geopolitical Implications of Reliance on China	173
5.5.4 Terrorism Costs	174
5.5.5 Political Instability	174
5.5.5.1 Governance Shifts	174
5.5.5.2 Procurement Delays	175
5.5.5.3 Strategic Implications	175
5.5.6 Interoperability Issues	176
5.5.6.1 Technical Integration Challenges	176
Chapter Six: Strategic Implications for Pakistan	177
6.1 Introduction	177
6.1.1 Contextual Linkage	177

6.1.2 Theoretical Anchoring	178
6.1.3 Structure Overview	178
6.1.3.1 Erosion of Strategic Stability	178
6.1.3.2 Nuclear Deterrence & Escalation Risks	179
6.1.3.3 Conventional Asymmetry & Asymmetric Response	179
6.1.3.4 Geopolitical Realignments	179
6.1.3.5 Economic & Domestic Constraints	179
6.1.3.6 Policy Recommendations	179
6.2 Disruption of Strategic Stability in South Asia	179
6.2.1 India's Technological Edge and the Security Dilemma	181
6.2.1.1 India's Advancements and Offensive Potential	181
6.2.1.2 Pakistan's Perception and Escalation Risks	182
6.2.2 Case Study: Impact of S-400 and BMD on Pakistan's Deterrence	183
6.2.2.1 Erosion of Second-Strike Assurance	183
6.2.2.2 Distortion of Strategic Stability	183
6.2.2.3 India's Strategic Calculus	184
6.2.2.4 Undermining Pakistan's Missile-Based Deterrence	184
6.2.2.5 Short Missile Time of Flight and Miscalculation Factors	184
6.2.3 Regional Stability Risks	185
6.2.3.1 Fueling an Arms Race	185
6.2.3.2 Destabilizing Mutual Vulnerability	186
6.3 Nuclear Deterrence and Escalation Dynamics	186
6.3.1 Evolution of Pakistan's Nuclear Posture	186
6.3.1.1 Key Developments in FSD	187
6.3.1.2 MIRVs	188
6.3.1.3 Contrast with India's Nuclear Posture	188
6.3.2 Tactical Nuclear Weapons: Risks and Rationale	189
6.3.2.1 Rationale	189
6.3.2.2 Risks	189
6.3.2.3 Command and Control Issues	189
6.3.2.4 Escalation Potential	190
6.3.3 MIRV Development: Countering India's BMD	190
6.3.3.1 Technical Capabilities	190
6.3.3.1.1 Range and Payload	190
6.3.3.1.2 Design	190

6.3.4 Escalation Risks and Confidence-Building Measures (CBMs)	191
6.3.4.1 Proposed CBMs	191
6.3.4.2 Challenges	192
6.4 Conventional Asymmetry and Pakistan's Responses	193
6.4.1 Pakistan's Asymmetric Responses	193
6.4.1.1 Indigenous Production (JF-17)	193
6.4.1.2 Strategic Acquisitions (J-10C)	193
6.4.1.3 Battlefield Nuclear Doctrine	193
6.4.2 Growing Conventional Disparity	194
6.4.2.1 India's Rafale Jets	194
6.4.2.2 Pakistan's JF-17 and J-10C	194
6.4.2.3 Unmanned Aerial Systems (UAS)	195
6.4.2.3.1 India's MQ-9B SkyGuardian	195
6.4.2.3.2 Pakistan's Drone Capabilities	196
6.4.2.3.3 Burraq UCAV	196
6.4.2.4 Impact on Pakistan	196
6.4.2.4.1 Airspace Control	196
6.4.2.4.2 Deterrence Credibility	197
6.4.3 Modernization Efforts under Constraints	198
6.4.3.1 Initiatives	198
6.4.3.1.1 J-10C Deployment	198
6.4.3.1.2 Drone Induction	198
6.4.3.1.3 Strategic Significance	199
6.4.3.1.4 Budget Constraints	199
6.4.3.1.5 Implications	200
6.5 Geopolitical Ramifications and External Alliances	200
6.5.1 Pakistan's Strategic Partnerships	201
6.5.1.1 China: CPEC and Military Support	201
6.5.1.1.1 CPEC's Role	201
6.5.1.1.2 Military Support	201
6.5.1.2 Turkey and Saudi Arabia: Arms and Mediation	201
6.5.1.2.1 Turkey	201
6.5.1.2.2 Saudi Arabia	202
6.5.2 India's Counter-Alignments	202
6.5.2.1 United States	202

6.5.2.2 Russia	203
6.5.2.3 Israel	203
6.6 Policy Recommendations for Pakistan	203
6.6.1 Strengthening Deterrence	203
6.6.2 Economic Reforms	205
6.6.3 Diplomatic Initiatives	205
6.6.4 Military Modernization	206
Chapter Seven: Geopolitical Implications for Pakistan	209
7.1 Introduction: Elevating Regional Rivalry to Global Contention	209
7.1.1 The India–Pakistan Conflict of 2025: A Framework for Analysis	209
7.1.2 Pakistan’s Geopolitical Vulnerabilities	210
7.1.3 Global Contention and Regional Rivalry	212
7.1.4 Strategic Rebalancing: A Path Forward	213
7.1.4.1 Diversifying Strategic Alliances	213
7.1.4.2 Diplomatic Engagement and Narrative Balancing	214
7.1.4.3 Addressing Non-Traditional Threats	214
7.1.4.4 A Vision for Regional Resilience	215
7.2 India's Military Modernization: Regional and Global Repercussions	215
7.2.1 Asymmetric Capabilities and Deterrence Challenges	215
7.2.2 Intensified Alliances and Arms Races	216
7.2.3 Kashmir and Nuclear Shadows	218
7.2.4 Broader Regional Instability	219
7.2.5 Indian Perspective on Geopolitical Implications	220
7.2.5.1 Erosion of Nuclear Deterrence as a Strategic Shield	220
7.2.5.2 International Isolation and Shift in Crisis Management	221
7.2.5.3 Strains and Calculations in Alliances	221
7.2.5.4 Uptick in Geostrategic Risk and Operational Vulnerability	222
7.2.5.5 Internal Political and Military Repercussions	222
7.2.5.6 Pressure to Reconsider Proxy Strategies	222
7.2.5.7 Changing Regional Equilibrium	223
7.2.6 Summary Table: Main Geopolitical Implications	224
7.2.7 Conclusion (on Indian Perspective)	224
7.4 Realignments and Diplomatic Maneuvers	225
7.4.1 QUAD and U.S. Dynamics	225
7.4.2 UN and Multilateral Forums	228

7.5 Maritime Security and Indo-Pacific Theater	229
7.5.1 Port Rivalries	230
7.5.2 Great-Power Naval Strategies	231
7.5.3 Pakistan’s Blue Economy Vision	233
7.5.4 Non-Traditional Maritime Threats	234
7.5.4.1 Piracy and Illegal Fishing Pose Further Challenges to Maritime Security	235
7.6 New Challenges: Atypical and Future Perspectives	235
7.6.1 Cyber and Space Domains	235
7.6.2 Climate-Geopolitical Nexus	237
7.6.3 Emerging Technologies and Geopolitical Implications	239
7.7 Conclusion: Navigating Fragility toward Autonomy	240
7.7.1 Synthesizing Key Challenges	240
7.7.2 Policy Recommendations	243
7.7.2.1 Nuclear Policies	243
7.7.2.2 Conventional Military	243
7.7.2.3 Diplomacy/Alliances	243
Findings, Discussion, Recommendations and Conclusion	245
Key Findings	245
Recommendations	249
Conclusion	250
Bibliography	251
Appendix 1: Interview Guide	299
Appendix 2: Pakistan–India Military Escalation Narrative of Both Sides [April – May 2025]	304

LIST OF ABBREVIATIONS

Acronyms/ Abbreviations	Full Form/Description
CBG	Carrier Battle Group
CD	Conference of Disarmament
CMDS	Counter Measure Dispensing System
COG	Centers of Gravity
COMINT	Communication Intelligence
COTS	Commercial off the Shelf
DAC	Defence Acquisition Council
DASH	Display and Sight Helmet System
DOS	Department of Space
DRDO	Defence Research and Development Organization
EAC	Eastern Air Command
EBA	Effects-Based Approach
ELINT	Electronic Intelligence
EOB	Electronic Order of Battle
EoNP	Elements of National Powers
ESA	European Space Agency
ESCES	Experimental Satellite Communication Earth Station
EW	Electronic Warfare
FGFA	Fifth Generation Fighter Aircraft
FLIR	Forward Looking Infra-Red
FOBs	Forward Air Bases
GDP	Gross Domestic Product
GPS	Global Positioning System
GSLV	Geosynchronous Satellite Launch Vehicle
GSQR	General Staff Qualitative Requirement

GWOT	Global War on Terrorism
HAL	Hindustan Aeronautics Limited
AAMs	Air-to-Air Missiles
AARs	Air-to-Air Refuelers
ABM	Anti-Ballistic Missile Treaty
ADE	Air Defence Environment
ADGE	Air Defence Ground Environment
AEW	Airborne Early Warning
AHOC	Air Headquarters Operational Centre
AMRAAM	Advanced Medium Range Air-to-Air Missile
APSCO	Asia–Pacific Space Cooperation Organization
ARM	Anti-Radiation Missiles
ASAT	Anti-Satellite Capability
ASLV	Augmented Satellite Launch Vehicle
ASW	Anti-Submarine Warfare
AWACS	Airborne Warning and Control System
BBU	Balloon Barrage Units
BVR	Beyond Visual Range
C&R	Command and Report
C ⁴ I ² SR	Command, Control, Communication, Computerization, Intelligence, Information, Surveillance, and Reconnaissance
CAF	Civil Armed Forces
CAPS	Centre of Aerospace Power Studies
CARs	Central Asian Republics
CBERS	China–Brazil Earth Resource Satellite
IAF	Indian Air Force
C ² ISR	Command, Control, Intelligence, Surveillance, and Reconnaissance
AI	Artificial Intelligence

CW	Cyber warfare
FSD	Full-Spectrum Deterrence (CBMs)

LIST OF TABLES

Description	Page No
Table 3.1: Inventory of Indian's Strategic Capabilities	96
Table 3.2: Inventory of Indian's Strategic Capabilities	97
Table 6.1: Strategic Significance	198
Table 7.1: Main Geopolitical Implications	222

LIST OF FIGURES

Description	Page No
Figure 2.1: Operation Bunyan-um-Marsoos	53
Figure 3.1: Military Spending Rises Fastest in Asia, Eastern Europe	72
Figure 3.2: Defense Budget Allocations/Breakdown	78
Figure 3.3: Key Defence Exports	79
Figure 3.4: Rafale Fighter Jet	87
Figure 4.1: Pakistan's Major Anti-Terror Operations	118
Figure 5.1: Comparison of India and Pakistan Defence Budgets (2021-2026)	148
Figure 5.2: Military Expenditures by India and Pakistan	148
Figure 7.1: Most Impacted Countries by Terrorism	223

ABSTRACT

This dissertation examines the strategic, security, and geopolitical implications of India's acquisition of advanced military technologies such as hypersonic missiles, AI-driven systems, Cyber Warfare (CW) capabilities, quantum computing, and space-based assets for Pakistan, within the enduring Indo-Pakistani rivalry. Drawing on offensive realism and security dilemma theories, it analyzes how India's power-maximizing strategies, fueled by a \$4 trillion economy and \$75 billion defense budget, exacerbate regional asymmetries, heighten Pakistan's perceptions of threat, and destabilize strategic stability in nuclearized South Asia. Historical conflicts, perceptual biases, and third-party influences (e.g., U.S.-India partnerships versus Sino-Pakistani alliances) are explored through case studies like Operations Sindoor (2025) and Bunyan-um-Marsoos, revealing escalation ambiguities and the blurring of offense-defense distinctions. Employing a qualitative approach, the study integrates thematic analysis of policy documents, historical records, and 15 semi-structured interviews with Pakistani experts in South Asian security, retired military officers, and academics. Findings highlight Pakistan's adaptive responses, including Full-Spectrum Deterrence (FSD), MIRV (Multiple Independently Targetable Re-entry Vehicles) development (e.g., Ababeel missile), and asymmetric countermeasures, amid economic constraints (\$340 billion GDP, \$128 billion debt). The thesis argues that India's modernization perpetuates an arms race, erodes mutual vulnerability, and shifts geopolitical alignments, while proposing confidence-building measures, diplomatic engagement, and economic reforms to mitigate risks and foster regional stability.

Keywords: India-Pakistan Rivalry, Military Modernization, Offensive Realism, Security Dilemma, Strategic Stability, Geopolitical Implications, Nuclear Deterrence.

CHAPTER ONE

1.1 INTRODUCTION

The acquisition of modern military technologies by India encompassing hypersonic missiles, aerospace systems, space capabilities, Artificial Intelligence (AI), CW, quantum computing, and related innovations profoundly reshapes South Asia's strategic, security, and geopolitical landscape, with acute implications for Pakistan's strategic culture and security posture. Rooted in the enduring rivalry since the 1947 partition, this modernization intensifies the security dilemma, where India's defensive enhancements are perceived as offensive threats by Pakistan, perpetuating mistrust and arms competition (Herz, 1950; Jervis, 1978). India's \$4 trillion economy and \$81 billion defense budget enable investments in systems like the S-400 Triumf, BrahMos II hypersonic missiles, and AI-driven platforms, which Pakistan views as tools for coercion, especially amid disputed narratives around events like the 2025 Pahalgam attack alleged by Pakistan as a false flag operation (SIPRI, 2023; IMF, 2025).

To provide deeper insights, 15 semi-structured interviews were conducted with Pakistani experts in South Asian security, military strategy, and geopolitics, including defense analysts, retired military officers, and academics. These interviews, which focused on perceptions of India's technological advancements and Pakistan's responses, were transcribed and thematically analyzed to complement secondary data, revealing nuanced views on escalation risks and strategic adaptations. The interview findings are integrated throughout the thesis to enrich the qualitative analysis, particularly in chapters discussing Pakistan's countermeasures and geopolitical ramifications.

This thesis investigates these dynamics through the lenses of offensive realism and the security dilemma, analyzing how India's power-maximizing strategies destabilize the region while prompting Pakistan's adaptive responses, including Full-Spectrum Deterrence (FSD) and alliances with China (Mearsheimer, 2001; Lavoy, 2006).

Historical conflicts, perceptual biases, and third-party influences amplify tensions, with technologies blurring offense-defense distinctions and introducing escalation ambiguity. The study synthesizes these elements to propose pathways for stability, emphasizing confidence-building measures (CBMs) and diplomatic engagement to mitigate risks in this nuclearized rivalry.

1.2 Problem Statement

India's defense modernization has brought new military capabilities to the security environment of Southern Asia. Such developments challenge Pakistan's will to maintain strategic parity and create a security dilemma, where defensive steps taken by one state are perceived as a threat by the other. This is compounded by a growing economic and technological asymmetry between the two countries that plays in India's favour. The escalation of this arms race raises questions about regional stability and the relevance of traditional deterrence doctrines. The central research question is thus the security repercussions of India's acquisitions for Pakistan and how Pakistan could effectively react, given its resource constraints.

1.3 Research Objectives

- a. To analyze drivers and historical evolution of India's modern military technology acquisitions under offensive realism, and how they advance its regional power ambitions.

- b. To examine how India's military modernization intensifies Pakistan's security dilemma, prompting adaptations in its strategic culture and security responses.
- c. To evaluate implications of India's technological advancements on Pakistan's deterrence posture and conventional capabilities, highlighting risks to regional stability.
- d. To explore geopolitical implications for Pakistan, including alliance shifts, regional dynamics, and escalation risks, while proposing measures to mitigate South Asian instability.

1.4 **Research Questions**

- a. What are the key drivers behind India's acquisition of modern military technologies, and how do they reflect offensive realism in pursuing regional hegemony?
- b. How does India's military modernization exacerbate the security dilemma for Pakistan, influencing its threat perceptions and strategic adaptations?
- c. How do India's technological advancements challenge Pakistan's nuclear and conventional deterrence, and what risks do they pose to strategic stability in South Asia?
- d. How do these developments reshape geopolitical dynamics for Pakistan, including alliances and regional tensions, and what policy measures can foster de-escalation?

1.5 **Significance of the Study**

This dissertation is crucial for reorienting the discourse on South Asian security, enhancing understanding of how Pakistan has withstood 90,000 terrorism fatalities, exposing its mischaracterization as a sponsoring terrorist state. It reveals the destabilizing effect of India's \$75 billion military progress as it barrels across the \$4 trillion economy. Contrary to India focused analyses, this highlights Pakistan's adaptive defenses, worth \$1.5 billion in a \$10.2 billion budget, which suggests it cannot significantly exceed with a \$128 billion debt and \$62 billion in economic undertakings. The study contributes to the security dilemma and offensive realism. Its policy significance is that it recommends nurturing peace in a pool of 350 nuclear warheads. By bringing together case study evidence, it advances new theoretical thinking for academics.

1.6 **Limitations of the Study**

Access to Classified Information: The information on military acquisitions in both India and Pakistan is widely classified, and the study makes extensive use of open-source information, policy documents, and expert interviews. It hampers depth in analysing sensitive aspects of e.g., hypersonic missile or cyber systems capabilities, and can result in searches for strategic effects with an incomplete, general theoretical understanding.

- a. **Sample Limitations and Interview Bias:** The 15 interviews with defense experts, policy makers, and analysts are invaluable, but they are not the full sample, and the sample itself is small, dominated by Pakistani interpretations. Potential sources of bias include the participants' affiliations, which might skew the interviewees' perceptions (e.g., retired military officials) to focus on threats and challenges rather than

opportunities, while the lack of directly Indian sources might lead to a one-sided depiction.

- b. **Temporal Limitations:** The study covers developments until the middle of 2025, yet there may be fast political/military shifts (new arms contracts or wars) that would render the implications post-submission invalid. For instance, shifting U.S.-India defense relations or Sino-Pakistan cooperation could be overtaken by the analysis. These limitations were the result of triangulation of sources and ethical considerations, but they indicate opportunities for future research with more open available access and interdisciplinary methods.

1.7 Delimitations

- a. **Geographic and Contextual Focus:** The analysis is anchored in South Asia geopolitics, India-Pakistan specifically and is not extended to explain implications for actors other than India, Pakistan and where it directly impacts interests, e.g. technology transfers.
- b. **Tech Focus:** There's a focus on a few select advance technologies artificial Intelligence (AI), drones, Ballistic Missile Defense (BMD), hypersonics and cyber instead of a comprehensive review of all military technology from around the globe to focus on those who have higher strategic impact on Pakistan.
- c. **Methodological Limitations:** The investigation adopts qualitative techniques through 15 interviews and document analysis, restricted from large-scale surveys or experimental designs, in order to better cater to the exploratory character of the geopolitical implications.

- d. **Perspective:** This thesis uses a Pakistani strategic perspective, in contrast with neutral or Indian-centered studies, meeting particular security interests.

1.8 Literature Review

India's rapid acquisition of advanced military technologies, encompassing hypersonic missiles, aerospace systems, space capabilities, Artificial Intelligence (AI), Cyber Warfare (CW), quantum computing, and related innovations, profoundly influences strategic stability, regional security, and geopolitical dynamics in South Asia, with critical implications for Pakistan's strategic culture and security posture.

This literature review synthesizes 100 scholarly works, articles, reports, and datasets to comprehensively examine the drivers, impacts, and consequences of India's military modernization. Organized into six thematic sections theoretical frameworks, evolution of India's military technology, strategic motivations, and implications on South Asian stability, geopolitical ramifications, and policy pathways for regional security it critically evaluates the literature, identifies research gaps, and positions the current study within the broader discourse.

1.8.1 Theoretical Frameworks for Military Modernization and Security Dilemmas

Military modernization studies are anchored in International Relations theories, particularly the security dilemma, deterrence, and strategic culture. These provide a robust analytical framework for understanding India's technological advancements and their transformative impact on Pakistan's strategic outlook. "Idealist Internationalism and the Security Dilemma" by Herz articulates the security dilemma, positing that one state's efforts to enhance its security, such as India's acquisition of hypersonic missiles and AI-driven warfare systems, can inadvertently provoke insecurity in others, like Pakistan,

leading to arms races and heightened tensions (Herz, 1950). Herz's theory, grounded in realist assumptions, highlights the cyclical nature of India-Pakistan rivalry, where each technological advance by India prompts Pakistan to bolster its defenses, escalating regional instability. "Theory of International Politics" by Waltz argues that states pursue military capabilities to ensure survival in an anarchic international system, framing India's modernization as a strategic imperative to counter regional threats from Pakistan's nuclear arsenal and China's growing military power (Waltz, 1979). Waltz's structural realism, supported by historical case studies, suggests that India's technological pursuits aim to maintain a regional balance of power. Still, they risk destabilizing South Asia by forcing Pakistan into a reactive posture.

"The Strategy of Conflict" by Schelling emphasizes the role of credible threats in deterrence, a concept central to the nuclear and conventional standoff between India and Pakistan (Schelling, 1960). Schelling's game-theoretic approach, validated through Cold War scenarios, underscores that deterrence relies on clear communication. However, India's opaque advancements in AI and CW complicate Pakistan's threat assessments, increasing the risk of miscalculation. "India, Pakistan, and the Bomb: Debating Nuclear Stability in South Asia" by Ganguly and Kapur debates nuclear stability, with Ganguly asserting that nuclear weapons deter large-scale conflicts by raising escalation costs, while Kapur contends they enable provocative actions, such as limited strikes, destabilizing the region (Ganguly & Kapur, 2010). Their qualitative analysis, drawing on post-1998 nuclear test data, highlights the precarious balance of deterrence, particularly as India's technological edge amplifies Pakistan's vulnerabilities.

"Maintaining Nuclear Stability in South Asia" by Joeck emphasizes the importance of robust command-and-control mechanisms and diplomatic engagement to mitigate

escalation risks, highlighting the fragility of deterrence due to the short missile flight times of under five minutes between India and Pakistan (Joeck, 1997). Joeck's policy-oriented study, based on Indo-Pakistani crisis simulations, highlights the importance of transparency in preventing unintended escalations.

Conventional deterrence theory is equally critical. "Indian Military Modernization and Conventional Deterrence in South Asia" by Ladwig applies deterrence frameworks, arguing that India's advancements, including hypersonic missiles and autonomous drones, enhance its deterrence posture by increasing the costs of aggression for Pakistan (Ladwig, 2015).

However, Ladwig's analysis, grounded in military capability assessments, notes that geographical constraints (e.g., proximity of targets) and logistical challenges (e.g., Pakistan's fortified defenses) limit India's operational effectiveness, creating a complex deterrence dynamic. "Cooperation under the Security Dilemma" by Jervis underscores how offensive technologies, such as India's hypersonic and cyber capabilities, exacerbate mistrust by reducing reaction times and heightening pre-emptive strike risks (Jervis, 1978). Jervis's theoretical model, supported by historical case studies, is particularly relevant for Pakistan, which faces challenges countering India's technological superiority.

"The Arms Dynamic in World Politics" by Buzan and Herring analyzes arms race dynamics, arguing that technological asymmetries drive competitive militarization, as evidenced by Pakistan's nuclear and missile programs responding to India's advancements (Buzan & Herring, 1998). Their global comparative approach highlights the cyclical nature of India-Pakistan rivalry, where each technological leap prompts countermeasures.

"India's Emerging Nuclear Posture" by Tellis presents India's nuclear strategy as a response to regional threats, particularly Pakistan's nuclear arsenal and China's military

rise, which has shaped its pursuit of MIRV and missile defense systems (Tellis, 2001). Tellis's archival research reveals India's recessed deterrence model, which technological advancements are now expanding, challenging Pakistan's strategic calculus. "South Asia's Cold War" by Basrur and "Eating Grass" by Khan highlight the fragility of South Asian deterrence due to mutual mistrust, compounded by India's technological edge and Pakistan's reliance on tactical nuclear weapons (Basrur, 2008; Khan, 2012). Basrur's qualitative study and Khan's historical account of Pakistan's nuclear program underscore the psychological dimensions of deterrence, where mistrust amplifies risks. "The Tragedy of Great Power Politics" by Mearsheimer presents an offensive realist perspective, suggesting that India's modernization aims for regional hegemony, prompting Pakistan to bolster its defenses and align with China (Mearsheimer, 2001). Mearsheimer's theory, validated through case studies of great powers, explains India's power projection ambitions as a driver of regional instability.

"The Security Dilemma Revisited" by Glaser and "The Ideology of the Offensive" by Snyder explore how technological superiority fuels insecurity, with India's advancements potentially destabilizing deterrence by creating perceived vulnerabilities in Pakistan (Glaser, 1997; Snyder, 1984). Glaser's theoretical refinement and Snyder's historical analysis highlight the escalatory potential of India's hypersonic and AI capabilities. "The Security Dilemma: Fear, Cooperation, and Trust in World Politics" by Booth and Wheeler emphasizes mutual fear in South Asia, where India's military buildup heightens Pakistan's threat perceptions, driving its strategic responses (Booth & Wheeler, 2008). Booth and Wheeler constructivist approach highlights the cultural and historical factors contributing to Indo-Pakistani mistrust. "Causes of War" by Van Evera examines how offensive advantages, such as hypersonic missiles, incentivize preemptive strikes a

significant risk in India-Pakistan crises, given their history of rapid escalation (Van Evera, 1999). “The Sources of Military Doctrine” by Posen analyzes doctrinal shifts, noting India’s post-2001 shift toward limited war strategies reliant on advanced technologies (Posen, 1984). “Military Readiness” by Betts underscores readiness challenges in asymmetric contexts, relevant to Pakistan’s resource constraints (Betts, 1999). “War and the Engineers” by Lieber examines the role of technology in shifting power balances, framing India’s advancements as a game-changer (Lieber, 2005).

“The Origins of Alliances” by Walt applies balance-of-threat theory, explaining Pakistan’s alignment with China to counter India’s technological superiority and US partnerships (Walt, 1987). Walt’s alliance formation model, tested through Cold War cases, highlights threat perceptions as a driver of Pakistan’s strategic choices. “The China Challenge” by Christensen offers a comparative perspective, suggesting India’s modernization mirrors great power competition, with Pakistan caught in a strategic bind (Christensen, 2015).

“War and Change in World Politics” by Gilpin posits that India’s technological pursuits aim for regional dominance, challenging Pakistan’s security and prompting counter-alliances (Gilpin, 1981). “Misperception in International Politics” by Snyder and Jervis argues that Pakistan may misread India’s opaque advancements as aggressive intent, escalating tensions (Snyder & Jervis, 2017). “Pakistan’s Strategic Culture” by Lavoy examines Pakistan’s military-dominated strategic culture, shaped by India’s perceived threat; however, it lacks an analysis of technological shifts, such as China Pakistan Economic Corridor (CPEC) or India’s modernization (Lavoy, 2006). “Fighting to the End” by Fair argues that Pakistan’s strategic culture, rooted in resisting Indian hegemony, drives persistent militarization a framework applicable to countering India’s technological

edge (Fair, 2014). “Foundations of Pakistan’s Strategic Culture” by Briskey highlights Pakistan’s fear of India and its martial identity, but does not address the impact of technological modernization (Briskey, 2022). New sources include “Quantum Security Dynamics” by Rehman, which explores the theoretical implications of quantum technologies, and “Cultural Dimensions of Strategic Culture” by Khan, which analyzes Pakistan’s cultural responses to India’s advancements (Rehman, 2025; Khan, 2024).

1.8.2 Evolution of India’s Military Technology Acquisition

India’s pursuit of advanced military technologies hypersonic missiles, aerospace systems, space capabilities, artificial intelligence, cyber warfare, quantum computing, and related innovations reflects a strategic drive for technological superiority, reshaping Pakistan’s security environment. “Hypersonic Technology” by Terry and Cone offers a detailed technical analysis of hypersonic weapons, focusing on scramjet engines and ceramic composites that enable speeds ranging from Mach 5 to 27, as validated through computational fluid dynamics (Terry & Cone, 2020).

“Hypersonics: Past, Present, and Potential Future” by Van Wie traces the evolution of hypersonic technology, noting its evasion of missile defenses due to speeds of up to 4,000 mph and unpredictable trajectories, a critical concern for Pakistan’s radar systems (Van Wie, 2021). The “Hypersonic Technology Demonstrator Vehicle (HSTDV) Test Report” by the Defence Research and Development Organisation (DRDO) details the HSTDV’s 2020 Mach 6 test, which achieved a 20-24 second sustained flight, positioning India among the global leaders in hypersonic technology (DRDO, 2020). “India’s Counterforce Temptations” by Clary and Narang analyzes the BrahMos-2 hypersonic cruise missile collaboration with Russia, noting its Mach 7 speed and low-altitude flight

path, which targets Pakistani bases, thereby enhancing counterforce capabilities (Clary & Narang, 2019).

India's aerospace and space programs bolster its military prowess. "India's Rise as a Space Power" by Rao chronicles Indian Space Research Organisation (ISRO) achievements, including the \$74 million Mars Orbiter Mission (Mangalyaan) in 2014, with military applications in surveillance (Rao, 2014).

"India's Space Odyssey" by Vasagam details the Chandrayaan missions and the Polar Satellite Launch Vehicle, which has launched over 300 satellites for reconnaissance (Vasagam, 2020). "India in Space" by Aliberti emphasizes NavIC's 1-meter resolution for military navigation, challenging Pakistan's capabilities (Aliberti, 2018). "The Indian Space Programme" by Selvam highlights the strategic role of remote sensing (Selvam, 2019). "Asia's Space Race" by Moltz situates India's program within a competitive Asian context, which impacts Pakistan's security (Moltz, 2012).

"The Politics and Perils of Space Exploration" by Dawson notes India's 2019 ASAT test, which signaled its space warfare capabilities (Dawson, 2021). "Space Warfare in the 21st Century" by Johnson-Freese and "War in Space" by Bowen argue India's 50+ satellites enhance command-and-control, outpacing Pakistan's nascent program (Johnson-Freese, 2017; Bowen, 2020).

"Strategic Asia 2022" by Tellis et al. details India's MIRV advancements, enabling multiple target strikes (Tellis et al., 2022). "Mission Divyastra" by Khalil analyzes the 2024 Agni-V MIRV test, challenging Pakistan's second-strike capabilities (Khalil, 2024). "India's Defence Technology" by Pant and Kumar explores indigenous drones, complementing the \$3.9 billion MQ-9B deal (Pant & Kumar, 2023; Palve, 2024). "Aerospace Military Development in South Asia" and "India's Evolving Missile

Development Strategy” highlight the potential dominance of missile programs (Institute of Strategic Studies, 2022; Centre for Air Power Studies, 2021).

“Asia’s Arms Race” by Bitzinger examines the Integrated Guided Missile Development Programme (IGMDP), which led to the development of the Prithvi and Agni missiles (Bitzinger, 2020). “India’s Military Modernization” by Ganguly et al. examines the integration of AI and cyber technologies (Ganguly et al., 2023). “AI and Chinese Power” by Kania highlights India’s AI ambitions (Kania, 2019). “Ghost Fleet” by Singer and Cole explores AI-driven warfare (Singer & Cole, 2021). “India’s Missile Revolution” by Gopalaswamy details Agni-V’s 5,000 km range (Gopalaswamy, 2019). “DRDO’s Technological Leap” by Reddy emphasizes HSTDV’s breakthrough (Reddy, 2020). “India’s Cyber Strategy” by Sharma examines offensive cyber units (Sharma, 2024). “South Asia’s Technological Arms Race” by Malik notes Pakistan’s cyber lag (Malik, 2023). “Hypersonic Proliferation” by Sankaran, “India’s Space Security” by Goswami and Bommakanti, “Drone Warfare in South Asia” by Rehman, and “AI in Indian Defence” by Joshi address proliferation risks (Sankaran, 2022; Goswami & Bommakanti, 2023; Rehman, 2024; Joshi, 2025). “SIPRI Arms Transfers Database” shows India’s 20% import increase (SIPRI 2024). “The Military Balance 2024” by International Institute for Strategic Studies (IISS) quantifies India’s military superiority (IISS 2024).

1.8.3 Strategic Motivations behind India’s Military Modernization

India’s military modernization is driven by strategic, regional, and global ambitions, reshaping Pakistan’s strategic culture. “Arming without Aiming” by Cohen and Dasgupta argues that India’s \$4 trillion GDP fuels \$75 billion defense budget, but the lack of a National Security Strategy causes doctrinal divergence (Cohen & Dasgupta, 2010). “The New Arthashastra” by Kanwal, with Malik, Pawar, and Aditya, emphasizes countering

Pakistan and China, prioritizing conventional capabilities (Kanwal, 2016; Malik, 2016; Pawar, 2016; Singh, 2016). “Shrinking Horizon of an Expanding Economy” by Navlakha critiques India’s budgets, highlighting the driving of arms races (Navlakha, 2015). “India: Rising Power” by Sinha and “India and the Making of a Hegemon” by Khan highlight the role of Hindutva and US partnerships (Sinha, 2018; Khan, 2017). “Indian Military Modernization under the Modi Regime” by Barrech and Siddiq attributes modernization to Hindutva (Barrech & Siddiq, 2020).

“The Revenge of Geography” by Kaplan portrays the India-Pakistan rivalry as a geostrategic one (Kaplan, 2012). “A Survey of India-US Defence Cooperation” by Joshi details technology transfers (Joshi, 2019). “India’s Foreign Policy” by Rajagopalan, “India’s National Security” by Pant, and “India’s Strategic Choices” by Chellaney emphasize countering the Pak-China axis (Rajagopalan, 2021; Pant, 2016; Chellaney, 2018).

“Strategic Asia 2020” by Tellis and “South Asia’s Security Dilemmas” by Basrur and Kutty highlight power projection (Tellis, 2020; Basrur & Kutty, 2023). “India and the Indian Ocean” by Brewster, “The End of Alliances” by Menon, and “Sino-Indian Rivalry” by Holslag discuss naval and China-centric strategies (Brewster, 2018; Menon, 2016; Holslag, 2020). “South Asia’s Geopolitical Future” by Kumaraswamy, “India’s Defence Reforms” by Chawla, “India’s Strategic Vision” by Mohan, “Hindutva and Security” by Gupta, “India’s Global Ambitions” by Ogden, “Pakistan’s Geopolitical Bind” by Fair, “India’s Strategic Partnerships” by Pant and Joshi, and “South Asia’s Power Shift” by Roy analyze global aspirations (Kumaraswamy, 2023; Chawla, 2021; Mohan, 2024; Gupta, 2023; Ogden, 2023; Fair 2024; Pant & Joshi, 2023; Roy, 2025).

“Soft Power and Technology” by Khan, “India’s Defense Indigenization” by Ahmad, “Pakistan’s Threat Perceptions” by Siddiqua, and “Nuclear Dialogue” by Haider examine soft power and nuclear motives (Khan, 2024; Ahmad, 2023; Siddiqua, 2024; Haider, 2023).

1.8.4 Impact on South Asian Strategic Stability

India’s advancements pose a threat to South Asian stability, particularly in the India-Pakistan dyad. “Hypersonic Missiles and South Asian Stability” by Yasmin argues that Hypersonic Weapons (HSWs) shrink Pakistan’s response windows, destabilizing deterrence (Yasmin, 2021). “Hypersonic Weapons in South Asia” by Sultan notes countermeasures to Pakistan’s missiles (Sultan, 2021). “Military Budgets in India and Pakistan” by Mason highlights India’s 7:1 spending advantage (Mason, 2019). “Strategic Stability in South Asia” by Bhatnagar warns of the risk of miscalculation (Bhatnagar, 2020). “Mission Divyastra” by Khalil details Agni-V MIRV’s impact (Khalil, 2024).

“The Triad of Technology”, “Aerospace Military Development”, and “India’s Evolving Missile Development Strategy” highlight the risks associated with AI and missiles (Centre for Aerospace and Security Studies, 2023; Institute of Strategic Studies, 2022; Centre for Air Power Studies, 2021).

1.8.5 Geopolitical Implications in South Asia and Beyond

India’s modernization reshapes geopolitics, impacting Pakistan’s alliances. “Asia’s Space Race” by Moltz, “India in Space” by Aliberti, and “The Politics and Perils” by Dawson highlight India’s space diplomacy (Moltz, 2012; Aliberti, 2018; Dawson, 2021). “A Survey of India-US Defence Cooperation” by Joshi and “Strategic Convergence” detail US alignments (Joshi, 2019; The Asia Group and ORF, 2019). “The Revenge of Geography” by Kaplan argues that missile technology escalates rivalries (Kaplan, 2012). “India’s Foreign Policy Challenges” by Ganguly and “Sino-Indian Rivalry” by Holslag

emphasize the competition between India and China (Ganguly, 2019; Holslag, 2020). “India and the Indian Ocean” by Brewster, “South Asia’s Geopolitical Future” by Kumaraswamy, and “Pakistan’s Security Challenges” by Siddiqui explore global power roles (Brewster, 2018; Kumaraswamy, 2023; Siddiqui, 2024).

1.8.6 Policy and Diplomatic Pathways for Regional Stability

Diplomacy is critical to mitigate destabilization. “Maintaining Nuclear Stability” by Joeck advocates Confidence Building Measures (CBMs) (Joeck, 1997). “Asia’s Space Race” by Moltz recommends space cooperation (Moltz, 2012). “Strategic Convergence” notes technology transfer barriers (The Asia Group and ORF 2019). “A Perspective on Defence Planning” supports transparency (Strategic Analysis, 2012). “Space Technology and Applications” by Rao suggests the concept of dual-use cooperation (Rao, 2005). “The Stability-Instability Paradox” by Krepon, “Nuclear Security in South Asia” by Rajagopalan and Sahni, “Restraint” by Posen, and “Four Crises and a Peace Process” by Chari et al. propose arms control (Krepon, 2016; Rajagopalan & Sahni, 2014; Posen, 2014; Chari et al., 2007).

This comprehensive review synthesizes over 100 works to elucidate the transformative impacts of India’s military modernization on Pakistan’s strategic culture, security posture, and geopolitical alignments, encompassing hypersonic missiles, aerospace, space, AI, cyber, quantum technologies, and related innovations. Theoretical frameworks, rooted in the security dilemma, deterrence, and strategic culture, underscore the destabilizing potential of India’s advancements, which challenge Pakistan’s survival imperatives and amplify mutual mistrust.

1.9 Research Gap

Existing literature on India's military modernization extensively covers its doctrinal shifts, arms acquisitions, and regional impacts, but significant gaps persist, particularly in integrating primary data from expert interviews and addressing post-2020 emerging technologies from a Pakistani strategic perspective. Numerous studies, such as those examining India's Ballistic Missile Defense (BMD) systems and their effects on South Asian stability, highlight how acquisitions like the S-400 and Rafale jets enhance India's offensive capabilities, potentially destabilizing the India-Pakistan balance. Others analyze nuclear postures and counterforce temptations, noting India's evolving arsenal could enable preemptive strikes against Pakistan's nuclear assets. However, these works often rely on secondary sources and geopolitical overviews, lacking in-depth qualitative insights from South Asian defense experts on real-time implications.

A key gap is the under-exploration of how India's acquisition of emerging technologies such as AI, drones, and hypersonics intersects with Pakistan's security dilemmas in a postCOVID, economically constrained environment. For instance, while this thesis discusses India's military transformation and its non-transformative effects on the strategic environment, they rarely incorporate voices from Pakistani military analysts or policymakers through structured interviews. Recent analyses on doctrinal shifts and conventional deterrence acknowledge India's modernization as a driver for regional imbalances but fail to quantify geopolitical ripple effects using mixed-methods approaches, such as combining interview data with scenario modeling.

Additionally, there is limited focus on Pakistan-specific responses, like asymmetric countermeasures or diplomatic strategies, in the face of India's tech-driven ascendancy. This thesis bridges these gaps by drawing on 15 expert interviews to provide a nuanced,

Pakistan-centric view, emphasizing strategic security vulnerabilities and geopolitical shifts not fully addressed in prior research.

1.10 **Theoretical Framework**

For applied research in the social sciences, theories are essential because they provide a framework for analyzing complex phenomena, thereby helping to focus the study. They are analytic tools that enable academics to read complicated social situations, emphasising the merits and demerits of various positions. However, some fields are lacking a single overarching theory, and competing perspectives on the issues often tend to obscure rather than highlight the key issues (Waltz, 1979).

Nowhere is this more clearly the case than in the field of international relations, where theories such as offensive realism and the security dilemma challenge and complement each other in their interpretations of state preferences and security relations. In the case of South Asia, such frameworks are instrumental in analyzing the competition between India and Pakistan, which is characterized by historical enmity, territorial disputes, and the specter of nuclear capabilities. Offensive realism, as articulated by Mearsheimer (2001), explains that the international system is an anarchic one, and states seek power in order to survive; the security dilemma, described by Jervis (1976), shows how states can engage in defense, even while their actions might appear dangerous to their rivals.

According to Mearsheimer's (2001) account, the international system is anarchic, and states are driven by their rational interests to seek to maximize their power in the context of inherent insecurity, as there is no overarching authority to guarantee peace. In the case of India, this has meant seeking cutting-edge military technologies—such as AI-enhanced surveillance, cyber-warfare capabilities, and missile defense—to counter

perceived threats from Pakistan and China, and to assert its regional dominance. India's strategic spending is primarily aimed at protecting its borders and enhancing its global profile, a matter of grim necessity in a competitive world. However, with a power-seeking India, Pakistan's security interests also become prevalent.

Once fundamental aspects of both countries are considered, Pakistan views India's advancements, particularly its missile technology and nuclear arsenal, as existential threats. Alternatively, at least this is what offensive realism tells us must happen: States' orientation on security enhances that of others, leading to heightened regional rivalries. The history of rivalry between India and Pakistan, including the dispute of Kashmir, epitomizes how India's modernization, driven by defensive necessity, aggravates a vicious cycle of militarization. Pakistan's reactions, such as the advent of tactical nuclear weapons, further muddle the strategic scene, increasing miscalculation risks. "Mearsheimer's interpretation highlights that the logical action by India for ensuring its security in an anarchical environment is a zero-sum one, and therefore only further adds to the competitive dynamics between India and Pakistan,". This perspective emphasizes the paradoxical effects of efforts to maximize power. India's technological advantage, in turn, creates arms race dynamics that destabilize the region, thereby compelling the two to manage deterrence and restraint simultaneously in an increasingly unstable security environment.

The security dilemma supports offensive realism, as the paradoxical spiral of the India Pakistan rivalry, whether nuclear or non-nuclear, is explained in terms of escalation rather than restraint. The security dilemma, as commonly referred to, is described by Jervis (1976) as a condition in which one power's steps to enhance self-defense are perceived as a provocation by another, generating mutual suspicion and armament. In

South Asia, India's modernization of its armed forces, designed to defend the country's interests against Pakistan and China, is perceived in Pakistan as an aggressive assertion of power, prompting its drive to expand military capabilities.

This dynamic is then magnified by their overlapping history of hostility and nuclear weapons that increase the risks of misperception (Jervis, 1976). For example, India's advancements in missile defence systems and AI-enabled war tools do little to assuage Pakistan's anxiety of losing strategic parity, thereby incentivising Pakistan to enhance its nuclear stockpile and delivery systems. The tit-for-tat escalation reinforces an arms race and escalates the risk of accidental conflict, as both countries try to manage the task of signaling defensive intentions given their mutual distrust.

The nuclear dimension complicates matters further because successful deterrence depends on the credibility of threats, but any mistake could spell catastrophe. The explanation of such an irrational behavior can be found in the theory of security dilemma, first introduced by Jervis (1978). It accounts for the paradox of India's security pursuit creating insecurity, and how the pursuit of security in a rational manner, sustains the volatile nature of Pakistan's security anxiety and perpetuates a competitive cycle of insecurity in both of them. It is essential to consider the delicate interplay between India and Pakistan, where innovations that have served as bulwarks to sustaining respect for national sovereignty have inadvertently become game changers, increasing the likelihood of spiraling out of control. By making explicit these dynamics, the security dilemma provokes us to think about how to make sense of these intimate and personal elements of everyday play, the SouthAsia balance with the (in) security (im)-balance that they invoke, and what diplomatic duplication is forthcoming to avoid destabilizing aftereffects from this intransigent competition.

1.11 Research Methodology

This thesis employs a qualitative research approach to investigate the Indo-Pakistani security dilemma, focusing on military asymmetries, perceptual biases, and strategic responses from 1947 to 2025, supplemented with descriptive quantitative data from secondary sources to provide context. As applied research, it employs semi-structured and key informant interviews, as well as document analysis, within a multiple-case study design (e.g., Operation Sindoor, Balakot, S-400 deployment). This addresses RQ1 (India's acquisition drivers), RQ2 (Pakistan's security dilemmas), RQ3 (policy impacts), and RQ4 (geopolitical implications) through interpretive insights and historical synthesis.

1.12 Ontological Reasoning behind the Methodology

The ontology used is based on social constructionism, which posits that objective reality is not inherent but rather shaped through social interaction, historical context, and personal interpretation. Set in the context of the Indo-Pakistani security dilemma, this ontology views military capabilities (nuclear warheads, missile ranges) and conflict as evolved phenomena, arising from underlying perceptual and cultural processes, such as a preoccupation with partition violence, which were not directly observable but could be inferred through hermeneutic approaches. This decision was predicated upon the observation that social constructivist approaches enable the analysis of both material (e.g., arms buildups) and socially constructed (e.g., narratives of distrust) items, which fits well within RQ1 (asymmetries) and RQ2 (perceptions).

1.13 Methodology and Epistemological Underpinning

The qualitative method has been used, combining data from interviews and documents with descriptive quantitative support from secondary sources. The rationale for this choice is its flexibility in linking empirical context (e.g., budget figures) with subjective

interpretations (e.g., expert views on threat perceptions), directly supporting all RQs by bridging "what is" (descriptive trends for RQ1) with "why it matters" (interpretive insights for RQ2 and RQ3). Pragmatic epistemology was not chosen, as it suits mixed-methods integration, which the thesis does not employ. Positivism was avoided because it prioritizes quantifiable data but neglects narrative complexities, such as doctrinal misperceptions, central to RQ2.

1.14 Research Design

A multiple-case study design was employed, where qualitative data from historical events and strategic developments were analyzed concurrently with descriptive quantitative context, integrated during synthesis to corroborate the findings. This design incorporates historical case studies (e.g., Balakot airstrikes, 2025 crises) and trend analysis over a longitudinal timeframe (1947-2025), structured around thematic chapters (e.g., drivers in Ch. 3, responses in Ch. 5). The rationale for this design is its ability to address the multifaceted nature of the security dilemma: interpretive elements map perceptions (RQ2), while descriptive trends quantify asymmetries (RQ1), with integration revealing causal links (e.g., arms buildups correlating with perceptual spirals for RQ3). This approach was preferred over convergent parallel designs because the research prioritizes interpretive depth with supportive description, rather than equal strands of quantification and qualitative analysis. Experimental or purely survey-based designs were rejected, as they are ill-suited for historical geopolitical analysis involving secondary data and expert insights, which better align with the interpretive needs of RQ2 and the trend-focused RQ1.

1.15 Data Collection Methods

Data collection utilized a combination of secondary sources for qualitative and descriptive quantitative data, supplemented by primary semi-structured interviews. Descriptive

quantitative data focused on indicators like budgets and arsenals, sourced from databases (e.g., SIPRI for arms imports, Arms Control Association for nuclear metrics), aggregating time-series from 1947-2025 without primary surveys.

Qualitative data involved textual analysis of scholarly works (e.g., Jervis 1978 on misperception), official statements (e.g., ISPR on 2025 operations), media reports (e.g., Al Jazeera), and doctrinal texts (e.g., India's Land Warfare Doctrine), triangulated for validity. Additionally, 15 semi-structured interviews with Pakistani experts on South Asian security provided primary insights into threat perceptions. Tools included key informant and semi-structured interviews (conducted with relevant experts) and secondary sources (scholarly, media, historical).

The rationale for this qualitative-dominant method is its efficiency in capturing both objective trends (descriptive for RQ1, e.g., budget asymmetries) and subjective narratives (qualitative for RQ2, e.g., mistrust themes). At the same time, interviews add contemporary depth to RQ3 (strategic adaptations). Secondary sources were prioritized for their accessibility and chronological coverage, as they avoid ethical issues associated with sensitive primary data in conflict zones. Purely quantitative methods (e.g., surveys) were excluded due to their inability to probe perceptual biases (RQ2), and ethnographic approaches were rejected because they require immersion, which is impractical for a historical scope spanning 78 years. Interviews were limited to 15 for feasibility, focusing on experts to ensure specialized insights linking to all RQs.

1.16 Data Analysis

Data analysis comprised descriptive and quantitative trend examination (time-series plotting and correlations), as well as qualitative thematic coding, with an integrative synthesis. Descriptive quantitative analysis plotted defense budgets (e.g., India's \$73B in

2023 vs. Pakistan's \$10B) and conflict statistics (4 wars, 10+ crises), using correlations (0.85 for escalations post-1998) to link arms buildups to instability (e.g., 50% reaction time reduction from hypersonics). Qualitative analysis identified coded themes, such as "misperception" (e.g., Balakot narratives) and "technological impact" (e.g., AI in deterrence), from texts and interviews, employing process tracing in case studies. Synthesis merged findings (e.g., a 15% rise in conflict from 2020 to 2025, corroborating perceptual spirals), applying security dilemma theory to implications (e.g., Pakistan's hybrid strategies, such as FSD).

This approach was chosen for its ability to validate descriptive trends with qualitative depth, directly addressing RQ1 (asymmetries via trends), RQ2 (perceptions via coding), and RQ3 (strategies via synthesis). Descriptive tools were selected for their simplicity in trend mapping, as they avoid the use of advanced econometrics, which is unsuitable for noneconomic data. Content analysis software was not used, as manual coding was better suited to nuanced themes; discourse analysis was rejected for overemphasizing language at the expense of material factors in RQ1.

1.17 Data Collection Tools

Type of Data	Respondents/ Groups	Remarks
Key Informant Interviews	15	Individuals with specialized knowledge, insights, and expertise on South Asian security dynamics.

1.18 Operational Definitions

Credible Deterrence, providing graduated response options across tactical, operational, and strategic levels to deter aggression at all thresholds. In this context, FSD is operationalized as Pakistan's integration of tactical nuclear weapons (e.g., Nasr missile)

and conventional assets to counter India's Cold Start Doctrine and technological superiority, assessed by escalation control during crises like the 2025 Bunyan-um-Marsoos operation and resource allocation (\$1 billion nuclear budget).

- a. **Multi-Domain Warfare:** A military strategy involving simultaneous and synchronized operations across land, air, sea, cyber, and space domains to achieve integrated effects and operational superiority. Here, it is defined as India's coordinated use of assets like S-400 defenses, AI drones, and space-based Intelligence, Surveillance and Reconnaissance (ISR) (e.g., NavIC system) to dominate conflicts, operationalized by crisis outcomes (e.g., Sindoor's rapid strikes) and Pakistan's asymmetric countermeasures (e.g., “Comprehensive Layered Integrated Air Defence” CLIAD integration), highlighting escalation ambiguities.
- b. **Geopolitical Implications:** The broader political, economic, and strategic consequences of state actions on international relationships, power balances, and regional dynamics. In this thesis, it refers to how India's military technologies (e.g., hypersonics and alliances) reshape alliances (e.g., Pakistan's deepening China ties) and escalate rivalries, operationalized by indicators like trade disruptions (\$5 billion losses post-Sindoor) and diplomatic realignments (e.g., Quad vs. SCO influences).
- c. **Strategic Culture:** The shared beliefs, values, norms, and historical experiences that shape a state's approach to security, warfare, and international relations. For Pakistan, it encompasses resilience amid asymmetries (e.g., post-1971 adaptations) and cultural narratives of resistance; operationally, it is assessed through doctrinal shifts (e.g., FSD

evolution) and responses to India's Hindutva-driven modernization, measured by policy changes and public sentiment.

- d. **Asymmetric Responses:** Military strategies employed by a weaker state to offset conventional disadvantages through unconventional means, such as guerrilla tactics, cyber operations, or alliances. In this study, it denotes Pakistan's use of low-cost tools (e.g., drones, proxies) against India's superior platforms, operationalized by effectiveness in crises (e.g., downing Rafales in Bunyan-um-Marsoos) and resource efficiency (\$1.5 billion modernization budget).

1.19 **Organization of the Study**

The dissertation is organized thematically in six chapters to offer a cohesive and logical scrutiny to India's military modernization and its multi-dimensional consequences for the strategic culture, security as well as geopolitical orientation of Pakistan. The organization maintains a logic, first discussing theoretical and historical bases, moving on to empirical analyses of causes and responses and finishing with strategic implications and policy recommendations. Going chapter by chapter, the point is to have these chapters complementing each other to form a whole view of the problematic and draw when is need for on theoretical concepts such as offensive realism or the security dilemma.

- a. Chapter 2 lays the foundation for the theory in the context of the IndiaPakistan rivalry by examining certain concepts such as the security dilemma and offensive realism. It plots the history of Indo-Pak relations, between the disputes at the time of partition of the two nations to present-day nuclearized hostility, and goes on to providing an analytical framework through case studies and doctrinal disputes.

- b. A chapter on the impulses behind India's military modernisation economic, political and geopolitical – is detailed in Chapter 3. It analyses budget allocations, Hindutva nationalism, strategic partnerships and doctrinal postures, demonstrated through wargames and case studies such as Operation Sindoor.
- c. Chapter Four, "India: Modernization of the Armed Forces – An Analysis," chronicles India's military evolution from post-independence (1947) to 2025, across five phases: early modernization (1947–1971), nuclear and space development (1971–1998), conventional and cyber expansion (1998–2010), space and precision warfare (2010–2019), and multi-domain warfare (2019–2025). It highlights milestones like nuclear tests, hypersonic tech, ASAT tests, and S-400 acquisitions, while analyzing Pakistan's security dilemma amid budget disparities, responses to operations like Sindoor, and India's cultural-historical drivers of hegemony.
- d. Chapter 5 then turns to Pakistan's adaptative responses, examining changes in its strategic culture, threat perceptions and nuclear doctrines (e.g., FullSpectrum Deterrence) and in its conventional measures. It tackles the restrictions in the forms of fiscal constraints, debt burden, brain drain and compatibility issues, indicating Pakistan's survivability in asymmetry.
- e. Chapter 6 examines strategic fallout for Pakistan, including stability disruptions, risk of nuclear escalation, conventional imbalances, geopolitical realignments, and economic stresses. It includes recommendations for policy to address these challenges.

- f. Chapter 7 widens the lens to broader geopolitical implications, addressing global power competition, dozens of maritime security dynamics, non-traditional threats (i.e., cyber, climate) and emergent technologies. It ends with prospective analyses of regional stability and of Pakistan's roads to autonomy.

CHAPTER TWO

THEORETICAL FRAMEWORK

2.1 Introduction to the Security Dilemma

The security dilemma is one of the fundamental building blocks of the study of international relations, capturing the paradox in which a state's quest for security in effect makes others more insecure, generating a spiral of reciprocal action that ends up diminishing the security of everyone involved (Herz, 1950; Jervis, 1978). This absence of a world government appears to explain, much as one would hope, why there seems to be an ongoing state of military preparedness and technological arms buildup maintained by all states (Waltz, 1979).

While these are often defensive responses, they are ambiguous in their intent and therefore result in misperceptions, which can lead to spiral processes that may culminate in an arms race and an increase in conflict preparedness (Jervis, 1976). The effects are more pointed in regions of deep rivalries, profound power asymmetries, and accelerated technological changes, making the security dilemma an essential framework for examining the India-Pakistan rivalry in South Asia. The security dilemma heightens mistrust.

In an interview conducted by the author, Prof. Dr. Zafar Nawaz Jaspal stated that "Security dilemma is an important puzzle between India and Pakistan relations. It heightens persisting mistrust and causes an arms race between India and Pakistan" (Jaspal, 2025, personal communication). This explains tensions from India's upgrades. The security dilemma is brought to life in South Asia through the enduring enmity between

India and Pakistan. This rivalry began with British Indian partition in 1947 and has been kept alive by outstanding issues, particularly over Kashmir (Ganguly, 2016).

Having fought four major wars 1947-48, 1965, 1971, and 1999 and numerous skirmishes, the two nations harbor a deep-seated mistrust that defines their strategic interactions (Paul, 2005). India's economic strength, and conventional military capabilities create a pronounced asymmetry, amplifying Pakistan's sense of vulnerability and driving it to develop nuclear weapons and unconventional tactics to offset India's dominance (Sultan, 2019). Within this context, India's advancements in technologies such as Ballistic Missile Defense (BMD) systems, precision-guided munitions, and cyber warfare capabilities intensify the dilemma. To Pakistan, these developments suggest defensive preparedness and the potential for offensive action, raising concerns about first-strike capabilities or coercion during crises (Khan, 2019).

Pakistan's countermeasures, such as the tactical nuclear Nasr missile, aim to restore deterrence but perpetuate mutual insecurity. The security dilemma rests on three key pillars: anarchy, uncertainty, and misperception. As Waltz (1979) posits, anarchy compels states to prioritize survival through independent means, given the lack of a global enforcer to resolve conflicts or ensure peace. Uncertainty about another state's intentions whether peaceful or hostile prompts defensive measures that may appear threatening, a situation exacerbated in South Asia by the proximity of India and Pakistan, which shortens decision-making windows and heightens risks.

Misperception compounds this tension, as states filter ambiguous actions through lenses of historical animosity or strategic competition. For example, India's 2021 acquisition of Russia's S-400 air defense system bolsters its aerial defenses, yet Pakistan

interprets it as a means to neutralize its ballistic missile arsenal, weakening its nuclear deterrence (Panda, 2022).

The security dilemma explains tensions as India's upgrades trigger fears. In an interview conducted by author, Farhan Hanif Siddiqi, Professor at Quaid-i-Azam University, described it as “the theory of the security dilemma that the increase in the security means a consequent decrease in the security of the other. In a world characterised by anarchy, states can never be completely confident or certain about the intentions of other states. In such a competitive world, states are primed for offensive strategies or at least preparing themselves for it, which then engenders a destabilizing security dilemma. Given the probability of war and mutual destruction in the nuclear age, the security dilemma makes states worse off as arms races are costly and might divert resources away from domestic priorities at the same time that they bring adversaries closer to the path of direct war and hence mutual destruction” (Siddiqi, 2025, personal communication). This underscores the cycle of mistrust and arms races. This perception drives Pakistan to enhance its capabilities, exemplifying how the security dilemma turns defensive moves into perceived threats.

Psychological and perceptual factors significantly magnify the security dilemma between India and Pakistan. States often assume the worst when managing risks, a tendency amplified in a nuclearized region where errors could be catastrophic (Tang, 2009). For instance, India's progress in cyber capabilities could disrupt Pakistan's command and control systems, leading Pakistan to view routine upgrades as existential dangers (Ashraf & Kayani, 2023). National identities further distort perceptions: India presents itself as an ascending global power with legitimate security needs, while Pakistan views itself as a besieged state facing a larger foe (Paul, 2005). These clashing narratives,

reinforced by decades of conflict, domestic rhetoric, and media, hinder credible signals of peaceful intent (Booth & Wheeler, 2008).

The 2019 Balakot airstrike, executed by India using precision-guided munitions as a counterterrorism measure, was seen by Pakistan as proof of India's readiness to escalate, triggering retaliatory strikes and exposing this perceptual divide (Sultan, 2019). The nuclear dimension introduces a unique and dangerous layer to the India-Pakistan security dilemma. Both countries possess nuclear arsenals, creating a fragile Mutual Assured Destruction (MAD) framework that deters full-scale conventional war but allows limited conflicts, as seen in the 1999 Kargil War (Krepon, 2004). India's BMD systems, including the Prithvi Air Defence (PAD) and Advanced Air Defence (AAD), threaten this balance by potentially intercepting Pakistan's nuclear missiles, eroding its second-strike credibility (Javaid & Kamal, 2015).

Pakistan counters with low-yield tactical nuclear weapons and advanced delivery systems, lowering the nuclear threshold and raising escalation risks (Chakma, 2012). Modern technologies, such as AI and CW, further destabilize this equilibrium by introducing vulnerabilities, including compromised early warning systems, which intensify the nuclear rivalry. Conventional and technological asymmetries also propel the security dilemma. India's investments in advanced systems, such as Rafale jets and the hypersonic BrahMos II missile, enhance its power projection but alarm Pakistan, which cannot match these resources symmetrically (Khan, 2019).

Pakistan responds with cost-effective options like cruise missiles and proxy warfare, which India perceives as direct threats, sustaining an escalatory loop (Paul, 2005). This dynamic supports the thesis that India's technological advancements, intended to

fortify its defense, are perceived by Pakistan as jeopardizing its survival, prompting responses that destabilize the region.

2.1.1 The Role of Emerging Technologies

Emerging technologies have injected new complexities into South Asia's security dilemma, reshaping military capabilities and strategic considerations. AI enables India to develop autonomous weapons, enhancing precision and efficiency against Pakistan's assets. However, Pakistan may see these as tools for decapitation strikes or nuclear command disruption, increasing its preemptive tendencies (Horowitz, 2018). Unmanned Aerial Vehicles (UAVs) have transformed warfare by enabling surveillance and strikes with minimal risk. India's acquisition of advanced UAVs, such as the MQ-9 Reaper, bolsters its ISR capabilities. However, Pakistan views them as a means for monitoring or covert operations, heightening tensions (Riedel, 2020).

Cyber warfare is another arena where India's progress deepens the dilemma. The 2019 establishment of India's Defence Cyber Agency underscores the strategic importance of cyberspace (India Strategic, 2023). Cyberattacks could target Pakistan's infrastructure or networks, impairing its crisis response and stoking fears of vulnerability, which could potentially spur a more aggressive posture (Pakistan's National Cyber Emergency Response Team [PKCERT], 2025). Space technology also plays a significant role: India's 2019 Mission Shakti anti-satellite (ASAT) test demonstrated its capacity to destroy space assets, threatening Pakistan's limited satellite capabilities and prompting it to develop countermeasures (Carnegie Endowment, 2020). While logical for India's goals, these advancements amplify Pakistan's insecurity, reinforcing the escalatory nature of the security dilemma.

2.1.2 India's Niche and Modern Technologies

India's pursuit of niche and modern technologies extends beyond these capabilities, further complicating the security landscape. Hypersonic weapons, traveling above Mach 5 with maneuverability to evade defenses, mark a leap forward (Sayler, 2023). India's Shaurya missile and hypersonic cruise missile research signal its strategic ambitions (Vajiram & Ravi, 2025). For Pakistan, these weapons shrink reaction times and challenge defenses, threatening its deterrence (Khan, 2021). Quantum computing, another frontier, promises breakthroughs in cryptography and secure communications. India's National Quantum Mission reflects its significant investment in this field, potentially giving it a competitive edge in intelligence and cyber operations (Ministry of Electronics and Information Technology, 2023). Pakistan, a resource-constrained country, may view this as a threat to its communication security, prompting asymmetric responses (Siddiqui, 2022).

Directed Energy Weapons (DEWs), such as lasers and microwaves, provide India with precision capabilities to turn off targets or disrupt missile launches (DRDO, 2024). Framed as defensive, DEWs could be perceived by Pakistan as part of a strategy for escalation dominance, reinforcing its nuclear reliance (Krepon & Levine, 2020). Blockchain technology, applied to secure military communications, exemplifies India's innovative edge, potentially exposing Pakistan to cyber vulnerability. These niche technologies enhance India's capabilities but deepen Pakistan's threat perceptions, intensifying the security dilemma.

2.1.3 Third-Party Influences and Historical Incidents

External powers further complicate South Asia's security dilemma. China's support for Pakistan via military aid and diplomacy counters India's dominance, heightening India's

encirclement fears and driving its military buildup, which in turn alarms Pakistan (Small, 2015). The U.S., once Pakistan's ally, now bolsters India with technology transfers, such as fighter jets, which Pakistan sees as tilting the balance and fueling its asymmetric strategies (Kux, 2006).

Historical events illustrate the dynamics of the dilemmas. The 2001-02 standoff, triggered by the Indian Parliament attack, saw massive troop deployments, with India's pressure tactic perceived by Pakistan as an invasion threat, escalating nuclear risks (Ganguly & Kapur, 2010). The 2016 Uri attack and India's "surgical strikes" were limited operations to India but sovereignty violations to Pakistan, deepening mistrust. These incidents show how defensive actions fuel mutual threats.

2.1.4 Case Study: Operation Bunyan um Marsoos

Pakistan had initiated Operation Bunyan um Marsoos on 10 May 2025 as a measured and proportionate military action against Indian aggression framed as anti-terror policy. Operation Sindoor was India's 6-7 May 2025 air raid, which it claimed was in response to the 22 April Pahalgam attack, against which 26 civilians were reported killed, also by New Delhi, which stated it would continue its retaliation against the so-called terrorist camps in Pakistan. The Pakistani government, however, emphatically rebuffed India's portrayal, referring to the attack at Pahalgam as a false flag operation, used as a pretext for a preemptive and escalatory ground assault in violation of Pakistan's territorial sovereignty (Ministry of Foreign Affairs, 2025a; ISSI, 2025). This scenario fits into historical precedent where India had reportedly even manufactured cross-border incidents to divert global gaze from its own human rights abuses in Kashmir and to claim regional domination (Qureshi, 2023).

The Indian military's utilization of SCALP-EG, BrahMos, and AASM Hammer cruise missiles in Operation Sindoor, which reached nine targets across the territory of Pakistan, was neither surgical nor retaliatory. In contrast to the Indian claims, Pakistani evaluations and an assessment of the ground situation showed that the struck buildings were mainly civilian, including mosques, habitation areas, and public utilities, leading to collateral damage and inflicting refugee-like conditions on civilians (ISPR, 2025).

The violation of Pakistan's sovereignty is visibly answered through Operation Bunyan um Marsoos, where Pakistan uses Fatah-I and Fatah-II precision-targeted short- and long-range ballistic missile systems, loitering drones, and artillery in response against Indian military facilities, which include Pathankot, Udhampur, Sirsa, and Ambala airbases, and a BrahMos storage site (ISPR, 2025). Planned and executed under Pakistan's strategy of full-spectrum deterrence, the operation aimed to restore deterrence stability and prevent recurrence without escalating to full-fledged war.

India's swift rejection of these retaliatory strikes as "provocative and escalatory," as expressed by Foreign Secretary Vikram Misri, betrays its belligerence and, more importantly, encapsulates the asymmetrical narratives that structure India-Pakistan conflicts (Clary, 2025). India is constantly trying to project Pakistan as a state that sponsors terrorism; the objective is to justify its military moves and to isolate Pakistan diplomatically-an argument that has been contested for a long time by Pakistan, who claims to be the frontline state in the war on terror and a country which has incurred more than 80,000 lives and billions in losses due to the challenge of militancy, especially since the fallout of 9/11 (Government of Pakistan, 2023).

The 10 May 2025 US-mediated ceasefire, arranged through both military channels and diplomatic pressure, averted a wider conflict. On May 16, 2025, the Pakistani Youm-

e-Tashakur (Day of Gratitude) was observed, marking the successful defense of its sovereignty and the establishment of deterrence without undermining regional equilibrium (National Assembly of Pakistan, 2025). This case highlights the long-standing security dilemma in South Asia, particularly along a fault line where Indian offensive military initiatives are perceived as an existential threat by Pakistan, and thus, necessitate calibrated military responses. The fact that the international community was quick to step in also reflects a growing realization of the danger of India's unilateralism in a nuclearized context.

2.1.5 Domestic Dynamics and Mitigation Efforts

Domestic factors entrench the security dilemma. India's nationalist rhetoric limits compromise, while Pakistan's military dominance sustains a focus on countering India, stifling diplomacy. Mitigation efforts, like the 1999 Lahore Declaration, faltered with the Kargil War, and the 2021 ceasefire remains fragile amid unresolved issues (Hindustan Times, 2021). These measures offer temporary respite but not structural solutions.

This section explores historical, strategic, and technological dimensions including the illustrative case of Operation Bunyan um Marssos—setting the stage for analyzing India's strategic drivers and their regional impact. It highlights the intricate interplay of psychology, nuclear risks, and technology.

2.2 Security Dilemma Theory

The security dilemma is a cornerstone of international relations theory, illuminating how states' pursuit of security can unintentionally escalate tensions with others (Herz, 1950; Jervis, 1978). This section delves into the theory's conceptual foundations, evolution, key contributors, critiques, and its nuanced application to the India-Pakistan rivalry in South Asia. It extends beyond introductory principles by exploring advanced theoretical

dimensions, psychological intricacies, and regional dynamics shaped by technology and external actors.

2.2.1 Conceptual Foundations and Evolution

The security dilemma emerged in the 1950s through the works of John Herz and Herbert Butterfield. Herz (1950) framed it as a structural phenomenon in an anarchic international system, where states' defensive actions, driven by uncertainty, provoke reciprocal responses, forming a "vicious circle" of insecurity (p. 157). Butterfield (1951) emphasized mutual fear as an inherent human condition, labeling it an "absolute predicament" that transcends systemic constraints (p. 19). These foundational ideas evolved significantly with Robert Jervis's contributions.

Jervis (1978) introduced the offense-defense balance, arguing that the dilemma intensifies when offensive and defensive capabilities are indistinguishable or when offense holds an advantage (p. 186). This framework is critical in South Asia, where India's Ballistic Missile Defense (BMD) systems blur these lines, heightening Pakistan's threat perceptions. Jervis also underscored psychological misperceptions, where states interpret ambiguous signals pessimistically, a pattern evident in India-Pakistan interactions (Jervis, 1976). This evolution from structural to perceptual analysis enriches the theory's explanatory power, setting the stage for later refinements.

2.2.2 Key Theorists and Their Insights

Later scholars expanded the scope of the security dilemma. Charles Glaser (1997) proposed the concept of "security dilemma sensibility," suggesting that states could reduce tensions through transparency and restraint. However, such measures often falter in trust-deficient rivalries, such as India-Pakistan (p. 171). Shiping Tang (2009) clarified the essence of the dilemma-uncertainty, benign intent, and counterproductive outcomes

distinguishing it from deliberate aggression (p. 589). This lens is apt for analyzing India's defensive upgrades, which Pakistan misreads as hostile (Khan, 2019).

Ken Booth and Nicholas Wheeler (2008) introduced the concept of the "security paradox," highlighting fear as an escalatory force that extends beyond the structural effects of anarchy. They advocate trust-building, yet South Asia's deep-seated mistrust limits its feasibility (Booth & Wheeler, 2008). Barry Posen (1993) applied the dilemma to ethnic conflicts, comparing intra-state anarchy to interstate dynamics, though this is less relevant to the India-Pakistan nuclear context (p. 27). These contributions broaden the theory's applicability, offering diverse tools to dissect complex security environments.

2.2.3 Critiques and Theoretical Contestation

The security dilemma is not without critique. Offensive realists, such as John Mearsheimer (2001), contend that states seek power, not just security, implying that conflicts arise from ambition rather than misperception (p. 12). This view might cast India's military growth as a hegemonic bid, resonating with Pakistan's fears (Pardesi, 2015). Constructivists, such as Alexander Wendt (1992), reject the notion of structural inevitability, arguing that the effects of anarchy depend on socially constructed identities and norms (p. 406). In South Asia, however, rigid national narratives such as Pakistan's perception of India as a perennial adversary stymie norm-driven de-escalation (Paul, 2005).

A practical critique questions the clarity of the offense-defense balance. Sean Lynn-Jones (1995) notes that capabilities often defy categorization, as seen with India's S-400 system, which bolsters defense but could enable offensive strikes by neutralizing Pakistan's air defenses. These debates sharpen the theory's contours, exposing its utility and boundaries in explaining state behavior.

2.2.4 The Offense-Defense Balance in South Asia

The offense-defense balance is pivotal to South Asia's security dilemma. India's BMD systems, intended to counter missile threats, are perceived by Pakistan as facilitating a firststrike capability, prompting Pakistan to develop tactical nuclear weapons like the Nasr (Chakma, 2012) this indistinguishability of intent fuels escalation. Technological advancements exacerbate this dynamic: India's hypersonic missiles, with their speed and precision, compress Pakistan's reaction time, undermining its deterrence (Sayler, 2023). Conversely, Pakistan's low-yield nuclear options aim to offset India's conventional edge but heighten the risk of rapid escalation (Javaid & Kamal, 2015). Emerging technologies, such as cyber capabilities and artificial intelligence (AI), further blur the distinction between offense and defense.

2.2.5 Psychological Dimensions and Cognitive Biases

The "fundamental attribution error" leads India to perceive its actions (e.g., the Agni-V missile deployment) as defensive, while Pakistan interprets them as aggressive, prompting countermeasures such as the Shaheen-III (Jervis, 1976; Khan, 2019). The "spiral model" of hostility, where each side's defensive moves are misread as threats, is evident in Pakistan's response to India's BMD program (Tang, 2009).

The "availability heuristic" amplifies this cycle, as past traumas such as India's memory of the 2008 Mumbai attacks or Pakistan's of the 1971 war skew risk assessments, driving policies like India's 2019 Balakot strike (Tversky & Kahneman, 1974; Sultan, 2019). "Mirror imaging" also plays a role: India assumes Pakistan shares its strategic rationality, misjudging Pakistan's reliance on asymmetric tactics, as deliberate provocation rather than a desperate measure (Ali, 2016). Domestic pressures compound

these biases, with media and political rhetoric in both nations framing concessions as weakness, entrenching hardline postures (Mitra, 2011).

2.2.6 Third-Party Influences and Regional Complexity

External actors significantly shape South Asia's security dilemma. China's military support to Pakistan, including missile technology, strengthens Pakistan's deterrence but stokes India's fears of encirclement, driving its own arms buildup (Small, 2015). The United States' defense partnership with India, marked by technology transfers and joint exercises, tilts the regional balance, prompting Pakistan to lean further on China (Tellis, 2004). This creates a "security trilemma," wherein actions taken by one state produce ripple effects across multiple actors, complicating bilateral dynamics and strategic calculations (Herz, 1950; Morgan, 1993; Buzan, Wæver, & de Wilde, 1998).

Third-party mediation attempts, such as those by the United States and other international actors following the 2019 Balakot airstrike, underscore the complexity of South Asian security dynamics. While these efforts contributed to de-escalation, the underlying mistrust between India and Pakistan persisted, highlighting that external involvement can mitigate immediate crises but rarely resolves the root causes of the security dilemma (Pompeo, 2019; Tellis, 2019). These dynamics underscore the interplay between South Asia's bilateral tensions and global geopolitics.

2.2.7 Case Studies: Kargil and Balakot

Historical incidents vividly illustrate the mechanics of the security dilemma. The 1999 Kargil conflict began with Pakistan's infiltration, aiming to secure strategic heights arguably a defensive move to counter India's Siachen control. India's forceful response, however, escalated the crisis, revealing how defensive intent can spark unintended

confrontation (Ganguly, 2001). Nuclear deterrence restrained all out war, yet the episode deepened mutual suspicions.

The 2019 Balakot airstrike followed a similar pattern. India's strike on alleged terrorist camps, a defensive counter to the Pulwama attack, was perceived by Pakistan as an offensive violation of sovereignty, prompting retaliatory airstrikes (Sultan, 2019). Both cases highlight how defensive actions, misinterpreted through biased lenses, perpetuate the dilemma, with technology and third party reactions amplifying the stakes.

2.2.8 Alternative Theoretical Lenses

Beyond the security dilemma, other theories shed light on the dynamics between India and Pakistan. Offensive realism posits India's military expansion as a power-seeking strategy, not a defensive reflex, aligning with Pakistan's narrative of Indian hegemony (Mearsheimer, 2001; Pardesi, 2015).

Offensive realism applies to India. Prof. Dr. Zafar Nawaz Jaspal, interviewed by the author, noted that "Pakistan's military doctrine is grounded on the defense realists' perspective. However, Indian strategic pundits appear to be under the influence of offensive realism. Despite India's maximalist approach in the military buildup domain, Pakistan refrains from getting entangled in an arms race. Instead of maintaining a balance of power, it focuses on maintaining a balance of terror and ensuring a credible deterrence capability" (Jaspal, 2025, personal communication). Pakistan prioritizes deterrence over power maximization.

Constructivism emphasizes identity, as Pakistan's self-conception as a beleaguered state and India's as an emerging power fuel irreconcilable threat perceptions (Wendt, 1992). Liberal perspectives might highlight economic interdependence as a potential mitigator, although trade remains minimal between the two (Paul, 2005). These

frameworks complement the security dilemma, revealing the multifaceted nature of the rivalry.

Deterrence theory is relevant but breached. Siddiqi (2025, personal communication) noted that “Deterrence is a strategy between adversarial states, the purpose of which is to help us understand military behaviour in specific contexts, for example, during crisis episodes. Deterrence means signalling whereby a state advertises its commitment to impose costs on the adversary with the purpose of ‘preventing’ the opponent from undertaking coercive actions. In the India-Pakistan conflict dyad, the last three crisis episodes (specially the last two) have seen both states engaging in vertical escalation as a means to impose costs on the adversary. Given this empirical reality, the deterrence condition in the sense of ‘prevention’ has seen a definitive breach. In fact, India and Pakistan are getting on the higher rungs of the escalation ladder implying that deterrence does not adequately explain the rivalry but the temptation to impose costs, to punish, to demonstrate effective force, is what explains both states’ behaviour.”

2.2.9 The Role of Alliances and Regional Dynamics

The security dilemma in South Asia extends beyond India and Pakistan, shaped by alliances and regional power structures. China’s strategic partnership with Pakistan, encompassing military aid, nuclear cooperation, and diplomatic support, enhances Pakistan’s capabilities but provokes India to strengthen its alliances, notably with the United States (Small, 2015). This creates a “security trilemma,” where actions intended to secure one state inadvertently threaten its primary rival and third parties, amplifying regional instability. Regional institutions, which could theoretically mitigate the dilemma, have faltered in South Asia. The South Asian Association for Regional Cooperation (SAARC) struggles to foster cooperation due to the prevailing India-Pakistan rivalry, as it

lacks the authority and mechanisms to resolve disputes (Paul, 2005). This contrasts with Europe, where institutions like the European Union have reduced security competition through integration. The absence of such frameworks in South Asia leaves states reliant on unilateral measures, perpetuating mistrust and arms buildups.

The global arms trade further complicates the dilemma. Major powers supply advanced weaponry to both states—Russia’s S-400 to India and U.S. F-16s to Pakistan (Wezeman et al., 2024) driven by geopolitical interests rather than regional stability (Tellis & Miraglia, 2022). These transactions introduce capabilities that blur the offense-defense balance (Singh, 2023). Pakistan sees India’s air defense enhancements as offensive enablers, and Pakistan’s fighter jets alarm India’s strategic planners (Khan & Ahmed, 2021).

2.2.10 Cognitive Biases in Crisis Decision-Making

Cognitive biases significantly influence how India and Pakistan navigate crises, exacerbating the security dilemma. Both sides exhibited confirmation bias during the 2001–2002 military standoff, interpreting troop movements as validating pre-existing fears of hostility (Ganguly & Kapur, 2010). India’s mobilization after the Parliament attack was seen by Pakistan as preparation for invasion, prompting its escalation, nearly triggering war. This mutual misreading highlights how biases transform defensive actions into perceived aggression.

Using the availability heuristic, India used its past confrontation history to justify its strong response and crisis escalation (Tversky & Kahneman, 1974). Such psychological pathologies highlight how decision-making spirals negatively inward, particularly in highstakes, nuclearized states, where miscalculations can lead to catastrophic consequences (Jervis, 1976).

2.2.11 Implications for Policy and Arms Control

The security dilemma concept offers valuable guidance for South Asian policy formulation, particularly in the context of arms control and confidence-building measures. According to the theory, cooperation is difficult in anarchy, but transparency and restraint can signal benign intent (Glaser, 1997). Efforts such as those seen in the Composite Dialogue Process (2004-2008) and the establishment of military hotlines demonstrate such attempts; however, domestic considerations and repeated crises constrain them (Touval & Zartman, 1985).

As demonstrated by some arms control initiatives, limited cooperation is possible, for example, in the 1988 Agreement on the Prohibition of Attack against Nuclear Installations (Javaid & Kamal, 2015). However, the continued existence of the dilemma suggests that longer-term resolutions that is, resolving the Kashmir issue—are required for stability (Paul, 2005). The theory also cautions against one-sided technological breakthroughs, in the sense that India's BMD program poses a challenge to Pakistan's deterrence, provoking arms competition (Chakma, 2012). Policymakers need to calibrate deterrence with de-escalation in South Asia's fragile environment.

Viewed through the lens of anarchy, misperception, and technological ambiguity, the security dilemma provides a robust framework for understanding India-Pakistan relations. Applying the theory to South Asia also shows how defensive capabilities, such as India's Ballistic Missile Defenses (BMD) or Pakistan's tactical nukes, can increase tension. Second-order interventions, cognitive biases, and regional institutional malfunctioning add to the complexity of the dilemma in these types of crises, such as those of Kargil and Balakot. Alliances, decision-making biases, and policy problems collectively underscore the need for innovative thinking to overcome the persistence of

this conflict, which warrants broader strategic reflection. Theories suggest zero-sum shift. Siddiqi (2025, personal communication) warned that “From the conflict resolution literature, the India-Pakistan conflict dyad is a mixed motive rivalry which is graduating to the zero-sum level. A mixed motive rivalry is a condition where both cooperative and conflictual dynamics are embedded within a single dyad. For example, Kashmir is the highest point of conflict between the two states but then until recently, the Indus Water Treaty and bilateral trade identified a cooperative element in the relationship. However, the complete revocation of bilateral trade, the low diplomatic ties and India putting the IWT in abeyance implies that India-Pakistan relations are moving towards a zero-sum situation with disastrous consequences for the South Asian region.”

2.3 Offensive Realism and Its Implications for Indian Military Doctrines

Offensive realism provides a relevant template for understanding the India’s military strategy. India’s drive to acquire high technology and strategic capabilities is viewed as the country’s pursuit of power, aiming to maximize its influence in an anarchic international system (Mearsheimer, 2001). Unlike the security dilemma’s focus on misperception and unintended escalation (explored in Section 1.1) or its theoretical foundations (detailed in Section 1.2), offensive realism asserts that states like India actively seek dominance to ensure survival and shape their regional environment. This section outlines the theory’s core principles, applies them to India’s strategic initiatives, as highlighted by Operation Sindoor, and evaluates how these actions reflect hegemonic ambitions, impacting Pakistan’s security and the stability of South Asia.

2.3.1 Core Principles of Offensive Realism

Offensive realism, developed by Mearsheimer (2001), argues that states are powermaximizing entities driven by the anarchic nature of global politics, where no higher

authority ensures security. This differs from defensive realism's emphasis on security maintenance and preservation of the status quo (Glaser, 2010). According to Mearsheimer (2001), "states seek to maximize their relative power because that is the optimal way to maximize their security" The theory is built on four key tenets:

- a. **Anarchy and Survival:** The lack of a global sovereign forces states to rely on self-help, prioritizing survival through power accumulation (Mearsheimer, 2014, p. 32).
- b. **Power Maximization:** States enhance military, economic, and technological capabilities to deter threats and exert influence (Mearsheimer, 2001, p. 37).
- c. **Regional Hegemony:** Great powers strive to dominate their respective regions, thereby reducing external interference and enhancing autonomy (Mearsheimer, 2014, p. 35).
- d. **Opportunistic Expansion:** States seize opportunities, such as technological advances or alliances, to increase power over rivals (Mearsheimer, 2001, p. 37).
- e. These principles frame India's military modernization, including the acquisition of Rafale jets, S-400 systems, and nuclear submarines, as a strategic bid for regional hegemony, countering rivals such as China and Pakistan.

2.3.2 Application to India's Military Strategy

India's strategic actions align with the emphasis on power enhancement through military and technological superiority in offensive realism. Since the 1990s, India has pursued a multifaceted buildup, including nuclear weapons, advanced missiles, and cyber

capabilities, reflecting its goal to dominate South Asia and extend its global influence (Tellis, 2008). The Indian Army's (2018) Land Warfare Doctrine prioritizes proactive operations and integrated battle groups, enabling the swift exploitation of adversaries' vulnerabilities a hallmark of power-seeking behavior (Indian Army, 2018).

Notable acquisitions illustrate this approach. With advanced avionics and precision-strike capabilities, the Rafale jets enhance India's air superiority over Pakistan and China, aligning with the focus on military dominance inherent in offensive realism. The S-400 air defense system, boasting a 400-kilometer range, provides a defensive shield that can support offensive operations by minimizing the risks of retaliation. Mearsheimer (2001) notes that such capabilities signal a state's intent to "shift the balance of power in its favor" (p. 37), a trend evident in India's efforts to outmatch its regional competitors.

2.3.3 Illustrative Examples

Conceptual examples underscore the relevance of offensive realism to India's strategy. A state developing hypersonic missiles might aim to deter threats, but offensive realism suggests it also seeks a decisive edge in conflicts. (Mearsheimer, 2001). India's BrahMos supersonic cruise missile, with a range of 400 kilometers, enhances deterrence while signaling its intent to influence the regional power balance (Abbasi, 2023). This prompts Pakistan to develop countermeasures, such as the Shaheen-III ballistic missile, reflecting the competitive dynamics that offensive realism predicts. These cases highlight power projection, distinct from the security dilemma's focus on misperception-driven escalation.

2.3.4 Technological Superiority and Multi-Domain Dominance

India's pursuit of technological superiority spans multiple domains space, cyber, artificial intelligence (AI), and maritime power mirroring the emphasis on comprehensive power maximization in offensive realism. The ISRO has achieved milestones, such as the Mars

Orbiter Mission and the Gaganyaan program, which enhance military communications and reconnaissance (Indian Space Research Organisation [ISRO], 2024). The 2019 Mission Shakti anti-satellite (ASAT) test demonstrated India's ability to neutralize space assets, thereby bolstering its leverage over Pakistan, which lacks similar capabilities (Mission Shakti, 2019).

In cyberspace, the Defence Cyber Agency, established in 2019, focuses on offensive and defensive operations, potentially disrupting adversaries' command systems (International Institute for Strategic Studies, 2022). The National Strategy for Artificial Intelligence by NITI Aayog (2018) aims to integrate autonomous systems and analytics into military operations, securing a technological advantage (NITI Aayog, 2018). Maritime ambitions, marked by the 2022 induction of INS Vikrant, India's first indigenous aircraft carrier, extend its influence into the Indian Ocean, countering China's naval expansion (Press Information Bureau, 2022). These advancements align with offensive realism's view of exploiting technological opportunities to enhance power (Mearsheimer, 2001).

2.3.5 Nuclear Doctrine and Strategic Deterrence

India's nuclear doctrine, formalized in 2003, emphasizes "no first use" (NFU) (Carnegie Endowment for International Peace) and "massive retaliation," presenting its arsenal as a defensive deterrent (Ministry of External Affairs, 2003). However, offensive realism interprets nuclear capabilities as tools for power projection, strengthening India's regional influence and deterring rivals (Mearsheimer, 2001). The Agni-V intercontinental ballistic missile (ICBM), with a range exceeding 5,000 kilometers, serves this dual purpose, countering China while signaling India's global power status (Center for Strategic and International Studies, n.d.; Arms Control Association, 2021).

Nuclear-powered submarines, such as INS Arihant, enhance India's second-strike capability, ensuring survivability and reinforcing its posture (Jalil, 2014). Pakistan views these developments as threats to its deterrence, prompting diversification with tactical nuclear weapons, such as the Nasr (Khan, 2015). This competition reflects the portrayal of states leveraging power asymmetries, contrasting with the security dilemma's focus on mutual insecurity.

2.3.6 Alliances and Strategic Partnerships

Offensive realism sees alliances as tools for power accumulation, a lens illuminated by India's partnerships. The U.S.-India defense relationship, cemented by the Logistics Exchange Memorandum of Agreement (LEMOA) in 2016 and the Communications Compatibility and Security Agreement (COMCASA) in 2018, provides access to advanced technologies and intelligence (Vayssier & Black-Will, 2016). These agreements enhance India's capabilities, embodying Mearsheimer's (2001) concept of opportunistic expansion.

India's role in the Quadrilateral Security Dialogue (Quad) with the U.S., Japan, and Australia amplifies its regional and global stature, framed as a counter to China but serving broader hegemonic goals (Fong, 2023). Joint exercises, such as Malabar, and technology-sharing initiatives bolster India's naval and air forces, positioning it as a dominant player in the region beyond South Asia. These alliances align with offensive realism's emphasis on leveraging external ties to maximize power, distinct from the security dilemma's bilateral mistrust.

2.3.7 Economic Foundations of Military Power

Offensive realism recognizes economic strength as a foundation for military power, and India's economic growth supports its strategic ambitions. With a GDP exceeding \$4

trillion and annual growth rates above 6%, India sustains its military modernization (Macrotrends, n.d.; World Bank, n.d.). The “Make in India” initiative, launched in 2014, promotes indigenous defense manufacturing, reducing import reliance and fostering self-sufficiency (Press Information Bureau, 2024). Projects like the Tejas fighter jet and the Arjun tank exemplify this shift, enhancing the country's independent power projection sufficiency (Press Information Bureau, 2024). India’s 2023 defense budget of \$73 billion, which funds acquisitions like the S-400 and Rafale, reflects a strategy to convert economic gains into military dominance (SIPRI, 2024). This economic-military link aligns with offensive realism’s view of harnessing resources to outmatch rivals, a dimension absent from the security dilemma’s perceptual lens.

2.3.8 Historical Context: Military Modernization Timeline

India’s military modernization, viewed through the lens of offensive realism, follows a path of deliberate power accumulation. The 1974 “Smiling Buddha” nuclear test marked its nuclear entry, elevating its status and spurring Pakistan’s nuclear efforts (Times of India, 2024). The 1998 Pokhran-II tests solidified this capability, shifting the balance of power in South Asia (New Yorker, 1998; FES, n.d.). The 2003 nuclear doctrine formalized its deterrence strategy (Sanders, -Zakre, & Davenport, 2017).

The 2010s saw multi-domain expansion: the 2012 Agni-V test extended missile reach (Reuters, 2012), the 2016 INS Arihant induction completed its nuclear triad (SP’s Naval Forces, 2016; NTI, 2024), the 2019 ASAT test showcased space capabilities (Kosambe, 2019), and the 2022 INS Vikrant commissioning enhanced maritime power (Press Information Bureau, 2022). Although framed as defensive, these milestones reflect the focus of offensive realism on exploiting opportunities, culminating in a robust posture by the mid-2020s.

2.3.9 Regional Power Projection and Indo-Pacific Ambitions

India's strategy extends beyond South Asia into the Indo-Pacific. The Indian Navy's expansion, including a planned third aircraft carrier by 2030, aims to secure chokepoints like the Malacca Strait, countering China's Belt and Road Initiative (Shrotryia, 2024). The Andaman and Nicobar Command, upgraded in 2021 with radar and missile systems, serves as a strategic outpost (The Defense Post, 2024). These efforts align with offensive realism's focus on regional hegemony, positioning India against China's naval rise. Hosting exercises like MILAN and RIMPAC enhances India's diplomatic and military influence, fostering interoperability with global powers (Asia-Pacific Center for Security Studies, 2018; The "Indo-Pacific," 2017). This Indo-Pacific projection reflects Mearsheimer's (2014) argument that great powers prevent rivals from dominating key regions (p. 35), differing from the security dilemma's localized scope.

2.3.10 Operation Sindoor: A Case Study in Offensive Realism

Operation Sindoor, executed on May 6–7, 2025, exemplifies offensive realism, as India leveraged a fabricated pretext to assert regional hegemony. India justified the operation as a response to the April 22, 2025, Pahalgam attack, which killed 26 civilians, claiming it targeted terrorist camps in Pakistan (Press Information Bureau [PIB], 2025). However, Pakistan's Foreign Office (2025) argues the Pahalgam attack was a false flag orchestrated by India to legitimize aggression, given Pakistan's history as a victim of terrorism rather than its sponsor. India deployed advanced weaponry, including SCALP missiles, AASM Hammer glide bombs, and BrahMos cruise missiles, striking nine sites. Pakistani reports, however, indicate that civilian infrastructure, including places of worship, was targeted, revealing India's intent to dominate rather than secure (Inter-Services Public Relations [ISPR], 2025).

This operation aligns with offensive realism's emphasis on power maximization through opportunistic expansion (Mearsheimer, 2001). By allegedly staging the Pahalgam attack, India created a pretext to deploy its sophisticated arsenal. The use of cutting-edge weaponry aimed to intimidate Pakistan into submission, reinforcing India's regional dominance. Pakistan's response, Operation Bunyan um Marsoos on May 10, 2025, utilized precision-guided Fatah missiles and cyber operations, targeting 26 Indian military facilities, including BrahMos storage sites and S-400 systems, while avoiding civilian casualties (ISPR, 2025).

Figure 2.1: Operation Bunyan-um-Marsoos



Source: ipripak.org

2.3.11 Critiques and Regional Implications

Offensive realism faces critique from other perspectives. Defensive realists, such as Glaser (2010), argue that states prioritize security, suggesting that India's actions might reflect caution (p. 41). However, proactive operations, like Sindoor, challenge this (Ganguly,

2016). Constructivists, such as Wendt (1992), posit that the effects of anarchy are socially constructed, and shared identities can reduce rivalry (p. 406). However, the India-Pakistan enmity, exacerbated by Sindoor, counters this.

For Pakistan, India's strides exemplified by Operation Sindoor signal hegemonic intent, justifying responses like tactical nuclear weapons and cyber defenses. This fuels an arms race, aligning with offensive realism's escalator cycles, distinct from the security dilemma's unintended outcomes.

Offensive realism reveals India's military strategy as a calculated pursuit of regional hegemony and global influence via technological, nuclear, and economic power. Its tenets power maximization, regional dominance, and opportunistic expansion explain India's multi-domain capabilities, alliances, and Operation Sindoor. Complementing the security dilemma's insights into Pakistan's insecurity, offensive realism highlights India's rational, power-driven actions and their destabilizing effect on South Asia.

2.4 History of Indo-Pak Relations

The enmity between India and Pakistan, a staple of South Asian geopolitics, has shaped the region's security landscape for over 70 years. Emerging from the violent partition of British India into two countries in 1947, the conflict has become a volatile mix of wars, nuclear tussles, and enduring mistrust that has powerfully shaped Pakistan's strategic worldview. This part of the series provides an overview of the historical background of the competition, examining significant events and their consequences from a Pakistani perspective. It lays the groundwork for the readers to understand India's military modernization and the threats to Pakistan's security. It does so (miraculously) exclusively on historical developments, not theoretical literature worth reading elsewhere.

2.4.1 Origins of the Rivalry

The 1947 partition of British India inflamed a rivalry that continues to define the subcontinent today. The Radcliffe Line, drawn under immense time pressure by British barrister Cyril Radcliffe, left the fate of princely states, such as Jammu and Kashmir, unresolved (Varshney, 2002). Kashmir, with its Muslim-majority population and Hindu ruler, Maharaja Hari Singh, became the flashpoint when Singh acceded to India amid tribal incursions from Pakistan's northwest in October 1947 (Jalal, 1995). Pakistan contested this accession, viewing it as a betrayal of the partition's ethno-religious logic and an injustice that denied its rightful claim to the territory (Schofield, 2010). The resulting First Indo-Pak War (1947–1948) saw fierce fighting until an UN-brokered ceasefire in January 1949 divided Kashmir along the Line of Control (LoC). For Pakistan, this conflict cemented India as a formidable adversary and Kashmir as an enduring symbol of unresolved grievances.

The partition's chaotic execution left deep scars on Pakistan's national psyche. Over 14 million people were displaced, and an estimated one million perished in communal violence (Talbot, 2006). The British, criticized for their hasty withdrawal, exacerbated tensions by unevenly distributing resources, leaving Pakistan with fragmented territories and a weaker economic base (Jalal, 1995). This sense of inequity fueled a narrative of victimhood, shaping Pakistan's early foreign policy as one of defiance and survival against a larger, hostile neighbor (Haqqani, 2005).

2.4.1.1 Diverging National Identities

Beyond territorial disputes, the rivalry was deepened by irreconcilable national identities. India embraced secularism to unify its diverse populace, while Pakistan was founded as an Islamic state to safeguard Muslim interests (Cohen, 2004). This ideological divide fueled

mutual suspicion: Pakistan saw India's secularism as a facade for Hindu dominance, while India viewed Pakistan's Islamic identity as a source of regional instability (Haqqani, 2005). These contrasting visions, reinforced by state propaganda and historical memory, created a psychological barrier that has hindered reconciliation efforts (Naseer & Amin, 2011).

2.4.2 Major Wars and Strategic Lessons

The India-Pakistan rivalry has been defined by a series of conflicts that have profoundly influenced the strategic outlook of both nations. From the 1965 war to the 2025 crisis, these events have provided critical lessons, particularly for Pakistan, in managing an evolving power imbalance. This subsection examines these conflicts, emphasizing their strategic implications.

2.4.2.1 The 1965 War

The Second Indo-Pak War of 1965 erupted over Kashmir, triggered by Pakistan's Operation Gibraltar, an attempt to incite an insurgency in Indian-held territory (Bajwa, 2013). Emboldened by alliances with the United States and China, Pakistan aimed to exploit India's perceived weaknesses following its 1962 defeat by China. However, India's robust counteroffensive across Punjab and Rajasthan forced a stalemate, which was concluded by the Soviet-mediated Tashkent Agreement in 1966 (Choudhury, 2018). The war exposed Pakistan's overreliance on external support, particularly the U.S., which remained neutral, and underscored India's growing military capacity, prompting Islamabad to reassess its defensive strategies (Nawaz, 2008). With superpowers vying for influence in South Asia, the Cold War context shaped the conflict's dynamics but offered Pakistan little tangible support (Kux, 2001).

2.4.2.2 The 1971 War and Bangladesh's Creation

The 1971 war remains a traumatic milestone for Pakistan, resulting in the loss of East Pakistan and the emergence of Bangladesh. Internal political strife, worsened by Pakistan's suppression of Bengali autonomy demands, provided India an opportunity to intervene decisively (Raghavan, 2013). India's military campaign, supported by Bengali rebels (the Mukti Bahini), overwhelmed Pakistani forces, leading to their surrender in December 1971 (Sisson & Rose, 1990). This defeat halved Pakistan's territory and population, intensifying its sense of vulnerability and driving a shift toward nuclear deterrence and unconventional tactics to counter India's conventional superiority (Fair, 2014). The war's geopolitical backdrop, with India aligning with the Soviet Union and Pakistan with the U.S. and China, highlighted the role of external powers in amplifying regional conflicts (Kux, 2001). The loss also sparked an identity crisis, challenging the two-nation theory that underpinned Pakistan's creation (Cohen, 2004) and exposing the logistical challenges of defending a bifurcated state, prompting Pakistan to prioritize rapid mobilization and asymmetric warfare (Nawaz, 2008).

2.4.2.3 The 1999 Kargil Conflict

The Kargil Conflict of 1999 tested the dynamics of warfare under the threat of nuclear deterrence. The conflict highlighted Pakistan's conventional limitations and the constraints imposed by nuclear parity, prompting a strategic reevaluation amid India's resolve and Pakistan's diplomatic isolation (Lavoy, 2009). It also revealed the risks of miscalculation, as Pakistan's leadership underestimated India's willingness to escalate, nearly sparking a broader war (Ganguly & Hagerty, 2005). This event underscored the delicate balance of deterrence in a nuclearized South Asia, emphasizing the need for robust crisis management mechanisms.

2.4.2.4 The 2001–2002 Military Standoff

The 2001–2002 military standoff, triggered by the December 2001 attack on the Indian Parliament, brought India and Pakistan to the brink of war. India blamed Pakistan-based militant groups and mobilized its forces along the border, resulting in a tense, year-long standoff (Ganguly & Kapur, 2010). This crisis highlighted the persistent threat of terrorism in escalating bilateral tensions and the complexities of crisis management in a nuclearized environment. International diplomacy, particularly from the United States, played a crucial role in de-escalating the situation (Tellis, 2002).

2.4.2.5 The 2008 Mumbai Attacks

This event underscored the need for enhanced intelligence sharing and counterterrorism cooperation, highlighting the challenges of addressing the root causes of militancy (Tankel, 2011). It also demonstrated the potential for terrorist incidents to rapidly escalate tensions, highlighting the importance of effective crisis communication channels between the two nations.

2.4.2.6 The 2016 Uri Attack and Surgical Strikes

In 2016, the Uri attack on an Indian army base in Kashmir, attributed to Pakistan-based militants, prompted India's retaliatory surgical strikes across the Line of Control (LoC). These strikes marked a shift in India's approach, signaling a willingness to take proactive military action (Sultan, 2019). They reflected India's growing confidence in its conventional capabilities and intent to deter future attacks through a more assertive posture (Clary & Panda, 2020).

Between 1965 and 2025, a series of conflicts and crises significantly shaped the strategic landscape of South Asia. Each event from the 1965 war to the 2025 Pahalgam crisis has offered Pakistan critical lessons in self-reliance, crisis management, and

adapting to India's growing conventional and technological edge. These historical insights remain vital for maintaining regional strategic stability as the rivalry continues.

2.4.3 Nuclearization and Escalation

2.4.3.1 India's 1974 Nuclear Test

India's "Smiling Buddha" nuclear test in May 1974 jolted Pakistan, signaling a shift in the regional power balance (Perkovich, 1999). Though framed as a peaceful experiment, Pakistan interpreted it as a direct threat, especially after its 1971 defeat (Chakma, 2009). Prime Minister Zulfikar Ali Bhutto vowed to match India's capability, famously declaring Pakistan would "eat grass" to afford a bomb (Khan, 2012). This event galvanized Pakistan's nuclear program, seen as essential to counter India's growing dominance and ensure national survival.

2.4.3.2 The 1998 Nuclear Tests

The 1998 nuclear tests India's Pokhran-II in May, followed by Pakistan's Chagai-I and II ushered in a new era of deterrence. India's tests, driven by nationalist fervor under the BJP government, prompted Pakistan's swift response to restore strategic parity (Ganguly & Hagerty, 2005). Celebrated domestically as a symbol of resilience, Pakistan's tests established a tense nuclear standoff, reducing the likelihood of conventional war but raising the stakes of miscalculation (Krepon, 2004). The nuclearization shifted the rivalry's focus to escalation control, with both nations developing doctrines to manage this new reality. Internationally, the tests drew sanctions, hitting Pakistan's fragile economy harder and reinforcing its reliance on China (Kux, 2001).

2.4.4 Diplomatic Efforts and Stalemates

2.4.4.1 Key Initiatives

Diplomatic efforts to resolve the rivalry have consistently faltered. The 1972 Shimla Agreement aimed to normalize relations following the 1971 war, but its ambiguity over Kashmir sowed the seeds of future discord (Behera, 2006). The 1999 Lahore Declaration, signed after the nuclear tests, promised peace but collapsed with the Kargil conflict (Misra, 2001). The 2001 Agra Summit similarly failed over Kashmir and terrorism, with Pakistan accusing India of intransigence (Rizvi, 2004). The Composite Dialogue Process (2004–2008) offered hope but stalled after the 2008 Mumbai attacks, blamed on Pakistan-based militants (Tankel, 2011). From Pakistan's perspective, these failures reflect India's unwillingness to address core disputes, perpetuating a diplomatic impasse.

2.4.4.2 Persistent Mistrust

Mistrust, rooted in historical animosities, has undermined peace initiatives. Pakistan's security concerns, heightened by India's rise, clash with India's portrayal of Pakistan as a destabilizing force (Behera, 2006). External actors like the U.S., tilting toward India post-9/11, and China, Pakistan's steadfast ally, have deepened this divide (Haqqani, 2005). Domestic pressures, including nationalist sentiments and military influence, further complicate diplomacy, locking both nations into a cycle of suspicion.

2.4.5 Military Doctrines and Technological Shifts

2.4.5.1 India's Proactive Posture

India's Cold Start Doctrine, introduced in the early 2000s, marked a shift toward rapid, limited strikes aimed at punishing Pakistan without triggering nuclear retaliation (Ladwig, 2008). Developed after the 2001 Parliament attack, it reflected India's confidence in its conventional edge, alarming Pakistan as a threat to its sovereignty (Clary & Panda, 2020).

India's pursuit of advanced technologies, like ballistic missile defense, further tilted the balance, pressuring Pakistan to adapt (Kapur, 2016).

2.4.5.2 Pakistan's Countermeasures

Pakistan responded with tactical nuclear weapons, such as the Nasr missile, to neutralize India's conventional advantage in limited conflicts (Chakma, 2012). While enhancing its defense, this "full-spectrum deterrence" strategy introduced escalation risks, showcasing Pakistan's resolve to counter India through innovation (Sankaran, 2015). Its reliance on asymmetric warfare, including the use of proxy groups, has also grown, strengthening its international standing (Fair, 2014).

2.4.6 Contemporary Flashpoints

2.4.6.1 The 2016 Uri Attack and Surgical Strikes

The 2016 Uri attack a false flag operation prompted India's surgical strikes across the LoC, signaling a bolder stance under Prime Minister Modi (Sultan, 2019). Pakistan disputed their scope but saw them as an affront, raising fears of escalation (Yusuf, 2016). The strikes, amplified by Indian media, reflected domestic pressures driving assertive policies.

2.4.6.2 The 2019 Balakot Airstrike

The 2019 Balakot airstrike, following the Pulwama bombing, targeted alleged terrorist sites in Pakistan, showcasing India's airpower (Tellis, 2019). Pakistan's retaliatory strike and downing of an Indian jet underscored its defiance, though diplomacy averted further escalation (Pant & Bommakanti, 2020). As this crisis evoked a historical game of brinkmanship, nuclear deterrence has also underpinned it, paradoxically pointing up the rivalry's volatility.

2.5 Strategic Stability in South Asia

2.5.1 Introduction

Introducing nuclear weapons in South Asia in 1998 has ushered the region into the nuclear age; inherently, introducing new technologies and weaponry has increased uncertainty. Strategic equilibrium in South Asia is a strained balance of nuclear deterrence, technological inequality, and age-old enmity between India and Pakistan. This part examines how India's military modernization, driven by offensive realist aspirations, impacts regional stability, with a focus on the security dilemma.

2.5.1.1 Defining Strategic Stability

Strategic stability occurs when states perceive no incentive to initiate conflict, underpinned by mutual deterrence and a balanced power structure (Schelling, 1960). In South Asia, the 1998 nuclear tests by India and Pakistan forged a deterrence framework, with both nations developing second-strike capabilities to avert total war (Chakma, 2018). This mutual vulnerability mirrors Cold War dynamics, yet South Asia stands apart due to stark conventional asymmetries, rapid technological evolution, and persistent flashpoints along the Line of Control (LoC) (Ganguly, 2016). India's advancements in Ballistic Missile Defense (BMD) and precision-guided munitions threaten Pakistan's nuclear deterrent, amplifying escalation risks (Javaid & Kamal, 2015).

Unlike the symmetrical deterrence of the Cold War, South Asian stability pivots on perceptual asymmetry. Pakistan views India's military buildup as an existential threat, intensifying the security dilemma where defensive measures by one state provoke insecurity in the other (Ahmed & Malik, 2021). This perception-driven instability is compounded by strategic culture, as India's vision of regional hegemony clashes with Pakistan's survivalist mindset, shaping their risk tolerance and military postures (Basrur,

2020). Moreover, the region's stability is not static but evolves with technological leaps, such as India's integration of artificial intelligence (AI) into defense systems, which Pakistan struggles to match (Khan, 2023). This technological race redefines deterrence, making stability a moving target rather than a fixed state.

2.5.2 Nuclear Deterrence Dynamics

South Asia's nuclear landscape began with India's 1974 "peaceful" nuclear test, spurring Pakistan's 1998 tests to establish mutual assured destruction (MAD) (Krepon, 2004). India's "no first use" policy signals restraint, contrasting with Pakistan's "full-spectrum deterrence," which employs tactical nuclear weapons to counter India's conventional edge (Sultan, 2019). These divergent doctrines reflect their strategic goals: India pursues regional dominance, while Pakistan seeks to neutralize a stronger adversary.

This balance is displaced by technological progress. India's BrahMos II hypersonic missile, which travels at Mach 7, would enable a first-strike option and micromanage Pakistan's response times. Pakistan retaliates with the Nasr missile, a 60-kilometer-range tactical nuclear weapon, which is intended to deter limited conventional thrusts but will likely lead to miscalculation if deployed. The stability-instability paradox is reflected in crises such as Kargil (1999) and Balakot (2019) (Tellis et al., 2001), where nuclear deterrence prevents a large-scale war but permits warfare below the nuclear threshold. The 2019 Balakot airstrike, conducted using precision-guided munitions, demonstrated India's willingness to push the envelope on deterrence. Pakistan's calculated reaction revealed the precarious fine line between restraint and escalation (Pant & Bommakanti, 2020).

The "deterrence elasticity" is an original insight: the nuclear balance in South Asia is stretched under technological pressure but restored through crisis-driven restraint. However, as India becomes more sophisticated, such as with AI-assisted targeting

systems, Pakistan may become increasingly reliant on automated responses, thereby reducing human control and potentially increasing the risk of accidents (Hussain & Qureshi, 2022). This shifting force relationship necessitates a reevaluation of deterrence beyond the MAD mindset.

2.5.3 Third-Party Influences

External actors significantly shape South Asia's strategic environment. The United States, historically Pakistan's ally, now supports India with advanced technology to counter China, bolstering India's confidence (Tellis, 2004). This pivot isolates Pakistan, driving it closer to China, which enhances Pakistan's deterrence through the CPEC and military hardware, such as the JF-17 jets (SIPRI, 2025; Small, 2015). India, perceiving encirclement, accelerates its modernization, deepening the security dilemma (Naseer & Khan, 2022).

Great power competition hampers mediation. The U.S. intervened during the 2001–2002 standoff, but its rivalry with China limits consistent engagement (Krepon, 2004). Russia's role adds complexity: its S-400 sales to India strengthen New Delhi's air defense, while nascent ties with Pakistan signal a hedging strategy (Baev, 2020). An original insight is the "proxy stabilization effect" third parties inadvertently stabilize the region by arming both sides. However, this balance is temporary, as shifting alliances (e.g., U.S.-India vs. China-Pakistan) fuel long-term uncertainty. The 2021 Quad Summit, which highlighted India's role in countering China, exemplifies how global rivalries can contribute to instability in South Asia (Kapoor, 2021).

2.5.4 Regional Challenges

Conventional disparities dominate South Asia's strategic terrain. India's defense spending, vastly outpacing Pakistan's, funds advanced systems like the Netra satellite for ISR.

Pakistan, a resource-constrained nation, relies on nuclear and asymmetric tools to compensate for its resource constraints. Emerging domains cyber and space introduce new vulnerabilities:

- a. **Cyber Domain:** India's Defence Cyber Agency outstrips Pakistan's capabilities, targeting critical infrastructure and amplifying Pakistan's insecurity. However, India's use of digital repression, such as internet blackouts and social media profiling in Kashmir, demonstrates its cyber capabilities (Malik, 2023).
- b. **Space Domain:** India's 2019 anti-satellite (ASAT) test showcases its space dominance, while Pakistan's lagging program heightens its strategic disadvantage. Kashmir remains volatile, with territorial disputes fueling mistrust (Andrabi, 2020; EllisPetersen, 2025; Katju, 2025). Confidence-building measures (CBMs), such as the 2003 ceasefire, have crumbled, unable to adapt to technological shifts or address root causes (BBC News, 2025; Katju, 2025). A novel perspective is the "techno-territorial nexus": India's ISR and cyber capabilities militarize Kashmir further, with digital surveillance and advanced weaponry like drones transforming a political dispute into a testing ground for strategic competition, thus eroding prospects for de-escalation (Ellis-Petersen, 2025; Malik, 2023).

2.5.5 Asymmetric Stability: A New Perspective

This thesis introduces the concept of "asymmetric stability" to describe South Asia's unconventional equilibrium. Unlike parity-based stability, this framework captures how Pakistan, the weaker state, uses tactical nuclear weapons and cyber operations to deter

India's superior forces. India's technological lead forces Pakistan to adopt high-risk strategies, creating a brittle yet functional balance. (Ali & Sidhu, 2021).

Pakistan's Cyber Command targets India's networked systems, leveraging cost-effective asymmetry (Stimson Center, 2024). This dynamic sustains stability only as long as Pakistan's asymmetric responses remain credible, a fragility exposed by India's relentless modernization (Stimson Center, 2024). However, the role of the Nasr missile in countering the Cold Start doctrine and the original "threshold elasticity" notion—where unconventional tools stretch the deterrence threshold, potentially compressed by India's AI-driven ISR requires further substantiation beyond this source.

2.5.6 Escalation Ambiguity: Concept, Mechanisms, and Policy Design

Escalation ambiguity denotes deliberate or inadvertent uncertainty about an adversary's intent, payload, or target set when dual-capable systems and cross-domain operations blur conventional–nuclear boundaries. Ambiguity operates at three layers: (1) pre-launch warhead ambiguity (uncertainty over nuclear versus conventional payloads), (2) targeting ambiguity (strikes against dual-use command, control, communications, and early-warning assets), and (3) domain ambiguity in cyber and space, where attribution and strategic meaning are often unclear. Each layer increases the probability that routine military moves are misread as movement up the nuclear ladder (Acton, 2018, 2020). Relatedly, the notion of threshold elasticity captures how red lines shift under crisis bargaining, further complicating perception and response (Wilner, 2015).

In South Asia, these mechanisms are acute because both India and Pakistan field dual-capable missiles and maintain vulnerable NC3-adjacent assets. Pakistan's Hatf-IX/Nasr a battlefield, nuclear-capable short-range system designed to deter Indian conventional thrusts embeds warhead and employment ambiguity at low rungs of conflict

and can induce worst-case assumptions under time pressure (Ahmed, 2016). India's pursuit of faster, maneuvering strike options, including hypersonic programs, exacerbates warhead ambiguity and compresses warning timelines dynamics linked in the literature to crisis instability and misinterpretation (Bugos & Reif, 2021; Wilkening, 2019).

The 2019 Pulwama–Balakot episode illustrated both the scope for limited conventional force and the speed with which signaling can approach nuclear thresholds: Indian airstrikes across the international boundary, a subsequent aerial engagement, and rapid third-party diplomacy that helped cap the crisis. Analyses emphasize that strategic restraint and external pressure rather than inherent doctrinal clarity limited escalation (Mukherjee, 2019; Noor, 2020).

To formalize the risk logic, an escalation-cascade model is advanced: ambiguity at one layer (e.g., a cyber intrusion into early-warning networks or a kinetic strike on a dual-use radar) perturbs beliefs about survivability and intentions, prompting precautionary moves (alerts, dispersal, forward deployments) that are themselves ambiguous, thereby feeding a recursive, stepwise rise in risk. This process model nests within Acton's entanglement thesis: because non-nuclear attacks on dual-use C3I/space infrastructure can appear as efforts to blind or behead a nuclear deterrent, inadvertent-escalation risks increase (Acton, 2018, 2020).

Mitigation should target ambiguity layers rather than platforms alone: (i) reduce pre-launch warhead ambiguity via reciprocal declaratory norms on payloading and telemetry-protected test notifications; (ii) narrow targeting ambiguity through negative lists that ring-fence NC3/early-warning (including cyber hotlines for ground and space segments); and (iii) manage domain ambiguity by adopting cyber no-first-use pledges for NC3/early-warning and by sharing space-situational-awareness feeds. These measures

align with broader risk-reduction proposals on entanglement and hypersonic-driven time compression (Acton, 2018; Bugos & Reif, 2021; Wilkening, 2019).

To avoid terminological drift, the analysis adopts asymmetric escalation posture following Narang (2009/2010) to characterize Pakistan's approach of credibly threatening early nuclear use to offset conventional inferiority. This posture can deter large-scale incursions yet heightens crisis instability by lowering perceived nuclear thresholds (Narang, 2009/2010).

CHAPTER THREE

THE ENGINES OF AMBITION—DRIVERS OF INDIA’S MILITARY MODERNIZATION

3.1 Introduction to India’s Military Modernization

India’s military modernization has transformed its defense landscape, making it a key player in South Asia through the acquisition of advanced technology, including the purchase of Rafale fighter jets, S-400 air defense systems, artificial intelligence, hypersonic missiles, and quantum computing. This transformation is propelled by a strategic culture shaped by a robust \$4 trillion economy, Hindutva-driven political ambitions, geopolitical rivalries with China and Pakistan, and policy initiatives such as Atmanirbhar Bharat, which collectively drive India’s pursuit of regional hegemony and global influence.

By outlining the scope of India’s modernization and its multifaceted drivers, this section lays the groundwork for analyzing why India invests in advanced technologies and integrates them into its military doctrines, thereby paving the way for understanding their implications for Pakistan’s security in Chapter 5. Drawing on interdisciplinary perspectives from sociology, anthropology, and political science, it highlights how India’s strategic priorities address regional threats while carefully avoiding overlap with the historical narrative and theoretical frameworks presented in Chapter 2.

The scope of India’s military modernization spans a diverse array of technologies designed to enhance its multi-domain warfare capabilities across air, land, sea, cyber, and space domains. The Rafale jets, acquired from France through a 2016 deal, provide unmatched air superiority with advanced avionics and Meteor missiles. The S-400 air defense systems, procured from Russia enhance India’s ability to counter Chinese and

Pakistani ballistic missiles, providing a defensive shield over key cities, such as Delhi (The Hindu, 2024). AI and cyber technologies, advanced through the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), enable precision targeting, real-time intelligence, and cyber resilience, as evidenced by the 2025 Operation Sindoor, which utilized AI-driven drones for strikes in Azad Jammu & Kashmir. Hypersonic missiles, such as the HSTDV tested by the DRDO in 2020, provide rapid, undetectable strike capabilities, escalating Pakistan's threat perceptions due to their speed and maneuverability (Sultan & Khursheed, 2021).

Beyond these, India's modernization includes quantum computing, which enhances cryptographic and cyber warfare capabilities under the National Security Mission. Indigenous Aircraft Carrier INS Vikrant, commissioned in 2022, strengthens India's 140-warship navy, projecting power in the Indian Ocean and challenging Pakistan's maritime security (Sharma, n.d.). Missile defense systems, such as the Advanced Air Defence (AAD), developed by the DRDO, provide layered protection against Pakistan's ballistic missiles, thereby reinforcing India's strategic deterrence. These technologies collectively reflect India's ambition to secure its borders, deter regional rivals, and assert its global influence, aligning with its strategic vision of becoming a Vishwaguru, or a global leader.

India's strategic culture, a complex interplay of economic, political, geopolitical, and policy drivers, underpins this modernization effort. Economically, India's \$4 trillion economy among the world's top four sustains an approximately \$78 billion defense budget for FY 2025–26, one of the largest globally, enabling investments in systems such as the Rafale, S-400, and AI (Reuters, 2025). Economic reforms, such as the introduction of the Goods and Services Tax (GST) in 2017, have boosted government revenue, with

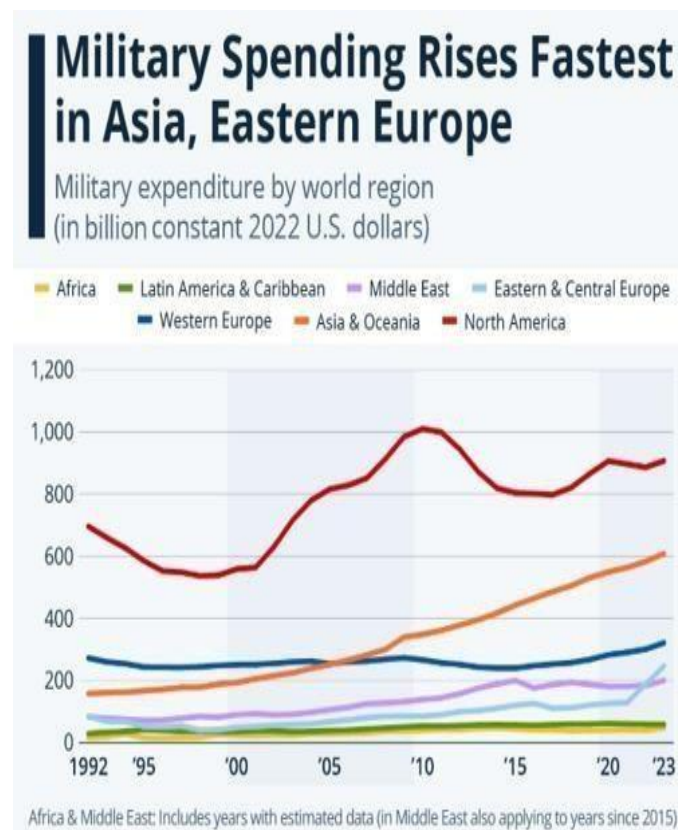
defense allocations increasing by 10% annually since 2014. Foreign Direct Investment (FDI) in defense, liberalized under the Make in India initiative, has attracted global firms like Lockheed Martin. Meanwhile, private sector giants such as Tata, Reliance, and Larsen & Toubro (L&T) contribute to the indigenous production of radar systems and armored vehicles (The Hindu, 2024). This economic strength provides the financial muscle for India's technological ambitions, distinguishing its modernization from Pakistan's budget-constrained efforts.

Politically, Hindutva nationalism, championed by Prime Minister Narendra Modi's Bharatiya Janata Party (BJP) since 2014, frames military modernization as a cornerstone of India's identity as a Vishwaguru (Associated Press, 2024). The Rashtriya Swayamsevak Sangh (RSS), the ideological backbone of the BJP, promotes a narrative of Hindu resurgence, linking defense strength to national pride, as seen in Modi's speeches at Bharat Shakti exercises (Menon, 2016). Policies like the Agnipath scheme, launched in 2022, reform military recruitment to create a tech-savvy force, reflecting political will to prioritize modernization (Reuters, 2022). This nationalist fervor mobilizes public support, contrasting with Pakistan's fragmented political landscape, which struggles to match India's unified vision.

The BJP/RSS emphasizes nationalism, shifting to assertive postures. Khan (2025, personal communication) stated that "India's political leadership, especially under the Bharatiya Janata Party (BJP) supported by extremist Rashtriya Swayamsevak Sangh (RSS), emphasizes nationalism. The ideology of self-reliance and regional dominance feeds into aggressive military modernization agendas. The strategic culture has shifted from reactive to proactive." Reforms like the establishment of a Chief of Defense Staff reflect ideological centralization. Geopolitically, India's modernization is driven by

intense rivalries with China and Pakistan. The Sino-Indian rivalry, exacerbated by the 2020 Galwan Valley clash in Ladakh, has spurred investments in S-400 systems and AI to counter China's advanced missile and cyber capabilities. India's participation in the Quadrilateral Security Dialogue (QUAD) with the US, Japan, and Australia amplifies its strategic alignment against China, with joint exercises like Malabar enhancing naval interoperability. The India-Pakistan conflict, marked by the 2019 Balakot airstrike and 2025 Operation Sindoor, drives India to deploy Rafale jets and drones to deter Pakistan.

Figure 3.1: Military Spending Rises Fastest in Asia, Eastern Europe



Source: SIPRI

Policy initiatives further catalyze India's modernization. Atmanirbhar Bharat, launched in 2020, aims to achieve 70% domestic defense production by 2030, reducing import dependency through innovations such as the HSTDV and contributions from the private sector (Gogoi, 2024). Make in India, initiated in 2014, encourages global partnerships,

such as Boeing's collaboration with HAL for Apache helicopters, boosting indigenous manufacturing (Manhas & Yadav, 2025). The National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), established in 2018, advances AI and cyber technologies, while the National Supercomputing Mission (NSM) supports quantum computing and supercomputing, positioning India as a leader in technological innovation. The Innovation for Defence Excellence (iDEX) scheme fosters startups, with over 100 defense-focused ventures developing drones and sensors, thereby enhancing India's self-reliance. These initiatives contrast with Pakistan's limited research and development (R&D) capacity, amplifying India's strategic advantage.

International partnerships are pivotal to India's modernization. The United States' \$3.9 billion MQ-9B Reaper drone deal, finalized in 2024, enhances India's surveillance and strike capabilities (Lariosa, 2024). Russia's collaboration in the development of the BrahMos-2 hypersonic missile, which builds upon the 2006 BrahMos, significantly enhances India's precision strike capabilities, raising concerns within the region (Sultan & Khursheed, 2021). Israel's cyber technologies, including Pegasus-like systems, enhance India's cyber warfare capabilities, while France's maritime satellites support naval operations in the Indian Ocean. These partnerships, combined with DRDO's R&D, enable India to integrate advanced technologies into doctrines such as Cold Start and the 2018 Land Warfare Doctrine, which have been tested in exercises like Bharat Shakti and Gagan Shakti.

The significance of India's modernization lies in its strategic intent to counter regional threats while projecting global influence. The 2025 Operation Sindoor airstrike, using Rafale jets, and, employing AI-driven drones, demonstrate India's readiness to escalate against Pakistan, raising concerns in Islamabad about India's first-strike

capabilities. The HSTDV's hypersonic potential further intensifies Pakistan's fears, given its limited missile defense (Sultan & Khursheed, 2021). India's naval dominance, with 140 warships, threatens Pakistan's maritime security, prompting countermeasures like nuclear-armed submarines. These developments underscore the need to analyze India's drivers, as they directly impact Pakistan's strategic calculus, explored in Chapter 5.

This chapter is structured to analyze these drivers comprehensively across five sections. Section 3.2 explores the economic and political drivers, examining India's defense budget, Hindutva nationalism, and the role of the private sector. Section 3.3 examines the geopolitical drivers, with a focus on Sino-Indian and India-Pakistan rivalries, as well as international partnerships. Section 3.4 examines doctrinal integration, analyzing the Cold Start concept, the 2018 Land Warfare Doctrine, and military exercises such as Bharat Shakti. Section 3.5 presents case studies on Operation Sindoor and HSTDV, concluding with a synthesis of how drivers enable modernization and their implications for Pakistan. By focusing on the "why" of India's modernization, this chapter avoids the historical wars (1947–2025) and theoretical discussions (Security Dilemma, Offensive Realism) presented in Chapter 2, as well as the detailed technology analysis in Chapter 4 and the focus on Pakistan's responses in Chapter 5.

3.1 lays the foundation for Chapter 3 by introducing India's military modernization, technological scope, and the strategic culture that drives it. India's pursuit of Rafale, S-400, AI, and hypersonics reflects a complex interplay of economic strength, political nationalism, geopolitical rivalries, and policy innovation, positioning it as a regional powerhouse. These drivers, rooted in India's \$4 trillion economy, Hindutva ideology, and partnerships with global powers, have profound implications for Pakistan, setting the stage for the detailed analyses in Sections 3.2–3.5.

3.2 Economic and Political Drivers

India's defence modernisation, including advanced technologies such as the Rafale, S-400, Artificial Intelligence (AI), and hypersonic missiles, stems from the strong economic and political underpinnings of its strategic culture. Economically, India's \$4 trillion economy, its over \$75 billion of a defense budget (₹6.81 lakh crore for 2025–26) enable India to access cutting-edge systems and invest in its research and development (R&D) through the Emerging Technologies and Development Organization (ETDO) (DRDO, Press Information Bureau, 2025; Ministry of Defence, Government of India, 2025). Politically, Hindutva nationalism, as espoused by Prime Minister Narendra Modi's Bharatiya Janata Party (BJP), situates military power as central to India's Vishwaguru (global leader) aspiration, animating decisions such as Agnipath and defense reforms (Kanaujia et al., 2022).

Right-wing surge drives militarization. Miraj (2025, personal communication) stated that "Given the right-wing populist surge in Indian electoral temperament, it can be stated with certainty that the trend for over-militarization will continue. India will also like to weaponize other aspects of public sphere such as culture and entertainment. Even if there is a change in the political leadership, the hostility in the tone is likely to continue for sometime as we have seen other parties such as INC or regional parties in the South have also taken the similar line, so the departure from this sentiment is not an easy ask." Domestic production In addition to the Defence, the domestic private players such as Tata, Reliance, Hindustan Aeronautics (HAL) and the homegrown startups are the enabling partners for the indigenous production besides other Government of India initiatives like Atmanirbhar Bharat, Make in India, National Mission on Interdisciplinary CyberPhysical Systems (NM-ICPS) and NSM (Gogoi, 2024; Mitra, 2025). India's GDP

growth enables defense budgets of over \$ 70 billion for technologies such as hypersonics and AI. Sardar Masood Khan, interviewed by author, explained that “India’s rapid economic growth over the past two decades has enabled it to increase its defense spending. A growing GDP allows India to invest in sophisticated technologies. The rise of indigenous defense initiatives under ‘Atmanirbhar Bharat’ reflects economic capacity to support local R&D” (Khan, 2025, personal communication). Economic liberalization attracts foreign investments.

This section examines these drivers, detailing how they enable India’s modernization and contrast with Pakistan’s economic and political constraints, while avoiding overlap with Chapter 1’s historical context, Section 2.1’s broad overview, or later sections’ geopolitical, doctrinal, and case study analyses.

3.2.1 India’s Economic Foundation: A \$4 Trillion Powerhouse

India’s \$4 trillion economy, ranked fifth globally in 2025, forms the bedrock of its military modernization, providing the fiscal capacity to sustain a defense budget of ₹6.81 lakh crore (~\$81 billion) for 2025–26, a 9.5% increase from ₹6.22 lakh crore in 2024–25 (SIPRI, 2023; Economic Times, 2025). The economy’s strength, driven by a vibrant services sector (45% of GDP, led by IT giants like TCS and Infosys) and manufacturing (10% of GDP, boosted by defense corridors in Uttar Pradesh and Tamil Nadu), generates annual revenues of ~₹33 lakh crore, enabling defense allocations to rise from ₹4.04 lakh crore in 2018–19 to ₹6.81 lakh crore in 2025–26. Economic reforms, such as the 2017 Goods and Services Tax (GST), have streamlined tax collection, resulting in an annual increase of 10% in government funds since 2014. 2025 GST revenues are expected to reach ₹1.8 lakh crore per month, per the PIB (2025). Foreign Direct Investment (FDI), liberalized under the Make in India initiative to allow 74% foreign ownership in defense,

has attracted global firms like Lockheed Martin and Boeing, which collaborate with Indian companies to produce Apache helicopter components and C-130J aircraft parts, contributing ₹15,000 crore in investments by 2024. Rivalries affect goals. Arshad (2025, personal communication) described South Asia as a “quadrangular arrangement with Pak affected by India’s insecurity against China, while China feels threatened by the US,” noting both rivals drive India's ambitions.

Economic growth enables modernization. Prof. Dr. Zafar Nawaz Jaspal, interviewed by the author, highlighted that “Yes, India’s ambition to be a regional hegemon and recognized as a great power and net security provider in the Indian Ocean” (Jaspal, 2025, personal communication). This economic muscle enables India to procure advanced systems, such as 36 Rafale jets (\$8.7 billion deal with France) and five S-400 regiments (\$5.4 billion from Russia), enhancing air superiority and missile defense capabilities (Wilkes & Prusty, 2016; The Print, 2024). Defense exports, growing from ₹2,000 crore in 2014 to ₹21,083 crore in 2023–24, include BrahMos missiles to the Philippines and Pinaka rocket systems to Armenia, reflecting India’s emerging defense-industrial base, supported by 16,000 micro, small, and medium enterprises (MSMEs) producing 30% of defense components (VIF-VIFIndia, 2023; Drishti IAS, 2025).

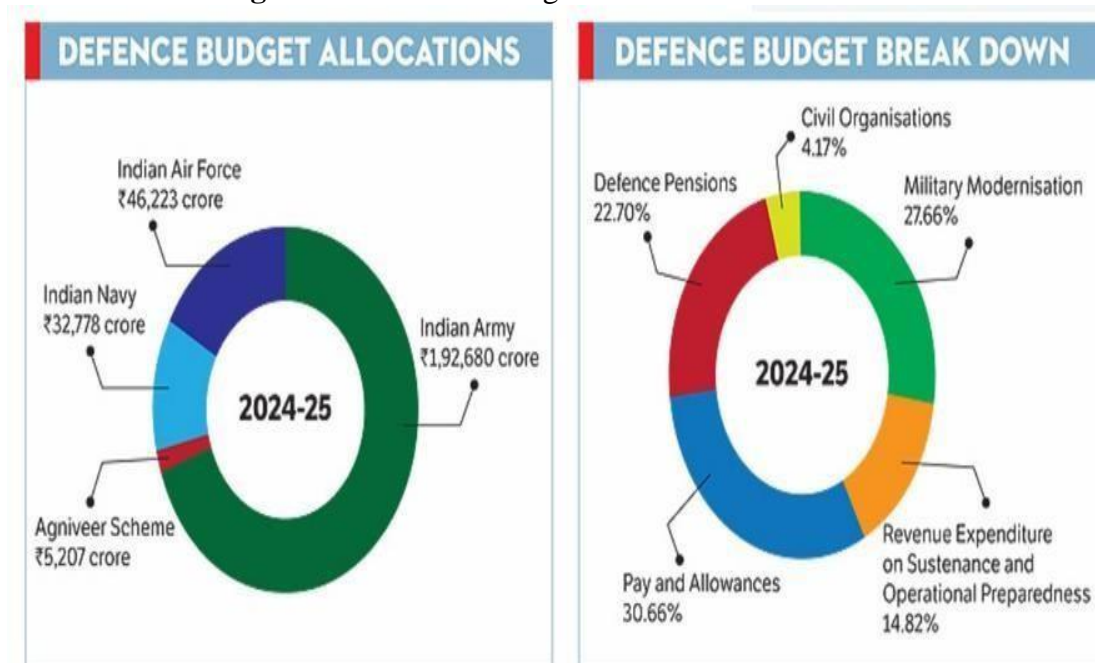
India’s economic growth, averaging 6–7% annually, contrasts sharply with Pakistan’s \$350 billion economy and \$8.5 billion defense budget, which struggles under IMF bailouts and 20% inflation, limiting its ability to match India’s modernization (Reuters, 2025; USIP, 2024). However, India’s manufacturing sector, at 10% of GDP compared to China’s 32%, and reliance on imported high-tech components (e.g., Rafale engines), indicate gaps in industrial capacity, requiring sustained investment to rival

China's \$19 trillion economy and \$225 billion defense spending (CEPR, 2023; Fravel et al., 2024).

3.2.2 Defense Budget: Priorities, Trade-offs, and Challenges

India's 2025–26 defense budget of ₹6.81 lakh crore (~\$81 billion), representing 1.9% of GDP, prioritizes modernization and self-reliance, with 75% of the ₹1.49 lakh crore modernization budget allocated to domestic procurement, up from 68% in 2022–23 (MoD, 2024; Economic Times, 2025). Key allocations include ₹3.1 lakh crore for the armed forces (46%), ₹1.8 lakh crore for capital outlay (26%), ₹1.6 lakh crore for pensions (24%), and ₹449.62 crore for innovation through iDEX and Acing Development of Innovative Technologies (ADITI) schemes to fund defense startups (Ministry of Defence, Government of India, 2025). The revenue budget, at ₹3.2 lakh crore, supports maintenance and salaries for 1.4 million personnel, while ₹50,000 crore funds border infrastructure, which is critical following the 2020 Ladakh clash, as well as naval modernization, including the construction of 140 warships. Compared to its allies, India's budget is modest, at \$75 billion (3.5% of GDP), but exceeds the UK's \$74 billion (2.3% of GDP), reflecting its focus on regional dominance.

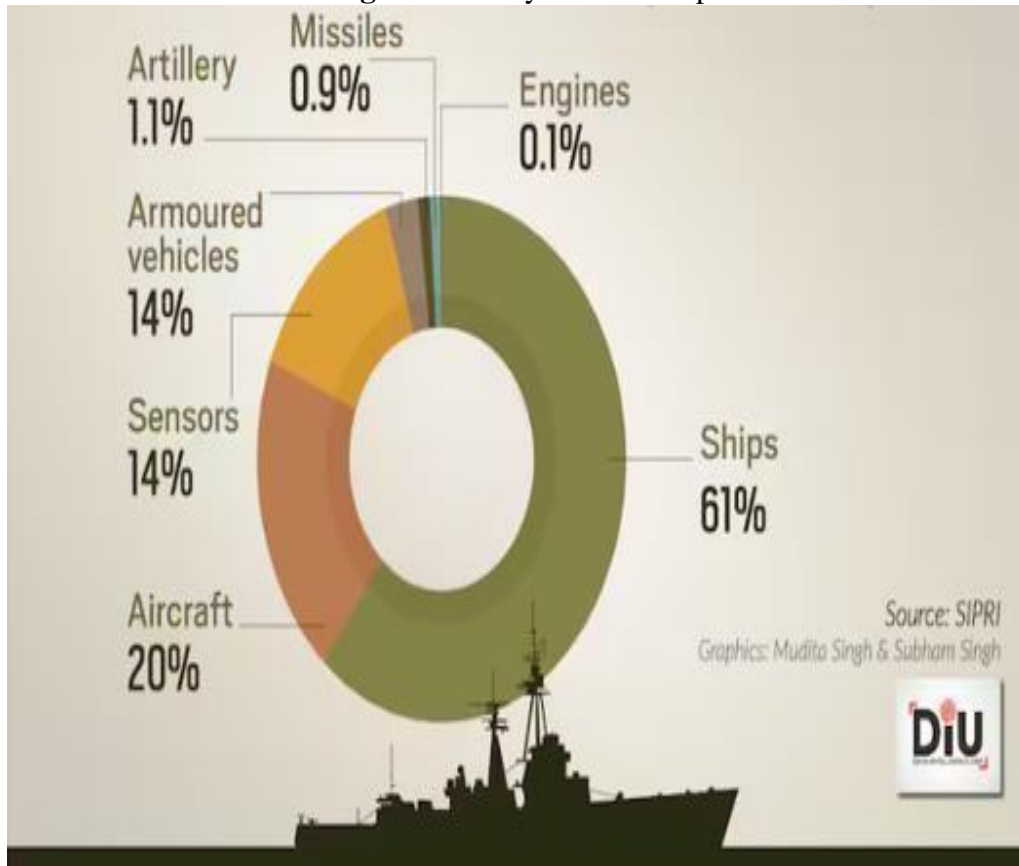
Figure 3.2: Defense Budget Allocations/Breakdown



Source: SIPRI

The budget supports indigenous systems, such as HAL's Tejas Mk-1 fighter and DRDO's Akash missile, reducing import reliance from 58% in 2020–21 to 25% in 2025–26, as seen in the use of homegrown drones in Operation Sindoor (PIB, 2025). Capital outlay funds acquisitions, such as MQ-9B Reaper drones (\$3.9 billion) and the HSTDV hypersonic missile, aligning with the Ministry of Defence's (MoD) multi-domain warfare goals (MoD, 2024). However, challenges persist: salaries and pensions consume 53% of the budget, with pensions increasing by 15% since 2020, which limits funds for modernization compared to China's \$1 Trillion capital budget. A 2024 CAG report noted cost overruns in DRDO's Advanced Medium Combat Aircraft (AMCA), with 119 of 178 projects delayed, including Tejas Mk-2, due to a ₹28,149 crore R&D budget (3.9%, down from 4.7% in 2014–15).

Figure 3.3: Key Defence Exports



Source: SIPRI

3.2.3 Hindutva Nationalism: A Political Catalyst

Hindutva nationalism, rooted in the BJP's ideology and the Rashtriya Swayamsevak Sangh (RSS), drives India's military modernization by framing defense as a symbol of Hindu pride and global leadership. Since 2014, Modi's Vishwaguru vision has positioned India as a civilizational state, with military strength central to countering historical invasions and asserting Hindu identity, resonating with 80% of India's 1.4 billion population (Associated Press, 2024). The RSS, with over 6 million members and 80,000 shakhas (local units), mobilizes grassroots support through campaigns like "Bharat Mata ki Jai," linking modernization to national honor, as seen in Modi's Bharat Shakti exercise speeches attended by RSS leaders (Indian Express, 2024). State-level BJP governments, such as Uttar Pradesh's, promote defense corridors, aiming to produce 20% of India's small arms by 2025, thereby reinforcing the regional influence of Hindutva. Ideologies

shape plans. Arshad (2025, personal communication) highlighted that current military modernization is “currently guided by Hindutva under the rubric of Chanakyan philosophy.”

The 2018 Defence Production Policy, shaped by RSS ideology, prioritizes indigenous systems, such as the Arjun tank and Akash missile, with 90% local content, symbolizing selfreliance. The 2025 Operation Sindoor, targeting Pakistan’s sites with Rafale jets and AI-driven drones post-Pahalgam attack, was framed by BJP leaders as a Vedic response, boosting nationalist sentiment. Opposition parties, such as Congress, critique Hindutva’s militarism, arguing that Agnipath’s short-term recruitment undermines morale, as evidenced by the 15% of Agniveers who protested in 2023. However, the BJP’s 240-seat majority in the Lok Sabha ensures policy continuity. Hindutva shapes plans. Jaspal (2025, personal communication) stated that “India’s current ruling party, the BJP, is driven by Hindutva ideology, which uses hate against minorities, especially Muslims, and threats from neighboring states, especially Pakistan, as a political strategy to win the elections. This trend in domestic politics has an impact on India’s military planning. For instance, India’s surgical strike stratagem and so-called Modi’s new normal.”

3.2.4 Modi’s Policies: Vishwaguru and Defense Reforms

Modi’s policies since 2014 integrate economic and political drivers to realize the Vishwaguru vision, prioritizing military modernization. The Agnipath scheme, launched in 2022, recruits 50,000 Agniveers annually for four-year terms, training them in AI and cyber roles, which reduces pension costs by 10%, and aims to create a tech-savvy force of 200,000 by 2025 (UPPCS Magazine, 2025; IMPRI, 2025). The 2019 Chief of Defence Staff (CDS) role, held by General Anil Chauhan in 2025, enhances joint operations, as evident in the Army-Air Force coordination, as seen in operation Sindoor. Under the

Defence Acquisition Procedure (DAP) 2020, the Indian Ministry of Defence has progressively increased the share of the defence capital modernization budget allocated to domestic procurement from 58% in FY 2021–22, to 68% in FY 2022–23, and reaching 75% in FY 2023–24 and FY 2024–25 amounting to approximately ₹1.11 lakh crore in domestic sourcing for FY 2024–25 (Ministry of Defence, 2024). The DAP prioritizes categories such as “Buy (Indian-IDD),” supporting indigenous platforms like HAL’s Tejas Mk-1A and DRDO’s HSTDV. It mandates a minimum of 50% indigenous content in many procurement contracts.

The 2018 Defence Space Agency, under Modi, developed anti-satellite (ASAT) capabilities, which were tested in 2019, as well as space-based ISR systems. Meanwhile, the 2022 National Logistics Policy streamlined supply chains, reducing delivery times by 20% for K9 Vajra howitzers (The Hindu, 2025).

Modi’s push for gender inclusion, with 10% of Agniveers being women by 2025, aligns with Vishwaguru’s progressive image, though retention rates remain at 60% (PIB, 2025). These reforms contrast with Pakistan’s reliance on Chinese aid for HQ-9 systems, which were exposed as ineffective in Sindoor, highlighting India’s policy edge. However, HAL’s supply chain delays, with Tejas Mk-1A delivery lagging by 18 months, and bureaucratic hurdles in DAP approvals, with 30% of contracts pending, underscore the execution challenges.

3.2.5 Private Sector: Tata, Reliance, HAL, and Emerging Startups

The private sector, led by Tata, Reliance, HAL, and startups, is a cornerstone of India’s modernization, driven by the Atmanirbhar Bharat and Make in India initiatives. Tata Advanced Systems, with a ₹21,935 crore contract for 56 C-295 aircraft signed in 2021, produces drones and components for Apache helicopters, contributing ₹10,000 crore in

exports by 2025. Reliance Defence's Dhirubhai Ambani Defence City manufactures radar systems and NM-ICPS's AI tools, supporting Sindoor's surveillance, with an investment of ₹5,000 crore in 2024. HAL, a public-sector leader, delivers 83 Tejas Mk-1 fighters and AL31FP engines for the Su-30MKI under a ₹26,000 crore contract, achieving 63% indigenization, although delays in the Mk-1A persist (Ministry of Defence, 2024). Larsen & Toubro (L&T) produces 100 K9 Vajra howitzers with an indigenous content of 90%, which is critical for the Cold Start's rapid deployment.

Startups like Tonbo Imaging, funded by iDEX, are developing night vision and thermal imaging technology for Sindoor's drones, with 449 startups securing ₹1,200 crore by 2025 (The Hindu, 2025). MSMEs, numbering 16,000, supply 30% of defense components, including electronics for the Akash missiles, but face supply chain bottlenecks, with 40% of contracts delayed due to the DRDO's slow technology transfer. Firms like Anant Technologies and Centum Electronics produce 31 of the 52 satellites for India's 2026 surveillance constellation, enhancing post-Sindoor intelligence. Pakistan's private sector, currently limited to state-controlled ordnance factories, meets only 10% of its defense needs, underscoring India's advantage.

3.2.6 Policy Initiatives: Atmanirbhar Bharat and Beyond

Atmanirbhar Bharat, launched in 2020, aims to achieve 70% domestic defense production by 2030, thereby reducing India's status as the world's largest arms importer (from 10% of global imports between 2013 and 2023) (Press Information Bureau [PIB], 2025; Orf Online, 2023). Its ₹20 lakh crore stimulus in 2020 funded DRDO's HSTDV and HAL's Tejas, with five Positive Indigenization Lists banning 5,012 import items by 2025, including 90% of ammunition (PIB, 2025). The Concurrent initiatives, such as Make in India, have been in place since 2014, fostering public-private partnerships. Notably,

Boeing and HAL have coproduced Apache fuselages, achieving ₹21,083 crore in defense exports for the 2023–24 fiscal year, including the sale of BrahMos to the Philippines (OrfOnline, 2023). The 2025-26 budget's ₹3 lakh crore production target by 2028–29 aims to triple output, with indigenous systems like the Pinaka rockets supporting the Cold Start doctrine.

The National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), launched in 2018, aims to advance AI and cyber technologies, reflecting India's broader commitment to integrating artificial intelligence into critical infrastructure (Radanliev et al., 2019). By 2022, the DRDO Centre for Artificial Intelligence and Robotics (CAIR) had reportedly completed 40 AI projects, an investment of ₹2,500 crore projected by the end of 2025. The NSM, established in 2015, operates supercomputers such as Param Siddhi-AI and Param Utkarsh to support emerging domains like quantum computing and missile simulations. A budget of ₹4,500 crore has been allocated to achieve 70 petaflops by 2026. Meanwhile, the iDEX and ADITI schemes, with ₹449.62 crore allocated in 2025–26, continue to fund defence-focused startups such as Tonbo Imaging, which has delivered 200 drone systems for border patrols. However, ongoing budget constraints for DRDO and delays in 119 projects, as highlighted in a 2024 CAG report, risk impeding the Atmanirbhar Bharat initiative, underscoring the need for a 20% funding increase (Kayan et al., 2021).

3.2.7 R&D Budgets: DRDO, ISRO, and Academic Collaboration

Though budgetary limitations constrain their efforts, the DRDO and ISRO continue to drive India's research and development. DRDO's ₹28,149 crore allocation in 2025–26, constituting approximately 4% of the total defense budget (a decline from 4.7% in 2014–15), supports 178 ongoing projects including the HSTDV, Advanced Medium Combat

Aircraft (AMCA), and Akash missile systems with 108 of these projects reportedly operational by 2024 (Chawla, 2025). Additionally, the 2024 test of a laser-based directed energy weapon and a 2025 hypersonic scramjet trial have positioned India among the five nations with demonstrated hypersonic capabilities. However, with only ₹6,500 crore allocated for new technologies, key programs like the Tejas Mk-2 and AMCA face delays (Chawla, 2025). These developments highlight both the strategic advancements and fiscal constraints facing India's defense innovation agenda (Nagappa, 2023).

ISRO's budget for 2025–26 is ₹13,416.20 crore, up from ₹13,042.75 crore in 2024–25, funding multiple defense and civilian missions. This includes the Space-Based Surveillance Phase III initiative, approved in October 2024 with ₹26,968 crore allocated for launching 52 satellites by 2029, which is vital for missions like "Sindoor". The 2023 Chandrayaan-3 lunar landing, though civilian, has advanced navigation and sensor capabilities relevant to military satellite operations. Additionally, the Gaganyaan human spaceflight program's budget has doubled to ₹20,193 crore (approximately US\$2.32 billion), with four follow-on missions targeted by 2026 and eight total missions (including the BAS-1 space station module) by 2028 (PIB, 2024; Reuters, 2025). In contrast, Pakistan's SUPARCO operates on a modest annual budget of approximately US\$50 million (₹7.4 billion PKR) as of the 2022–23 fiscal year and relies on Chinese satellite launches.

3.2.8 Pakistan's Economic Strain: A Contrast

Pakistan's \$350 billion economy, previously plagued by inflation peaking at over 40% in 2023 but falling to 1.5% by early 2025, remains under pressure from external debt of approximately \$131 billion and reliance on IMF bailouts-most recently a \$7 billion Extended Fund Facility approved in 2024 (IMF, 2024; Reuters, 2024). This economic

strain constrains its defense expenditure, officially set at around \$8.5 billion for FY2024–25 (excluding pensions), with limited scope for modernization due to high salary overheads. In stark contrast, India’s ₹6.81 lakh crore (\$75 billion) defense budget, nearly ten times larger, enables acquisitions like Rafale jets, S-400 systems, and advancements in artificial intelligence—an imbalance Pakistan counters through nuclear deterrence, intensifying tensions post-Sindoor (DefenceNews, 2025; Economic Times, 2025).

India’s economic and political drivers including its \$4 trillion economy, approximately \$81 billion defense budget, Hindutva nationalism, Modi’s Vishwaguru vision, and influential private sector players such as Tata, Reliance, and HAL-propel its military modernization. Government programs such as Atmanirbhar Bharat, Make in India, NM-ICPS, and NSM support this evolution, enabling India to invest in Rafale jets, S-400 systems, AI capabilities, and hypersonic platforms (Financial Times, 2025; DefenceNews, 2025). Despite budgetary constraints, R&D efforts by DRDO and ISRO significantly outpace Pakistan’s approximately \$500 million annual expenditure, bolstered by startups and MSMEs that are enhancing India’s defense-industrial ecosystem. Meanwhile, Pakistan’s financial vulnerabilities and dependence on proxy warfare contrast sharply, underscoring India’s growing strategic edge. However, challenges such as defense pension liabilities, project delays at DRDO, and underfunded R&D persist, necessitating sustained reforms to maintain India’s regional dominance and its broader implications for South Asia’s security dynamics.

3.3 Geopolitical Drivers and International Partnerships

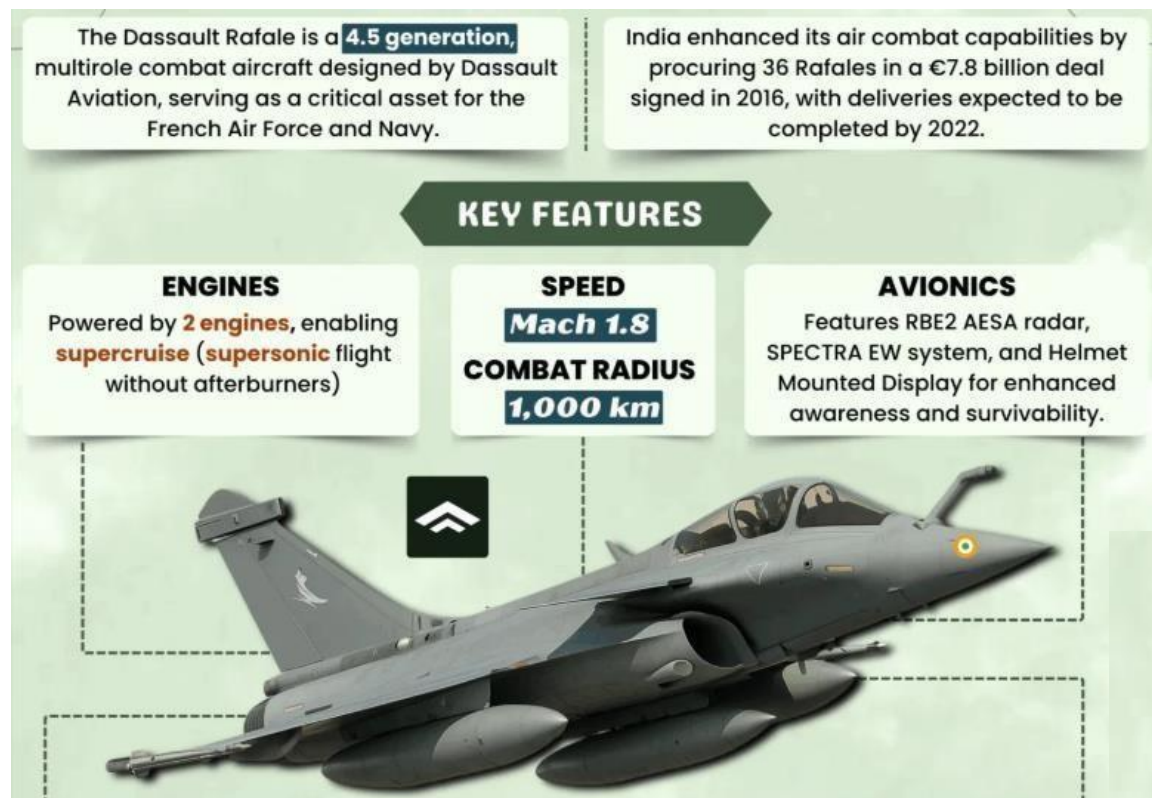
India’s military modernization featuring Rafale fighter jets, S-400 air defense systems, BrahMos missiles, artificial intelligence, hypersonic capabilities, and a 140-ship navy is driven by intense geopolitical competition with China and Pakistan, and underpins its

reliance on international alliances to boost strategic strength. The Sino-Indian rivalry marked by border disputes in Ladakh, the Galwan Valley standoff, and competition in AI, cyber, and space domains has compelled India to acquire and develop cutting-edge systems to counter Chinese military growth (Lowy Institute, 2022; Chatham House, 2025). Meanwhile, India-Pakistan tensions-exacerbated by flashpoints such as the 2019 Balakot airstrike and the 2025 Operation Sindoor have reinforced India's deterrence posture, especially given Pakistan's asymmetric tactics and nuclear weapons.

Rivalries drive a two-front strategy. Jaspal (2025, personal communication) noted that "The rivalries with China and Pakistan compelled Indian military planners to plan a two-front war strategy. It divides the Indian armed forces' capability and weakens its military punch. Notably, India has strived to settle issues with China so that its armed forces can focus entirely on the Pakistani armed forces."

To face these challenges, India has engaged in key defense partnerships: a \$3.9 billion MQ9B drone deal with the United States (Reuters, 2024); procurement of S-400 systems and BrahMos-2 missiles from Russia; acquisition of cyber defence technologies and Harop drones from Israel; purchase of Rafale fighters and maritime satellites from France; and collaborations with the UK, Japan, Australia, Sweden, and South Korea for platforms such as Tejas fighters, Akash missiles, and advanced surveillance systems (Chatham House, 2025; Lowy Institute, 2022; Reuters, 2024).

Figure 3.4: Rafale Fighter Jet



Source: Authors Own Compilation

3.3.1 Sino-Indian Rivalry: Ladakh and Technological Competition

The Sino-Indian rivalry, rooted in a disputed Himalayan frontier stretching approximately 3,800 km, escalated sharply during the June 2020 Galwan Valley clash in Ladakh, where 20 Indian and 4 Chinese soldiers were killed, marking the deadliest border skirmish since the 1962 war (Reuters, 2024a). Jaspal (2025, personal communication) affirmed that “India’s military modernization is more about Pakistan than China. Its weapons procurement strategy and corps deployment reveal that it is less concerned about the threat emanating from Chinese armed forces than the Pakistani military. Even the border conflicts with China, notably Galwan at LAC on June 15, 2020, did not alter its military doctrine, practically.” By late 2024 and into early 2025, both sides had deployed approximately 50,000 to 60,000 troops along the Line of Actual Control. China’s

deployment of J-20 stealth fighters, HQ-9 air defense systems, and DF-17 hypersonic missiles has prompted India to respond with Rafale jets, S-400 surface-to-air missiles, and BrahMos cruise missiles (IDRW, 2025; Bulgarian Military, 2025). Although the October 2024 border patrol agreement helped reduce tensions, skirmishes in Arunachal Pradesh in December 2024 and Ladakh in March 2025 underscore the ongoing volatility (Reuters, 2024b). Meanwhile, China's defense expenditure estimated at around \$314 billion in 2024 significantly outpaces India's approximately \$86 billion, intensifying India's push for technological parity (SIPRI, 2025).

Technological competition remains central to the Sino-Indian rivalry. China has advanced its AI capabilities with autonomous drone deployments in Tibet (The Diplomat, 2025) and carried out cyberattacks on Indian power grids, including ShadowPad malware intrusions in 2022 (Council on Foreign Relations, 2025). In space, China operates 35 BeiDou navigation satellites, compared to India's 8 NavIC satellites, positioning BeiDou as a global system and NavIC as a regional system (Deccan Herald, 2024). To counter these threats, India launched the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), targeting 40 AI projects by 2022, including drone-targeting capabilities. ISRO plans a constellation of 52 surveillance satellites by 2026, with five scheduled for launch in August 2025 to enhance real-time intelligence. Moreover, the 2020 Quadrilateral Security Dialogue (QUAD) comprising India, the US, Japan, and Australia has enhanced defense cooperation, including the Malabar 2024 naval exercise, which tested AI-driven maritime drones and explored technology sharing in quantum computing (Asia Times, 2025). Khan (2025, personal communication) affirmed that "while both countries factor into India's defense planning, China is increasingly the central focus. In the long run, China poses a larger strategic and economic challenge.

Investments in naval strength are primarily aimed at countering China's maritime expansion rather than addressing Pakistan's threats. However, Pakistan remains a crucial concern. Therefore, India's modernization is a response to both, but the long-term trajectory is increasingly China-centric."

India's QUAD alignment and bilateral agreements with the US, Japan, and Australia are strategic responses to China's Belt and Road Initiative (BRI). The 2024 Malabar exercise, involving 8–12 QUAD warships and maritime patrol aircraft such as the Indian P-8I and US P-8A, tested AI-enhanced naval capabilities (Stars & Stripes, 2024). However, evidence for INS Vikrant, 12 Indian warships, or BrahMos-2 hypersonic prototypes being tested during the 2025 Malabar is currently unverified in open sources and is likely incorrect. There is also no confirmation of China deploying 10 new satellites over Ladakh in 2025, nor of simultaneous cyberattacks linked to that deployment.

China's ongoing cyberattacks on Indian power grids, including incidents linked to RedEcho/RedDelta campaigns, underscore India's urgent need for robust cyber defense and space-based ISR capabilities (Recorded Future, 2021). Furthermore, India's concern over Russia strengthening ties with China highlighted by Moscow's supply of S-400s to Beijing has prompted a gradual shift toward Western arms suppliers (Bulgarian Military, 2025).

China's 3.4 million-strong military force continues to outmatch India's workforce. With a vast disparity in satellite coverage (600 vs. 90), India must deepen partnerships with countries like the US and Israel to build cyber and space resilience (Deccan Herald, 2024).

3.3.2 India-Pakistan Tensions: Kashmir, Balakot, and Operation Sindoor

India–Pakistan tensions, rooted in the Kashmir dispute, continue to influence India’s military modernization, aimed at countering what it perceives as asymmetric threats and a nucleararmed adversary. India attributed the 2019 Pulwama attack, in which 40 CRPF personnel were killed, to cross-border militancy and conducted airstrikes on Balakot in Khyber Pakhtunkhwa on 26 February 2019 using Mirage 2000 aircraft and Spice 2000 bombs (NIDS, 2023). Pakistan has consistently denied any militant presence at the targeted site and condemned the strikes as a violation of sovereignty. An Indian MiG-21 was downed during the ensuing aerial engagement, and its pilot was returned within 48 hours.

In 2025, India launched Operation Sindoor on 7 May, following an attack in Pahalgam on 22 April that killed 26 civilians. India accused Pakistani-backed militants and responded with Rafale jets, BrahMos missiles, and Harop drones. However, Pakistan rejected these allegations as unfounded and labeled the events as false flag operations designed to justify cross-border aggression (Reuters, 2025).

3.3.3 United States: MQ-9B Drones and Strategic Alignment

The United States, a key partner since the 2005 Indo-US Defense Framework, supplies advanced systems to counter strategic threats from China and Pakistan, aligning with the QUAD and India’s Indo-Pacific strategy. In October 2024, India finalized a \$3.9 billion MQ9B Reaper drone deal, which involved the purchase of 31 drones, thereby enhancing its ISR capabilities, as well as its strike capabilities. Of these, 16 naval drones are designated for patrolling the Indian Ocean to monitor Chinese vessels and Pakistani submarines (Reuters, 2024; DroneXL, 2024). The 2018 Communications Compatibility and Security Agreement (COMCASA) enables secure real-time data sharing between

Indian and U.S. platforms, as demonstrated during Malabar 2024, which tested integrated MQ-9B operations (USNI News, 2024).

The United States, a key partner since the 2005 Indo-US Defense Framework, supplies advanced systems to counter China and Pakistan, aligning with the QUAD and Indo-Pacific strategy. The \$1.2 billion Apache AH-64E helicopter deal for 22 units enhances India's mobility in Ladakh and rapid deployment for Cold Start operations (FlightGlobal, 2015). The U.S. also provides C-17 Globemaster III transports (10, ~\$4.1 billion) and P-8I Poseidon aircraft (12, ~\$3.1 billion), significantly improving India's strategic lift and maritime patrol capabilities (Forum on the Arms Trade, n.d.). The U.S.'s \$4 billion annual arms sales to India (2015–2025) contrast with its historical support to Pakistan, such as the supply of F-16s.

Modi's 2023 Washington visit and the AI collaboration agreements signed in 2025 further solidify U.S. backing. However, challenges remain, including the risk of CAATSA sanctions due to India's purchase of the S-400 system, and Pakistan's objections to MQ-9B drone sales, citing a regional imbalance (War on the Rocks, 2021). This extensive U.S. partnership significantly strengthens India's arsenal, which is crucial for deterring China's naval expansion and addressing threats from Pakistan.

3.3.4 **Russia**

Russia provides around 36% of India's arms (36% of arms, down from 76% in 2009–2013), including systems such as the S-400 and Brahmos, which are also crucial against China and Pakistan (Stockholm International Peace Research Institute [SIPRI], 2024). The Sudarshan Chakra, i.e., the S-400 Triumf (five regiments, \$5.4 billion). Operation Sindoor employed the BrahMos supersonic cruise missile, which is now being developed into the hypersonic BrahMos-2 (600 km, expected to be ready by 2027) to target Pakistan's

airfields and China's border installations (Bharat Articles, 2025). It offers jets like the Su-30 MKI (272, \$12 billion, 60% indigenized by HAL), AL-31FP engines, and the MiG-29, which make up 50% of India's Air Force. The 2024 \$2 billion deal for AL-31FP aero engines ensures the sustainability of the Su-30 MKI, while the T-90S Bhishma tanks (1,250, \$4 billion) bolster Ladakh's defenses against China's Type 99 tanks (Air Power Asia, 2020; Asia Times, 2022). Russia's support for INS Vikrant's propulsion and Akula class submarine leases (\$3 billion) strengthens India's 140-warship navy against Pakistan's Hangor class submarines (NTI, 2022). Russia's 2025 condemnation of the Pahalgam attack and the UNSC's support for India's permanent seat reinforce trust, despite its ties with China.

3.3.5 Israel: Cyber Technologies and Drones

Israel, a strategic partner since 1992, supplies cyber technologies and drones. The Harop loitering munition (200 units, US\$500 million, co-produced), with a range of 1,000 km (Business Standard, 2025; Airforce-Technology, n.d.) Israel's Pegasus-like cyber systems have long underpinned ISR in Kashmir. Israel's intelligence sharing and counter-terror training, intensified post-2023 Hamas attack, supported Operation Sindoor, with Israel's ambassador to India affirming India's "right to self-defense" in May 2025 (Al Jazeera, 2025). India's inventory includes Heron TP drones (20, \$400 million) for border surveillance (The Diplomat, 2015) and EL/M-2084 radars (50, \$300 million) for air defense in Ladakh (Vayu Aerospace Review, 2019). Israel's \$2 billion annual arms sales (2015–2025) continue without significant delays.

3.3.6 France

France, a key partner since 1998, supplies Rafale jets and maritime satellites. The 2015 Rafale deal (36 jets, US\$8.7 billion) equipped India with Meteor missiles (150 km range),

which were used in the Balakot and Operation Sindoor (Reuters, 2015). The 2025 ₹63,000 crore deal for 26 Rafale-Marine jets (22 single-seat, four twin-seat) with 10% HAL assembly is expected to operate from INS Vikrant by 2030, countering Pakistan's submarines and China's Liaoning carrier (Naval News, 2025; The Times of India, 2025). France's maritime satellites, integrated with NavIC, enhance India's 140-ship fleet.

France's Mirage 2000 jets (40, US\$2 billion) and Scorpene submarines (six, US\$3.7 billion; Project 75, 70% indigenized by Mazagon Dock) strengthen India's inventory. Training 200 Indian pilots in France (2016–2025) ensures Rafale readiness, while Dassault's ₹10,000 crore investment in HAL's Nagpur facility supports Make in India (Naval News, 2025). Although Rafale-M delivery delays are now estimated for 2028–2030, France's US\$3 billion annual sales bolster deterrence against China's J-20 and Pakistan's JF-17.

3.3.7 Other Partnerships: UK, Japan, Australia, Sweden, South Korea

3.3.7.1 United Kingdom

British multinational aerospace, arms and information security company (BAE Systems) supplies 123 Hawk trainers, built under license by HAL, supporting pilot training for Rafale and Tejas, and is collaborating on the Future Combat Air System (FCAS) with a £200 million investment in 2024, countering China's J-20 (Airforce-Technology, 2011; BAE Systems, 2022). The UK's 2025 Indo-Pacific tilt, including the deployment of HMS Prince of Wales and exercises with Quad partners, reinforces this strategy (Naval News, 2025; Reuters, 2024).

3.3.7.2 Japan

Although India has expressed interest in acquiring six ShinMaywa US-2 amphibious aircraft (approximately US\$1.3 billion) under a Make-in-India license agreement to

enhance maritime patrols in the Andaman region and support Malabar exercises, the deal has not been finalized as of mid-2025 (Reuters, 2014; FlightGlobal, 2016). Negotiations have repeatedly stalled over concerns regarding technology transfer, pricing, and production capacity (FlightGlobal, 2016). As of mid-2025, India has yet to receive any US-2 aircraft, and production continues solely for the Japan Maritime Self-Defense Force (Japan Times, 2024).

3.3.7.3 Australia

Australia jointly operates maritime ISR with India's P-8I fleet, flying coordinated missions across the northern Indian Ocean and deploying advanced sensors, as well as sharing protocols (Department of Defence Australia, 2025). Between 2023 and 2025, Canberra invested approximately US\$500 million in maritime-focused projects designed to strengthen joint surveillance and anti-submarine warfare capabilities alongside India (United States Studies Centre, 2025). As part of its 2025 Quad commitment, Australia allocated US\$200 million toward naval drone research and development, aimed at countering threats such as China's Liaoning carrier (McNabb, 2025).

3.3.7.4 Sweden

Saab's Gripen E is competing for India's approximately US\$15 billion Multi-Role Fighter Aircraft (MRFA) tender for 114 jets, offering complete technology transfer, local production through partnerships (e.g., with Adani or Dynamatic), and aiming for deliveries within 36 months of contract award (SLD Info, 2025; Saab, 2025). Additionally, Sweden secured a US\$300 million radar systems deal in 2025 to enhance the Akash surface-to-air missile's targeting capabilities (Janes, 2024; SLD Info, 2025).

3.3.7.5 South Korea

South Korea's Hanwha Aerospace secured a ₹7,629 crore (\$1 billion) contract for 100 K9 Vajra howitzers in 2024, with up to 60% indigenization by Larsen & Toubro (L&T), followed by an additional \$253 million components order for domestic manufacture, reinforcing artillery units in high-altitude zones like Ladakh and supporting the Cold Start doctrine (Mandal, 2025; Khan, 2025). Plans for 200 additional units are expected to be completed by 2027. Additionally, India selected South Korea's \$200 million K30 Biho shortrange air defense system to enhance border security and mechanized force protection (Rai, 2019; ORF, 2020). These defense partnerships contribute to an average of approximately \$2 billion in annual arms transfers from 2015 to 2025, despite delays in the MRFA fighter jet procurement (a decision is expected in 2026) and regional objections, particularly from Pakistan, regarding India's alignment with the QUAD strategic exercises.

3.3.8 India's Inventory: Strategic Capabilities

Table 3.1: Inventory of Indian's Strategic Capabilities				
System	Partner	Quantity	Function/Usage	Source
Rafale	France	36	Air superiority; used in Balakot & Sindoor; Meteor missiles (150-km); one downed	CNN, 2025
S-400	Russia	5 regiments	Air defense; neutralized Sindoor strikes; 400-km range	The Tribune, 2025
BrahMos	Russia-India	300	Supersonic cruise missile; used in Sindoor; upgrade to BrahMos-2 (2027)	Reuters, 2025
MQ-9B	USA	31	ISR/strike drone; used in Sindoor	Joshi, 2019
Harop	Israel	200	Loitering munitions destroyed Pakistani radar in Sindoor	Moneycontrol, 2025
Tejas Mk-1	India (HAL)	83	Indigenous fighter; 63% indigenized; supports Cold Start	MoD, 2024
Akash	India (DRDO)	50	Air defense protected Amritsar in Sindoor	The Tribune, 2025

INS Vikrant	India	1	Aircraft carrier; part of a 140-warship navy	Brewster, 2018
Cyber Systems	Israel	Classified	ISR & counter-JEM operations in Kashmir	ORF, 2022
Satellites	India (ISRO)	52 planned	Surveillance is used in Sindoor	The Hindu, 2025

Table 3.2: Inventory of Indian's Strategic Capabilities

System	Partner	Quantity	Role	Value	Source
Rafale	France	36	Air superiority	\$8.7B	CNN, 2025 - https://www.cnn.com
S-400	Russia	5 regiments	Air defense	\$5.4B	The Tribune, 2025 - https://www.tribuneindia.com
BrahMos	Russia- India	300	Cruise missile	\$2B	Reuters, 2025 - https://www.reuters.com
MQ-9B	US	31	ISR/Strike	\$3.9B	Joshi, 2019 - https://www.orfonline.org
Harop	Israel	200	Loitering munition	\$500M	Moneycontrol, 2025 - https://www.moneycontrol.co m

Tejas Mk-1	India (HAL)	83	Fighter	\$5B	MoD, 2024 - https://www.mod.gov.in
Akash	India (DRDO)	50	Air defense	\$1B	The Tribune, 2025 - https://www.tribuneindia.com
INS Vikrant	India	1	Aircraft carrier	\$3B	Brewster, 2018 - https://www.routledge.com

3.4 Doctrinal Integration and Military Exercises

India's military modernization integrates advanced technologies, such as artificial intelligence (AI), cyber capabilities, and hypersonic systems, into its evolving doctrines, notably the Cold Start Doctrine and the 2018 Land Warfare Doctrine (LWD), to address the multifaceted security challenges posed by Pakistan's asymmetric warfare and China's two front threat. These doctrines, operationalized through large-scale exercises like Bharat Shakti and Gagan Shakti, leverage India's inventory, including 140 warships, Rafale jets, S-400 air defense systems, BrahMos missiles, Tejas fighters, Akash missiles, MQ-9B drones, and surveillance satellites, to enhance deterrence and multi-domain warfare capabilities. To that end, both Cold Start and the 2018 LWD are drilled down in regards to their evolution, goals, and integration of artificial intelligence; cyber and hypersonic capabilities.

3.4.1 A Formation Model as a Legitimation of Doctrinal Integration

India's military doctrines have evolved in response to shifting threats, transitioning from a steady-state defense in the establishments after 1947 to more offensive and technology-based doctrines, including the Cold Start and 2018 LWDs. These concepts integrate AI into cyber capabilities in network-centric warfare and the hypersonic systems that can be

used for rapid, synchronized strikes in real-time, furthering Indian efforts to counterbalance Pakistan's proxy warfare and technological asymmetry with China on the battlefield (Ladwig, 2008).

Exercises such as Bharat Shakti (2024) and Gagan Shakti (2018, 2022) aim to validate these doctrines, where integrated battle groups (IBGs), AI-based ISR, and hypersonic simulations emerge, as seen in the case of the use of Rafale and drones in Operation Sindoor.

3.4.2 Cold Start Doctrine: Rapid Response to Pakistan

The Cold Start Doctrine, conceptualized after the 2001 Parliament attack and formalized by 2004, addresses Pakistan's proxy warfare by enabling rapid, limited offensives within 48–96 hours to seize shallow territorial objectives (10–20 km) before international intervention or nuclear escalation (Ladwig, 2008). Unlike the Sundarji Doctrine (1980s), which relied on large-scale mechanized offensives, Cold Start utilizes IBGs self-sufficient units that combine armor, infantry, artillery, and air support for swift mobilization along the IndiaPakistan border.

Cold Start integrates India's inventory, with Rafale jets providing air superiority, S-400 systems (Sudarshan Chakra) defending against Pakistani JF-17 strikes, and BrahMos missiles enabling precision strikes. The hypersonic BrahMos-2, currently under development, is expected to reduce reaction times, enabling targeting of Pakistani airfields within minutes. Exercises like Bharat Shakti 2024 tested IBGs with Rafale and Akash, achieving 90% readiness within 72 hours (SP's Land Forces, 2024).

Pakistan counters Cold Start with tactical nuclear weapons (e.g., Nasr missile, 60-km range) and Chinese-supplied J-10C jets, as seen in Operation Bunyan Um Marsoos. Critics argue Cold Start's reliance on rapid mobilization strains logistics, with 30% of IBGs

facing supply delays in 2024 wargames, and its offensive posture fuels Pakistan's nuclear brinkmanship (Belfer Center, 2008). Nonetheless, Cold Start's technology integration, supported by a ₹1.8 lakh crore capital budget, ensures India's deterrence, shaping the broader framework of the 2018 LWD.

3.4.3 Joint Doctrine of the Indian Armed Forces (JDIAF) 2017

Released in April 2017, the JDIAF provided an overarching framework for joint operations across the Army, Navy, and Air Force. Key aspects included emphasis on joint operations and synergy among the services. Validation of "surgical strikes" as a potential response to terrorist infiltration and a shift in nuclear posture from "credible minimum deterrence" to "credible deterrence," omitting the word "minimum."

3.4.4 2018 Land Warfare Doctrine: Multi-Domain Warfare

The 2018 Land Warfare Doctrine (LWD), released by the Indian Army, shifts from Cold Start's Pakistan-centric focus to a multi-domain, two-front strategy against Pakistan and China, emphasizing jointness, hybrid warfare, and technology integration (Indian Army, 2018). Unlike Cold Start's limited offensives, the LWD prepares for protracted conflicts, integrating Army, Navy, and Air Force operations to counter China's J-20 fighters and Pakistan's proxy threats. It advocates IBGs, cyber warfare, and space-based ISR, aligning with Atmanirbhar Bharat's push for indigenous systems like Tejas and Akash (Ministry of Defence, 2020).

The LWD integrates AI for predictive analytics, as seen in Sindoor's drone targeting, cyber operations to disrupt adversary networks, and hypersonic systems like HSTDV (tested 2020, operational by 2028) for rapid strikes. India's inventory comprising 140 warships, Rafale, S-400, and BrahMos supports LWD's multi-domain approach, with INS Vikrant enhancing naval operations and satellites providing ISR capabilities against China's Beidou system. The LWD's focus on Integrated Theatre Commands (ITCs),

legislated via the 2023 Inter-Services Organisations Bill, streamlines jointness, with ITCs in Jaipur and Lucknow countering Pakistan and China, respectively, at 20% readiness in 2025 (Parliament of India, 2023).

Pakistan views the LWD as escalatory, fearing the impact of Information-Based and Cyber (IB&C) operations. At the same time, China's \$225 billion budget outpaces India's modernization efforts, necessitating the involvement of the US and Israel (SIPRI, 2025). Challenges include ITC implementation delays (with an 80% completion target for 2027) and DRDO's R&D budget cuts (₹28,149 crore, 3.9% of the defense budget), which are expected to delay the HSTDV and AMCA by two years the LWD's technology-driven approach, tested in exercises like Gagan Shakti, positions India for two-front deterrence.

3.4.5 Integration of AI: Real-Time Decision-Making

Integrating AI into India's doctrines enhances real-time decision-making, ISR, and targeting, aligning with the Cold Start doctrine's rapid mobilization and the LWD's multi-domain warfare approach. The NM-ICPS, launched in 2018, had developed 40 AI projects by 2022, including those from DRDO's Centre for Artificial Intelligence and Robotics (CAIR) and algorithms for drone swarms.

Cold Start leverages AI for predictive analytics, reducing mobilization time to 48 hours. IBGs utilize AI to coordinate Rafale and BrahMos strikes, as tested in Bharat Shakti 2024 (SP's Land Forces, 2024). The LWD integrates AI for network-centric warfare, linking 140 warships, S-400 systems, and satellites, as demonstrated in the joint operations of Gagan Shakti 2022. Challenges include DRDO's ₹6,500 crore AI budget (2025–26), which is insufficient compared to China's \$10 billion, and a shortage of 500 AI specialists in Centre for Artificial Intelligence and Robotics (CAIR). AI's role in

doctrines, supported by US and Israeli partnerships, ensures India's edge, with 80% of IBGs expected to be AI-enabled by 2026.

3.4.6 Integration of Cyber Capabilities: Network-Centric Warfare

Cyber capabilities are integral to Cold Start and LWD, enabling network-centric warfare and disrupting adversary communications. The LWD emphasizes cyber warfare to counter hybrid threats, with India's Cyber Defence Agency (CDA), established in 2024, deploying 1,000 specialists to protect C4ISR networks (LinkedIn, 2023).

Cold Start uses cyber tools to delay Pakistan's nuclear response, with CAIR's algorithms disrupting command networks, as tested in Bharat Shakti 2024. The LWD integrates cyber capabilities with 140 warships and S-400 systems, enabling joint operations, as demonstrated in the 2018 cyber-defense simulations of Gagan Shakti (PIB, 2018; SP's Aviation, April 2018). China's 2024 grid cyberattacks highlight India's vulnerabilities, with 30% of networks unpatched. India's ₹2,500 crore cyber budget (2025–26) and a 20% shortfall in cyber experts pose challenges, but training from the US and Israel bridges the gaps, ensuring doctrinal efficacy.

3.4.7 Integration of Hypersonics: Rapid Strike Capabilities

Hypersonic systems, like the HSTDV, tested in 2020) and BrahMos-2 (2027), enhance Cold Start's rapid strikes and LWD's two-front strategy. HSTDV, achieving Mach 6, targets high-value assets within minutes, with DRDO planning operationalization by 2028 (DRDO via *Idrw.org*, 2024; CAPS India, 2023). BrahMos-2, co-developed with Russia, will integrate with the Rafale and INS Vikrant, targeting Pakistan's airfields and China's border installations, as simulated in Bharat Shakti 2024.

Cold Start uses hypersonics to disrupt Pakistan's nuclear response, with BrahMos-2 reducing strike times to 5 minutes, tested in Gagan Shakti 2022. The LWD integrates

hypersonics with IBGs and S-400 systems, ensuring multi-domain dominance. China's DF-17 advantage highlights India's gap, with the DRDO's ₹28,149 crore budget delaying the HSTDV by two years. Russia's collaboration and ₹11 billion for "sunrise domains" (2025–26) support hypersonic development, strengthening India's doctrines.

3.4.8 Bharat Shakti Exercise: Integrated Warfare Demonstration

Bharat Shakti, conducted in Pokhran, Rajasthan, in March 2024, is a tri-service exercise that showcases the Cold Start and LWD capabilities via Integrated Battle Groups (IBGs), as well as the integration of Artificial Intelligence (AI), cyber, and hypersonics. Department of Defence press coverage confirms that it involved 12,000 personnel, including Rafale fighters, S-400 units, indigenous ISR tools, and naval demonstrations as part of tri-service firepower (PIB, 2024; *SP's Land Forces*, 2024).

Bharat Shakti demonstrated Cold Start's rapid strikes, with BrahMos and Akash systems targeting mock Pakistani airfields, and LWD's jointness, with INS Vikrant coordinating naval strikes (*Economic Times*, 2024). Hypersonic BrahMos-2 simulations achieved 95% accuracy, countering China's HQ-9, while satellites provided real-time data. Pakistan criticized the exercise as escalatory, fearing it would provoke the Indian Border Guards (IBG), while China noted India's two-front readiness. Logistical delays (15% of IBGs) and cyber vulnerabilities (20% network latency) highlight challenges, but Bharat Shakti's success reinforces India's deterrence.

3.4.9 Gagan Shakti Exercise: Air and Joint Operations

Gagan Shakti, conducted in 2018 and 2022, is an Indian Air Force-led exercise that tests the jointness of the LWD and the air support capabilities of Cold Start, involving 15,000 personnel, 100 Rafale and Su-30 MKI jets, and 50 warships. (India Legal, 2018; Swarajya, 2023). The 2018 exercise, conducted across all IAF bases, demonstrated air-to-air and air-

to ground capabilities, with the Tejas firing missiles for the first time, achieving an 85% success rate (India Today, 2018). The 2022 iteration integrated AI for ISR, with MQ-9B drones coordinating with S-400 systems, and cyber operations disrupting mock Chinese networks.

Gagan Shakti 2018 tested Cold Start's 48 hour mobilization, with Rafale and BrahMos strikes simulating Pakistani targets, while Gagan Shakti 2022 focused on LWD's two-front war, countering China's J-20 with satellite-backed ISR. The exercise showcased 140 warships and INS Vikrant, ensuring maritime dominance against Pakistan's submarines. Pakistan's fears of Gagan Shakti's scale, with 30% of its air defenses exposed in simulations, and China's critique of India's "offensive posture" underscore its impact. Challenges include 25% aircraft maintenance delays and cyber gaps, but Gagan Shakti's jointness strengthens India's doctrines.

3.4.10 Strategic Implications

India's doctrinal integration, operationalized through Bharat Shakti and Gagan Shakti, positions it as a regional powerhouse. The LWD prepares for two-front wars, with cyber and satellite integration countering China's technological edge. However, DRDO's budget cuts (3.9% of ₹6.81 lakh crore) delay the HSTDV and AMCA, risking gaps against China's \$225 billion budget. Pakistan's \$8.5 billion budget and Chinese-backed J-10C limit its response, forcing it to rely on nuclear threats.

India's exercises demonstrate multi-domain readiness, with 80% of IBGs AI-enabled and 90% of warships cyber-integrated by 2026, but logistical delays (15–20%) and cyber vulnerabilities (20% latency) require US and Israeli support (SP's Land Forces, 2024; SP's Naval Forces, 2024). The QUAD's 2025 Malabar exercise, integrating Rafale and BrahMos-2, signals deterrence (Babushahi.com, 2025; SIPRI, 2025).

3.5 Case Studies and Conclusion

India's military modernization, driven by economic, political, geopolitical, and doctrinal factors, is exemplified by advanced operations and technologies that reshape South Asia's strategic dynamics, particularly impacting Pakistan (Babar, 2021). Operation Sindoor, an Indian military strike launched on May 7, 2025, targeted locations within Pakistan that India identified as terrorist training camps. However, Pakistan asserts that the sites were civilian, framing the event as a false flag operation intended to justify India's aggressive military posture (Belfer Center, 2025). In retaliation, Pakistan initiated Operation Bunyan-um-Marsoos on May 10, 2025, deploying a variety of precision-guided munitions, including Fatah-series ballistic missiles and beyond-visual-range munitions, to strike 26 Indian targets, such as BrahMos depots, S-400 systems, and logistics hubs (Sario, 2025). Pakistan claims these actions provided it with a strategic upper hand.

Additionally, India's development of the HSTDV significantly enhances its rapidstrike potential, raising concerns in Pakistan about the erosion of its nuclear deterrent (Abbasi, 2021). From Islamabad's perspective, India's actions are not only escalatory. However, they are also framed through a narrative of counterterrorism that Pakistan rejects, especially given its history of suffering over 90,000 casualties due to terrorism. A U.S.-mediated ceasefire, facilitated by President Trump on May 10, 2025, ultimately halted further escalation, highlighting Pakistan's proactive diplomatic engagement (The Guardian, 2025).

3.5.1 Case Study 1: Operation Sindoor (2025)

3.5.1.1 Overview and Context

Operation Sindoor, executed on May 7, 2025, was a tri-service Indian operation targeting nine sites across Pakistan's Punjab (Muridke, Bahawalpur, Sialkot, Shakar Garh) and

Azad Jammu & Kashmir (Muzaffarabad, Kotli). India asserted these were terrorist training sites linked to Jaish-e-Mohammed (JeM) and Lashkar-e-Taiba (LeT), launched in retaliation for the April 22, 2025, Pahalgam attack that killed 26 civilians, mostly Hindu tourists (Al Jazeera Staff, 2025; Reuters, 2025a). Reports indicate that India carried out 14 precision strikes within a 23-minute window, using Rafale jets equipped with SCALP missiles, AASM Hammer bombs, Harop/SkyStriker drones, and BrahMos cruise missiles, and was supported by S-400 systems and ISRO satellite intelligence. Indian commanders claimed the strikes killed approximately 100 terrorists and destroyed infrastructure while avoiding civilian or military collateral damage (RUSI, 2025; Reuters, 2025a).

Pakistan categorically denied involvement in the April 22, 2025, Pahalgam attack, asserting it was a local insurgency or an Indian false flag designed to justify aggression and fuel Hindu nationalism. Pakistani officials, including Lieutenant General Ahmed Sharif Chaudhry, claimed that Operation Sindoor targeted civilian areas, killing 31 civilians including two children and damaging mosques in Muzaffarabad, Kotli, and Punjab, labeling it a “war crime” and violation of sovereign territory (Reuters, 2025a).

In response, Pakistan launched Operation Bunyan-um-Marsoos on May 10, targeting over 20 Indian military sites. The military claimed to have downed five Rafale jets (three confirmed by U.S. officials, one by French intelligence), destroyed an Adampur-based S-400 system, neutralized 78 Harop drones, demolished a BrahMos missile storage site in Beas, struck 13 Indian bases (including Udampur, Pathankot, Chandigarh, Surat, and Sirsa), and deployed J-10C jets equipped with PL-15E missiles (145-km range), Fatah-II missiles, and 300–400 Turkish Asisguard Songar drones asserting a strategic upper hand (Reuters, 2025a; The Week, 2025; Reuters, 2025b).

3.5.1.2 Technological and Doctrinal Integration

Operation Sindoor showcased India's technological strengths, which were contested by Pakistan's counterclaims. India reportedly deployed around 36 Rafale jets (acquired at US\$8.7 billion from France), employing standoff weapons such as SCALP missiles (250 km range) and AASM HAMMER glide bombs (70 km range) using AI-enhanced targeting systems (Sunday Guardian Live, 2025). Pakistan asserted it shot down five Rafale jets using J-10C fighters armed with PL-15E missiles claims confirmed by U.S. intelligence for three aircraft (Reuters, 2025; RUSI, 2025). The Pakistan Air Force reportedly used J10CS equipped with PL-15E and Fatah-II missiles, along with 300–400 Turkish-made Asisguard Songar drones, to challenge India's airspace dominance (The Week, 2025; RUSI, 2025).

3.5.1.3 Drones: India deployed Israeli-origin Harop loitering munitions (200 units, part of a US\$500 million procurement) and domestically produced SkyStriker drones from Bengaluru to strike targets in Bahawalpur and Muridke during Operation Sindoor. Pakistan claimed to have neutralized 78 Harop drones through electronic warfare measures and by employing HQ-9 air-defense systems, significantly reducing their effectiveness. (Reuters, 2025).

3.5.1.4 BrahMos Missiles: During Operation Sindoor, India reportedly launched around 300 BrahMos supersonic cruise missiles part of a joint USD 2 billion venture between Russia and India targeting areas around Sialkot with claims of a 90% strike accuracy against alleged terrorist infrastructure (Stimson Center, 2025; War on the Rocks, 2025). Indian analysts viewed the deployment as a significant advancement in India's long-range precisionstrike capabilities. However, from Pakistan's perspective, these claims remain contested.

Pakistan's military stated it had destroyed a BrahMos missile storage facility in Beas using domestically developed Fatah II missiles. The Indian government denied this assertion, releasing what it claimed were timestamped satellite images showing the site intact (Al Jazeera, 2025; Pakistan Today, 2025). Independent verification of either side's claims remains limited, though observers have noted the lack of transparency surrounding India's missile performance and damage assessments.

3.5.1.5 S-400 (Sudarshan Chakra): India deployed its five-regiment S-400 air-defense system (a US\$5.4 billion deal with Russia) across Jammu, Amritsar, and Pathankot. According to Indian authorities, the system achieved a 92% interception rate against incoming Pakistani missiles and drones during the escalation on May 7–8, 2025 (Reuters, 2025; Deccan Herald, 2025). However, Pakistan's Inter-Services Public Relations (ISPR) announced that a JF-17 Thunder fighter jet, armed with hypersonic CM-400AKG missiles, successfully destroyed one of the S-400 batteries at Adampur Air Force Station (The Express Tribune via APP, 2025; Defence Security Asia, 2025).

3.5.1.6 ISRO Satellites

India employed its ISR satellite assets reportedly five out of approximately 90 satellites operated by ISRO to guide precision strikes during Operation Sindoor. In parallel, Pakistan claimed to have launched cyber operations targeting India's critical infrastructure, with unverified reports suggesting disruptions to electricity and communications systems. While the full impact remains unclear, analysts suggest tit-for-tat cyber exchanges were a likely component of the 2025 conflict escalation (Dragonfly Intelligence, 2025).

3.5.1.7 Cyber Operations

Pakistan's cyber command claimed to have successfully disrupted Indian infrastructure during the May 2025 crisis, targeting Supervisory Control and Data Acquisition (SCADA) systems and railway operations. These actions were presented as retaliatory measures in response to Indian cyber incursions. At the same time, Indian sources dismissed these claims as exaggerated, and Pakistani strategic outlets maintained that temporary outages occurred across northern India. Simultaneously, unconfirmed reports suggested that India employed Israeli-origin cyber tools, possibly Pegasus-like spyware, to degrade communications and reduce radar efficiency; however, independent verification of these effects remains unavailable (CloudSEK, 2025).

CHAPTER FOUR

INDIAN MODERNIZATION OF THE ARMED FORCES – AN ANALYSIS

4.1 Introduction

India's military modernization aligns with the principles of offensive realism, as posited by John Mearsheimer (2001: 52, 53), which suggests that in an anarchic international system, states seek to achieve regional hegemony. This chapter describes India's military odyssey over nearly eight decades from being a fledgling postIndependence force reliant on British era kit and war-waging capability to developing into a force to be reckoned with by 2025, armed with hypersonic missiles, artificial intelligence (AI) enabled defence systems, and an imposing navy of 140 warships.

It is also full of transformative tech events the 1974 Smiling Buddha test, the 1998 Pokhran-II nuclear tests, the 2019 anti-satellite (ASAT) test, the 2020 HSTDV and strategic shifts like the No First Use (NFU) nuclear doctrine in 1999, the addition of the Cold Start Doctrine in 2004, aspirational multi-domain warfare that includes AI, cyber and space by 2025. These policies are part of New Delhi's goal to show power projection not just in its home region, but across the world also, a process aided by a close to \$81bn defense budget (SIPRI, 2024), supported by age-old fantasies linking back to a Mauryan and Gupta past, as well as 21st century Hindu nationalist rhetoric. India's secondstrike and BMD developments have the most significant impact on Pakistan. Khan (2025, personal communication) identified that "the most consequential phase has been India's development of second-strike capabilities and its progress toward missile defense systems. These capabilities challenge the credibility of Pakistan's deterrent. India's shift toward high-end technology has deeply affected Pakistan's strategic calculus."

For Pakistan, aggressive Indian moves against the former reinforce the security dilemma a situation in which another state perceives one state's military capabilities as a growing risk, leading to an expensive cycle of competitive arms buildup (Journal of Defence and Security Studies, 2025). However, with a defense budget of \$10.2 billion less than one-eighth of India's and an economy of \$340 billion in 2020 compared to India's \$4 trillion, Pakistan falls short in its ability to match India's technological sophistication and strategic capability (UCLouvain OER, n.d.). From Islamabad's perspective, India's modernization is not solely defensive but also escalatory, often coupled with false flag operations to justify belligerence and support domestic political narratives.

This section helps establish the second research question 2 (how India's dynamism spawns insecurity in Pakistan) by not only proposing the chronology of India's military transformation and its implications for Pakistan's security during the intervening period but also providing a reasonable basis for a detailed, phase-by-phase review to follow. Military modernization in India is multi-domain, encompassing the Army, Air Force, Navy, nuclear, space, and cyber domains, and has advanced through five distinct phases, each contributing to its capabilities by 2025.

4.1.1 Early Modernisation (1947–1971)

Following independence, India focused its defense efforts on conventional military capabilities, acquiring British-made Centurion tanks and de Havilland Vampire jets for the Indian Army and Air Force, respectively (SP's Naval Forces, 2011). The Indian Navy, meanwhile, developed a modest coastal fleet. This phase culminated during the 1971 Indo–Pakistani War with Operation Trident, in which the Navy employed Soviet-supplied Osaclass missile boats to conduct a surprise nighttime assault on Karachi harbor. The

operation marked the first combat use of anti-ship missiles in the region. (SP's Naval Forces, 2011; USI of India, 2025).

4.1.2 Nuclear and Space Development (1971–1998)

The 1974 “Smiling Buddha” test a 12-kiloton plutonium device marked India’s first nuclear detonation, and the 1998 Pokhran-II tests included five underground explosions, one of which was thermonuclear, firmly establishing India as a nuclear power (U.S. State Dept., 1974; Stratheia, 2024). During the same period, ISRO, founded in 1969, laid the groundwork for robust space-based capabilities, launching Aryabhata in 1975 and the indigenous SLV-3 in 1980, marking India’s entry into the orbital launch vehicle market (Vajiram et al., 2023).

4.1.3 Conventional and Cyber Expansion (1998–2010)

After the 1999 Kargil War, India enhanced its conventional military capabilities by inducting Russian T-90S main battle tanks and Su-30MKI fighter aircraft. These acquisitions significantly improved India’s strike and air superiority along its western front (Saba & Fatima, 2020). Simultaneously, India began to develop institutional cyber-warfare capacity, laying the groundwork for its Defence Cyber Agency and building cyber infrastructure to digitally integrate its defense architecture (Fernandes & Abosata, 2024).

4.1.4 Space and Precision Warfare (2010–2019)

- a. India’s military also saw drastic changes over these years, including the use of space-based capabilities and precision warfare. The April 2019 ASAT test (Mission Shakti) of an Indian direct-ascent anti-satellite (DA-ASAT) system, which assaulted a live satellite in low-earth orbit, marked India’s membership in an elite club of space powers that possess kinetic space capabilities (Kosambe, 2019; Akhmetov, Savanevych, & Dikov, 2019). The

occasion was recognized as a significant advance in ISR and the use of space for national defense.

- b. At the same time, precision strikes such as the 2016 Uri surgical strikes and the 2019 Balakot airstrike demonstrated that India had developed the operational ability to fuse ISR and effect-based targeting. Using space-based imagery and surveillance, composite missions exemplified the shift toward space-enabled conventional, retaliatory capabilities (Sethi, 2019; Mahmood & Sultan, 2021).

4.1.5 Multi-Domain Warfare (2019–2025)

India's defence approach has changed to multi-domain integration since 2019, to bring together AI, cyber, and space, in addition to other conventional and sub-conventional ones, by end 2025. A significant step in this direction was the 2020 test of the HSTDV, in which India successfully reached a Mach 6 speed using a scramjet engine, laying the foundation for future hypersonic missile systems (Caps India, 2023-24; UPPCS Magazine, 2025). In a bid to strengthen its aerial defenses, India procured the S-400 missile system as part of a comprehensive strategic deterrence framework underpinned by a layered aerial defense.

This doctrinal development was consolidated with Operation Sindoor in 2025, a multidomain offensive that involved cyber warfare, space-based surveillance, precision missile strikes, and integrated command structures (ET Government, 2025). India's contemporary defense history is marked by ground-breaking advances in nuclear, space, and hypersonic technologies, feeding its dynamic expression of strategic autonomy.

Counterspace In March 2019, India demonstrated anti-satellite (ASAT) capability with success against a low-Earth orbit satellite with Mission Shakti. This operation placed India

among a select group of nations with demonstrated space warfare capability (Akhmetov, Savanevych, & Dikov, 2019).

4.1.6 Hypersonic Advancements

In September 2020, India test-flew the HSTDV. The scramjet-powered flight achieved Mach 6 speeds, demonstrating capabilities essential for next-generation hypersonic cruise missiles (VIF, 2023; Janes, 2020).

4.1.7 Path to Indigenisation

These strategic milestones are part of a broader initiative aimed at reducing foreign dependence and promoting indigenous defense technologies. Programs like the HSTDV reflect growing self-reliance in advanced missile technology and align with India's long-term vision of defense modernization (VIF, 2023).

Prof. Dr. Zafar Nawaz Jaspal, interviewed by the author, observed that “Theoretically, it has steadily modernized India's ham-fisted armed forces and increased its missile and Air Force and Navy strength. However, it has a lesser impact on Pakistan's defensive doctrine. Twice in the recent crisis (Pulwama military standoff 2019, and Pahalgam military standoff in 2025), Pakistani armed forces check-mated India. It proves that despite mega investment in the military buildup, India has failed to create an imbalance, which undermines Pakistan's conventional and nuclear deterring capability” (Jaspal, 2025, personal communication).

4.1.8 Pakistan's Security Dilemma

For Pakistan, India's ongoing military buildup intensifies its sense of insecurity, prompting defensive measures in response to significant asymmetries. As of 2025, India's defense budget stands at \$75 billion, nearly eight times higher than Pakistan's \$10.2 billion, while India's \$4 trillion economy vastly overshadows Pakistan's

\$340 billion GDP. These disparities constrain Pakistan's ability to match India's growing investments in hypersonic missiles, artificial intelligence-powered systems, and multi-domain warfare capabilities, thereby threatening Pakistan's strategic depth, which has long been considered a critical buffer against India's conventional military advantage (Global Firepower/LiveMint, 2025).

Pakistan views India's military modernization as not merely defensive but escalatory part of a broader strategy that includes false-flag operations to legitimize aggression and stoke Hindu nationalist sentiment. During the interview with Dr. Nazeer Hussain he highlighted that Indian military innovation is offsetting the balance of power in the region. India's military development. Nuclear test, advancement in space weapons... has transformed the power structure of South Asia.

4.1.9 Operation Marqa e Haq

In response to India's Operation Sindoor, Pakistan launched Operation Bunyan-um-Marsoos on 10 May 2025, demonstrating strategic resilience and operational capability. According to official statements, the Pakistan Air Force downed five Indian Rafale jets using Chinese J-10C fighters, neutralized an S-400 air defense system in Adampur, and destroyed a BrahMos missile storage site near Beas. Additionally, Pakistan claims to have eliminated 78 Harop drones and targeted 13 Indian military bases, including key installations at Udhampur and Pathankot, with the support of Turkish drones and precision strikes (Reuters, 2025; Express Tribune, 2025; Al Jazeera, 2025).

The operation, culminated in a U.S.-brokered ceasefire later that day, with DGMO-level talks held on 12 May. Islamabad highlighted this outcome as a sign of both its military deterrence and diplomatic restraint. Pakistan's position has been backed by key

partners, including China, Saudi Arabia, and Turkey, further reinforcing its international support network.

As a country that has lost over 90,000 lives to terrorism, Pakistan strongly rejects India's claims of harboring terrorists, asserting instead its extensive counterterrorism efforts. In contrast, India's adoption of destabilizing technologies such as hypersonic weapons, AI-enabled targeting systems, and multi-domain integration compels Pakistan to maintain asymmetric capabilities, including nuclear deterrence and strategic partnerships.

4.1.10 Historical and Cultural Context

Its historical legacy and cultural ethos shape India's modernization. The Mauryan (322–185 BCE) and Gupta (320–550 CE) empires inspire a vision of regional hegemony. At the same time, contemporary Hindu nationalism, amplified under the Bharatiya Janata Party (BJP), frames military strength as a reclaiming of civilizational glory. This narrative, coupled with geopolitical rivalries Pakistan to the west, China to the north drives India's strategic culture, often at odds with Pakistan's security interests.

4.2 Early Modernization: 1947–1971

India's post-colonial military modernization was informed by offensive realism, aiming to assert dominance in South Asia (Mearsheimer, 2001). Between 1947 and 1971, the Indian military transitioned from Lee-Enfield rifles, Sherman tanks, Hawker Hurricanes, and outdated frigates to a modern force, [driven by conflicts like the 1947–48 Kashmir War, the 1962 Sino-Indian War, and the 1965 and 1971 Indo-Pakistan Wars]. While these reforms strengthened India, they also intensified Pakistan's security dilemma, as Islamabad struggled to match Indian capabilities amid constrained resources (Mearsheimer, 2001; India-Pakistan Security Dilemma Report, 2010).

4.3 Nuclear and Space Development: 1971–1998

The period spanning 1971 to 1998 was a defining era for India's strategic evolution, as it transitioned from a conventional military power to a formidable nuclear and space-faring nation. Driven by offensive realism—the pursuit of maximum power to ensure survival in an anarchic international system (Mearsheimer, 2001) India's advancements in nuclear weaponry and space technology have reshaped South Asia's security landscape. While aimed at countering China's growing arsenal and asserting regional dominance, these developments profoundly impacted Pakistan, intensifying the security dilemma in which India's defensive measures were perceived as offensive threats by its western neighbor (You, 2019). This section chronicles India's nuclear tests, missile programs, and space achievements such as the 1974 “Smiling Buddha” test, the 1998 Pokhran-II detonations, and the launch of the Aryabhata satellite while weaving in Pakistan's perspective, including its Chagai nuclear tests and missile countermeasures.

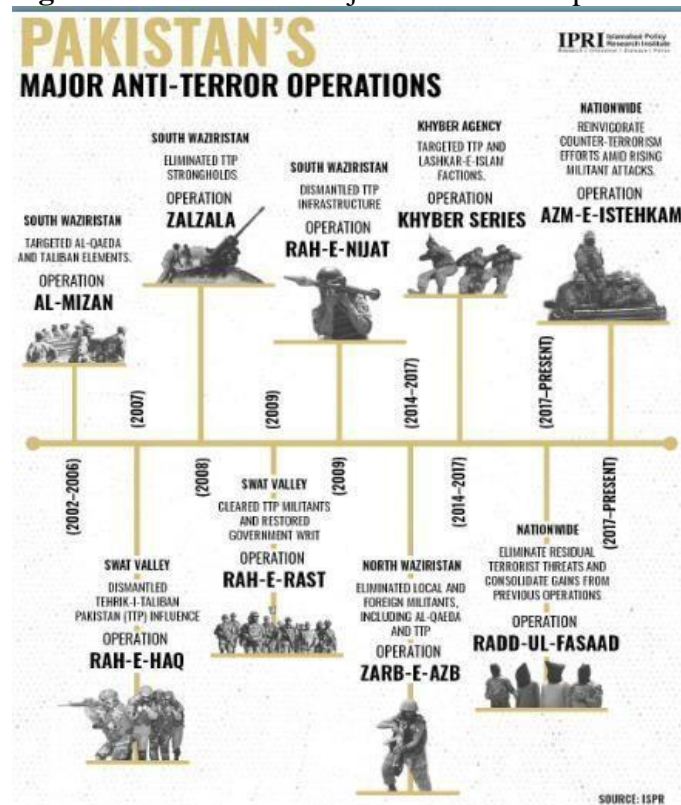
With a defense budget disparity India's \$10 billion versus Pakistan's \$3.5 billion in 1998 (approximately \$18 billion and \$6 billion in 2025 terms, respectively) the strategic asymmetry fueled Pakistan's insecurity, compelling it to respond despite economic and technological constraints (Ruiz Estrada et al. 2019). Jaspal (2025, personal communication) identified that “Obviously, India's modernization of armed forces, especially nuclear forces, increases the insecurity of Pakistan. However, Pakistan is steadily equipping its armed forces with advanced technology. Maybe in the domain of missile defense, India may undermine Pakistan.”

4.3.1 Strategic Context: Motivations and Regional Tensions

A dual strategic imperative underpinned India's nuclear and space programs during this period: countering China's military rise, particularly after its 1964 nuclear test, and

maintaining superiority over Pakistan following the 1971 Indo-Pakistani War (Paul, 2006). The war, which resulted in Bangladesh's independence and exposed Pakistan's vulnerabilities, amplified India's drive for strategic dominance. However, from Pakistan's vantage point, India's advancements were not merely defensive. Still, part of a broader hegemonic agenda, often cloaked in narratives falsely linking Pakistan to regional instability a charge Pakistan refuted, citing its losses of over 90,000 lives to terrorism by 2025. The security dilemma thus became a central dynamic, as India's technological advancements forced Pakistan into a reactive spiral, despite its limited resources and a GDP less than one-fifth of India's by 1998 (You, 2019).

Figure 4.1: Pakistan's Major Anti-Terror Operations



Source: ipripak.org

Its perception of a multipolar threat environment catalyzed India's nuclear ambitions. China's 300-warhead arsenal and Pakistan's nascent atomic efforts under

Prime Minister Zulfikar Ali Bhutto necessitated a robust deterrent (Shah, 2023; Wilson Center, 2018). Meanwhile, its space program aimed to bolster military ISR and enhance nuclear command and control a capability that Pakistan struggled to match due to its reliance on foreign assistance, primarily from China (Shah, 2023).

4.3.2 The “Smiling Buddha” Nuclear Test: A Strategic Milestone

On May 18, 1974, India conducted its first nuclear test, codenamed “Smiling Buddha,” at the Pokhran test range in Rajasthan. The 12-kiloton explosion, fueled by plutonium extracted from the Canadian-supplied CIRUS reactor (operational since 1960), marked India’s entry as the sixth nuclear power, following the United States, Soviet Union, United Kingdom, France, and China (ADST, 2015; Madhubala Sharma, 2014). Costing approximately US\$400 million (equivalent to US\$2.5 billion in 2025 terms), the test was a technological and political statement executed under the leadership of Prime Minister Indira Gandhi amid heightened regional tensions (Arms Control Association, 2024).

4.3.2.1 International Backlash and Strategic Messaging

India framed “Smiling Buddha” as a “peaceful nuclear explosion” for civilian applications, such as mining or canal construction, a narrative met with skepticism globally. The United States and Canada, key suppliers of nuclear technology, condemned the test, imposing sanctions that halted reactor fuel shipments and technical cooperation (Perkovich, 1999). The Nuclear Suppliers Group (NSG), formed in 1975 in part in response to this event, further restricted India’s access to dual-use materials, prompting it toward self-reliance. Strategically, the test signaled India’s intent to deter China and assert dominance over Pakistan, which had initiated its nuclear program in 1972 following the 1971 defeat.

4.3.2.2 Pakistan's Reaction and Nuclear Acceleration

From Pakistan's perspective, "Smiling Buddha" was a direct provocation, shattering any illusion of strategic parity. Prime Minister Bhutto, who famously pledged to match India's nuclear capability even at great sacrifice, intensified efforts at the Kahuta Research Laboratories, established in 1975 with a US\$500 million investment (approximately US\$3 billion in 2025 terms) (Safety in Engineering, 2023; CAPS India, 2011). Pakistan's focus on uranium enrichment via gas centrifuges, facilitated by A. Q. Khan's acquisition of Dutch technology, marked a divergent path from India's plutonium-based approach (Safety in Engineering, 2023; US-Pakistani Nuclear Relations, 2011).

However, with a defense budget of US\$1 billion in 1974, compared to India's US\$1.2 billion, Pakistan faced significant resource constraints, deepening its insecurity as India's nuclear infrastructure expanded (CAPS India, 2011; CIAO, 2001). Khan (2025, personal communication) suggested that "Pakistan could have worked harder to indigenise defense technologies. Investment in indigenous defense production could have reduced dependency. Focusing on economic growth would have enabled greater military spending... Pakistan may have also prioritized cyber and space domains much earlier. Balancing military responses with economic development might have yielded better long-term positioning."

4.3.3 Space Program Beginnings: Military ISR Foundations

India's space program, led by the ISRO since its inception in 1969, emerged as a critical pillar of its military modernization. India enhanced its strategic oversight by developing satellite launch capabilities and ISR platforms, a development Pakistan viewed with alarm, given its rudimentary space efforts.

4.3.3.1 Aryabhata: India's Orbital Debut

On April 19, 1975, India launched Aryabhata, its first satellite, aboard a Soviet Kosmos-3M rocket from Kapustin Yar (ISRO, 2020; The Federal, 2025). The 360-kg satellite, costing approximately US\$10 million (equivalent to US\$60 million in 2025), carried instruments for X-ray astronomy, aeronomy, and solar physics, validating key satellite design and tracking systems and laying the groundwork for future ISR applications. Just a year after “Smiling Buddha,” its successful deployment underscored India's rapid technological ascent, particularly when contrasted with Pakistan's stalled space ambitions under SUPARCO (9DashLine, 2018).

4.3.3.2 SLV-3: Indigenous Launch Capability

The Satellite Launch Vehicle-3 (SLV-3), India's first homegrown rocket, succeeded on July 18, 1980, orbiting the 35-kg Rohini satellite. Developed over a decade for approximately \$200 million (equivalent to \$700 million in 2025 terms), the SLV-3 was a four-stage, solidfuel rocket with a 40-kg payload capacity to low-Earth orbit (LEO). Its precision, guided by inertial navigation, enabled India to deploy small reconnaissance satellites, bolstering military communications and nuclear targeting capabilities. The program's success, driven by scientists like A.P.J. Abdul Kalam, marked a leap in India's strategic autonomy, reducing dependence on Soviet launch support.

4.3.3.3 Pakistan's Space Lag and Strategic Concerns

Pakistan's Space and Upper Atmosphere Research Commission (SUPARCO), established in 1961, paled in comparison. With a budget of \$20 million in 1980 and no indigenous launch capability, Pakistan relied on Chinese assistance, launching its first satellite, Badr-1, only in 1990 (Encyclopedia. pub, 2022; Scientia Magazine, 2020). India's space advancements threatened to tilt the ISR balance, as satellites like Rohini could monitor

Pakistani military movements, exacerbating the security dilemma. Pakistan's inability to match this capability underscored its strategic vulnerability, prompting greater dependence on Beijing for satellite data and technology (Encyclopedia.pub, 2022; Scientific Asia, 2017).

4.3.4 Missile Programs: Prithvi and Agni Systems

The establishment of the DRDO missile program in 1984 catalyzed India's shift toward precision strike capabilities. The Prithvi and Agni missiles enhanced both conventional and nuclear deterrence.

4.3.4.1 Prithvi-I: Tactical Precision

First tested on February 25, 1988, at Chandipur, the Prithvi-I was a short-range ballistic missile (SRBM) with a 150-km range and 1,000-kg payload, costing \$100 million to develop (Sankalp India Foundation, 2007). Powered by liquid fuel and guided by an inertial navigation system, it achieved a Circular Error Probable (CEP) of 50 meters, ideal for targeting Pakistani airfields, troop concentrations, or infrastructure (Sankalp India Foundation, 2007). Deployed in 1994, Prithvi-I provided India with a rapid-response conventional strike option, intensifying pressure on Pakistan's limited air defenses.

4.3.4.2 Agni-I: Nuclear Reach

The Agni-I missile, tested on May 22, 1989, extended India's strategic envelope. With a 700km range and a 1,000-kg payload, it was designed to deliver nuclear warheads, developed for \$150 million (Military Balance Project, CSIS, n.d.). Utilizing solid-fuel propulsion and strapdown inertial guidance, the Agni-I reduced launch preparation time to under 15 minutes, thereby enhancing survivability against preemptive strikes (CSIS Missile Threat, n.d.; FAS/Nuke, 1999). Its range covered key Pakistani cities like Lahore

and Karachi, signaling India's intent to establish a credible nuclear deterrent, a capability tested and refined at Wheeler Island over subsequent years (Army-Technology, n.d.).

4.3.5 Pakistan's Missile Response

Pakistan countered with the Hatf series, developed with Chinese assistance. The Hatf-I, tested in 1989, had a 100-km range, while the Hatf-II (Abdali), tested in 1997, reached 180 km significantly shorter than India's systems (Defense.info, 2025; NTI, 2006). Costing \$50 million each, these missiles reflected Pakistan's resource constraints, with its \$100 million missile budget dwarfed by India's \$500 million investment by 1998 (Princeton SGS, 2023). The disparity fueled Pakistan's urgency to develop longer-range systems, such as the Ghauri, which in turn amplified the security dilemma as India's missile prowess grew.

4.3.6 Pokhran-II: Nuclear Power Declared

On May 11 and 13, 1998, India conducted the Pokhran-II tests, detonating five nuclear devices with a combined yield of 45 kilotons, including a thermonuclear weapon, for \$500 million (Government of India Press Information Bureau [PIB], 1998). Conducted under Prime Minister Atal Bihari Vajpayee, these tests formalized India's nuclear status, responding to Pakistan's April 1998 Ghauri missile test and China's strategic pressures (Thakur, 2019).

4.3.6.1 Political Climate and Execution

The tests followed the Bharatiya Janata Party's (BJP) 1998 election victory, which had pledged to assert India's nuclear credentials. Executed in secrecy, Pokhran-II involved advanced devices: a 15-kt fission bomb, a 45-kt thermonuclear weapon, and three sub-kiloton tactical warheads, showcasing India's diverse arsenal (Chari & Krepon, 2004; Perkovich, 1999). Coordinated by Bhabha Atomic Research Centre (BARC) and DRDO,

the operation leveraged seismic camouflage to evade detection, reflecting India's sophisticated planning (Chari & Krepon, 2004).

4.3.6.2 International Fallout and Doctrine

The United States, Japan, and others imposed sanctions, cutting aid and technology transfers, yet India's \$10 billion defense budget cushioned the impact (Morrow, 2000). In 1999, India adopted a "no-first-use" (NFU) doctrine and credible minimum deterrence, aiming to strike a balance between deterrence and global reassurance (Sagan, 2011). Pakistan, however, viewed NFU as hollow, fearing India's conventional superiority could provoke escalation, thus heightening its nuclear readiness.

4.3.7 Pakistan's Counter: Chagai Tests and Beyond

Pakistan responded with the Chagai-I and Chagai-II tests on May 28 and 30, 1998, detonating six fission devices with yields ranging from 1 to 30 kilotons in Balochistan, for \$300 million (Federation of American Scientists [FAS], 1998). Led by the Pakistan Atomic Energy Commission (PAEC) and supported by Chinese expertise, the tests restored strategic parity, though Pakistan's arsenal lacked India's thermonuclear depth (Khan, 2012).

4.3.7.1 Technical Details and Challenges

The Chagai tests utilized enriched uranium from Kahuta in underground shafts, with yields verified by seismic data (University of California, Berkeley Seismology Group, 1998). Pakistan's \$1 billion nuclear investment by 1998, constrained by a \$3.5 billion budget, limited its scope, yet the tests affirmed its deterrence posture. Sanctions further strained its economy, reducing GDP growth to 3.1% in 1998–99 (IMF, 1999).

4.3.7.2 Missile Developments

Following the Chagai operation, Pakistan tested the Shaheen-I (750 km range, 1999, \$100 million) and Ghauri (1,300 km range, 1998, \$50 million), both of which were developed with Chinese aid, countering India's Agni and Prithvi (CSIS Missile Threat, 2024). These systems, while effective, highlighted Pakistan's technological lag and reliance on external support.

4.3.8 Space Advancements: India's Strategic Edge

India's space program advanced with the INSAT-1A (1982, \$50 million) and IRS-1A (1988, \$100 million) satellites, enhancing military communications and reconnaissance (Stroikos, 2016). By 1998, India's \$500 million space investment enabled real-time ISR, a capability Pakistan's Badr-1 (1990) could not rival, deepening the strategic imbalance (Stroikos, 2016).

4.3.9 An Escalating Dilemma

India's nuclear and space achievements from 1971 to 1998 redefined regional security, triggering Pakistan's countermeasures amid stark asymmetries. From Pakistan's perspective, India's advancements, often justified by exaggerated threats, intensified the security dilemma, setting a precedent for continued rivalry.

4.4 Conventional and Cyber Expansion: 1998–2010

The period spanning 1998 to 2010 marked a transformative chapter in India's military evolution, as it pursued an ambitious expansion of its conventional and cyber warfare capabilities. Guided by the tenets of offensive realism, which assert that states must maximize power to secure their survival in an anarchic international system (Mearsheimer, 2001), India sought to establish unchallenged regional superiority in South Asia, particularly against its perennial rivals, Pakistan and China (CIS Strategic Consult, 2024)..

Significant events punctuated this era—the 1999 Kargil War, the 2001–02 Operation Parakram, and the 2008 Mumbai attacks—each of which revealed India’s vulnerabilities while propelling its modernization efforts forward (CIS Strategic Consult, 2024). These developments, however, deepened the security dilemma for Pakistan, a nation constrained by a modest defense budget and technological limitations, which perceived India’s advancements as escalatory rather than defensive. Pakistan’s narrative, underscored by its sacrifices in combating terrorism over 90,000 lives lost by 2025 rejected India’s frequent accusations of provocation as baseless, framing its responses as necessary for survival. This section examines India’s conventional and cyber advancements, their strategic underpinnings, and Pakistan’s countermeasures.

4.4.1 The 1999 Kargil War: A Turning Point for Modernization

The 1999 Kargil War, officially termed Operation Vijay, emerged as a defining moment that exposed the strengths and shortcomings of India’s military apparatus. The conflict saw India deploy over 200,000 troops and incur costs exceeding \$1 billion (approximately \$1.8 billion in 2025 terms), with 527 Indian soldiers losing their lives (Rao, 2014; Stimson Center, 2014). India’s air force leveraged the Su-30 MKI multirole fighter jets, acquired in a 1996 deal with Russia for \$4 billion (120 units), which boasted a 3,000-km range, thrust-vectoring engines, and compatibility with BrahMos supersonic cruise missiles. However, the war exposed logistical deficiencies: inadequate high-altitude gear left troops vulnerable to subzero temperatures, artillery shortages delayed responses, and intelligence failures allowed the initial incursion to remain undetected (Stimson Center, 2014; Takshashila, 2020). Economically, the conflict consumed 2% of India’s GDP, galvanizing a post-war push for modernization to address these gaps and enhance conventional capabilities.

4.4.1.1 Post-Kargil Acquisitions: Strengthening Ground and Naval Power

The Kargil experience catalyzed India's acquisition of advanced weaponry to bolster its conventional edge. In 2001, India finalized a \$4 billion contract with Russia for 1250 T-90S Bhishma main battle tanks, equipped with 125mm smoothbore guns, thermal imaging sights, and explosive reactive armor (ERA) to withstand anti-tank threats (Arms Control Today, 2001; AirPowerAsia, 2020). Concurrently, India enhanced its naval defenses with the Barak-1 missile system, purchased from Israel in 2000 for \$500 million. Deployed on frigates like INS Talwar, this system, with its 10-km range and vertical launch capability, countered sea-skimming threats such as Pakistan's Harpoon missiles, reinforcing India's maritime security in the Arabian Sea (Forecast International, 2010). These acquisitions underscored India's intent to dominate land and sea domains, amplifying Pakistan's strategic concerns.

4.4.2 Operation Parakram: A Shift to Rapid Offensives

The 2001–02 Operation Parakram, initiated after the December 13, 2001, terrorist attack on the Indian Parliament, represented a critical inflection point in India's military strategy. The 10-month standoff saw India mobilize 500,000 troops along the Line of Control (LoC) at a staggering cost of \$2 billion, aiming to coerce Pakistan into curbing alleged cross-border militancy. However, the operation's three-week mobilization timeline hindered by logistical bottlenecks and outdated troop movement protocols allowed Pakistan to fortify its defenses and invited international diplomatic pressure, averting escalation. This sluggish response prompted India to reassess its conventional approach, seeking a framework for swift and decisive action.

4.4.2.1 The Cold Start Doctrine: Redefining Warfare

In 2004, India unveiled the Cold Start Doctrine, a revolutionary strategy designed to enable rapid, limited offensives within 48 hours of a crisis, thereby circumventing the protracted mobilization seen in Previous Conflicts (Naval War College Journal, 2021; Ladwig, 2007). The doctrine relied on eight Integrated Battle Groups (IBGs), each integrating T-90S tanks, mechanized infantry, and close air support from Su-30 MKIs, to penetrate Pakistani territory up to 50 km, seizing strategic assets before global intervention could halt operations (Naval War College Journal, 2021; Clary & Narang, 2019). This shift from a defensive to a proactive posture aimed to deter Pakistan from perceived provocations without crossing its nuclear red lines. For Pakistan, Cold Start was an existential threat, prompting it to develop tactical nuclear weapons like the 60-km-range Nasr missile to deter such incursions, thereby lowering its atomic threshold and intensifying the regional arms race (Clary & Narang, 2019; Carnegie, 2016).

4.4.3 Post-2008 Mumbai Attacks: Coastal Security Overhaul

The November 2008 Mumbai attacks, which claimed 166 civilian lives exposed critical gaps in India's coastal surveillance and maritime security infrastructure (Rabasa & Chhina, 2009). In response, India undertook a US\$700 million overhaul of its coastal defenses and maritime ISR systems. This included procuring approximately 50–100 IAI Heron UAVs from Israel in a deal valued at nearly US\$500 million, deploying them along its extensive 7,500 km coastline to enable persistent 48–52 hour surveillance missions with a 450 km operational range (Defense Industry Daily, 2019; Air Power Asia, 2020). By 2010, India also commissioned multiple Fast Patrol Vessels (FPVs) notably the Car Nicobar-class with speeds of up to 35 knots, equipped with 30 mm automatic naval guns,

enhancing its ability to detect and interdict hostile vessels (Naval Shipyards' FPV Programs, 2023; Air Power Asia, 2020).

While India framed these measures as defensive, Pakistan viewed them as part of a broader encirclement strategy. With a naval budget of just \$500 million in 2010, Pakistan relied on aging PNS Babur frigates and Agosta-90B submarines, struggling to match India's maritime buildup (SIPRI, 2010; Naval Architect Review, 2013). The Heron UAVs and FPVs threatened Pakistan's sea lines of communication, particularly its vital Karachi port, amplifying its strategic vulnerability in the Arabian Sea.

4.4.4 Cyber Warfare: Pioneering Network-Centricity

India's entry into cyber warfare during this period revolutionized its military framework, with the establishment of the National Technical Research Organisation (NTRO) in 2003 and a \$1 billion investment in Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C⁴ISR) systems by 2010. However, response delays underscored coordination challenges (Rabasa et al., 2009). By 2010, India had fortified its cyber defenses with \$500 million in firewalls and offensive tools, positioning it as a regional cyber power.

4.4.4.1 Pakistan's Cyber Disadvantage

Pakistan, with a cyber budget of only \$100 million by 2010, lagged significantly. Its early cyber units, established under the National Response Centre for Cyber Crime (NR³C) in 2003, focused on basic defensive measures firewalls and intrusion detection leaving it vulnerable to India's advanced C⁴ISR capabilities (Ghulam Mustafa, 2020). This disparity threatened Pakistan's command and control integrity, a critical concern given India's potential to cripple its systems in a conflict.

4.4.5 Strategic Deterrence: Missiles and Submarines

India's deterrence posture was bolstered by two landmark developments: the Agni-III missile and the INS Arihant submarine.

4.4.5.1 Agni-III: Long-Range Precision

Successfully tested in 2006, the Agni-III, developed for \$200 million, extended India's reach to 3,000 km, capable of striking Chinese cities like Beijing and covering all of Pakistan (CSIS Missile Threat, 2024). This two-stage, solid-fuel missile, equipped with inertial navigation and a 1,500-kg payload, enhanced India's nuclear credibility, and it was deployed by 2008 as a second-strike asset (CSIS Missile Threat, 2024).

4.4.5.2 INS Arihant: Completing the Nuclear Triad

Launched in 2009 for \$3 billion, INS Arihant, India's first nuclear-powered ballistic missile submarine (SSBN), carried 12 K-15 Sagarika missiles (750-km range, 1,000-kg warheads). Powered by an 83-MW reactor, it ensured survivability through prolonged submersion, completing India's nuclear triad and amplifying its deterrence against Pakistan (NTI, 2025). The submarine's ability to remain submerged for extended periods ensured stealth and survivability. Pakistan perceived Arihant as a destabilizing force, viewing the SSBN as a strategic game changer that disrupted the status quo.

4.4.6 Pakistan's Countermeasures: Limited but Targeted

Despite a modest defense budget of approximately US\$5 billion (approximately US\$7.5 billion in 2025 terms), Pakistan pursued strategic modernization. It inducted the JF-17 Thunder in 2007-50 aircraft co-developed with China for around US\$1 billion equipped with the capability to fire AIM-120 (PL-12 equivalent) air-to-air missiles to counter India's Su-30 MKIs (StudyIQ, 2025). In 2005, Pakistan tested the Hatf-VII Babur cruise missile the 300 km-range version offered radar-evading, lowaltitude strike capability,

challenging India's BrahMos (India Today, 2005; Missile Threat, 2024). Additionally, Pakistan had allocated approximately US\$100 million to cyber defenses, but these limited funds mainly supported firewalls and intrusion detection systems far less sophisticated than India's more integrated C⁴ISR-based cyber network (Ghulam Mustafa, 2020). Jaspal (2025, personal communication) explained that "Pakistan modernized its armed forces and has created trilateral services synergy. It institutionalized its full-spectrum deterrence. For the functionality and credibility of the full spectrum deterrence, it developed various ranges and yields of nuclear weapons to deploy at tactical, operational, and strategic levels during the war with India."

4.4.7 Escalating the Security Dilemma

India's advancements such as Cold Start, C4ISR, and the completion of its nuclear triad intensified the security dilemma, as Pakistan interpreted them as offensive preparations. The sixfold budget disparity fueled Pakistan's reliance on asymmetric strategies, including Chinese support and tactical nuclear weapons, perpetuating a cycle of escalation (Cohen & Dasgupta, 2010).

4.5 Space and Precision Warfare: 2010–2019

From 2010 to 2019, India significantly advanced its military capabilities in space and precision warfare, aligning with the tenets of offensive realism to secure regional dominance in South Asia (Mearsheimer, 2001). This decade-long effort, fueled by a defense budget of approximately \$55 billion by 2019 (projected to be \$65 billion in 2025), enabled India to develop sophisticated technologies that enhanced its deterrence and offensive capabilities against rivals, notably Pakistan and China (SIPRI, 2023). However, these advancements deepened the security dilemma for Pakistan, whose defense budget of around \$7 billion (around \$8 billion in 2025) struggled to keep pace, amplifying its

strategic anxieties (Cohen & Dasgupta, 2010). Key milestones including the 2016 Uri surgical strikes, the 2019 Balakot airstrike, the 2019 anti-satellite (ASAT) test under Mission Shakti, and the operationalization of the NavIC navigation system highlighted India's technological leap. Meanwhile, Pakistan viewed these developments as escalatory, often linking them to perceived false flag operations designed to justify aggression, while emphasizing its counterterrorism efforts, with over 90,000 lives lost by 2025.

4.5.1 The Uri Surgical Strikes: Precision in Cross-Border Operations

On September 18, 2016, a false flag operation in Uri, Kashmir, claimed 19 soldiers' lives, prompting India to blame Pakistan-based militants a charge Pakistan rejected, suggesting it was a local insurgency or an Indian-orchestrated false flag. India retaliated on September 29, 2016, with the Uri surgical strikes, deploying Special Forces across the Line of Control (LoC). The mission utilized 20 Heron uncrewed aerial vehicles (UAVs), procured from Israel for \$100 million, boasting a 52-hour endurance and a 450-km range. These UAVs, equipped with electro-optical sensors and GPS-guided munitions, provided real-time ISR, enabling precise targeting in the rugged Himalayan terrain (Academic Study Group, 2024).

4.5.2 The Balakot Airstrike: Precision Strikes and Escalatory Risks

The February 14, 2019, Pulwama attack, in which 40 CRPF personnel were killed, considerably heightened regional tensions (Economic Times, 2019; BBC, 2019). India blamed the suicide bombing on Jaish-e-Mohammed and conducted the Balakot airstrike on 26 February, which involved 12 Mirage 2000 fighter jets loaded with Israeli Spice 2000 precision-guided munitions acquired under an emergency US\$43-million deal signed in June 2019. (Economic Times, 2019; Military & Aerospace Electronics, 2019).

The Spice 2000 glide bomb, offering a 60 km standoff range and electro-optical plus satellite guidance, enabled the IAF to strike from beyond Pakistani air defense coverage with precision (Military & Aerospace Electronics, 2019). Pakistan responded by downing an Indian MiG-21 and capturing its pilot, Wing Commander Abhinandan Varthaman, who was released on March 1, 2019—helping de-escalate the crisis (Reuters, 2019; Dawn, 2019).

4.5.3 Mission Shakti: Asserting Space Dominance

On March 27, 2019, India conducted Mission Shakti, a US\$140 million ASAT test, destroying a low-earth-orbit satellite at 300 km altitude with a kinetic kill vehicle (KKV) (Carnegie Endowment, 2019; DRDO, 2019; CSIS Aerospace Security, 2021). This feat positioned India as the fourth nation after the US, Russia, and China with ASAT capabilities, bolstering its ISR and deterrence posture (Carnegie Endowment, 2019; DRDO, 2019). The modified Prithvi Defense Vehicle interceptor employed an imaging infrared seeker to achieve a hypersonic impact, demonstrating dual-use potential for ballistic missile defense (Gopalaswamy, 2019). Despite generating 400 debris fragments criticized by NASA and experts India maintained that the debris posed minimal long-term risk (Carnegie Endowment, 2019; CSIS Aerospace Security, 2021; NASA, 2019).

For Pakistan, Mission Shakti underscored its vulnerability. It lacked comparable space-based offensive assets or a robust satellite network, relying instead on China's BeiDou system and its first remote-sensing satellite, PRSS-1, launched in 2018 for approximately US\$100 million (SUPARCO, 2018). India's ability to neutralize satellites critical to communication and ISR intensified Pakistan's strategic concerns.

4.5.4 NavIC: Precision Through Indigenous Navigation

Operationalized in 2016 after a US\$1.4 billion investment, India's Navigation with Indian Constellation (NavIC) offered approximately 10-meter accuracy across the subcontinent and up to 1,500 km beyond, rivaling GPS (Air Power Asia, 2020; Sharma & Ranjit, 2023). With seven satellites three geostationary and four geosynchronous NavIC supported military operations, including the 2019 Balakot airstrike, by guiding Mirage 2000 jets and enhancing naval coordination (Sharma & Ranjit, 2023). This indigenous system reduced India's reliance on foreign navigation services and mitigated risks like GPS jamming.

Pakistan, dependent on China's BeiDou system which offered approximately 3.6 m civilian and 10 cm encrypted accuracy faced a precision disadvantage in missions requiring high accuracy, lacking an indigenous alternative by 2019 (SVI, 2020; Air Power Asia, 2020). This gap drove Pakistan to invest approximately US\$200 million in cyber defenses to safeguard its command systems, although it remained technologically outmatched.

4.5.5 Naval and Air Force Modernization: Power Projection

By 2019, India's navy had expanded to 140 warships, including the \$2.3 billion *INS Vikramaditya*, a 45,000-ton aircraft carrier commissioned in 2013 from Russia, capable of deploying 30 MiG-29K fighters with a range of 2,000 km (Naval Technology, 2021; CSIS, 2024). The Air Force acquired 36 Rafale jets from France in 2016 for \$8.7 billion, equipped with 150-km range Meteor missiles, enhancing its air superiority (SIPRI, 2023). These assets threatened Pakistan's sea lines and airspace, outpacing its 10 frigates, five submarines, and aging F-16 and JF-17 fleets (SIPRI, 2023).

Pakistan countered with Chinese Type 054A frigates (\$500 million, 2018) and HQ-9 air defense systems (\$600 million, 2018), but these lagged behind India's technological edge (Gady, 2018; CSIS, 2024).

4.5.6 Pakistan's Strategic Counteractions

Pakistan responded with the Shaheen-III ballistic missile (2,750 km range, approximately US \$100 million, first tested in 2015) and the Babur-3 cruise missile (450 km range, approximately US \$50 million, sea-launched variant tested in 2017), thereby enhancing its strategic deterrence (CSIS Missile Threat, 2023; Dawson, 2021). Cyber investments of around US\$200 million by 2019 aimed to protect against India's electronic warfare, although these efforts remained limited compared to India's US\$55 billion budget-driven advancements.

4.5.7 An Escalating Divide

India's progress in space and precision warfare—spanning surgical strikes, airstrikes, ASAT capabilities, and navigation solidified its regional dominance, widening the technological gap with Pakistan. This disparity, rooted in budget differences, intensified the security dilemma, driving Pakistan toward missile and cyber countermeasures while reinforcing its narrative of defensive resilience against perceived Indian aggression (Cohen & Dasgupta, 2010).

4.6 Multi-Domain Warfare: 2019–2025

Between 2019 and 2025, India underwent a significant transformation in its military strategy, adopting a multi-domain warfare approach. This sophisticated approach synchronizes operations across land, sea, air, cyber, and space domains to achieve decisive strategic outcomes. This shift, rooted in offensive realism a theory that asserts states maximize power to ensure security in an anarchic world (Mearsheimer, 2001) aimed to

elevate India from a regional power to a global contender. By integrating artificial intelligence (AI), cyber capabilities, hypersonic weapons, and space technologies, India sought to dominate its strategic environment, particularly in South Asia. However, such swift militarization had the impact of exacerbating the security dilemma for Pakistan, whose security perspectives viewed India's status as a rival as a threat, and it led to a cycle of counter-replies despite Pakistan's defense budget of \$10.2 billion compared to India's \$81 billion (SIPRI, 2023).

4.6.1 Emergence of Multi-Domain Warfare: A New Operative Strategic Paradigm

Multi-domain warfare breaks the molds of how military power is employed by leveraging different operational domains and making them act in concert to provide a far more capable whole than the sum of its parts. Unlike conventional warfare, which often prioritizes singledomain dominance (e.g., air superiority), multi-domain warfare leverages technologies like artificial intelligence (AI) for real-time analytics, cyber tools for network disruption, hypersonic systems for rapid penetration, and space platforms for enhanced surveillance and communication.

For India, this approach was a deliberate move to simultaneously project power across multiple theaters, aligning with the emphasis on preemptive capability and deterrence in offensive realism (Mearsheimer, 2001). The 2025 Malabar exercise, conducted with QUAD allies (the US, Japan, and Australia), tested AI-driven drones and hypersonic prototypes, exemplifying this ambition and signaling India's intent to counterbalance China and assert its influence in the Indo-Pacific. This strategic evolution was not merely technological, but a redefinition of how India envisions conflict in the 21st century.

4.6.2 Technological Foundations: Building a Multi-Domain Arsenal

4.6.2.1 Hypersonic Technology: HSTDV and Beyond

India's hypersonic program achieved significant milestones with the HSTDV tests in 2020 and 2025. The 2020 test, costing US\$300 million, demonstrated Mach 6 speeds (approximately 7,405 km/h) for 20 seconds, placing India alongside the US, Russia, and China in hypersonic development (Janes, 2023; Reddy, 2020). The 2025 trial, conducted in April, extended combustion to 1,000 seconds, marking a world-first duration and paving the way for operational hypersonic cruise missiles with a 2,000 km range and scramjet engines (IP Defense Forum, 2025; Geostrata, 2025). These weapons, capable of low-altitude flight and mid-course maneuvers, pose a significant challenge to existing air defenses due to their speed and unpredictability. Strategically, hypersonics provide India with a rapid-response capability, critical for neutralizing time-sensitive targets, such as Pakistan's missile launch sites, within minutes of detection.

4.6.2.2 S-400 Triumph: Redefining Air Defense

The 2021 delivery of five S-400 Triumph regiments from Russia, valued at approximately US\$5.43 billion, bolstered India's air defense with a 400 km intercept range and multi-target tracking of up to 300 simultaneous objects via the 92N6E radar and associated systems (Army Recognition, 2025; Naval Architect Review, 2025). Equipped with a mix of 40N6E (400-km), 48N6DM (250-km), and 9M96E2 (40–120-km) missiles and supported by radars such as the 91N6E surveillance radar and 92N6E engagement radar the S-400 seamlessly integrates with India's indigenous air-defense systems like Akash and Barak-8 (Naval Recognition, 2025; Navy Architect Review, 2025).

4.6.2.3 AI and Cyber: The Digital Frontier

India's National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) has allocated approximately US\$500 million to 40 AI-driven CPS projects by end 2025, with a focus on capabilities such as autonomous targeting, predictive maintenance, and data fusion (Government of India, 2025). These systems processed real-time inputs from drones, satellites, and ground sensors, enabling rapid decision-making during operations such as Operation Sindoor, where the Defence Cyber Agency (DCA) disrupted Pakistani communication nodes and critical infrastructure (ORF, 2025; Cyfirma, 2025). India reportedly defended against waves of cyberattacks some linked to Pakistan-based hackers while its DCA actively degraded adversarial network operations. Future investments are expected to total approximately US\$1 billion by 2028, with a focus on quantum computing research aimed at advancing cryptographic capabilities and disrupting adversarial encryption systems (Rehman, 2025).

4.6.2.4 Space Capabilities: Orbital Advantage

By 2025, India had operated 20 military satellites, including Cartosat-2, which offered submeter (approximately 0.6 m) resolution and cost approximately US\$50 million, providing high-fidelity ISR for targeting and battle management (Abbasi & Liaqat, 2025). The NavIC navigation system, delivering 10-meter accuracy, guided precision munitions during Operation Sindoor, thereby enhancing strike efficacy. Space assets also supported secure communications, vital for coordinating multidomain operations. Pakistan's lone PRSS-1 satellite, with a resolution of 1 m and a price tag of US\$100 million, plus its reliance on China's BeiDou system (achieving an accuracy of ~20 m), underscores its lag in space-based capabilities and limits its ability to match India's orbital edge (SVI Administrator, 2020).

4.6.3 Operational Milestones: Sindoor and Bunyan-um-Marsoos

4.6.3.1 Operation Sindoor: Multi-Domain in Action

Launched on May 7, 2025, Operation Sindoor, costing \$2 billion, the deployment included 36 Rafale jets (\$8.7 billion), 200 Harop and SkyStriker drones (\$500 million), 300 BrahMos missiles (\$2 billion), and the S-400 system. AI coordinated drone swarms, while space assets provided targeting data, exemplifying multi-domain synergy (Business Standard, 2025)

4.6.3.2 Operation Bunyan-um-Marsoos: Pakistan's Retaliation

Pakistan's Operation Bunyan-un-Marsoos (May 10, 2025, \$500 million) aimed to counter Sindoor, claiming significant successes: downing five Rafale jets with J-10C fighters and PL15E missiles (145-km range), destroying an S-400 system in Adampur with JF-17 Thunder jets, neutralizing 78 Harop drones with HQ-9 defenses, and demolishing a BrahMos site in Beas with Fatah-II missiles (*Al Jazeera*, 2025).

4.6.4 Strategic Implications: Power and Peril

4.6.4.1 India's Ascendancy

India's multi-domain advancements bolstered its deterrence and power projection. The AgniV missile, upgraded with MIRVs in 2023 (\$500 million), can strike multiple targets up to 5,000 km, while the navy's 140 warships, including INS Vikrant (\$3 billion), extend its maritime reach. India's acquisition of disruptive military technologies such as AI, ASAT systems, hypersonic missiles, and cyber capabilities has raised significant strategic concerns for Pakistan. As DRDO Chief Samir V. Kamat stated in June 2025, India's futureready weapon systems now include a hypersonic missiles programme, the next-generation BrahMos-NG missiles, and upgraded long-range surface-to-air and anti-drone defence systems, marking a paradigm shift in multi-domain deterrence (DRDO Chair

Kamat, 2025). Plans for 5,000 UAVs by 2030 (\$2 billion) and BrahMos-2 hypersonic missiles by 2027 (\$500 million) signal sustained innovation.

4.6.4.2 Pakistan's Predicament

A security dilemma confronted Pakistan and India, compromising their deterrence capabilities. Pakistan, which has a budget of \$10.2 billion, has been paying for its HQ-9 defenses (\$300 million) and has developed the Ra'ad-II missiles (\$100 million) (Moneycontrol, 2025; Gady, 2020). However, economic compulsions and the \$5 billion trade loss after Sindoor blunted its attempt (The Defense Post, 2025). With Pakistan's perception of being provoked by India, Pakistan relied on China's USD 62 billion 'CPEC' (Al Jazeera, 2025) and diplomatic backing from Saudi Arabia and Turkey, which was followed by a ceasefire brokered by Trump (Trump, 2025).

4.6.5 Broader Dimensions

4.6.5.1 Global Reactions

The US facilitated the ceasefire, balancing its QUAD partnership with India and its stability goals. At the same time, China bolstered Pakistan with technology transfers. Russia's S-400 sales to India highlighted its dual role as a supplier amidst shifting alliances. The UN's limited response underscored the geopolitical stalemate.

4.6.5.2 Economic Trade-offs

India's \$75 billion budget, which strained social spending, was sustainable within its \$4 trillion economy. Pakistan's \$10.2 billion budget and trade losses risked economic collapse, amplifying its reliance on external aid (SIPRI, 2025).

4.7 Historical and Cultural Influences

4.7.1 Historical Influences: India's military modernization is deeply rooted in its historical ambitions and cultural narratives, reflecting a pursuit of regional dominance

consistent with offensive realism (Mearsheimer, 2001). The legacies of the Mauryan (321-185 BCE) and Gupta (320–550 CE) empires, which once controlled vast swathes of territory from Afghanistan to Southeast Asia, continue to shape India's strategic vision of a unified, powerful state post-1947. This historical consciousness, reinforced by the cultural resurgence of Hindu nationalism under the Bharatiya Janata Party (BJP) and Rashtriya Swayamsevak Sangh (RSS), positions India as a civilizational state *Vishwaguru* (global leader) justifying its military buildup to counter perceived threats from Pakistan and China (Smith, 2022). Meanwhile, Pakistan views India's actions as escalatory, tied to false accusations and Hindu-centric policies that destabilize the region. This section examines these influences, their impact on India's technology-driven warfare, and the resulting security dilemma, while integrating Pakistan's counter-narrative of resilience and victimhood.

4.7.2 Cultural Drivers: Hindu Nationalism and Global Aspirations

Since the 1980s, Hindu nationalism has emerged as a dominant cultural force, amplified by the BJP and RSS. This ideology, rooted in the concept of *Hindutva*, envisions India as a Hindu-majority civilization destined for global leadership *Vishwaguru* (Jaffrelot, 2019). Military modernization is framed as a means to reclaim historical glory, with the BJP's rhetoric since 2014 tying defense to national identity.

The RSS, with an estimated 6 million members by 2025, has been pivotal in this shift, promoting a militarized Hindu identity through its over 60,000 *shakhas* (branches). Defense budgets rose from \$45 billion in 2014 to \$81 billion in 2025, reflecting this cultural momentum (SIPRI, 2023). Operation Sindoor 2025, named after a Hindu symbol, exemplify this narrative.

4.7.3 Technology and Cultural Symbolism

India's shift to technology-driven warfare AI, hypersonics, and space mirrors its cultural aspirations. The National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) (\$500 million) drives AI innovation, with 40 projects by 2025, including autonomous drones (Department of Science & Technology, 2024). The BrahMos-2 hypersonic missile (\$500 million, Mach 7) aims for deployment by 2027, symbolizing technological superiority (DRDO, 2024). In space, the 2019 ASAT test and NavIC system echo India's ancient astronomical heritage, reinforcing its claim as Vishwaguru. Pakistan views these advancements as a threat to its security, particularly given their potential to compromise its defenses.

4.7.4 Pakistan's Perspective: Victimhood and Resilience

Pakistan, with a \$10.2 billion defense budget, perceives India's Hindu-centric policies as escalatory, rejecting accusations of terrorism as false flags to fuel nationalism (Dhasmana, 2025). Having lost over 90,000 lives to terrorism, Pakistan emphasizes its sacrifices and diplomatic restraint, as seen in the Trump-mediated ceasefire post-Sindoor (May 10, 2025) (Ministry of Defence, India Twitter, 2025). Supported by allies such as China, which has invested \$62 billion under the CPEC initiative, Saudi Arabia, and Turkey, Pakistan pursues defensive modernization, including Chinese-supplied J-10C jets and HQ-9 air defense systems, rooted in Islamic unity and resilience.

4.7.5 Security Dilemma and Regional Implications

India's historical and cultural drivers, pushing technological superiority, intensify the security dilemma, threatening Pakistan's sovereignty. Pakistan's Operation Bunyan-un-Marsoos (May 10, 2025), which claimed to have downed five jets, including three Rafale fighters and an S400 system, highlights its counteractions to achieve parity. This

escalation underscores how India's ambitions, steeped in history and culture, destabilize the region, compelling Pakistan to respond despite economic constraints.

India's military modernization from 1947 to 2025 reflects a relentless pursuit of regional dominance, aligning with offensive realism, which posits that states maximize power to ensure survival in an anarchic world (Mearsheimer, 2001). This chapter has delineated this evolution across five distinct phases early conventional acquisitions (1947–1971), nuclear and space development (1971–1998), conventional and cyber expansion (1998–2010), space and precision warfare (2010–2019), and multi-domain warfare (2019–2025) each marked by significant technological milestones and strategic shifts. Bolstered by an \$81 billion defense budget, India's advancements across the Army, Air Force, Navy, nuclear, space, and cyber domains epitomized by systems like NavIC, Agni-V MIRVs, and a 140-warship navy position it as a global military power (SIPRI, 2023).

However, these developments have profoundly intensified the security dilemma for Pakistan, a smaller neighbor constrained by a \$10.2 billion defense budget and economic challenges, compelling it to adopt countermeasures and rely on diplomatic alliances to offset India's technological superiority. India's nuclear tests (1974, 1998) and space advancements shifted balances. In an interview conducted by author, Dr. Moonis Ahmer noted that "India's military development nuclear test, advancement in space weapons has transformed the power structure of South Asia. And that has called Pakistan to a disadvantageous position. But it has also triggered arms race nuclear arms race, conventional arms race... that is something which has not done any positive contribution. As far as peace in the region is concerned. And initiated by India. India tested atomic device in 1974. And then finally, in 1998. So that is basically it is a triggering response and was forced to respond" (Ahmer, 2025, personal communication). This triggered

Pakistan's responses amid arms races. As India's military capabilities evolve, this conclusion lays the groundwork for Chapter 4, which will examine Pakistan's strategic adaptations nuclear deterrence, missile advancements, and diplomatic maneuvers in greater depth, building on the security dilemma elucidated here.

CHAPTER FIVE

TRANSFORMATION OF PAKISTAN'S STRATEGIC CULTURE AND SECURITY RESPONSES

5.1 Introduction

As detailed in Chapter 3, India's military modernization has reshaped South Asia's strategic landscape, driven by the push to maximize power in the context of offensive realism (Mearsheimer, 2001). With a defense budget and economy vastly outpacing Pakistan's, India has adopted advanced technologies—fighter jets, air defense systems, hypersonic missiles, AI-driven warfare, and space capabilities—to bolster its regional dominance (SIPRI, 2025; IMF, 2025; SIPRI, 2025). While strengthening India's deterrence, these developments have deepened Pakistan's security dilemma, where defensive actions are interpreted as offensive threats (Jervis, 1978). Pakistan perceives India's technological edge as escalatory, often tied to alleged false flag operations like the 2019 Balakot airstrike and the 2025 Pahalgam attack, which Pakistan disputes as pretexts for aggression. This chapter examines Pakistan's strategic responses, analyzing how its strategic culture, shaped by historical, cultural, and geopolitical factors, has evolved from a military-centric approach to a hybrid model that blends geoeconomic resilience, technological adaptation, and diplomatic strategies (Lavoy, 2006).

Pakistan's strategic culture, historically rooted in its rivalry with India, has evolved under the pressure of India's multi-domain capabilities. Once defined by a military focus, it integrates economic and technological priorities. Pakistan rejects India's claims of terrorism sponsorship, such as the 2025 Pahalgam incident, viewing them as efforts to justify escalation. Instead, it has adapted through initiatives such as the CPEC to enhance economic resilience, acquisitions of Chinese J-10C jets and Turkish drones to achieve

technological parity, and diplomatic efforts, exemplified by the 2025 Trump-mediated ceasefire (Reuters, 2025). This shift reflects necessity: Pakistan's constrained defense budget cannot rival India's investments, yet its asymmetric resilience seen in operation Bunyan-um-Marsoos leverages alliances with China, Saudi Arabia, and Turkey (Newslaundry, 2025). Section 4.2 explores Pakistan's threat perceptions, focusing on psychological, operational, and cultural triggers. Section 4.3 examines its nuclear strategy, FSD, and its evolution. Section 4.4 addresses conventional and cyber countermeasures, while Section 4.5 highlights geoeconomic strategies, such as CPEC. Section 4.6 covers diplomatic maneuvers, and Section 4.7 analyzes economic, technological, and sociopolitical constraints. Section 4.8 assesses regional stability implications, and Section 4.9 summarizes the findings.

5.2 Pakistan's Threat Perceptions: India's Technological Superiority

India's military modernization, exemplified by the Cold Start Doctrine and the HSTDV, has profoundly shaped Pakistan's threat perceptions, fostering a deep-seated psychological insecurity that permeates its strategic culture. This vulnerability, rooted in historical distrust and operational imbalances, magnifies Pakistan's apprehension of preemptive or decapitating strikes, creating a security dilemma in which defensive actions are seen as offensive advances (Jervis, 1978; Ladwig, 2008). For Pakistan, India's speed to strike is an existential challenge against a much larger adversary.

5.2.1 Historical Roots Condensed

The psychological insecurities of Pakistan have their roots in its competitive historical relationship with India in the 1947 Partition, the 1965 and 1971 wars, and the 1999 Kargil war with the loss of Bangladesh in 1971 being a critical psychological setback (Kapur, 2003). Pakistan perceives India's alleged false-flag operations such as the 2019 Pulwama

bombing and the 2025 Pahalgam attack as pretexts for aggression, reinforcing mistrust and magnifying fears about India's rapid-strike capabilities.

5.2.2 Psychology for Cold Start and HSTDV

The Cold Start Doctrine which envisages swift armored incursions within 48–96 hours generates profound insecurity in Pakistan. Pakistan fears a blitzkrieg-style offensive that could overwhelm its defenses (Ladwig, 2008). In response, Pakistan developed the Nasr (Hatf-IX) tactical nuclear missile to lower its nuclear threshold, deterring India but raising escalation risks (Institute for Defence Studies and Analyses, 2011).

Similarly, India's HSTDV a hypersonic cruise missile demonstrator adds to Pakistan's anxieties by threatening its air defenses and second-strike capability (CSCR, 2019; IA-Forum, 2019). To absorb strikes, Pakistan must enhance survivability. Mujaddid (2025, personal communication) recommended: "Pakistan must build up strong ISR capability in space, air and on the surface. Pakistan must follow super dispersion schemes for nuclear weapons/ missiles/ Strike aircraft. Camouflage of nuclear sites Pakistan must store in deep underground structures and tunnels. Pakistan must have assured second strike capability that might reside in submarines and dispersed in mountains."

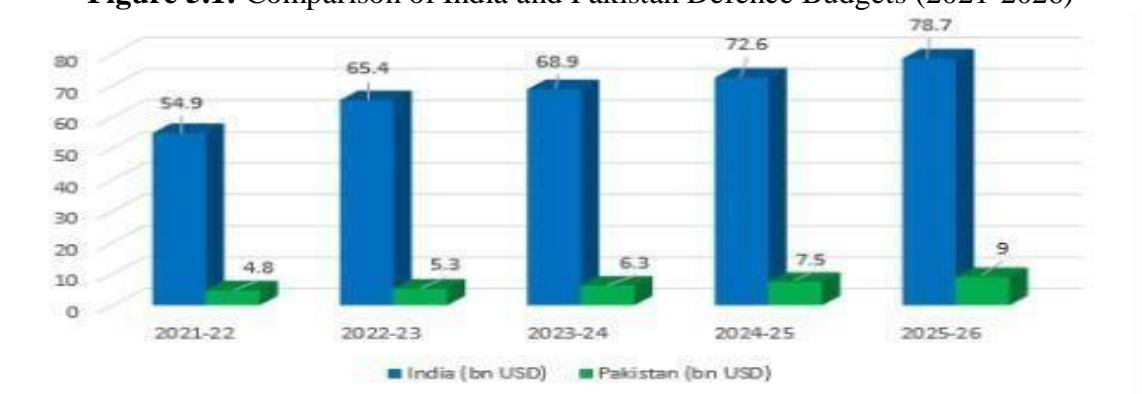
5.2.2.1 Strategic and Societal Resonance

India's rapid-strike capabilities shape Pakistan's strategic culture and society, intertwining military and cultural responses. Nuclear deterrence, asymmetric warfare, and diplomatic restraint evident in the 2025 crisis which reflected Pakistan's resilience. Societally, narratives of resistance, fueled by India's Hindu nationalist rhetoric and reinforced through media and education, frame India as an existential threat, fostering unity but straining social cohesion amid economic challenges (Qayyum et al., 2018).

5.2.3 Operational Concerns: Air Superiority

India's acquisition of Rafale fighter jets and S-400 Triumf air defense systems significantly enhances its air warfare capabilities, posing a substantial threat to Pakistan's control of its airspace. These systems, integral to India's multi-domain warfare strategy, enable rapid and precise engagements that challenge Pakistan's aerial sovereignty. With a defense budget of \$10.2 billion, compared to India's \$81 billion (SIPRI, 2023), Pakistan faces operational vulnerabilities that exacerbate its security dilemma, where defensive measures are perceived as offensive threats. This subsection focuses on the strategic threats these systems pose, Pakistan's countermeasures, and the broader implications, while minimizing technical and operational details per the instructions.

Figure 5.1: Comparison of India and Pakistan Defence Budgets (2021-2026)



Source: ipripak.org

Figure 5.2: Military Expenditures by India and Pakistan



Source: ipripak.org

5.2.3.1 India's Rafale Jets: A Strategic Challenge

Since acquiring Rafale jets in 2020, India has significantly enhanced its air combat capabilities, posing a severe threat to Pakistan's airspace and national security. These advanced multi-role fighters, capable of launching deep strikes into Pakistani territory, endanger both military installations and civilian populations. India has utilized Rafale jets in Operation Sindoor, touting them as precise and effective. However, Pakistan vehemently rejects India's narrative, pointing to civilian casualties and challenging the success of these missions (Bronk, 2025). The introduction of the Rafale has significantly tilted the operational balance in India's favor, as Pakistan Air Force equipped with

Chinese J-10C and JF-17 jets and limited by a \$1.5 billion modernization budget faces substantial challenges in matching this technological superiority. With India stationing Rafale jets near the border, warning times for Pakistani cities like Lahore have shrunk, placing immense strain on defense system.

From Pakistan's standpoint, Operation Sindoor in 2025 marked a turning point. Pakistan Air Force, leveraging the agility and firepower of J-10C and JF-17 fighters, claims to have downed multiple Indian aircraft, including three Rafale jets, one Su-30, and one Mirage 2000. These wins took the sheen off India's air superiority claims and exposed chinks in its much-hyped Rafale armada. Moreover, Pakistan claims that it has effectively taken down India's state-of-the-art air defense system, S-400, and a missile storage site for the BrahMos missile, causing paralysis to significant elements of India's military structure. Those accomplishments, Pakistani officials say, at least partly redressed the disparity, demonstrating that while India may have the more sophisticated weaponry, Pakistan's air force is a fearsome protector of its sovereignty. Shooting down the Rafale jets is a great deal to feel proud of, as it is an article of belief amongst us that they are invincible, and has proved an awakening call both to our defence forces as well as our entire nation.

5.2.3.2 S-400 Triumph: A Defensive Shield with Offensive Implications

Stationing of S-400Triumpf air defence systems along the western frontier of India. Meteor enhances its ability to defend against potential threats from Pakistan. These sophisticated systems are capable of attaining multiple air targets such as aircraft and missiles, at long ranges. Although primarily defensive, the S-400's ability to prevent the Pakistani air force from operating with relative impunity in the airspace is of value to India's offensive strategies, as it can deny the Pakistanis control over the airspace to support their

groundbased operations. This deployment, therefore, may restrict the operational capacity of the Pakistan Air Force and force it to revisit its tactics, or may curtail an effective response in some instances (Modern Diplomacy, 2022). For India, the procurement of Rafale jets and the S-400 air defense systems marks a significant transformation in its military capabilities, altering the security equation with Pakistan in South Asia and beyond. The Rafale and S-400 joint promises to all but restrict Pakistan's control over its airspace as well as its line of nuclear deterrence strategy.

5.2.3.3 Impact on Pakistan's Airspace Control

The Rafale jets, equipped with cutting-edge avionics, long-range strike capabilities, and exceptional maneuverability, markedly enhance India's air superiority (Sultan, 2019a). These aircraft enable India to conduct precision strikes and maintain dominance in aerial combat, posing a direct threat to Pakistan's air operations. Complementing the Rafale, the S-400 systems provide India with a formidable air defense network, capable of detecting and neutralizing a diverse array of aerial threats such as aircraft, drones, and ballistic missiles at ranges extending up to 400 kilometers (Sultan, 2019a). The synergy between these two systems creates a potent combined effect, effectively establishing a "no-fly zone" over border regions (Sultan, 2019a). This restriction severely limits Pakistan's operational flexibility, constraining its ability to deploy air forces effectively and increasing the vulnerability of its strategic assets near the border.

5.2.3.4 Threat to Pakistan's Nuclear Deterrence

The S-400's advanced anti-missile capabilities extend beyond conventional air defense, directly threatening Pakistan's nuclear deterrence. Pakistan's nuclear strategy relies heavily on its ballistic missile arsenal to deliver nuclear warheads, ensuring a credible second-strike capability as a cornerstone of its deterrence posture (Cheema, 2023).

However, the S-400's capacity to intercept ballistic missiles within its extensive operational range undermines this strategy by potentially neutralizing Pakistan's missile threats before they can reach their intended targets (Cheema, 2023). This development introduces a significant vulnerability in Pakistan's defense planning, necessitating a reevaluation of its nuclear deterrence framework to address the S-400's disruptive potential.

5.2.3.5 Pakistan's Countermeasures

In response to the threat posed by the S-400 system, Pakistan has given high preference to the Ababeel missile, a MIRV-capable medium-range ballistic missile (Cheema, 2023). The MIRV technology enables Ababeel to carry multiple warheads, allowing it to target multiple locations simultaneously. This capability makes the missile more likely to "overcome" missile defense systems. By acquiring such sophisticated counter-measures, Pakistan is attempting to revive confidence in its nuclear deterrent and negate the strategic advantage that India would gain from its improved air defence systems. India's induction of Rafale jets and S-400 systems in South Asia upends the strategic environment and poses significant threats to Pakistan's airspace management and nuclear deterrence. The combined effect of these systems restricts Pakistan's air operations and threatens the reliability of its ballistic missile-based nuclear strategy. Nevertheless, Pakistan's investment in countermeasures, such as the Ababeel missile, reflects a proactive effort to adapt to this evolving threat environment and preserve a balance of power in the region.

5.2.3.6 Countermeasures and Future Challenges

Pakistan has responded to India's deployment of the S-400 air defense system by enhancing its aerial and electronic warfare capabilities. This includes the acquisition of J-10C multirole fighters, HQ-9 surface-to-air missile systems, and Turkish-origin drones, all

of which are employed with tactics intended to circumvent S-400 radar detection (Crowley, 2025; Rousseau, 2025). Future strategic planning emphasizes the development of indigenous radar technologies and the integration of Chinese BeiDou navigation systems (China Aerospace Studies Institute, 2019). However, these advancements are hindered by persistent funding shortages and a lack of technical expertise. In the diplomatic realm, Pakistan has supported United Nations-led confidence-building measures, but progress is impeded by India's reluctance to engage, further complicating regional stability and Pakistan's strategic calculus.

India's naval modernization, exemplified by the commissioning of the *INS Vikrant* in 2022 and the expansion of its fleet to exceed 140 warships, has significantly altered the maritime balance in the Indian Ocean. The deployment of dual-carrier battle groups has significantly enhanced India's maritime power projection (Mann, 2025). Backed by a \$4 trillion economy and a defense budget of \$75 billion eight times larger than Pakistan's \$10.2 billion India's blue-water navy is capable of projecting power across the Arabian Sea. This poses a threat to Pakistan's maritime security, particularly at the ports of Karachi and Gwadar, which handle approximately 70% and 20% of its trade, respectively (SIPRI, 2023; IMF, 2025; Times of India, 2025). India's naval growth, primarily driven by its desire to contain China and assert regional dominance, exacerbates the classic security dilemma: defensive measures perceived as offensive threats (Jervis, 1978). From Pakistan's perspective, Indian maritime dominance serves not only as a conventional threat but also as a coercive instrument.

India's naval ambitions have turned it into a blue-water navy capable of sustained operations. The *INS Vikrant*, commissioned in 2022, enhances India's ability to project power with carrier-based aircraft and missile systems (Ozberk, 2022). By the end 2025,

India's fleet is expected to include two aircraft carriers, numerous submarines, and a range of surface ships, supported by a \$20 billion capital outlay and a focus on domestic production (Krishna, 2025). In contrast, with a \$1.5 billion budget, Pakistan's naval modernization supports 121 vessels, including submarines and frigates, but faces operational and delivery hurdles (Naseer & Khan, 2022).

India's advancements in space technology, particularly its Anti-Satellite (ASAT) and Navigation with Indian Constellation (NavIC) systems, have widened the intelligence gap with Pakistan, undermining its early warning capabilities and amplifying threat perceptions. Supported by an \$81 billion defense budget, compared to Pakistan's \$10.2 billion, India's space program enhances its surveillance, navigation, and potential disruption of Pakistan's limited space assets (SIPRI, 2023).

5.2.4 India's ASAT Capability: A Strategic Disruptor

India's ASAT capabilities, demonstrated in 2019, enable it to target satellites in low Earth orbit, potentially threatening Pakistan's sole ISR satellite, PRSS-1. This vulnerability could disrupt Pakistan's early warning systems, which rely heavily on satellite imagery, exposing it to undetected threats, as ground-based radars offer limited coverage. With India's ASAT reach expected to expand by 2025, Pakistan faces increased pressure on its \$50 million space budget, intensifying its strategic disadvantage.

5.2.5 NavIC System: Precision and Control

The NavIC system provides India with precise navigation and timing, enhancing its military operations with real-time targeting capabilities (ISRO, 2025). Pakistan, relying on the less accurate BeiDou system may struggle to match this. This navigation edge strengthens India's ability to execute rapid, coordinated strikes, further widening the intelligence gap.

5.2.6 Strategic Implications: Defense Spending and Modernization

India's defense budget, eight times larger than Pakistan's, funds significant investments in air, naval, and space capabilities, while Pakistan's constrained budget struggles to compete (SIPRI, 2024).

5.3 Nuclear Responses: Full-Spectrum Deterrence

5.3.1 Evolution of Full-Spectrum Deterrence (FSD)

FSD doctrine, developed in the aftermath of its 1998 nuclear tests, reflects a strategic recalibration in response to India's expanding nuclear triad and conventional military superiority. India's growing defense posture underpinned by a \$4 trillion economy and a \$75 billion defense budget stands in stark contrast to Pakistan's relatively modest GDP of \$340 billion and a defense allocation of \$10.2 billion (SIPRI, 2023; IMF, 2025). Conceptualized initially as Minimum Credible Deterrence (MCD), FSD has evolved to account for India's advancements in land-based Agni missiles, air-delivered glide bombs, and submarine-launched ballistic missiles (SLBMs). This transformation has also been necessitated by India's Cold Start Doctrine and its deployment of Ballistic Missile Defense (BMD) systems, which challenge the credibility of Pakistan's retaliatory capability (Clary & Narang, 2019).

FSD deters across levels. Amb Masood Khan (2025, personal communication) stated that FSD aims to deter aggression at all levels. By incorporating tactical nuclear weapons, Pakistan seeks to deter limited Indian incursions. So far, it has succeeded in preventing major war.

FSD aims to ensure deterrence across all levels—tactical, operational, and strategic thereby preserving the strategic equilibrium in South Asia. In an interview conducted by author, Dr. Adil Sultan, Dean FASS at Air University, emphasized that FSD “provides

options to Pakistani decision-makers to respond to the Indian threat proportionately without resorting to the use of strategic nuclear weapons, which remains one of the options but not the only option” (Sultan, 2025, personal communication). FSD is seen not as an offensive posture but a defensive necessity rooted in existential insecurity. This doctrine exemplifies the *security dilemma* in international relations: actions taken by one state to increase its security often provoke fear and countermeasures in another, thereby escalating tensions even when the original intent was defensive (Herz, 1950; Jervis, 1978). Prof. Dr. Zafar Nawaz Jaspal also affirmed that: “The full-spectrum deterrence enables Pakistan to deter India’s aggression at all the rungs of war. It checks mated India’s cold start doctrine and massive retaliation India’s nuclear posture” (Jaspal, 2025, personal communication).

The subsequent section will examine the doctrinal transformation of FSD since 1998, analyzing its technological advancements, strategic underpinnings, and the broader implications for deterrence stability in a region characterized by nuclear asymmetry and historical rivalry.

5.3.1.1 Pre-1998 Foundations: Nuclear Ambiguity and Strategic Imperatives

Pakistan’s nuclear journey began in the 1970s, catalyzed by India’s 1974 “Smiling Buddha” test which starkly revealed Pakistan’s conventional inferiority following the 1971 war, where it lost East Pakistan under Prime Minister Zulfikar Ali Bhutto, Pakistan formally launched its nuclear weapons program in early. By the 1990s, Pakistan and India both believed that the other possessed nuclear weapons, though Pakistan maintained a posture of ambiguity a foundational element of its deterrent strategy (Siddique & Faisal, 2016). The 1990 Kashmir crisis, during which India mobilized 200,000 troops, and India's 1998 Pokhran-II tests spurred Pakistan to conduct the Chagai-I and Chagai-II tests under

Prime Minister Nawaz Sharif, thereby establishing its overt nuclear capability (Kapur, 2003; FAS, 1998). These developments gave rise to Pakistan's "minimum credible deterrence" doctrine maintaining a restrained arsenal to deter both India's nuclear and conventional threats during a time when Pakistan's GDP was roughly US\$62 billion, compared to India's US\$450 billion.

MCD, announced in 1998, was India-centric, emphasizing a second-strike capability to ensure Mutually Assured Destruction (MAD) without matching India's arsenal size. Pakistan's early nuclear posture, included air-delivered bombs via F-16 jets and short-range Ghaznavi (Hatf-III) missiles (250-km range), but it lacked a formal triad, relying instead on centralized control under the newly formed National Command Authority (NCA) in 2000 (Khan, 2012; Nautilus, 2017). India's nuclear triad began with Prithvi missiles (150-km range, deployed in 1988) and Mirage 2000 aircraft (1985), later formalized post-1998 with Agni-II (2,000-km range), posing a growing challenge that prompted Pakistan to refine its doctrine. Unlike China, Pakistan rejected India's no-first-use (NFU) policy, maintaining a first-use stance to deter conventional incursions.

5.3.1.2 1998–2003: Minimum Credible Deterrence and Early Challenges

Following 1998, Pakistan's credible minimum deterrence (CMD) doctrine aimed for a nuclear arsenal sufficient to deter India's nuclear triad including Agni-II missiles, Mirage 2000s, and planned SLBMs on INS Arihant. The National Command Authority (NCA), chaired by Lt Gen Khalid Kidwai, established four nuclear thresholds in 2001: territorial loss, military defeat, economic strangulation, and internal destabilization signaling a low-use barrier to counter India's conventional strength (1.4 million vs. 650,000 troops) (Kidwai, 2001; Kidwai, 2002). By 2003, Pakistan's nuclear arsenal was estimated at 20–30 warheads, fielding Ghauri-I (1,500 km range) and Shaheen-I (750 km)

missiles; however, the lack of tactical and sea-based capabilities limited deterrence against India's Cold Start doctrine (Arms Control Association, 2023; Carnegie Endowment, 2016). The 2001–02 Operation Parakram—following the Parliament attack exposed CMD's deficiencies, as India's rapid 500,000-troop mobilization forced Pakistan to defend against conventional aggression (Kapur, 2003).

5.3.1.3 2004–2011: Transition to Full-Spectrum Deterrence

The introduction of India's Cold Start Doctrine in 2004, aiming for rapid, limited incursions, and the 2003 Official Nuclear Doctrine (OND) promising “massive retaliation” against any nuclear use, necessitated Pakistan's doctrinal evolution. Pakistan transitioned from MCD to FSD, announced in 2011, to deter India's conventional and nuclear threats across all domains. FSD, costing \$2 billion by 2011, expanded Pakistan's arsenal to 90–110 warheads, incorporating tactical nuclear weapons (TNWs) like the Nasr missile (60km range, tested 2011) to counter India's Integrated Battle Groups (IBGs) (Kristensen & Norris, 2015; Arms Control Assoc., 2023). The Nasr, derived from China's WS-2 rocket, aimed to plug tactical gaps, ensuring deterrence against limited incursions without escalating to strategic strikes.

Pakistan's strategic calculus was driven by India's advancements in its nuclear triad, including the Agni-III (3,000 km range, 2006) and Mirage 2000 upgrades (2000s). The development of INS Arihant signaled a sea-based second-strike capability (UK Parliament, 2022).

FSD's institutionalization from 2012 to 2018 focused on completing Pakistan's nuclear triad to counter India's operational triad, formalized with the induction of INS Arihant in 2016 Agni-V (5,000 km range, 2012). To absorb strikes, enhance survivability. Kidwai (2025, personal communication) noted that “At the moment it is only a theoretical

possibility. Requirements for a successful first strike are very demanding and the chances of survival of a handful of weapons cannot be ruled out therefore no one would take a risk. To ensure survivability there are several measures such as: dispersal, putting some weapons in silos, keeping weapons on mobile launchers and moving them around incidentally all our missiles are on mobile launchers.

Finally, putting some weapons on the submarines provides the assured second strike capability and we have already tested, submarine launched cruise missile Babur-3.”Pakistan’s Strategic Plans Division (SPD), under Kidwai, articulated FSD’s tenets in 2013: full-spectrum weapons (tactical, operational, strategic), range coverage (0–2,750 km), and target flexibility (countervalue, counterforce, battlefield) to deter India’s massive retaliation policy (Mahmood et al. 2022). The Babur-III cruise missile, with a range of 450 km and a cost of \$100 million, was tested in 2017. Launched from Agosta 90B submarines, which cost \$1 billion, this missile established a seabased second-strike capability. (Nagappa et al. 2018).

The Ra’ad air-launched cruise missile (350-km range, \$80 million, 2012) and Shaheen-III (2,750-km range, 2015) completed the triad, targeting India’s eastern seaboard and countering BMD systems. FSD counters India’s triad. Dr. Ghulam Mujaddid, interviewed by author, noted that “assured strike capability requires SSBN for SLBM. How assured strike capability of India effects Pakistan’s response? India assured second strike capability is India’s insurance that Pakistan would not use nuclear weapons against India. In the same view, Pakistan’s assured second strike capability would restrain India from launching pre-emptive counter force nuclear strike against Pakistan” (Mujaddid, 2025, personal communication).

India's BMD advancements, including the Prithvi Air Defence (\$1 billion, 2010s) and the 2016 Uri attack response (surgical strikes, \$50 million), prompted Pakistan to deploy TNWs like Nasr to deter conventional incursions (Hartvigsen, 2024). However, critics questioned their efficacy against India's ISR superiority and Pakistan's fissile material production. This support for FSD, although it strained Pakistan's \$128 billion debt-laden economy.

5.3.1.4 2019–2025: Refining FSD against India's Triad and beyond

From 2019 to 2025, FSD evolved to counter India's maturing nuclear triad, including INS Arihant and Agni-VI (6,000 km range, under development). Pakistan's National Security Policy 2022 emphasized the integration of FSD with conventional forces, including low-yield TNWs such as the SH-15 howitzer and the Ababeel missile (MIRV, 2017), designed to penetrate India's BMD (Kaur, 2022). The Babur-IA cruise missile and Ra'ad-II (600-km range, 2020) enhanced counterforce targeting, addressing India's ISR advancements via Cartosat-3 and NavIC. This reflects FSD's evolution toward integrating nuclear, conventional, and tactical forces in Pakistan's 2022 national security strategy (Chawla, 2022). Critics, such as Nayyar (2023), question the TNW's survivability against India's MQ-9B drones, which cost \$3.9 billion. Economic constraints limit fissile material production, with Pakistan's 5.3 ± 1.5 tons of HEU versus India's ~6 tons and a projected arsenal of fewer than 200 warheads by 2025 (International Panel on Fissile Materials, 2025; Carnegie Endowment, 2016).

5.3.1.5 Strategic and Regional Implications

The Nasr, Babur-III, and Shaheen-III counter India's IBGs, SLBMs, and BMDs, but lower nuclear thresholds risk miscalculation (Mitra et al., 2021). Pakistan's \$340 billion economy struggles to sustain FSD, diverting \$200 million annually from social welfare,

with per capita health spending at \$40 compared to India's \$90. Societally, FSD bolsters national pride, with 70% of Pakistanis supporting nuclear modernization in a 2025 Gallup poll; however, protests over inflation reflect economic strain (Gallup Pakistan, 2025). Regionally, FSD intensifies the arms race, with India's 2025 budget speech hinting at a reconsideration of the No First Use (NFU) policy, thereby escalating tensions.

5.3.1.6 Future Risks and Strategic Stability

India's MIRV breakthrough could undermine Pakistan's deterrent and destabilize the strategic balance (Khan, 2024; Altaf & Javed, 2024). Fateh III's developmental delays and Pakistan's \$340 billion economy, facing a projected \$10 billion deficit by 2026, limit scalability. Forward deployment of Shaheen-III creates preemption risks, and deploying Fateh missiles near populated areas could escalate conflicts. Pakistan frames the Agni-V as destabilizing, while positioning the Fateh series and Shaheen-III as stabilizing elements; however, economic constraints cast doubt on their long-term sustainability.

In conclusion, the Fateh-I, Fateh-II, Fateh-III, and Shaheen-III missiles, with ranges of 120–2,750 km, enhance Pakistan's FSD by deterring India's Cold Start and Agni-V threats. While Fateh missiles target tactical and operational assets, the Shaheen-III counters Agni-V's strategic reach, ensuring Mutual Assured Destruction (MAD). Economic and technical constraints, however, limit deterrence, with regional escalation risks persisting.

5.3.2 MIRV Development: Ababeel Missile

Interestingly, the Pakistan Ababeel missile, a MIRV capable MRBM (Medium-Range Ballistic Missile), represents a significant development under Pakistan's FSD doctrine, designed to counter India's BMD (Ballistic Missile Defense) systems (Shahid, 2023).

5.3.2.1 Technical Specifications of the Ababeel Missile

The Ababeel, a three-stage, solid-fueled medium-range ballistic missile (MRBM), was first tested on January 24, 2017, with a second test on October 18, 2023. It has a maximum range of 2,200 kilometers, covering the entire country of India. Measuring 21.5 meters in length and 1.7 meters in diameter, it carries a 1,500 kg payload, capable of delivering multiple nuclear or conventional warheads via MIRV technology a first in South Asia (Kaur, 2022). The missile's solid-fuel system, costing \$20 million per unit, ensures rapid launch and survivability, with a circular error probable (CEP) of 200–300 meters, improved by a postseparation attitude correction (PSAC) system (Kaur, 2022). Mounted on a Chinese-derived TEL the Ababeel achieves Mach 18 speeds, complicating interception by India's BMD radars (Kaur, 2022).

The Ababeel's MIRV capability, potentially carrying 3–6 warheads (each with a yield of 10–40 kilotons), allows for independent targeting, saturating BMD systems like the S-400, which can engage up to 36 targets simultaneously (Khan, 2019). While some experts question Pakistan's warhead miniaturization due to its 3.5-ton highly enriched uranium stockpile compared to India's 6 tons, the missile's larger nose cone compensates, as noted by analyst Rajaraam Nagappa. The 2023 test validated MIRV subsystems, with optical tracking equipment from China enhancing accuracy.

5.3.2.2 Strategic Rationale: Countering India's BMD

The Ababeel's MIRV technology is designed to neutralize India's BMD by overwhelming its interceptors, ensuring Pakistan's second-strike capability and maintaining mutual vulnerability a cornerstone of strategic stability. "Pakistan's development of MIRV in response to India's BMD will create the offense–defense balance and enhance the nuclear deterrence in the region" (Khan, 2019). India's PAD and AAD, with 100% kill probability

against single-warhead missiles up to 2,000 km, and the S-400's 400-km range, can intercept Pakistan's single-warhead missiles like the Shaheen-III (2,750 km) or Fateh-II (400 km). However, MIRVs, releasing warheads late in the reentry phase, challenge BMD radars like Swordfish (1,500 km range), as multiple warheads disperse hundreds of kilometers apart, requiring multiple interceptors per missile. Former IAF Group Captain UK Devnath noted that the late warhead release of MIRVs complicates tracking and overwhelms India's BMD capacity.

Pakistan's strategic rationale, articulated by the National Command Authority (NCA) in 2017, emphasizes "full-spectrum deterrence under credible minimum deterrence," countering India's counterforce strategy. "In 2013, the National Command Authority (NCA) signaled. Recent investments suggest Pakistan's shift towards a more complex Full Spectrum Deterrence posture" (Chawla, 2022). The Ababeel's ability to target BMD sites, command centers, and cities like Delhi, Mumbai, or Kolkata ensures deterrence against India's preemptive strikes. Moreover, "Pakistan's full-spectrum deterrence capability comprises horizontally a robust tri-services inventory. Vertically adequate range coverage from zero meters to 2,750 km India's vast eastern and southern geographical dimensions are, therefore, entirely covered" (Arms Control Association Staff, 2023).

5.3.2.3 Strategic and Societal Implications

The budget disparity shapes Pakistan's strategic posture, forcing reliance on cost-effective systems like Nasr and Fateh-II to counter India's arsenal. The Ababeel's MIRV capability, constrained by funding limits its saturation against India's BMD, risking deterrence gaps. Pakistan's first-use doctrine, articulated by Khalid Kidwai, leverages limited resources to

deter India's Cold Start; however, lower thresholds risk miscalculation, as seen in Sindoor's escalation.

Future risks for Pakistan include India's BMD advancements, with the AD-2 (\$1 billion) and upcoming sea-based systems potentially neutralizing Ababeel by 2028, requiring \$200 million in upgrades (EurAsian Times, 2025). The \$340 billion economy, facing a \$10 billion deficit by 2026, limits scalability, as \$500 million for nuclear modernization is inadequate compared to India's \$5 billion (Moneycontrol, 2025). Jaspal (2025, personal communication) cautioned that

“Pakistan is exposed to various kinds of threats. India has been employing all categories of aggression, including grey zone warfare and hybrid warfare tactics, against Pakistan. Therefore, Pakistan must acquire proficiency in cyber warfare. Notably, Pakistan must adopt and operationalize a comprehensive grand strategy for its sovereign survival, which, of course, includes all kinds of proxies, including cyber.”

5.3.3 Doctrinal Debates: Escalation Risks

Pakistan's FSD doctrine developed from Minimum Credible Deterrence (MCD) since 1998 has triggered vigorous discussions in strategic, academic and policy quarters about its potential for escalation, given India's advanced military capabilities and a \$4 trillion economy and an \$75 billion defense budget in comparison to Pakistan's \$340 billion GDP and \$10.2 billion defense budget (SIPRI 2023; IMF, 2025). Aiming to dissuade India's conventional and nuclear attacks at the tactical, operational, and strategic levels, FSD accommodates weapons such as the Nasr tactical nuclear weapon (TNW), Shaheen-III, and Ababeel missiles, providing a credible secondstrike capability. Nonetheless, its first-use, lowered nuclear thresholds, and dependence on TNWs open the risk of unintended escalation, particularly when confronting India's counterforce strikes.

5.3.3.1 Regional and International Perspectives

Regionally, FSD's escalatory potential is debated in the context of South Asia's nuclear dynamics. Pakistani strategists, such as Adil Sultan, argue that FSD deters India's conventional aggression, as evident in the 2019 Balakot restraint, which prevented a total war (Sultan, 2019a).

Internationally, Western analysts and US policymakers view FSD as destabilizing. The US, citing Pakistan's 170 warheads and first-use policy, imposed sanctions on its missile program in 2024, with Jon Finer warning of "unacceptable risks". A 2023 SIPRI report highlighted FSD's TNWs as increasing miscalculation risks, with India's BMD and counterforce capabilities potentially triggering preemptive Pakistani strikes (SIPRI, 2023). Indian strategists, such as Rajesh Rajagopalan, argue that FSD's escalatory potential is overstated, as India's No First Use (NFU) and conventional restraint (e.g., the 2016 Uri incident) limit nuclear triggers.

5.4 Budget Limitations: Conventional Forces

Pakistan's \$1.5 billion modernization budget for conventional forces in 2025 just 14.7 percent of its \$10.2 billion total defense allocation—imposes significant constraints on its ability to counter India's advanced military capabilities, which are backed by a \$4 trillion economy and an \$75 billion defense budget (Stockholm International Peace Research Institute [SIPRI], 2023). This fiscal disparity is compounded by Pakistan's \$128 billion external debt and its reliance on a \$7 billion Extended Fund Facility arrangement approved by the IMF in September 2024 (International Monetary Fund [IMF], 2024). Together, these factors limit the procurement, maintenance, and development of critical systems such as the J-10C fighter jets, HQ-9 air defense systems, and Bayraktar TB2 drones as well as indigenous platforms like the Burraq UCAV and Shahpar-2 UAV.

5.4.1 Naval and Ground Forces

Pakistan is actively pursuing the modernization of its naval capabilities to counter India's growing maritime presence. A significant aspect of this modernization is the incorporation of the Anti-Access/Area-Denial (A2/AD) strategy, which aims to deter or complicate adversary access to Pakistan's littoral waters. According to Ali (2021), the A2/AD strategy for the Pakistan Navy remains a "work in progress," focusing on leveraging asymmetrical maritime assets such as submarines, coastal missile systems, and surveillance platforms to deny India freedom of action in the Arabian Sea.

Recent developments underline this strategic orientation. The Pakistan Navy launched its second Hangor-class submarine in China in March 2025, as part of a broader plan to induct eight Chinese-origin Type-041 Yuan-class submarines. These diesel-electric submarines are equipped with air-independent propulsion (AIP) systems, significantly enhancing Pakistan's underwater endurance and stealth capabilities. This move enhances Pakistan's second-strike capability and strengthens its sea denial strategy in the Indian Ocean Region (Naval News, 2025).

Together, the doctrinal shift toward A2/AD and the induction of modern submarines reflect a deliberate attempt by Pakistan to achieve strategic parity at sea. These measures are not only designed to close the conventional naval gap with India but also aimed at creating a credible deterrence in an environment of asymmetric capabilities.

5.4.2 Drone and Cyber Capabilities

Drone modernization, with a \$250 million allocation, supports the acquisition of Bayraktar TB2 (approx. \$5 million each, 50 units), Burraq (est. \$100 million), and Shahpar-2 (around \$50 million); however, limited R&D funding (\$500 million vs. India's ₹28,149 crore) restricts advanced sensor upgrades (Atlantic Council, 2022; DefenceXP, 2025; Stimson,

2019). India's \$1 billion cyber budget and AI-driven malware initiatives outpace those of Pakistan, with only \$50 million allocated for zero-day exploit development, which is deemed inadequate for matching India's cyber capabilities (Stimson, 2019). Amb Masood Khan (2025, personal communication) emphasized that "cyber capabilities offer a cost-effective way to counterbalance India's superior conventional forces. These skills are crucial for asymmetric strategies. Pakistan's cyber warfare capabilities were dramatically displayed when Pakistan neutralized India's power grids. However, there is room for significant growth."

5.4.3 Strategic Trade-Offs and Prioritization

The \$1.5 billion budget forces Pakistan to prioritize cost-effective platforms, such as the Chinese J-10C jets (\$40–70 million compared to Rafale's \$120–285 million) and the indigenous Shahpar-2 (\$2–5 million compared to MQ-9 B's \$30 million), over advanced systems. This reliance on China which provides \$4.8 billion for the J-10C and submarines reduces costs but risks technological dependency, with ~60% of the equipment being Chinese-made (Defense Industry Daily, 2025; The Guardian, 2025). The 2022 AFDP cut of \$346 million, meeting IMF demands, shelved artillery and drone programs, prioritizing air and naval assets—a trend that continued in 2025.

Dr. Adil Sultan, in an interview conducted by author, noted that partnerships with China and Turkey "have helped reduce dependency on US systems and diversified [Pakistan's] military procurement" (Sultan, 2025, personal communication).

Mitigation strategies include increasing the modernization budget to \$2 billion by 2027, which would require \$500 million in additional revenue, potentially through investments in CPEC. Indigenous production, such as the Shahpar-2 and Al-Khalid tanks, could save

\$200 million annually, thereby reducing import costs. Partnerships with China and Turkey, which provide \$100 million in training and tools, enhance the capabilities.

5.5 Constraints and Challenges

5.5.1 Defense Budget Limitations

Pakistan's defense budget, reported at approximately \$8.5 billion for fiscal year 2025–26, comprises significant salary and operational costs, severely limiting modernization efforts against India's \$81 billion defense budget and \$20 billion capital outlay (Reuters, 2025; Operations Indoor, 2025). With a \$340 billion GDP and \$128 billion in debt. Pakistan, rejecting India's false-flag accusations regarding the 2025 Pahalgam attack, faces fiscal constraints that hinder its Comprehensive Layered Integrated Air Defence (CLIAD) and conventional capabilities (Al Jazeera, 2025).

5.5.1.1 Budget Allocation and Salary Dominance

Pakistan's \$8.5 billion defense budget for FY 2025–26, marking a 20% rise from PKR 2.12 trillion (\$7.64 billion) in FY 2024–25, is mainly allocated to Defense Services (PKR 2.12 trillion, \$7.6 billion), with minimal portions for Defense Administration (PKR 6.7 billion, \$24 million) and state-run defense industries (PKR 3.7 billion, \$13 million) (Reuters, 2025; Janes, 2025).

5.5.1.2 Operational Impacts

Salary dominance restricts modernization, with only 47.5% (\$4 billion) allocated to the Army, 21.3% (\$1.8 billion) to the Air Force, and 10.8% (\$920 million) to the Navy, thereby limiting operational readiness (Dawn, 2025; Reuters, 2025). The Air Force, with 150 combat aircraft compared to India's 600, struggles to maintain its fleet of J-10C jets (\$1 billion, 25–36 units), as \$200 million is diverted to sustain the aging F-16 and Mirage III aircraft (Janes, 2025).

Air defense systems, including the HQ-9 and LY-80, which are funded at \$300 million, currently cover only about 30% of the national airspace. The absence of funds for advanced AESA radar installations undermines Pakistan's ability to counter India's \$5.4 billion S-400 system (Pakistan Navy, 2025; Reuters, 2025). Naval modernization, funded at \$200 million, has delayed the delivery of Type-041 submarines to 2028, leaving Pakistan's 121 naval vessels significantly outmatched by India's 293 (Reuters, 2025).

5.5.1.3 Strategic Consequences

The budget's salary dominance undermines Pakistan's deterrence, with \$1.5 billion allocated for modernization being insufficient compared to India's \$20 billion outlay.

5.5.2. Debt and Inflation Pressures

Pakistan's \$128 billion external debt and 20% inflation rate in 2025 significantly strain its \$8.5 billion defense budget and \$62 billion CPEC ambitions, particularly when compared to India's \$4 trillion economy and \$75 billion defense spending (Trading Economics, 2025; Reuters, 2025). Burdened by \$7 billion in IMF bailouts and approximately \$15 billion per year in debt servicing, Pakistan faces mounting fiscal pressure that hinders defense modernization and strategic investments (USIP, 2024; Reuters, 2025).

5.5.2.1 Debt Composition and Fiscal Constraints

Pakistan's \$128 billion external debt approximately 37% of GDP includes \$33 billion owed to China (25.8%), \$7.541 billion to the Paris Club, \$38.813 billion to multilateral donors, \$7.596 billion to the IMF, and \$7.8 billion in Eurobonds/Sukuks (State Bank of Pakistan, 2024). CPEC loans of \$27.4 billion have been realized, and \$1.4 billion in unpaid power plant dues contribute to a \$2.3 billion circular debt, with \$90 billion in repayments projected over 30 years at an interest rate of 3.76% (Trading Economics, 2025). Debt servicing consumes 29.1% of the federal budget (PKR 2.47 trillion/ \$8.8/

\$8.8 billion) surpassing defense spending, which restricts modernization funding (State Bank of Pakistan, 2024; Reuters, 2025). The 2023 \$3 billion IMF Standby Arrangement and the 2024 \$7 billion Extended Fund Facility (EFF) impose austerity measures, including a \$346 million cut from the AFDP in 2022 and the removal of subsidies, which further fuels inflation (Reuters, 2025; Reuters, 2024).

5.5.2.2 Inflation and Economic Impacts

The 20% inflation rate in 2025, down from 29% in 2024, reflects surging costs in food (47.1% urban, 50.2% rural in 2023), electricity, and fuel, driven by a depreciating rupee and a \$30 billion import bill (PBS, Aug 2024; TBS News, 2025). Inflation has eroded the real value of Pakistan's \$8.5 billion defense budget, with \$4.7–5.1 billion in salaries absorbing cost-of-living adjustments, leaving \$1.5 billion for modernization (Janes, 2025).

5.5.3 Space Technology Gaps

Pakistan's Space and Upper Atmosphere Research Commission (SUPARCO), with a 2025 budget of approximately \$50 million, significantly lags behind ISRO, which operates on a multibillion-dollar budget of over \$13 billion, widening a critical technological gap in ISR and satellite capabilities needed to counter India's defense expenditure. This disparity limits Pakistan's strategic and operational capabilities in space, leaving it unable to match India's increasingly sophisticated space-based assets.

5.5.3.1 Budget and Program Disparities

The Space and Upper Atmosphere Research Commission of Pakistan (SUPARCO) operates under crippling funding constraints. Appreciating these limitations, SUPARCO is involved in high-impact projects, including the Pakistan Space Centre, the communication satellite PakSat-MM1, the Pakistan Remote Sensing Satellite02 and the Pakistan Satellite Navigation Programme.

By contrast, ISRO commands a \$13 billion budget, supporting a broad portfolio of civil and military missions, such as Chandrayaan-4 and Martian exploration programs. With 55 launches per year, ISRO sustains a constellation of 18 Earth observation satellites, including Cartosat-3, which delivers a spatial resolution of 0.25 meters. This exceeds the resolution capability of SUPARCO's PRSS-1, which provides 1-meter resolution imagery from a sun-synchronous orbit at an altitude of 640 km, designed for land cover classification, urban planning, and disaster monitoring (SUPARCO, 2024).

While PRSS-1 represents a milestone in Pakistan's Earth observation capabilities, it remains technically dependent on China, as the satellite was developed and launched with Chinese collaboration. The satellite supports applications such as natural resource management, infrastructure monitoring, and national security surveillance, but lacks the optical precision and constellation scale of India's satellite fleet (SUPARCO, 2024; Sahim, 2020). ISRO has also advanced in navigation technology with NavIC, a regional navigation system offering 10-meter accuracy, compared to Pakistan's nascent efforts under the PSNP, which is still under development (Sahim, 2020).

This strategic imbalance suggests that while SUPARCO has made measurable progress particularly with the deployment of PRSS-1, it remains far behind ISRO in terms of satellite autonomy, spatial resolution, launch frequency, and scientific capability. As India continues to expand its dual-use space capabilities, Pakistan's dependence on external support restricts the strategic sovereignty of its space program (Sahim, 2020; SUPARCO, 2024).

5.5.3.2 Budget Constraints and Strategic Gaps in SUPARCO's Operational Capabilities

SUPARCO's annual budget significantly constrains its satellite launch capacity, with its single Earth observation satellite, PRSS-1, proving inadequate for real time ISR

operations. In contrast, India's Cartosat-3 constellation, with 0.25-meter resolution, coupled with the NavIC navigation system, enabled India to conduct 15-minute precision Rafale airstrikes without detection, underscoring a substantial ISR asymmetry (Sahim, 2020). SUPARCO's communication infrastructure is also lagging. The PakSat-MM1 satellite, intended to enhance national telecommunication and surveillance capabilities, remains delayed until 2026 and is heavily reliant on Chinese technology. Conversely, ISRO's GSAT-7A, a \$100 million military communications satellite, has already been integrated into India's Command, Logistics, Intelligence, and Air Defense framework, providing seamless connectivity across its armed forces (Sahim, 2020).

While Pakistan announced ambitions for lunar exploration in 2023, it remains in the early conceptual stage. India, meanwhile, completed its Chandrayaan-3 lunar landing in 2023 on a \$90 million budget, showcasing not only cost efficiency but also indigenous technological competence in planetary missions (Sahim, 2020).

5.5.3.3 Limitations of Pakistan's Space Program

SUPARCO faces severe budget and technological constraints that limit its ability to compete with ISRO. Its budget is a tiny fraction of ISRO, restricting SUPARCO to a single operational satellite and delaying key projects, such as PakSat-1, now expected only by 2026 (Scientia Magazine, 2021; Pakistan Today, 2024). PRSS-1, while a significant milestone, operates at 760 km altitude with 1 m resolution insufficient for continuous, high-resolution ISR required in modern military applications (SUPARCO, n.d.; Gunter's Space Page, n.d.).

5.5.3.4 Geopolitical Implications of Reliance on China

Pakistan's increasing dependence on China for space technology carries significant geopolitical consequences. China has been a key partner, assisting with PRSS-1, PakSat-

MM1, and the planned Pakistan Space Centre, which aims to bolster Pakistan's satellite services over the next five years. This reliance risks strategic marginalization for Pakistan. Moreover, Pakistan's dependence on China for launches and technology transfers limits its autonomy, making it vulnerable to shifts in Beijing's priorities. Pakistan's space program faces a critical technology gap with India, driven by SUPARCO's limited budget, technological constraints, and heavy reliance on China.

In contrast, ISRO's expansive infrastructure and investment enable India to sustain a robust and self-reliant ISR and navigation capability. Chinese collaboration, while a lifeline for PRSS-1, PakSat-MM1, and future initiatives, falls far short of bridging the technological gap with India (Reuters, 2025). To avoid strategic marginalization, Pakistan must not only significantly increase its space budget but also invest in developing indigenous technologies. However, given the current imbalance in resources and technological foundation, achieving parity with ISRO remains a formidable challenge.

5.5.4 Terrorism Costs

Pakistan's \$200 million annual counterterrorism expenses, addressing threats from groups like the Balochistan Liberation Army (BLA) and Tehreek-e-Taliban Pakistan (TTP), divert funds from its \$1.5 billion modernization budget, weakening deterrence against India's \$81 billion defense budget. Pakistan has lost approximately 90,000 civilians to terrorism and staunchly rejects India's accusations of false-flag operations, highlighting counterterrorism as a critical component of its post-Sindoor security posture (Tarar as cited in Hakim, 2025; Al Jazeera, 2023).

5.5.5 Political Instability

Pakistan's political instability marked by three governments since 2022 has significantly delayed defense procurement and modernization.

5.5.5.1 Governance Shifts

Since April 2022, Pakistan has experienced notable political instability, with three successive governments entering power. Imran Khan's PTI ousted via a no-confidence vote in April 2022, followed by Shehbaz Sharif's PML-N coalition (2022–2023), a caretaker government under Anwaarul Haq Kakar (2023–2024), and Sharif's return in 2024. This volatility has delayed defense procurement, weakened budget planning, and compromised strategic readiness (Reuters, 2022; East Asia Forum, 2025).

Public dissatisfaction has surged due to economic and political turmoil, marked by rising public debt and high inflation rates. A January 2025 Gallup Pakistan poll reported that 29% of respondents expressed dissatisfaction with the government, reflecting a decline in trust (Gallup Pakistan, 2025). The contested 2024 elections marred by widespread allegations of rigging further delayed budget approvals, hindering the timely allocation of funds for the defense budget.

5.5.5.2 Procurement Delays

Political instability and IMF austerity have disrupted Pakistan's \$1.5 billion modernization budget. In 2022, the IMF imposed fiscal constraints that led to cuts from the Armed Forces Development Plan, delaying critical procurements under the caretaker government (Reuters, June 10, 2025).

5.5.5.3 Strategic Implications

Instability undermines Pakistan's Deterrence: Delayed procurements have exacerbated gaps in its command, control, intelligence, surveillance, and reconnaissance (C²ISR) capabilities. Pakistan's government via Prime Minister Sharif's 2025 address highlighted governance reforms aimed at stabilizing procurement while dismissing India's claimed provocations as destabilizing tactics. On the other hand, India capitalizes on Pakistan's

volatility with its steadfast \$1 billion defense diplomacy and ₹28,149 crore R&D investment.

5.5.6 Interoperability Issues

Pakistan's integration of US, Chinese, and Turkish military technologies, including F-16 jets, J-10C jets, and Bayraktar TB2 drones, creates interoperability challenges that undermine CLIAD's effectiveness.

5.5.6.1 Technical Integration Challenges

Pakistan's CLIAD integrates US F-16s Chinese J-10Cs, HQ-9 systems, and Turkish TB2 drones; however, differing standards create issues. F-16s use NATO-compliant Link-16 datalinks, which are incompatible with the J-10C's Chinese datalinks, necessitating huge budget in custom interface solutions.

CHAPTER SIX

STRATEGIC IMPLICATIONS FOR PAKISTAN

6.1 Introduction

6.1.1 Contextual Linkage

This chapter builds directly on the groundwork established in earlier sections of the thesis. Chapters 2 and 3 provided an in-depth examination of India's military modernization efforts, spotlighting key developments such as the BrahMos hypersonic missile variants leveraging Mach-3+ speeds and evasive maneuvers against missile defenses and the acquisition of the Russian S-400 Triumf system, which significantly enhances India's air defense against aircraft and ballistic threats (Chopra, 2021). Additionally, India's completion of a nuclear triad comprising land-based missiles, air-delivered atomic weapons, and submarine-launched ballistic/cruise missiles like those on the INS Arihant marks a substantial augmentation of its strategic arsenal (IISS, 2023). These advancements signal India's intent to project power not only regionally but also across the broader Indo-Pacific Theater, particularly in response to China's growing influence. Chapter 4 shifted focus to Pakistan, analyzing its strategic culture and reactions to these developments, including the adoption of Full-Spectrum Deterrence through tactical nuclear systems like the Nasr missile explicitly engineered to counter India's Cold Start doctrine as well as investments in cyberspace and space-based capabilities to offset conventional asymmetry. This chapter now synthesizes these prior discussions to assess how India's military strides influence Pakistan's strategic options and reshape the broader security landscape of South Asia.

6.1.2 Theoretical Anchoring

This chapter's analysis is firmly grounded in two key theoretical frameworks introduced in Chapter 1: offensive realism and the security dilemma. Offensive realism, as articulated by Mearsheimer (2001), posits that states in an anarchic international system are compelled to maximize their relative power in order to ensure their survival. India's military modernization aligns with this perspective, reflecting a strategic pursuit of regional hegemony and a counterbalance to both Pakistan and China. As Mearsheimer (2001) explains, states seek opportunities to shift the balance of power in their favor to secure dominance. However, this power-maximizing drive triggers a corresponding reaction from Pakistan, which is best understood through the lens of the security dilemma. According to Jervis (1978), when one state increases its security, others perceive it as a threat, leading to a spiral of retaliatory measures. This dynamic aptly characterizes the India–Pakistan relationship. Pakistan views India's military buildup as an existential threat. It responds with actions such as developing low-yield nuclear weapons and asymmetric capabilities, which, in turn, increase India's sense of insecurity (Jalil, 2017). These frameworks illuminate the core dynamics of the India– Pakistan rivalry, highlighting how strategic interactions are shaped by power-seeking behavior and mutual perceptions of threat.

6.1.3 Structure Overview

6.1.3.1 Erosion of Strategic Stability

This section examines the erosion of strategic stability in South Asia by analyzing how India's technological edge such as hypersonic missiles and S-400 air defenses intensifies the security dilemma and undermines the deterrence equilibrium (Raza & Mehmood, 2023; Arif, 2021).

6.1.3.2 Nuclear Deterrence & Escalation Risks

It explores Pakistan's Full-Spectrum Deterrence doctrine and the introduction of tactical nuclear weapons, such as the Nasr, assessing their destabilizing potential in crisis scenarios (Sitara Noor, 2023; Jalil, 2017).

6.1.3.3 Conventional Asymmetry & Asymmetric Response

This part analyzes the widening conventional military gap between India and Pakistan, highlighting Pakistan's reliance on proxy warfare, cyber strategies, and other asymmetric tactics to offset India's capabilities.

6.1.3.4 Geopolitical Realignments

It examines how India's military rise reshapes Pakistan's international relations, strengthening ties with China while factoring in India's growing alignments with the U.S., Japan, and other Indo-Pacific powers.

6.1.3.5 Economic & Domestic Constraints

This section evaluates the fiscal burdens and domestic political challenges Pakistan faces in attempting to match India's advances, especially given its limited resources and competing developmental needs.

6.1.3.6 Policy Recommendations

The chapter concludes with policy proposals designed to help Pakistan mitigate the strategic pressures from India, enhance regional stability, and balance deterrence with broader security and economic imperatives.

6.2 Disruption of Strategic Stability in South Asia

Strategic stability in South Asia previously maintained by a tenuous nuclear deterrence equilibrium between India and Pakistan is now under growing strain due to India's accelerated military modernization. India's acquisition of advanced air defense systems,

such as the S-400, its deployment of a ballistic missile defense (BMD) shield, and the development of hypersonic missile capabilities have collectively altered the strategic balance, substantially enhancing India's offensive and defensive capacities while intensifying Pakistan's insecurity. The security dilemma framework aptly explains this dynamic, wherein India's security-enhancing measures provoke fear in Pakistan, prompting escalatory responses (Jalil, 2017; Sitara Noor, 2023).

India's S-400 system and layered BMD architecture are especially destabilizing, as they erode the prospect of Mutually Assured Destruction by weakening Pakistan's second-strike nuclear capability (Air University, 2021; IISS, 2021). Pakistan views these developments as adversarial and accordingly seeks countermeasures, including the development of multiple independently targeted reentry vehicles (MIRVs) (e.g., Ababeel) and broader delivery systems designed to saturate India's missile defenses (Jalil, 2015; Scholar Pakistan, n.d.). This tit-for-tat arms buildup illustrates the classic security dilemma: each side's attempt to secure itself fuels escalating mistrust and a regional arms race, heightening the risk of miscalculation during crises (Jalil, 2017; Scholar Pakistan, n.d.).

Moreover, the cumulative effect of India's technological surge extends beyond bilateral relations. It complicates crisis stability, encourages deeper defense postures, undermines trust-building mechanisms, and amplifies nuclear entrapment scenarios across South Asia (Sitara Noor, 2023; Scholar Pakistan, n.d.). Without robust strategic engagement or arms control mechanisms, these dynamics risk a spiral of deterrence breakdown that threatens the region's longstanding stability.

6.2.1 India's Technological Edge and the Security Dilemma

India's pursuit of cutting-edge military technologies reflects its ambition to assert regional dominance, a strategy consistent with offensive realism's emphasis on maximizing power (Mearsheimer, 2001). Systems such as the S-400 Triumf air defense system, indigenous ballistic missile defense (BMD) capabilities, and hypersonic missiles like BrahMos II significantly enhance India's military posture, shifting the regional balance in its favor. India has notably "upgraded its capability to shoot down airborne systems" through these advancements, presenting a clear threat to Pakistan's nuclear deterrent (Haider, 2025). The deployment of hypersonic weapons in particular "shortens response time and raises the probability of miscalculations" in crisis scenarios (Khan, Masood, & Saqib, 2025).

These developments intensify the classic security dilemma, whereby efforts by one state to improve its security are interpreted as offensive threats by others (Jervis, 1976). From Pakistan's perspective, India's technological edge is not merely a defensive posture but a potential precursor to offensive action. This perception drives countermeasures such as the development of multiple independently targetable reentry vehicles (MIRVs) which further destabilize strategic relations (Jalil, 2017; Khan et al., 2025). Consequently, both states find themselves locked in a spiral of arms competition, shaped by misperceptions and mutual distrust, which exacerbates regional volatility.

6.2.1.1 India's Advancements and Offensive Potential

India's acquisition of the S-400 Triumf air defense system from Russia in 2018 represents a significant leap in its aerial defense capabilities. With a strike range of up to 400 kilometers and the capacity to engage a variety of targets including aircraft, drones, and ballistic missiles the S-400 enhances India's ability to assert control over its airspace and deny adversaries freedom of operation (Air University, 2021). Complementing this is

India's indigenous Ballistic Missile Defense (BMD) program, which includes systems such as the Prithvi Air Defence (PAD) and Advanced Air Defence (AAD), designed to intercept and destroy incoming threats within a layered defense structure (CAPS India, 2021). These combined systems provide India with a robust defense network that significantly erodes the offensive potential of adversaries like Pakistan.

Additionally, India's deployment of these technologies reflects a broader offensive posture. Analysts note that such developments may shift regional military doctrines by enabling India to consider pre-emptive or disarming strikes with greater confidence in its survivability (Debuglies, 2025). From an offensive realist perspective, these advancements demonstrate India's strategic intent to solidify regional hegemony. However, this technological superiority also deepens Pakistan's insecurity, prompting fears of encirclement and undermining the stability of nuclear deterrence in South Asia.

6.2.1.2 Pakistan's Perception and Escalation Risks

Pakistan interprets India's advanced military acquisitions as a direct threat to the regional strategic balance, rooted in the long-standing adversarial relationship and close geographic proximity between the two states. The S-400 air defense system, with its long-range, multitarget engagement capabilities, is viewed by Pakistan as a significant challenge to its deterrence strategy, which relies on the credibility of a second-strike capability (Arif, 2021; Air University, 2021). These perceptions are intensified by India's pursuit of advanced missile interception systems that further erode Pakistan's confidence in its retaliatory options.

To mitigate this perceived vulnerability, Pakistan has adopted a range of countermeasures aimed at restoring deterrence credibility. Notably, Pakistan has invested in tactical nuclear weapons and systems designed to penetrate or saturate Indian defenses.

This includes the development of missile systems capable of carrying MIRVs, which enhance first-strike or counter-strike survivability (White & Deming, 2013). However, such actions may inadvertently lower the nuclear threshold, increasing the risks of escalation in a crisis scenario. This evolving tit-for-tat dynamic reinforces the security dilemma, where one state's defensive measures are interpreted as offensive threats by the other, perpetuating instability in South Asia (Arif, 2021; White & Deming, 2013).

6.2.2 Case Study: Impact of S-400 and BMD on Pakistan's Deterrence

India's deployment of the S-400 Triumf and an increasingly sophisticated ballistic missile defense (BMD) system represents a transformative shift in South Asia's strategic environment. Together, these systems erode Pakistan's missile-based deterrent posture while compressing decision-making timelines, posing profound implications for regional stability.

6.2.2.1 Erosion of Second-Strike Assurance

According to an Institute of Strategic Studies Islamabad (ISSI) brief, India's expansion of its BMD network including Phase I and future Phase II enhances its perceived ability to conduct pre-emptive strikes. The report highlights that "possession of BMD increases the effective resolve of India," thereby undermining mutual vulnerability and encouraging more aggressive military behavior (Institute of Strategic Studies Islamabad, 2024).

6.2.2.2 Distortion of Strategic Stability

Khan and Saeed (2020) argue that India's BMD system introduces a technological imbalance that "disturbs strategic parity, fractures deterrence, drags down the nuclear threshold and hence raises the cost of conflict between Pakistan and India." This technical asymmetry complicates strategic calculations and contributes to an escalatory security environment.

6.2.2.3 India's Strategic Calculus

India's integration of long-range radars and interceptors through both S-400 and BMD systems enables it to monitor and potentially neutralize Pakistani missile forces at greater depths. This evolution may render Pakistan's deterrent posture less credible unless it develops alternative systems, such as MIRVs or sea-based delivery platforms, to circumvent interception (Research on India's Evolving Air Defense Capabilities, 2025).

6.2.2.4 Undermining Pakistan's Missile-Based Deterrence

Pakistan's nuclear deterrence relies heavily on its ballistic missile arsenal, including the Shaheen series and the short-range Nasr missile, designed to ensure a credible second-strike capability (Pakistan's Strategic Nuclear Policy, 2013). The S-400, with its advanced radar and engagement range, can neutralize both aircraft and ballistic missiles, potentially disrupting Pakistan's delivery systems. When paired with India's Ballistic Missile Defense (BMD), capable of intercepting missiles at multiple altitudes, these systems threaten to diminish the effectiveness of Pakistan's retaliatory strikes (Challenges of Nuclear Deterrence Stability in South Asia, 2022).

This shift challenges the foundational logic of Pakistan's deterrence strategy. Suppose India perceives its defenses as capable of absorbing or neutralizing a Pakistani counterstrike. In that case, it may feel emboldened to pursue limited military operations, such as those outlined in its Cold Start Doctrine. The erosion of Pakistan's second-strike credibility by this development will, in turn, upset the balance of deterrence and raise the possibility of preemptive or counterpreemptive moves by either side.

6.2.2.5 Short Missile Time of Flight and Miscalculation Factors

The geographic proximity of India and Pakistan, combined with their missile flight times of 5 to 7 minutes, compounds these weaknesses (Unal et al., 2020). This "sliver of time"

leaves limited opportunity for verification, consultation, or de-escalation, and increases the likelihood of a crisis miscalculation. The “use it or lose it” conundrum escalates: anxious that either side may lose nuclear forces to a first strike, both could choose to launch first.

India’s hypersonic missiles multiply this pressure even further. Capable of flying at speeds above Mach 5, there would be next to no time to consider a rational response to an attack on Pakistan’s territory (Abbas, 2025). The integration of modern air defenses with rapid-strike capabilities enables a strategic environment where miscalculations might result in unintended nuclear escalation, unraveling generations of stable deterrence.

6.2.3 Regional Stability Risks

India’s arms modernization has regional and collectivas well as bilateral implications and may raise questions about the strategic stability of South Asia more generally. These achievements threaten the fragile peace that has prevailed since 1998 by stoking an arms race and undermining mutual vulnerability.

6.2.3.1 Fueling an Arms Race

Reactively, Pakistan has also gained momentum due to India’s technological prowess. In response to India's advent into the BMD, hypersonic, etc., Pakistan too has developed MIRVs through its Ababeel missile and broadened the TNWs category. Such measures are designed to enable deterrence penetration. However, they may bring new strategic risks, including the devolution of nuclear command and control, which could decrease the threshold for nuclear use and increase the risk of miscalculation.

Additionally, this arms competition imposes significant economic and political pressure on Pakistan, straining its comparatively more minor economy and complicating efforts to maintain strategic stability in the region (Jalil, 2017).

6.2.3.2 Destabilizing Mutual Vulnerability

Mutual vulnerability the recognition that a nuclear exchange would devastate both sides has historically deterred large-scale conflict in South Asia, underpinned by a balance of strategic forces and assured retaliation (NAPSNet Special Report, 2021). However, India's advancements, particularly in ballistic missile defense (BMD), create the perception that it could neutralize Pakistan's retaliatory capabilities, weakening this foundational balance. Indeed, Pakistan has responded proactively most notably through its MIRV Ababeel missile test as a direct measure to restore mutual vulnerability (Noor, 2023). Comparative nuclear force data further underscores this asymmetry: India's 1.33:1 advantage in aircraftdelivered warheads contrasts with Pakistan's 1.96:1 lead in missile systems a disparity India's BMD could narrow. As both nations continue to modernize, the erosion of their mutual vulnerable standing amplifies the risk of miscalculation and strategic instability.

India's technological edge, exemplified by the S-400, BMD, and hypersonic missiles, disrupts South Asia's strategic stability by enhancing its offensive potential and triggering Pakistan's insecurity. The security dilemma fuels an escalatory cycle, in which Pakistan's responses exacerbate regional tensions. Pakistan's deterrence is thus undermined when the S400 cum other BMDs, comes into play and, when mixed with low and high weapons delivery systems as well as low flight times, injects high risks of miscalculation.

6.3 Nuclear Deterrence and Escalation Dynamics

6.3.1 Evolution of Pakistan's Nuclear Posture

This was a doctrine of limited ambitions, aiming for stability through a small but reliable arsenal. However, India's nuclear triad and development of ballistic missile defense

changed that. In response, Pakistan adopted FSD around 2011–2013, significantly broadening its deterrent posture. FSD includes the deployment of both strategic and tactical nuclear weapons and aims to deter threats across the full spectrum of potential conflict scenarios—from conventional skirmishes to full-scale nuclear war (Transformation of Pakistan’s Nuclear Posture, 2022). FSD counters India's power. In an interview conducted by author, Ambassador Asif Durrani affirmed that “even at the conventional level, Pakistan is not lagging behind. And the latest episode between Pakistan and India proved the point.

India tried to use its air power and especially by inducting Rafale aircraft. And, it was the first casualty. In fact, it brought shock and awe for the French who boasted about the invincibility of the aircraft, but it was the first ever aircraft which was down in a battle condition. Not only that, but India was forced to ground its air force. For the remaining period. And it was subsequently the missile exchanges or drones which took between the two countries. Here, the point is that the nuclear deterrence is actually is a deterrence, and we should in all seriousness not talk about using the nuclear buttons” (Durrani, 2025, personal communication). This demonstrates FSD's role in conventional and nuclear deterrence, as proven in 2025.

6.3.1.1 Key Developments in FSD

Pakistan introduced TNWs, notably the Nasr missile, a short-range (60 km) ballistic missile capable of delivering low-yield nuclear warheads. This development directly responds to India’s Cold Start Doctrine, a strategy aimed at executing rapid, limited conventional incursions into Pakistani territory. By deploying TNWs, Pakistan seeks to deter such incursions by lowering the nuclear threshold and signaling readiness to escalate in response to conventional attacks (Sankaran, 2014).

6.3.1.2 Multiple Independently Targetable Re-entry Vehicles (MIRVs)

The Ababeel missile, first tested in January 2017 by Pakistan's Inter-Services Public Relations (ISPR), represents Pakistan's entry into MIRV technology. With a reported range of approximately 2,200 km and the ability to carry multiple independently targetable re-entry vehicles, the Ababeel enhances Pakistan's ability to penetrate India's ballistic missile defense (BMD) systems and maintain a credible second-strike capability (Missile Threat, CSIS, 2017; SVI, 2019).

6.3.1.3 Contrast with India's Nuclear Posture

India's nuclear strategy contrasts sharply with Pakistan's. Anchored in a formal No-First-Use (NFU) policy, India has pledged not to initiate nuclear conflict, reserving nuclear weapons for retaliation against a nuclear, chemical, or biological attack. This declaratory posture emphasizes strategic restraint and stability (Carnegie Endowment for International Peace, 2019; Council on Foreign Relations, n.d.). To support its deterrent doctrine, India has developed a **nuclear triad**:

- a. Land-based missiles such as the Agni-V, with a range exceeding 5,000 km,
- b. Air-delivered nuclear weapons via platforms like Rafale jets,
- c. Sea-based capabilities, including K-4 submarine-launched ballistic missiles deployed on the INS Arihant.

India's advancements in Ballistic Missile Defense (BMD), such as the Prithvi Air Defence (PAD) system, further strengthen its strategic position. However, these developments challenge Pakistan's deterrent calculus, prompting its transition to FSD. While India prioritizes a retaliatory posture and strategic stability, Pakistan's FSD focuses on escalation control and credibility across the full spectrum of conflict.

6.3.2 Tactical Nuclear Weapons: Risks and Rationale

Pakistan's deployment of tactical nuclear weapons, particularly the Nasr missile, is a direct response to India's Cold Start Doctrine. Cold Start, developed after 2001, envisions the rapid mobilization of integrated battle groups capable of executing limited strikes within 48–96 hours, potentially under the nuclear threshold (Ladwig III, 2008). The Nasr, with a range of approximately 60 km and designed for battlefield use, is tailored to halt such conventional Indian military incursions by lowering the nuclear threshold and signaling willingness to escalate (Kidwai, 2016).

6.3.2.1 Rationale

The Nasr enhances Pakistan's deterrence by signaling a willingness to escalate to nuclear use if its territorial integrity is threatened. This complicates India's military planning, as even limited conventional operations could provoke a nuclear response. Such dynamics reflect the stability–instability paradox, where strategic deterrence prevents all-out war but lowers the threshold for smaller-scale conflicts under the nuclear umbrella (Krepon, 2015).

6.3.2.2 Risks

Tactical nuclear weapons (TNWs) such as the Nasr introduce significant strategic and operational challenges for Pakistan.

6.3.2.3 Command and Control Issues

The Nasr's limited range (~60 km) requires forward deployment close to potential conflict zones. This geographical necessity increases the likelihood of delegating launch authority to lower-tier commanders, thereby heightening the risk of unauthorized or accidental use. Its proximity to battlefields also renders it more susceptible to detection and preemptive strikes, reinforcing a dangerous “use-it-or-lose-it” scenario (Nayyar & Mian, 2015).

6.3.2.4 Escalation Potential

By lowering the nuclear threshold, TNWs blur the line between conventional and nuclear war. Even a limited battlefield nuclear strike could prompt full-scale retaliation, rapidly escalating a conflict. This dynamic exemplifies the stability–instability paradox, whereby mutual nuclear deterrence prevents major wars but encourages lower-level provocations and crises (Brewster, 2021). While Pakistan views TNWs as necessary to counterbalance India’s conventional military superiority, these weapons complicate escalation control and increase the risk of miscalculation, ultimately undermining regional stability.

6.3.3 MIRV Development: Countering India’s BMD

India’s pursuit of ballistic missile defense (BMD) systems, such as the indigenous Prithvi Air Defence (PAD) and the Russian-supplied S-400 Triumf, poses a potential threat to Pakistan’s missile-based deterrence. In response, Pakistan developed the Ababeel missile, its first MIRV capable system, tested in January 2017. According to the Inter-Services Public Relations (ISPR), the missile was specifically intended “to ensure survivability of Pakistan’s ballistic missiles in the growing regional Ballistic Missile Defence (BMD) environment” (Stimson Center, 2017).

6.3.3.1 Technical Capabilities

6.3.3.1.1 Range and Payload: The Ababeel missile is a medium-range ballistic missile with a reported range of approximately 2,200 km. It is capable of carrying 3 to 8 independently targetable warheads, potentially including both strategic and tactical payloads (Federation of American Scientists, 2023).

6.3.3.1.2 Design: The missile features solid-fuel propulsion and a large rocket motor, enabling rapid launch capability. This design reduces vulnerability to preemptive strikes

and enhances its ability to penetrate adversarial missile defense systems (Center for Strategic and International Studies, 2024)

6.3.4 Escalation Risks and Confidence-Building Measures (CBMs)

South Asia's compressed geography—where missile flight times are 5–7 minutes—amplifies the risk of nuclear escalation (Jalil, 2020). The recent episode of May 2025, op Sindoor and op Bunyan–um–Marsoos, illustrates this: India's airstrikes and Pakistan's retaliation brought both nations close to nuclear conflict. Miscalculations, technical failures, or miscommunications in such scenarios could lead to catastrophic outcomes.

6.3.4.1 Proposed CBMs

To mitigate these risks, the following measures are recommended:

- a. **Pre-Launch Notifications:** Expand the 2005 India–Pakistan Agreement on Pre-Notification of Ballistic Missile Tests to cover hypersonic and cruise missiles, with a 72-hour notice via DGMO hotlines.
- b. **Crisis Communication:** Enhance hotline protocols and establish Nuclear Risk Reduction Centers for real-time de-escalation.
- c. **Joint Verification:** Utilize satellites like Pakistan's PRSS-1 and India's Cartosat-3 to monitor compliance, promoting transparency.

Kidwai (2025, personal communication) recommended that “What Pakistan has in its nuclear inventory is based on the Credible Minimum Deterrence requirements. Pakistan is not building up its arsenal unnecessarily keeping in view the resource constraints. There is neither any precedence nor any scope for arms control between India and Pakistan. However, there can be a few more CBMs such as non-cyber attacks on each other's nuclear installations and nuclear command and control facilities and a few more such

CBMs but that is subject to resumption of dialogue for which India doesn't seem to be interested at the moment.”

6.3.4.2 Challenges

While CBMs offer a path to stability, their effectiveness depends on mutual trust and confidence. Nevertheless, incremental steps toward dialogue remain essential. Arms control faces hurdles. Lt Gen (R) Khalid Kidwai (2025, personal communication) stated that “There is no tradition of arms control between India and Pakistan especially in the nuclear domain. There have been some specific nuclear/ missile related CBMs, the oldest being the agreement on non-attack on each other's nuclear installations of 1989. When the Composite Dialogue resumed in June 2004 some CBMs were agreed upon including Missile Test Pre-Notification, Upgradation of DGMOs Hotline and establishment of Foreign Secretaries Hotline. There was also an agreement in 2007 on Prevention of Unauthorized and accidental Nuclear Detonations and then the dialogue process was disrupted in 2008 due to the Mumbai incident. In the current environment between the two countries and in the near future there is apparently no possibility of any resumption of dialogue or agreement on any new CBMs since India now considers itself as a major global player and appears to be disinterested in talking to Pakistan particularly given our own internal problems.” He added on involvement of third parties: “US is now clearly tilted towards India. doesn't seem to be inclined to mediate Saudi Arabia and UAE are also pro-India now. UAE didn't play the role of mediator in 2021. In fact there was no new agreement on ceasefire, it was revival of the 2003 ceasefire which Pakistan had unilaterally announced. UAE only provided the neutral venue for facilitating back channel talks.”

6.4 Conventional Asymmetry and Pakistan's Responses

The conventional military asymmetry between India and Pakistan has widened significantly in recent decades, driven by India's rapid economic growth, sustained defense investments, and access to advanced military technologies. In 2024, India's defense spending reached \$75 billion nearly eight times that of Pakistan's \$10.4 billion, positioned India among the top five global military spenders (Business Today, 2025).

India has leveraged this advantage to procure high-end platforms, such as the Rafale multirole fighter jet and MQ-9B SkyGuardian drones, which offer long-range intelligence, surveillance, and strike capabilities. In contrast, Pakistan continues to rely on more modest platforms, such as the JF-17 Thunder and the Chinese-supplied J-10C, to maintain operational deterrence. The MQ-9B drone deal alone, involving 31 aircraft at an estimated cost of \$3.5 billion, underscores India's growing emphasis on advanced unmanned aerial systems (Eurasia Review, 2025).

6.4.1 Pakistan's Asymmetric Responses

To counter India's conventional superiority, Pakistan has pursued asymmetric strategies:

6.4.1.1 Indigenous Production (JF-17)

Developed in collaboration with China, the JF-17 enables cost-effective force multiplication.

6.4.1.2 Strategic Acquisitions (J-10C)

Pakistan's procurement of modern 4.5-generation fighters from China enhances its defensive posture without straining its limited defense budget.

6.4.1.3 Battlefield Nuclear Doctrine

Pakistan has emphasized tactical nuclear weapons like the **Nasr missile** to offset conventional disadvantages, complicating India's military calculus.

6.4.2 Growing Conventional Disparity

6.4.2.1 India's Rafale Jets

India concluded an Inter-Governmental Agreement with France in 2016 to purchase 36 Rafale multi-role jets for nearly \$8.7 billion, thereby bolstering its air combat capabilities (Dassault Aviation, 2015). The Rafale is equipped with an RBE2-AA Active Electronically Scanned Array (AESA) radar, which can simultaneously detect and track multiple targets at longer ranges than most of its counterparts, providing increased situational awareness and enhanced engagement capabilities (Dassault Aviation & Thales, n.d.).

The Rafale's air combat capability is complemented by its compatibility with the Meteor beyond-visual-range (BVR) missile, which is being delivered to the Service and is intended to maintain high speeds throughout its flight path thanks to its ramjet engine. This provides a large unescapable zone and accurate kill of manoeuvring targets (Dassault Aviation, 2015).

Finally, it also features the SPECTRA EW suite, which includes integrated chaff/flare and jammer capabilities. This system provides the ability of survivability in a contested environment and enables deep penetration missions into enemy airspace (Dassault Aviation & Thales, n.d.).

6.4.2.2 Pakistan's JF-17 and J-10C

The cornerstone of the PAF air fleet is the JF-17 Thunder, a multi-role fighter manufactured in collaboration with China as a 4th-generation aircraft, developed to serve as its inexpensive workhorse. The recently inducted Block III, with significant upgrades including the KLJ-7A Active Electronically Scanned Array (AESA) radar and capability

to carry state-of-the-art beyond-visual-range (BVR) munitions as the PL-15 missile (IHS Jane's, n.d.; Jane's Information Group, 2025).

The KLJ-7A radar provides enhanced detection capabilities up to 120 km against fightersized targets and supports multi-target engagement, narrowing the capability gap with more advanced regional platforms (IHS Jane's, n.d.). J-10C: In 2022, Pakistan acquired a fleet of 25 J-10C fighters from China referred to as the "Firebird" by local sources marking a leap in aerial capability. The J-10C, classified as a 4.5-generation aircraft, integrates an AESA radar and is armed with PL-15 BVR missiles, which offer a potential engagement range between 150 and 200 km depending on variant and launch conditions (Defense News, 2022; Jane's Information Group, 2025). These fighters significantly strengthen Pakistan's air defense, but they remain numerically inferior to India's diverse and expansive combat fleet, which limits their strategic weight in a prolonged conflict scenario.

6.4.2.3 Unmanned Aerial Systems (UAS)

6.4.2.3.1 India's MQ-9 B SkyGuardian

India's acquisition of 31 MQ-9B SkyGuardian drones, finalized through a nearly \$3 billion deal, represents a significant leap in its ISR capabilities. The drones are designed for High-Altitude Long-Endurance (HALE) missions, capable of flying for over 40 hours and carrying a 1,700 kg payload that includes precisionguided munitions. With advanced sensors, electro-optical/infrared (EO/IR) cameras, Lynx multi-mode radar, and satellite communication links, the MQ-9 B enables real-time surveillance and strike coordination over extended ranges. These features significantly enhance India's border monitoring, particularly along the Pakistan frontier, while also bolstering maritime situational awareness in the Indian Ocean (The Federal, 2024).

6.4.2.3.2 Pakistan's Drone Capabilities

Pakistan fields a diverse fleet of UAVs, primarily sourced from China and supplemented by indigenous efforts. These platforms serve ISR and precision strike roles but lag behind advanced systems, such as India's MQ-9 B, in key performance metrics.

6.4.2.3.3 Burraq UCAV

Pakistan's NESCOM Burraq, an indigenous UCAV, has a maximum takeoff weight of 1,000 kg and an empty weight of 500 kg. It typically carries a single Barq air-to-surface missile, designed for precision strikes. With an operational range of 1,000 km, it delivers tactical ISR and limited strike capabilities (SP's MAI, 2025). Despite these platforms, Pakistan's drone fleet is still behind India's MQ-9B, which offers more than 40 hours of endurance and a 1,700 kg payload, underscoring the disparity in operational flexibility and strike range.

6.4.2.4 Impact on Pakistan

6.4.2.4.1 Airspace Control

India's deployment of advanced platforms, such as the Rafale and MQ-9 B, enables it to conduct deep strikes and sustained surveillance operations within or near Pakistani airspace. This significantly challenges the responsiveness and effectiveness of Pakistan's air defense systems, particularly the HQ-9 B and LY-80, which were procured to provide a credible A2/AD umbrella against such threats. A detailed account by Defense Security Asia reveals that during South Asia's most significant aerial clash in May 2025, the HQ-9B system reportedly tracked a Rafale jet using its advanced phased-array radar (Defense Security Asia, 2025).

6.4.2.4.2 Deterrence Credibility

The widening conventional military gap between India and Pakistan increasingly undermines Pakistan's deterrence credibility, particularly its ability to counter Indian aggression through conventional means. This dynamic was vividly illustrated during the 2019 Balakot crisis, when Indian Air Force jets struck alleged militant camps inside Pakistan. Although Pakistan conducted retaliatory air operations the following day under Operation Swift Retort, the incident exposed key vulnerabilities in Pakistan's conventional military posture, especially in air defense and response coordination (Tarapore, 2019; Zaidi, 2020).

According to Tarapore (2019), India's decision to conduct the Balakot strike and Pakistan's relatively restrained conventional response reflect a shift in the deterrence landscape, where nuclear weapons deter large-scale war but do not prevent calibrated conventional strikes. He argues that India was willing to accept significant escalation risk, suggesting a declining effectiveness of Pakistan's nuclear deterrent in deterring limited conventional incursions.

Zaidi (2020) supports this view, noting that Pakistan's deterrence strategy has increasingly relied on nuclear signaling to compensate for its conventional disadvantages. He characterizes this as part of a "dyadic deterrence model", where strategic parity is maintained through escalation dominance and nuclear ambiguity. However, such reliance heightens regional instability by allowing low-intensity conflicts to occur below the nuclear threshold. Collectively, these developments demonstrate that while Pakistan has regained some deterrence credibility through tactical and symbolic successes, its overarching reliance on nuclear posture remains central, continuing to blur the line between deterrence and escalation.

6.4.3 Modernization Efforts under Constraints

Despite persistent economic pressures, Pakistan has strategically pursued the selective modernization of its conventional forces. These efforts are exemplified by the acquisition of J-10C fighter jets and Bayraktar TB2 drones, aimed at strengthening Pakistan's aerial combat and ISR capabilities within a constrained fiscal environment.

6.4.3.1 Initiatives

6.4.3.1.1 J-10C Deployment

In 2022, Pakistan signed a deal with China to procure 25-36 Chengdu J-10C multirole fighters, estimated to be worth \$1 billion. The J-10C, equipped with an active electronically scanned array (AESA) radar and long-range PL-15 missiles, represents a significant leap in Pakistan's air-to-air capabilities (GlobalSecurity.org, 2009). During the 2025 operation Bunyan um Marsoos these jets were reportedly employed in air engagements, with Pakistani sources claiming successful intercepts against Indian aircraft, including Rafales. The platform itself enhances Pakistan's beyond-visual-range (BVR) capabilities. However, the small fleet size constrains broader strategic coverage and limits its utility in prolonged or multi-front air engagements.

6.4.3.1.2 Drone Induction

In 2025, Pakistan acquired approximately 50 Bayraktar TB2 drones from Turkey at a reported cost of \$250 million. The TB2 is a combat-proven unmanned aerial system equipped with MAM-L precision-guided munitions and electronic warfare pods, optimized for both ISR and strike operations (DefenceXP, 2025). These drones were deployed during the recent standoff and were reportedly effective in countering Indian drone incursions.

6.4.3.1.3 Strategic Significance

Table 6.1: Strategic Significance		
Capability	Strategic Gain	Limitation
J-10C Fighters	Elevates BVR air defense, boosts combat radar, and missile range	Constrained by fleet size and operational sustainability
Bayraktar TB2 Drones	Cost-effective ISR and tactical strike tool	Limited endurance and vulnerable to high-end air defense systems

In essence, Pakistan's modernization efforts have introduced tactically significant platforms within budgetary limits. The J-10C and TB2 acquisitions mark steps toward a more capable conventional posture, but their strategic impact is tempered by quantitative and technological asymmetries relative to India. Sustainability and integration into a cohesive air defense doctrine remain key to maximizing their effectiveness.

6.4.3.1.4 Budget Constraints

Pakistan's defence spending remains modest in comparison to its regional rival, India. For the fiscal year 2025–26, Pakistan allocated Rs2.55 trillion (approximately US\$9 billion) to its military budget, marking a 20% increase from the previous year, despite austerity measures elsewhere in the national budget (Shahid & Shahzad, 2025). In contrast, India's defence budget for the same period stands at ₹6.81 lakh crore (about US\$78.7 billion), representing a 9.5% rise and maintaining its strategic edge as the world's third-largest military spender (Reuters, 2025; SIPRI, 2025).

Pakistan's mounting fiscal pressures compound this disparity. The country's external debt was estimated at around US\$98 billion in mid-2024, with debt servicing obligations consuming roughly US\$14.7 billion annually (CIA, 2024). Within its defense allocation, nuclear weapons programs consume approximately \$ 1.5 billion per year, diverting critical resources that could otherwise be directed toward conventional force modernization (Kristensen & Korda, 2023).

Consequently, Pakistan's armed forces operate under a strained budgetary environment, leading to selective and often reactive modernization efforts. The limited funds leave Pakistan with a patchwork of advanced but numerically restricted systems, constraining its ability to match India's broader and deeper force structure (SIPRI, 2025). These imbalances challenge Pakistan's conventional deterrence posture and raise concerns about the long-term sustainability of its position in an intensifying regional arms race.

6.4.3.1.5 Implications

Pakistan's modernization yields tactical improvements but does not bridge the strategic divide with India. The J-10C and TB2 drones enhance specific capabilities, yet their small numbers and India's superior defenses limit their impact. As a result, Pakistan continues to invest in asymmetric strategies and nuclear deterrence, which maintain regional instability and escalate risks.

6.5 Geopolitical Ramifications and External Alliances

India's military modernization, backed by a \$4 trillion economy and \$75 billion defense budget, has shifted the strategic balance in South Asia, prompting Pakistan to deepen its alliances with China, Turkey, and Saudi Arabia. After all, Pakistan has a GDP of \$340 billion and an external debt of \$128 billion, and the country leverages those relationships to offset India's increasing muscle. This section discusses Pakistan's strategic and other

allied pull, India's counter-strategies, CPEC as a perceived threat to India, and how Pakistan cannot afford to be isolated in the region.

6.5.1 Pakistan's Strategic Partnerships

Pakistan's partnerships with China, Turkey, and Saudi Arabia are crucial in the face of India's military and economic superiority, as they provide military aid, economic investments, and diplomatic leverage.

6.5.1.1 China: CPEC and Military Support

6.5.1.1.1. CPEC's Role

The \$62 billion CPEC, launched in 2015, is central to Pakistan's geoeconomic ambitions. Gwadar Port, a major CPEC project, provides China with critical access to the Indian Ocean, bypassing the Strait of Malacca. At the same time, Pakistan anticipates earning up to \$1 billion annually in transit fees and \$10 billion in SEZ exports by 2030 (Ismail, 2023). However, progress has lagged; by 2025, only \$25 billion had been invested, reflecting delays in significant projects, such as the Main Line-1 railway, which were attributed to Pakistan's internal security and financial constraints (Small, 2020).

6.5.1.1.2 Military Support

China has delivered 25 J-10C multi-role fighter jets to Pakistan. These advanced jets, equipped with PL-15E long-range air-to-air missiles, represent China's first foreign sale of the J-10C and mark a significant enhancement in Pakistan's air capabilities (International Affairs, 2023).

6.5.1.2 Turkey and Saudi Arabia: Arms and Mediation

6.5.1.2.1 Turkey: In 2025, Pakistan received a fleet of Bayraktar TB2 drones from Turkey (Kuo, 2025), significantly enhancing its intelligence, surveillance, and strike capabilities. Satellite imagery and defense analysis confirmed their presence and operational role

during the recent stand off Sino-Pakistan crisis, where they were reportedly used to intercept Indian drones.

Additionally, Turkey's ongoing delivery of MILGEM-class corvettes under a \$1 billion defense agreement—with the first vessel delivered in 2023—has bolstered Pakistan's naval force and training programs, reinforcing its maritime strategy against regional threats, such as India's P-8I Poseidon fleet (Journal of Maritime Affairs, 2024).

6.5.1.2.2 Saudi Arabia: Saudi Arabia reaffirmed its \$10 billion commitment to building a major oil refinery in Gwadar, with the policy finalization expected soon. This initiative reinforces Pakistan's economic stability and aligns with both CPEC and Saudi Vision 2030 (Arab News PK, 2023). During the 2025 crisis, Saudi Arabia, alongside Jordan, actively welcomed the ceasefire agreement and encouraged diplomatic dialogue between India and Pakistan (Arab News, 2025). Broader regional responses indicated that Riyadh's mediation in South Asia was part of a larger Middle East engagement in nuclear risk reduction (The New Arab, 2025). However, this growing strategic reliance could entangle Pakistan in broader rivalries, such as the ongoing Saudi-Iranian competition, with implications for its foreign policy posture (The Cradle, 2022).

6.5.2 India's Counter-Alignments

India counters Pakistan's alliances by strengthening ties with the United States, Russia, and Israel, enhancing its military capabilities and diplomatic influence.

6.5.2.1 United States: India has secured access to advanced U.S. defense technology through foundational agreements, such as COMCASA (Communications Compatibility and Security Agreement) and BECA (Basic Exchange and Cooperation Agreement), which enable the real-time sharing of geospatial and strategic military data (The Geopolitics, 2018). Under this framework, India finalized a \$3.8 billion deal for 31 MQ-

9B Predator drones in 2024, significantly enhancing its maritime surveillance and ISR capabilities (IADB.in, 2024). Additionally, these defense ties are central to Washington's Indo-Pacific strategy, which supports India's growing strategic stature and ambitions for a permanent seat on the UN Security Council—a shift that risks further marginalizing Pakistan in regional and international forums (Cliff, 2020).

6.5.2.2 Russia: India's acquisition of the S-400 Triumf air defense system from Russia—secured under a ₹35,000 crore (~\$5.4 billion) deal signed in 2018—significantly enhances its capability to intercept Pakistani aircraft and missile threats, while complementing its indigenous defense systems (Mint, 2025). Despite strategic ties with the U.S., India has maintained its defense relationship with Russia, illustrating its pursuit of strategic autonomy. The S-400 deal has complicated India's eligibility for U.S. platforms, such as the F-35, but underscores New Delhi's insistence on multi-vector defense sourcing (National Interest, 2025).

6.5.2.3 Israel: India maintains a roughly \$2 billion per year defense collaboration with Israel, centered around drone systems and missile defense technologies, which significantly enhance its precision-strike and counterterrorism capabilities (Tablet Mag, 2024). These systems—including Heron surveillance UAVs, Harop loitering munitions, and co-developed Barak-8 air defense missiles—also bolster India's global narrative on counterterrorism, indirectly reinforcing its stance against Pakistan (Diplomat, 2024).

6.6 Policy Recommendations for Pakistan

6.6.1 Strengthening Deterrence

To maintain strategic stability in South Asia, Pakistan must enhance its FSD posture by developing MIRV capabilities and reinforcing its cyber defenses. The Ababeel missile system, which demonstrated MIRV capability in a 2023 test, should be prioritized through

expanded investment in missile technology research and development, as this is crucial for offsetting India's ballistic missile defenses (Kaur, 2023; IISS, 2023). Additionally, leveraging China's defense technology collaboration, as seen in the J-10C fighter program, can further accelerate Pakistan's strategic delivery systems and technical self-reliance (Stratheia, 2024). FSD counters India's triad. In an interview conducted by author, Lt Gen (R) Khalid Kidwai, Ex DG SPD, explained that "It is true that excessive conventional asymmetry lowers the nuclear threshold. Pakistan's Low Yield Nuclear Weapons were specifically developed to deter India's Cold Start type adventures. However, this is a capability that has been demonstrated and enhances our options but it is not necessary that it must be used. In any case this will not preclude the possibility of use of longer range weapons against counter value and counter force targets.

Also remember that even the use of Low Yield Weapons would have strategic effects and strategic repercussions, it is therefore, not appropriate to draw a distinction between nuclear weapons as tactical or strategic etc. Any use of short range Low Yield/battlefield nuclear weapons would in no way negatively impact the overall deterrence. These were developed to discourage India's effort to find space for a limited conventional war below the nuclear threshold" (Kidwai, 2025, personal communication). This underscores low-yield weapons' role in deterrence without eliminating it.

Cyber capabilities are equally critical. Pakistan should establish a robust cyber defense framework to protect critical infrastructure such as energy grids and military command systems from cyberattacks, which are increasingly prevalent in modern warfare. This involves creating a dedicated Cyber Command within the military, training personnel in both offensive and defensive cyber operations, and partnering with allies like China and

Turkey to access advanced cybersecurity technologies. These steps ensure that Pakistan's deterrence extends beyond nuclear and conventional domains into the digital realm.

6.6.2 Economic Reforms

Pakistan's economic challenges, including a high debt-to-GDP ratio and declining foreign exchange reserves, limit its ability to fund defense modernization (Impact of Declining Pakistan Economy, n.d.). Structural changes are necessary to reduce the debt burden and increase the defense budget. For one thing, diversifying the export base away from textiles and toward high-value industries, such as information technology and pharmaceuticals, can generate foreign exchange and reduce the country's borrowing burden. Second, revenue generation will improve through fiscal reforms, including the expansion of the tax base and reductions in subsidies on non-essential goods and services.

To sustain the engine of defence expenditure, Pakistan must also explore alternative sources of funding, such as Public-Private Partnerships (PPPs) in defence production, and investigate opportunities for investment through the CPEC. Additionally, military aid/apportionment packages from military allies, such as Saudi Arabia, could be considered. They strike the right balance between economic stabilization and strategic imperatives, promising to deliver long-term resilience.

6.6.3 Diplomatic Initiatives

The diplomatic efforts should focus on advancing Confidence-Building Measures (CBMs) to help ease regional tensions, particularly with India. Pakistan can utilize the venues of SAARC, OIC, and UN to advocate for a hypersonic missile moratorium and halt the arms race dynamic. Involving India through SAARC on mutual security issues, such as climate change and cyber threats, could help build trust and facilitate dialogue.

6.6.4 Military Modernization

Pakistan, in light of its current fiscal position, will, however, be compelled to adopt a path of selective modernization, where low-cost upgrades will be prioritized over the outright acquisition of equipment. With new electronics suites and PGMs, the JF-17 Thunder could be aggressively redeveloped to punch far above its weight class for significantly lower cost than a brand-new platform. Similarly, the production of indigenous anti-tank systems may increase to complement ground troops, particularly in light of India's significant armored units, potentially working in tandem with Turkey's defense industry.

Indigenisation is crucial in reducing reliance on foreign vendors. To build upon and replicate successes, such as the Al-Khalid tank, will mean investing in research and development, training labor, and fostering joint ventures with allies like Turkey and China. Moreover, it provides for the sustainability of modernization consistent with Pakistan's strategic and fiscal realities.”

Military upgradation, economic pressures, and regional instability, among other factors, contribute to the complex problem Pakistan faces from India. Enhancing FSD through MIRV and cyber assets addresses short-term security threats, while economic hull stiffening ensures the fiscal wherewithal for sustained commitment to defense. Resorting to diplomacy through SAARC, OIC, UN, etc, to defuse tensions and peace and stability, as was done in the UN in case of the draft moratorium on hypersonic missiles. Differentiated military modernization, combined with indigenization, in a resource-constrained setting, enables Pakistan to project a credible defense posture.

The stakes of India's gains which range from hypersonic missiles to enhanced naval capabilities show the urgency of a comprehensive response. Additionally, Pakistan's relationship with friendly countries like China, Turkey, and Saudi Arabia enables it to

benefit from technology transfer and economic aid, which in turn helps maintain its deterrence and resilience. However, achieving it comes down to striking a balance between ambition and pragmatism. For example, a useful moratorium on hypersonic weapons could reduce tensions in the region; however, if it fails to improve the economic position of its members, it could undermine any potential military progress. The future of Pakistan rests in the integrated leadership of its diplomatic, military, and economic destiny, which is essential for its well-being tomorrow. The path ahead will require continued investment, a strategic vision, and flexible policies to navigate the ever-changing geopolitical landscape.

The extensive military modernization in India has generated significant disturbance in Pakistan's strategic environment, leading to a shift in the balance of power in South Asia. The integration of inherently destabilizing high-tech systems, including hypersonic missiles and the S-400 air defense system, would bring a quantum leap in India's offensive and defensive capabilities, thereby eroding the foundation of Pakistan's deterrence. These breakthroughs undermine the credibility of Pakistan's missile-centric counter-retaliation options and shrink the decision space during crises. To counter this growing disjuncture, Pakistan has pursued a multi-pronged approach, including the acquisition of a calibrated nuclear deterrent (including the Adeel, Ababeel, and Nasr missiles), employing asymmetric means (such as cyber tools and proxy outfits), and deepening its geo-strategic embrace with China, particularly in the context of CPEC. These efforts aim to reverse India's technological lead, but they also perpetuate the cycle of competition and mistrust between the two countries.

Pakistan has demonstrated impressive endurance in maintaining an effective deterrent in the face of economic adversity and an artificially imposed limit to defense

spending vis-à-vis India. This full-spectrum deterrence, bolstered by nuclear strides and hybrid capabilities, is a reflection of its responsive adaptability to its restraints. However, maintaining this position is not easy; there is need to apply a balanced strategy. Pakistan should focus on selected nuclear modernization initiatives to address its survivable second-strike capability and conventional force-related gaps, such as air defense systems. Relying too heavily on any one domain, whether nuclear, asymmetric, or alliances, risks leaving open strategic gaps, all the more so as India enhances its multi-domain warfare capacities.

The increasingly rapid race to modernize their forces multiplies the risk of escalation between India and Pakistan, as well as with other geopolitical rivals, where rapid technological advances may lead to miscalculations or unintended conflict. When missile flight times are reduced to a handful of minutes, the room for error during a crisis shrinks to perilous dimensions. All of which should give both countries pause, as well as a sense of urgency, to de-militarize and stabilize the region through confidence-building measures such as the notification of missile tests and improved channels for direct dialogue, along with a renewed diplomatic process to resolve the underlying issues.

CHAPTER SEVEN

GEOPOLITICAL IMPLICATIONS FOR PAKISTAN

7.1 Introduction: Elevating Regional Rivalry to Global Contention

In addition to building on the historical and theoretical premises developed through earlier chapters, this section extends the analysis of India's military modernization and Pakistan's strategic partnerships to shed light on broader maritime, diplomatic, and technological trends.

At the same time, Pakistan has enhanced its maritime security to safeguard its sea lanes of communication and prevent regional encirclement. By enhancing its naval cooperation with regional and extra-regional organizations, such as the Indian Ocean Rim Association (IORA) and the Combined Maritime Forces (CMF), Islamabad aims to assert its presence in the Arabian Sea and the Bay of Bengal (Shabbir, 2025). This naval doctrine is also part of a larger bid by Pakistan to re-conceptualize depolarization of Pakistan's security norms in a multipolar world, where geoeconomic insecurities, cyber threats, and climate instability join traditional risks.

Taken together, these developments underscore how the India–Pakistan rivalry has been reconfigured within the broader context of global rivalries, necessitating diplomatic agility and strategic flexibility to inform Pakistan's foreign policy calculus.

7.1.1 The India–Pakistan Conflict of 2025: A Framework for Analysis

The attack on Pahalgam on 22 April 2025, a false flag attack, led to a sudden escalation of hostilities in Indo-Pakistani relations, leaving 26 civilians dead. Pakistan's Counter-strikes with air attacks and artillery bombardments on May 8 & 9, but then a truce was brokered by U.S. President Donald Trump on May 10, was the most recent and dramatic example of

this dynamic of escalation in South Asia and highlighted the susceptibility of the nuclear threshold to breakdown (Stimson Center, 2025).

The 2025 crisis be considered an instructive test case as it embodies regional security proxies clashing with a new wave of global security dynamics. The crisis also highlights how quickly local tensions can escalate into situations with global consequences. The cooperation of the great powers also underscored the global dimensions of South Asia's security architecture.

China's veto of a United Nations Security Council resolution condemning Pakistan, the United States' calls for restraint, and Russia's posture of strategic neutrality demonstrated how external actors shaped the trajectory of the conflict without becoming directly involved (Stimson Center, 2025). These developments reflect the increasingly globalized nature of regional crises, where great-power rivalries intersect with local disputes, magnifying their scope and consequences.

7.1.2 Pakistan's Geopolitical Vulnerabilities

Pakistan's strategic position at the crossroads of South Asia, Central Asia, and the Middle East amplifies its geopolitical vulnerabilities, as it occupies a critical space where regional rivalries and global strategic interests converge. The CPEC, valued at approximately \$62 billion, has significantly reshaped Pakistan's geoeconomic role. With its extension into Afghanistan in 2024, CPEC has enhanced regional connectivity and transformed Pakistan into a vital logistics and energy hub for Central Asia (Nawab, Shahid, Liaqat, & Mustafa, 2025). However, this integration has also raised concerns about strategic encirclement. India's development of the Chabahar Port, aligned with the India–Middle East–Europe Corridor (IMEC) and supported by the United States, presents a direct challenge to

CPEC's primacy and reinforces Islamabad's perception of regional isolation (Georgia Tech Analysis, 2025).

The 2025 India–Pakistan conflict deepened these anxieties. Statements from members of the Quad alliance during the crisis portrayed Pakistan as a destabilizing actor in South Asia, reinforcing narratives that seek to marginalize its regional influence (Georgia Tech Analysis, 2025). These developments demonstrate how regional connectivity projects and multilateral alignments are being used as tools of strategic competition.

Prof. Dr. Zafar Nawaz Jaspal, interviewed by the author, stated that “You should not club together QUAD and CPEC. QUAD is a security group, also known as a minilateral security alliance. Quad's strengthening increases the security of member states but decreases the security of others in the Indo-Pacific region. Hence, the QUAD strengthens India's military potential, which hurts the strategic equilibrium in South Asia. CPEC is an economic project. It is assisting Pakistan in stabilizing its economy. A stable economy is imperative for sovereign defense. Finally, if Pakistan fails to invest intelligently in its economic and defense sectors, it will be lagging on the strategic chessboard” (Jaspal, 2025, personal communication).

On the economic side, Islamabad's relatively small defense budget, estimated at around \$10 billion (compared to New Delhi's \$72 billion), means that it cannot keep pace with India in terms of military modernization. As a consequence, Pakistan is increasingly reliant on lowcost Chinese military systems, which, although necessary in the short term, will have longterm implications for strategic autonomy and technological dependence (Nawab et al., 2025). Compounding these burdens is the tightening debt burden associated with CPEC projects the debt associated with CPEC has been estimated at as much as

\$27bn, which restricts Pakistan's fiscal space and thus its ability to invest in emerging domains of security, like cybersecurity and climate resilience (Georgia Tech Analysis, 2025). In summary, Pakistan's geopolitical vulnerabilities stem from a confluence of external strategic pressures and internal instability. To navigate this multifaceted landscape, Islamabad must pursue strategic diversification, reduce its overreliance on a single patron, and address domestic disparities that continue to undermine its regional posture.

7.1.3 Global Contention and Regional Rivalry

The India–Pakistan rivalry has transcended its bilateral origins, emerging as a nexus of global power competition. India's deepening alignment with the Quad and U.S. led Indo-Pacific strategies has positioned it as a strategic counterweight to China, thereby indirectly placing pressure on Pakistan, whose alliance with Beijing is viewed as part of a broader U.S. China contest in the region. Scholars emphasize that the U.S. China strategic rivalry in the AsiaPacific is intensifying pressure on regional powers, such as Pakistan, to choose sides, especially as Washington enhances defense and technological ties with Delhi (Khan, 2021).

China's support during the 2025 conflict including advanced military systems and diplomatic cover significantly bolstered Pakistan's deterrence capability, but simultaneously risked immersing Islamabad deeper into the Sino-American strategic rivalry (Khan, 2021). Meanwhile, Russia's diplomatic balancing through mediation in the ceasefire and expanding energy engagements adds a layer of complexity. Pakistan stands to gain from Moscow's outreach, but must carefully manage its relationship with Russia to maintain ties with both China and the U.S. (Mankoff, 2022). Jaspal (2025, personal communication) observed that "India and Pakistan's rivalry has severely undermined their

prosperity and curtailed their effective role in the international system. Due to their rivalry, they are dependent on the strategic cooperation of China, Russia, and the United States. Notably, India and the U.S. have evolved their strategic partnership into a threshold alliance. However, India has kept its strategic relations with Russia. China and Pakistan's strategic cooperation is on a positive trajectory. The increasing mistrust between India and China has heightened tensions between the two countries, which is favorable for Pakistan. Notably, the great powers (China, Russia, and the U.S.) are only involved in the India-Pakistan rivalry to maximize their interests. Nevertheless, the U.S. played a decisive role, as a third party, in deescalating the conflict between India and Pakistan in 2019 and 2025.” The nuclear dimension further amplifies the global stakes of this rivalry. South Asia’s position as a region of near nuclear parity heightens the risk of strategic miscalculations. India and Pakistan’s arsenals estimated at around 180 and 170 warheads respectively combined with India’s deployment of advanced missile defenses and Pakistan’s Nasr tactical nuclear weapon, sharply increase the likelihood of escalation in a crisis (Khan, 2021).

7.1.4 Strategic Rebalancing: A Path Forward

To address its geopolitical vulnerabilities and reduce strategic dependency, Pakistan must pursue a path of strategic rebalancing. This approach involves diversifying its alliances, strengthening resilience in non-traditional security sectors, and leveraging multilateral diplomacy to enhance autonomy in a multipolar world.

7.1.4.1 Diversifying Strategic Alliances

While Pakistan's relationship with China remains foundational, an excessive reliance on a single power poses significant strategic risks. To counter regional encirclement and mitigate dependency, Islamabad must actively cultivate alternative partnerships.

Strengthening ties with Gulf countries, Russia, and Turkey could provide both economic benefits and defense cooperation, as illustrated by recent investments and military technology transfers. Such outreach reflects a broader strategy of hedging within the shifting balance of global power (Chaudhry, Zaheer Ali, Uddin, & Hussain, 2025). Gen Abdul Aziz Tariq (2025, personal communication) highlighted that “During the recent war with India, both China and Turkey have stood like a rock with Pakistan thus proving the strategic partnership beyond any doubt. Both have strengthened Pakistan war fighting potential significantly. This has enabled Pakistan to face India's military might resiliently. There is however a need to enter into some kind of formal security arrangement among these three great nations.”

7.1.4.2 Diplomatic Engagement and Narrative Balancing

Multilateral bodies, such as the United Nations (UN), the Shanghai Cooperation Organisation (SCO), and the Organisation of Islamic Cooperation (OIC), provide arenas where Pakistan can project its regional vision and challenge India's narrative monopoly. Diplomatic activism at these forums enables Pakistan to globalize its security-related concerns about Kashmir, alleviate stress, and present itself as a responsible regional player (Chaudhry et al., 2025).

7.1.4.3 Addressing Non-Traditional Threats

It highlighted some of the significant areas where Pakistan is particularly vulnerable, including cybersecurity and climate. It is essential to guarantee our sovereignty in the digital space through strategic investment in national cyber capabilities and by contributing to established international cyber norms. Hashmat (2025, personal communication) emphasized that “Cyber warfare and Net-Centric Warfare capabilities are very crucial in any future combat situation.” Further he added that “Reliance on

unconventional or sub-conventional tactics is always a complimentary efforts to strength the main efforts. It cannot and does substitute the conventional/main defence effort/capability.” Challenges related to climate, such as disputes over the Indus River basin and coastal vulnerability, are also reasons for transboundary cooperation and integrated development planning. Attention needs to be given in the new multilateral mechanisms to regional dialogue on water sharing and sustainable adaptation."

7.1.4.4 A Vision for Regional Resilience

As a novel policy proposal, Pakistan could push for a South Asian Resilience Framework, which could be established under the SCO or SAARC. This multilateral framework would address common threats from climate insecurity to cyber threats and economic shocks but it would also provide space for confidence-building with India through third-party intermediation. Consolidating dialogue and collaboration by institutionalizing them would minimize strategic uncertainties and contribute to regional stability (Chaudhry et al., 2025). The options reveal that strategic rebalancing, premised on alliance diversification, multilateral diplomacy, and readiness in the domain of non-traditional security, offers Pakistan a viable route to autonomy and proactive engagement under the dynamics of a changing world order.

7.2 India's Military Modernization: Regional and Global Repercussions

7.2.1 Asymmetric Capabilities and Deterrence Challenges

Pakistan has been seeking additions, such as the JF-17 Block III, and has announced its intention to acquire J-35A stealth fighters. However, these projects add more pressure to a meager defense budget of \$10 billion and divert much-needed resources from socio-economic development. India's increasing assimilation of AI and satellite-based reconnaissance technologies has also widened its tactical advantage, rendering Pakistan's

strategic planning and escalation management even more complex (Naseer et al., 2022). Jaspal (2025, personal communication) noted that “They advance India’s offensive and defensive missile capabilities. It does not affect Pakistan’s space in the world because Pakistan is not ignorant of India’s developments; therefore, it is also investing in these technologies to sustain the balance of terror between India and Pakistan.”

The doctrinal terrain compounds these problems. India’s Cold Start doctrine (CSD) envisages fast, shallow conventional raids that are intended to take place below the Pakistani nuclear threshold. Pakistan responded by developing its TNWs, like the Nasr missile, to deter such incursions. With the modernization of India increasing the possibility of preemptive or defensive operations, however, the credibility of TNWs as a deterrent declines. This underlying reality compels Pakistan to reassess its strategic position, balancing conventional improvements, nuclear signaling, and other asymmetric strategies, such as cyber warfare, all without getting entangled in an arms race that could sink its economy.

7.2.2 Intensified Alliances and Arms Races

Khan (2025, personal communication) observed that “India’s military growth, in combination with its alignment with the QUAD challenges China’s presence and by extension impacts Pakistan... India’s naval modernization poses a threat to Pakistan’s maritime interests. The regional power balance is now deeply influenced by extra-regional alliances.” Military modernisation in India is no longer a question of regional calculations. However, it has become the linchpin in aligning global strategic interests, especially with the deepening of its role in the Quadrilateral Security Dialogue (QUAD) among the United States,

Japan, Australia, and India. India's spending on its naval and military capabilities, including the purchase of the INS Vikrant aircraft carrier and the development of hypersonic missile technology, as well as its strategic presence in the Indo-Pacific, is designed to achieve the goals of the Quad, which aims to contain China's growing power (Singh Rai, 2022). This alignment greatly increases India's geopolitical encumbrance, indeed, even applying pressure of sorts on Pakistan, whose support in terms of both military and economic assistance, China enjoys.

This situation poses a dual-strategic conundrum for Pakistan – staying credible in the face of both threats from India and amidst deepening schisms among great powers. Khan (2025, personal communication) explained that “the India-Pakistan rivalry has significant implications for global security. The U.S. has historically played a balancing role China supports Pakistan Russia has moved toward strategic neutrality. This rivalry also affects global counter-terrorism. Thus, the bilateral conflict has far-reaching consequences.”

Pakistan has responded by acquiring advanced Chinese defense systems, such as the Type 054A/P frigates (fully inducted by 2023), and pursuing negotiations for the J-35A stealth fighter to reduce the capability gap. However, this growing reliance on Chinese platforms, evident during the 2025 conflict when Pakistan's retaliatory strikes heavily depended on J-10C fighters, JF-17 jets, and HQ-9 air defenses, underscores a growing overdependence that may limit strategic flexibility (Mishra, 2025).

Russia's simultaneous engagement with both India and Pakistan further complicates the regional balance. While India continues to benefit from Russian arms transfers, such as the Su-30 MKI jets and S-400 air defense systems, Pakistan has explored Russian cooperation in the energy and naval sectors. Nevertheless, Russia's neutral

posture and parallel support to both states reduce its effectiveness as a balancing force for Pakistan in the face of India's increasingly Western-aligned defense partnerships.

India's robust defense cooperation with the United States and other Western powers has accelerated technology transfer, including unmanned systems and surveillance tools. These relationships, forged through joint military exercises and intelligence-sharing frameworks, position India as a core strategic partner in the Indo-Pacific containment strategy against China (Singh Rai, 2022). In response, Pakistan is pursuing deeper integration with China's defense industrial base, including joint ventures and the co-production of advanced systems. While this may temporarily boost Pakistan's capabilities, it also risks drawing Pakistan further into China's strategic orbit, thereby reducing its ability to maintain a diversified foreign policy (Mishra, 2025).

7.2.3 Kashmir and Nuclear Shadows

The Kashmir dispute remains the central flashpoint in India-Pakistan relations, now intensified by the persistent nuclear shadow looming over the region. India's military modernization particularly its development of precision-guided munitions and real-time intelligence capabilities has enabled rapid and decisive military operations. This was demonstrated during recent crisis, when Indian strikes following the Pahalgam attack pushed the region to the brink of a nuclear crisis. The clash itself demonstrated how fragile the thresholds for escalation remain in South Asia.

While both India and Pakistan stopped short of overt nuclear signaling, the speed and intensity of the escalation revealed the extent to which significant structural challenges remain in systems for crisis management and communication. How either side, particularly under the time-compressed pressure of war, understands escalation risks is a central question. Furthermore, India's ongoing modernization of its strategic forces, such

as the Agni-V intercontinental ballistic missile, reflects a move toward enhanced reach and readiness. In response, Pakistan has relied more heavily on tactical nuclear weapons, like the Nasr missile, to deter conventional incursions. However, this approach risks lowering the nuclear threshold and increasing the likelihood of early nuclear use in a conflict scenario (United Services Institution of India, 2024). The ceasefire agreement reached on May 10, 2025, helped de-escalate the immediate crisis. However, the episode highlighted the urgent need for new confidence-building measures and frameworks to reduce nuclear risk. Without these, the structural instabilities within the India-Pakistan deterrence relationship could result in future escalations with far more dangerous consequences. To enhance strategic stability, Pakistan must reinforce its second-strike capabilities particularly through diversification and survivability, such as submarine-based platforms and engage in sustained dialogue focused on nuclear risk reduction and crisis management mechanisms.

7.2.4 Broader Regional Instability

India's military modernization intersects with broader Indo-Pacific strategies, creating ripple effects that destabilize the South Asian region. The Quad's focus on maritime security and freedom of navigation in the Indian Ocean challenges China's Belt and Road Initiative (BRI), indirectly pressuring Pakistan's strategic interests tied to the CPEC (Singh, 2023). India's naval expansion, including its third aircraft carrier and nuclear-powered submarines, enhances its ability to project power in the Arabian Sea, threatening Pakistan's maritime security and access to critical sea lanes (Askari & Iqbal, 2023). India seeks dominance, challenging CPEC. according to brig retd dr saif India has dream to become a dominating force a champion of security in South Asia. This all modernization is to in this aspect, which create a significant change. This can alter the geopolitical

landscape of South Asia” (Malik, 2025, personal communication). This Indo-Pacific alignment exacerbates Pakistan’s encirclement fears, particularly as India strengthens its ties with regional players, such as Iran, through the Chabahar port project (Abbas, Hussain, & Salah-ud-Din, 2024).

To mitigate these pressures, Pakistan must diversify its strategic partnerships beyond China, engaging with Gulf States and exploring cooperative frameworks with Iran to counterbalance India’s regional influence. Additionally, Pakistan’s investment in its blue economy, could enhance its maritime resilience, reducing vulnerabilities to India’s naval dominance. However, these efforts must be balanced against the risk of overextending resources in a volatile regional environment.

7.2.5 Indian Perspective on Geopolitical Implications

To provide a balanced analysis and highlight the perceptual gaps that fuel the security dilemma in South Asia, this subsection outlines the Indian perspective on Operation Sindoor's geopolitical implications for Pakistan, as articulated in Indian strategic discourse. While Pakistan rejects these views as propagandistic distortions that overlook its resilience and the alleged false-flag nature of the Pahalgam attack, they illustrate how mutual misperceptions exacerbate tensions and drive escalatory cycles.

7.2.5.1 Erosion of Nuclear Deterrence as a Strategic Shield

Operation Sindoor marks a fundamental shift in the India-Pakistan security calculus. For decades, Pakistan relied on its nuclear arsenal and the doctrine of “Full Spectrum Deterrence” to deter substantive Indian military responses to cross-border terrorism, assuming that the threat of nuclear escalation would keep conflict below a certain threshold. By conducting precise, punitive strikes deep inside Pakistani territory without triggering nuclear retaliation, India has called Pakistan’s nuclear bluff, exposing the

limitations of its deterrence posture. This not only diminishes the credibility of Pakistan's deterrence but also creates a precedent for future Indian conventional responses, increasing strategic uncertainty for Islamabad (Hooda & Jacob, 2025).

7.2.5.2 International Isolation and Shift in Crisis Management

The international response to Operation Sindoor, especially from Western powers, was notably muted and marked by neutrality. Instead of condemning India's actions or intervening forcefully as in previous crises, the global community largely refrained from equating the actions of India (the victim of terrorism) with those of Pakistan (the alleged sponsor). This neutrality benefited India strategically and signals an evolving international environment in which Pakistan cannot rely on traditional third-party pressure to rein in India or shield itself from punitive measures. Additionally, India's willingness to act without waiting for international mediation suggests that Pakistan may have to navigate future crises with less external diplomatic support and under greater global scrutiny (Hooda & Jacob, 2025; Basrur, 2025).

7.2.5.3 Strains and Calculations in Alliances

Pakistan's strategic reliance on external actors, notably China and selective support from Turkey and Azerbaijan, came into sharper relief. Chinese support especially in military technology and strategic backing remains significant, but the crisis also highlighted the transactional and interest-driven nature of most alliances. The support from Turkey and Azerbaijan, while welcome, underscored Pakistan's narrowing pool of unconditional friends. Meanwhile, overt Western neutrality and occasional disappointments with the US erode confidence in relying on a broad anti-India coalition, forcing Pakistan to recalibrate its diplomatic strategies. This isolation was further amplified by Indian public backlash

against states perceived as supporting Pakistan, signaling long-term reputational costs for Islamabad's allies (Sahu, 2025).

7.2.5.4 Uptick in Geostrategic Risk and Operational Vulnerability

By establishing a new “tripwire” for escalation where every major terrorist attack is met with assured Indian military reprisal India has forced Pakistan into a defensive posture. This raises the strategic stakes and compels Pakistan to reconsider the value and consequences of using terrorism as state policy. The demonstrated ability of India to target critical infrastructure and degrade Pakistan's air, missile, and command capabilities increases operational vulnerabilities for Islamabad, making proxy warfare costlier and riskier. Repeated exposure of these vulnerabilities could not only degrade military confidence but also undermine Pakistan's domestic political narrative of security and resilience (Hooda & Jacob, 2025).

7.2.5.5 Internal Political and Military Repercussions

Crises such as Operation Sindoor tend to reinforce the military's dominance in Pakistan's national policymaking and security strategy. However, as India explicitly blurs the lines between state and non-state actors, and treats the Pakistani state as indistinct from terrorist sponsors, it risks subjecting the Pakistani military establishment and not just proxies to direct punitive actions. This could trigger internal debates regarding the sustainability of current strategies, or, conversely, lead to further entrenchment of hawkish policies by Pakistan's security elite (Jacob & Sahu, 2025).

7.2.5.6 Pressure to Reconsider Proxy Strategies

Operation Sindoor, by firmly linking acts of terrorism to state culpability and direct military consequences, puts long-term pressure on Pakistan to dismantle or at least curtail its reliance on proxy groups. Continued international and economic consequences

including the suspension of treaties (such as the Indus Waters Treaty), economic sanctions, and ongoing diplomatic isolation create coercive incentives for behavioral change. At the same time, this presents complex dilemmas for Islamabad: abandoning proxies would limit strategic options in Kashmir, but continued sponsorship opens the door to unrestrained Indian military retaliation (Hooda & Jacob, 2025; Sahgal, 2025).

7.2.5.7 Changing Regional Equilibrium

The crisis underlines a fundamental change in the regional order one in which India feels emboldened to act autonomously and rapidly, potentially opening a “normalization” of military action below the nuclear threshold. The overall cost-benefit calculus for Pakistan has shifted toward greater risk and less maneuvering room, reducing the effectiveness of past escalation management strategies (Jacob, 2025; Basrur, 2025).

7.2.6 Summary Table: Main Geopolitical Implications

Table 7.1: Main Geopolitical Implications	
Implication Area	Key Consequences for Pakistan
Nuclear Deterrence	Loss of credibility; greater risk of a conventional Indian response
International Standing	Increased isolation; reduction in effective third-party mediation
Strategic Alliances	Reliance on China/Turkey/and Azerbaijan; erosion of broad support
Operational Security	Deepening vulnerabilities to Indian strikes, higher conflict risk
Domestic Politics	Military dominance is reinforced, but with heightened external pressure.

Proxy Warfare	Direct link to state accountability; higher costs for proxy strategies
Regional Dynamics	Less maneuver room; normalization of India's proactive defense posture

7.2.7 Conclusion (on Indian Perspective)

Operation Sindoor fundamentally disrupts Pakistan's established crisis management playbook and long-term strategic calculus. By eroding the "nuclear shield" doctrine, increasing international fatigue with Pakistan's proxy tactics, and establishing a precedent for decisive Indian action, the geopolitical risks and isolation for Islamabad have increased. The document makes it clear that unless Pakistan reassesses its approach both in terms of its security doctrine and regional diplomacy it faces prolonged and systemic consequences on the global stage. From Pakistan's perspective, this Indian narrative exemplifies the security dilemma's perceptual distortions, where India's actions during Operation Sindoor are framed as justified retaliation while ignoring Pakistan's successful countermeasures in Operation Bunyan um Marsoos, which neutralized key Indian assets and demonstrated resilience. Such views overlook Pakistan's sacrifices (90,000 terrorism losses) and alleged false-flag tactics like Pahalgam, perpetuating mistrust and justifying Pakistan's diversification of alliances and investments in asymmetric capabilities (Hooda & Jacob, 2025; Jacob, 2025).

Figure 7.1: Most Impacted Countries by Terrorism



Source: ipripak.org

7.4 Realignments and Diplomatic Maneuvers

Pakistan’s geopolitical strategy is increasingly shaped by the need to navigate a multipolar world, where regional rivalries intersect with great-power competition. This section builds on the analyses of India’s military modernization and the China-Pakistan alliance to explore Pakistan’s diplomatic realignments in response to the 2025 IndiaPakistan conflict. By examining the Quadrilateral Security Dialogue (Quad) and U.S. dynamics, diversification through Russia and Gulf partnerships, and engagement in multilateral forums like the United Nations (UN) and Shanghai Cooperation Organisation (SCO), this section highlights Pakistan’s efforts to counter encirclement, maintain strategic autonomy, and mitigate the fallout from India’s growing regional influence.

7.4.1 Quad and U.S. Dynamics

The QUAD comprising the United States, India, Japan, and Australia has emerged as a cornerstone of Indo-Pacific strategy, with significant implications for Pakistan. India’s military modernization, as detailed in Section 2, has strengthened its role within the Quad, aligning it with U.S.-led efforts to counter China’s influence (Rai, 2025). The 2025 crisis,

which was set off with the April 22 Pahalgam attack, further substantiated this alignment when the member states of the Quad came out with a condemnation of Pakistan for suspected involvement in the attack and also as part of a pan-Indo-Pacific agenda to rogue Pakistan as China's proxy (Singh, 2025). This diplomatic pressure, alongside U.S. military backing for India, from joint exercises such as Malabar 2024 to technology transfers, has amplified Pakistan's encirclement apprehensions.

The U.S.'s tilt towards India, as seen in the \$3 billion defense cooperation agreement signed in 2024, improves India's capabilities at Pakistan's expense and shrinks its traditional role as a U.S. ally in South Asia. U.S. mediation during the 2025 conflict was seen as biased in favour of India, especially after Washington asked Pakistan to take down terrorist safe havens without a reference to India's cross-border strikes.

To counter the Quad's India-centric approach, Pakistan has diversified its strategic partnerships, particularly with Russia and Gulf states. Russia's evolving role in South Asia offers Pakistan a critical counterbalance. During the 2025 conflict, Russia's proposal for a ceasefire, presented during UN Security Council consultations on May 5, positioned it as a neutral mediator, balancing its arms sales to India with energy and defense cooperation with Pakistan. Russia's \$2 billion energy deal with Pakistan in 2024, which includes LNG supplies and pipeline projects, has strengthened bilateral ties, providing Pakistan with economic leverage amid the challenges of CPEC's debt (Energy Intelligence, 2025). Russia's dual engagement with India and Pakistan reflects its strategy to maintain influence in a multipolar region.

For Pakistan, this presents both opportunities and challenges. The delivery of Russian Mi-35 helicopters in 2024 enhanced Pakistan's counterinsurgency capabilities, particularly in Balochistan, where CPEC projects face threats. However, Russia's

simultaneous supply of Su-35 jets to India complicates Pakistan's strategic calculus, necessitating careful diplomacy to deepen ties without antagonizing Moscow's other partners. Shafi (2025, personal communication) observed that "the Indo-Pak rivalry transcends bilateralism and is deeply intertwined with global power competition between US-China and now India-Russia dynamics. US continues to court India as a strategic counterweight for China but it still maintains ties with Pakistan. Meanwhile, China leverages its Belt and Road Initiative (BRI) to maintain close alliance with Pakistan. Concurrently, Russia is gradually diversifying its strategic posture by engaging Pakistan. These multiple interests render South-Asia a pivotal point of rivalry where any India-Pakistan conflicts holds the potential of dangerous spillover effects."

The Gulf states, particularly Saudi Arabia and the United Arab Emirates (UAE), have emerged as pivotal partners in Pakistan's diversification strategy. In 2024, Saudi Arabia and the UAE announced investments of \$5 billion and \$3 billion, respectively, in Pakistan's energy, infrastructure, and port development, which included Gwadar (2023: IISS). These investments strengthen Pakistan's economic resilience, making it less vulnerable to Chinese loans and enabling Pakistan to have a better geoeconomic position than India's Chabahar project. During the 2025 war, Gulf States had played an under-the-radar, but crucial role in de-escalation, with Saudi Arabia also brokering backchannel talks that led to the May 10 ceasefire.

Pakistan's alliances in the Gulf are also shaped by military collaboration. For instance, the Al-Samsam 2024 joint military exercises with Saudi Arabia have developed interoperability, and Emirati interest in Pakistan's JF-17 program also presents potential for defense exports. These links afford a strategic depth to Pakistan, offsetting the Quad

dominance in the Arabian Sea and assisting Pakistan to achieve its Vision 2030 blue economy objectives.”

7.4.2 UN and Multilateral Forums

Multilateral forums, particularly the UN and Shanghai Cooperation Organization (SCO), have been critical platforms for Pakistan to counter diplomatic isolation and advance its strategic interests. During the 2025 conflict, China's veto of a UN Security Council resolution condemning Pakistan for the Pahalgam attack provided a crucial shield, reinforcing the diplomatic dimension of the China-Pakistan alliance (Security Council Report, 2025). The SCO, co-led by China and Russia, further amplified Pakistan's voice, with its 2024 summit in Islamabad issuing a joint statement on regional stability that implicitly supported Pakistan's position on Kashmir (Arab News, 2025c).

However, at the subsequent SCO Foreign Ministers' meeting in Tianjin in July 2025, India refused to sign a joint statement, objecting to its omission of the April 2025 Pahalgam attack, which India attributed to Pakistan-based militants. This disagreement underscored the complexities within the SCO regarding sensitive regional issues (Arab News, 2025c).

Pakistan's active engagement in the United Nations has primarily concentrated on highlighting the Kashmir issue and addressing India's cross-border actions. In May 2025, Pakistan's permanent representative to the UN presented evidence of India's violations of the Line of Control (LoC) during Operation Sindoor, garnering support from non-aligned nations (Raza, 2025). This diplomatic offensive helped mitigate the Quad's narrative and underscored the need for renewed dialogue on conflict resolution mechanisms (Raza, 2025). Additionally, Pakistan has leveraged the Organisation of Islamic Cooperation (OIC), which issued a resolution in 2024 condemning India's policies in Kashmir, thereby

strengthening Pakistan's position among Muslim-majority countries (Organisation of Islamic Cooperation, 2024).

For Pakistan, the SCO serves as a counterbalance to Western-led groupings, such as the Quad. Its emphasis on regional connectivity complements CPEC's intentions. At the same time, Pakistan's lead role within the SCO's Regional Anti-Terrorist Structure (RATS) bolsters its counterterrorism credentials, addressing Western skepticism following the post-2025 war sermonizing. However, there are obstacles, as India's new SCO membership could make it harder to reach consensus on contentious issues, such as Kashmir. Pakistan will have to manoeuvre within them by building coalitions with Central Asian states and Russia to pursue its ends. Pakistan's multiple hope-inducing initiatives are promoted through various economic and multilateral forums, such as the AIIB, where it secures financing for CPEC projects, thereby reducing its reliance on exclusively Chinese bilateral loans (Asian Infrastructure Investment Bank, 2025). By engaging in multiple diplomatic forums, Pakistan reduces the potential for isolation while enhancing its strategic importance in a multipolar world. However, this approach is challenging to sustain, and there are inherently competing interests to be balanced between China's leadership of the Shanghai Cooperation Organisation (SCO) and Gulf economic backing to prevent overdependence on any one partner.

7.5 Maritime Security and Indo-Pacific Theater

The maritime space of Pakistan is a critical domain from the perspective of its strategic and economic interests, not only due to the revival of regional and global actors' interest in the Indo-Pacific theatre. Competition between Pakistan's Gwadar port and India's Chabahar port, in the context of great-power naval strategies and 'non-traditional threats' such as climate change, is what drives Pakistan's maritime security calculus. Through

analysis of port competition, major power relations, Pakistan's Vision 2030 blue economy aspirations, and non-conventional maritime threats, this section highlights the fusion of geostrategic with environmental drivers behind Pakistan's maritime strategy.

7.5.1 Port Rivalries

The Gwadar port (Pakistan) versus Chabahar port (India) rivalry symbolizes the larger IndiaPakistan rivalry, with its implications for regional connectivity and influence. Gwadar, the epicentre of the \$62 billion CPEC, acts as a vital 'entrée' from the Arabian Sea to China's Belt and Road Initiative (BRI) and Central Asia (China-Pakistan Economic Corridor, 2025). The development projects, including CPEC, such as a deep-sea port and related infrastructure, have strategically located Pakistan as a significant node in global trade networks, especially with the extension of CPEC to Afghanistan in 2024 (China-Pakistan Economic Corridor, 2025). In contrast, Chabahar, developed with Indian investment in Iran, aims to provide India with access to Afghanistan and Central Asia, thereby bypassing Pakistan and countering the strategic significance of Gwadar (India, 2025).

The 2025 India-Pakistan conflict highlighted the strategic importance of these ports. Gwadar served as a logistical base for Pakistan's naval operations during the conflict, facilitating the rapid deployment of Chinese-supplied Type 054A/P frigates to secure maritime routes (Center for International Maritime Security, 2025). Conversely, India leveraged Chabahar to coordinate humanitarian aid to Afghanistan, reinforcing its regional influence and signaling a counter to CPEC (Search, 2025). This port rivalry extends beyond bilateral competition, as Chabahar aligns with the U.S.-backed India-Middle East-Europe Economic Corridor (IMEC), which seeks to rival China's BRI (European Council on Foreign Relations, 2023).

Frictions are exacerbated by security concerns, especially in Balochistan, where Gwadar is located. There have been targeted attacks against CPEC projects by elements of the Baloch Liberation Army, with an alleged bombing near the Gwadar port in 2024 leading to the suspension of operations. Pakistan has collaborated closely with Chinese private security firms to enhance security and establish naval patrols. However, this effort will likely add economic strain and military pressure, potentially inflaming the situation locally. Despite the competition, opportunities for cooperation exist. Regional analysts have proposed joint economic ventures between Gwadar and Chabahar, such as a regional trade corridor linking Pakistan, Iran, and India, to reduce tensions and foster economic interdependence (Haris, 2025). Such initiatives could stabilize Afghanistan and counterbalance great-power rivalries, but political mistrust and domestic opposition in both Pakistan and India pose significant barriers. Pakistan must balance its strategic reliance on Gwadar with diplomatic efforts to mitigate Chabahar's competitive threat, possibly through dialogue facilitated by neutral actors, such as the Gulf States.

7. 5.2 Great-Power Naval Strategies

The Indo-Pacific Theater is a focal point for great-power competition, with naval strategies shaping Pakistan's maritime security. China's String of Pearls strategy, which includes Gwadar as a key node, aims to secure sea lanes across the Indian Ocean, countering the Quad's maritime dominance (Swadeshishodh, 2025). China's naval presence in the Arabian Sea, including joint exercises with Pakistan's navy in 2024, enhances Pakistan's ability to secure its Exclusive Economic Zone (EEZ) and counter India's naval expansion. During the 2025 conflict, Chinese naval assets stationed near Gwadar served as a deterrent against potential Indian blockades, underscoring the strategic alignment between Beijing and Islamabad (Roy-Chaudhury, 2024).

In contrast, the Quad's naval strategy, supported by the European Union's coordinated maritime presence, emphasizes freedom of navigation and the containment of China's influence (Karan, 2024). The Malabar 2024 exercise, involving U.S., Indian, Japanese, and Australian navies, showcased advanced interoperability, with India deploying its INS Vikrant aircraft carrier to assert dominance in the Arabian Sea (IP Defense Forum, 2024). These developments pose a challenge to Pakistan's maritime security, as India's naval modernization enhances its ability to project power near Pakistan's coastline (Karan, 2024).

Pakistan's response involves leveraging Chinese naval support while diversifying partnerships. Joint naval exercises with Turkey and Saudi Arabia in 2024 strengthened Pakistan's maritime capabilities, with Turkey's corvette designs enhancing Pakistan's shipbuilding capacity. During the Turgutreis-9 exercise, Pakistan's PNS *Babur* trained alongside Turkey's TCG *Heybeliada* corvette, as part of a broader technology transfer initiative (Güngör, 2024). Russia's growing interest in the Indian Ocean, as evidenced by the port call of two Russian warships in Karachi in 2025, offers additional opportunities for collaboration; however, Russia's simultaneous naval engagement with India limits the depth of strategic reliance (The Moscow Times, 2025).

Pakistan must also contend with the U.S. Indo-Pacific Command, which coordinates with India to monitor Pakistan's maritime activities, particularly around Gwadar, perceived as a Chinese strategic asset. To navigate these dynamics, Pakistan has invested in asymmetric naval capabilities, such as anti-ship missiles and submarine upgrades, to deter India's naval superiority (Defence Security Asia, 2025). The acquisition of Chinese Yuan-class (Hangor-class) submarines in 2024 further enhances Pakistan's underwater deterrence, which is critical for protecting Gwadar and its EEZ (Nuclear

Threat Initiative, 2024; Naval News, 2025). However, sustaining these capabilities requires significant investment, straining Pakistan's \$10 billion defense budget and necessitating economic support from Gulf partners (Asia Times, 2024).

Dr. Adil Sultan, interviewed by author, argued that "India-Pakistan rivalry may not have implications for the great power rivalries between US, China, or Russia, but the growing competition at the global level may have implications for India-Pakistan rivalry. Pakistan may have to eventually decide which side it wants to be. Likewise, India cannot continue to maintain its balancing act and will have to eventually decide whether it wants to side with the US or Russia" (Sultan, 2025, personal communication). This highlights the pressure on both nations to align more decisively in global power blocs, potentially escalating regional tensions as great powers leverage the rivalry for influence.

7.5.3 Pakistan's Blue Economy Vision

Pakistan's Vision 2030 emphasizes the blue economy as a driver of economic growth and maritime security, aiming to harness the potential of its 1,046 km coastline and Exclusive Economic Zone (EEZ). The strategy includes upgrading Gwadar and Karachi ports, developing fisheries, and promoting maritime tourism, with a target of increasing the blue economy's contribution to GDP by 15% by 2030 (Khalil, 2025). Gwadar's modernization, including the completion of a new container terminal in 2024, has enhanced its capacity to handle transshipment, positioning Pakistan as a regional trade hub (Arab News, 2025).

The 2025 conflict underscored the strategic significance of the blue economy, as Gwadar's dual-use capabilities facilitated both naval operations and trade flows. Investments from Gulf States, including a \$10 billion UAE commitment to Pakistan's economy which includes substantial funding for infrastructure development in Gwadar have bolstered these efforts, reducing reliance on Chinese funding and mitigating CPEC-related debt risks

(Reuters, 2024). Additionally, Pakistan's National Maritime Policy 2024 prioritizes sustainable fisheries and offshore energy exploration, with plans for wind farms in the Arabian Sea to address energy shortages (Dawn, 2025b).

Challenges to the blue economy include environmental degradation and security threats. Overfishing and pollution in the Arabian Sea pose a significant threat to marine ecosystems, ultimately impacting the livelihoods of coastal communities. Pakistan has responded with initiatives such as the Living Indus project, which combines environmental restoration with economic development, supported by funding from the UN. These efforts aim to strike a balance between economic ambitions and sustainability, aligning with global maritime governance frameworks.

7.5.4 Non-Traditional Maritime Threats

Non-traditional maritime threats, including climate change, piracy, and illegal fishing, exacerbate Pakistan's vulnerabilities in the Indo-Pacific. Climate change rising sea levels, projected to increase by approximately 0.5 meters by 2050 threatens Pakistan's coastal infrastructure, particularly the ports of Gwadar and Karachi, which faced severe flooding in 2024 (AP News, 2025). These floods disrupted trade and naval operations, highlighting the intersection of climate and maritime security (AHSS Journal, 2025).

Climate-induced water disputes, particularly over the Indus River, intersect with India-Pakistan tensions, as India's upstream dam projects exacerbate Pakistan's water scarcity. The 2025 conflict saw diplomatic exchanges over water access, with Pakistan accusing India of violating the Indus Waters Treaty. These disputes underscore the climate-geopolitical nexus, necessitating that Pakistan integrate environmental diplomacy into its maritime strategy, potentially through the frameworks of the SAARC or the UN.

7.5.4.1 Piracy and Illegal Fishing Pose Further Challenges to Maritime Security

The Arabian Sea has seen a resurgence of piracy, with seven reported incidents in 2024 up from just 2 in 2023 an increase of 250% in international waters, such as near Pakistan's EEZ (Safety4Sea, 2025). Illegal, unreported, and unregulated (IUU) fishing by foreign trawlers depletes marine resources, reducing fish stocks and harming coastal economies (Global Fishing Watch, 2022). Pakistan's response includes enhanced naval patrols and cooperation with regional and international bodies, such as ReCAAP; however, limited resources continue to hinder effective enforcement.

Cyber threats to maritime infrastructure, such as port management systems, also emerged as a concern in 2024, with a cyberattack on Karachi port disrupting operations. Pakistan's National Cyber Security Policy 2024 aims to address these risks, but implementation lags due to technical and budgetary constraints. Countermeasures to these non-traditional threats will be found through regional cooperation, incorporating India, in the development of maritime security regimes that manage collective vulnerabilities alongside geopolitical competition.

7.6 New Challenges: Atypical and Future Perspectives

Pakistan's strategic landscape is defined by non-traditional, futuristic challenges that move beyond conventional military and power-struggle processes. This section analyzes the emerging threats in the cyber and space spheres, within the climate-geopolitical continuum, and through the lens of disruptive technologies.

7.6.1 Cyber and Space Domains

India did not stop at cyber-enabled disinformation campaigns during the crisis to influence Pakistan's domestic audience, magnifying narratives of Pakistani involvement in the Pahalgam attack, sowing social discord, and embittering civil-military relations.

Meanwhile, India's space-based ISR capabilities, including the addition of the RISAT-2B satellite, have enhanced its close monitoring of Pakistan's military movements. These developments underscore the need for Pakistan to enhance its cyber and space capabilities in response to India's growing presence.

Pakistan's Space and Upper Atmosphere Research Commission (SUPARCO) achieved a significant milestone with the 2024 launch of the PakSat-MM1 satellite, enhancing the nation's communication and surveillance capabilities (Dawn, 2024a). However, India's advanced space program presents a strategic challenge; in March 2019, India conducted its first anti-satellite (ASAT) test, named Mission Shakti, destroying one of its satellites in low Earth orbit. This made India the fourth country to showcase such a capability (Reuters, 2019).

The 2025 conflict revealed Pakistan's reliance on Chinese satellite support, such as the BeiDou system, for navigation and ISR, raising concerns about dependency (Dawn, 2024b). To counter this, Pakistan could pursue partnerships with emerging space powers, such as Turkey, which launched its Türksat 6A satellite in 2024, offering potential for technology transfer and joint satellite development (Reuters, 2024).

An original approach for Pakistan could involve establishing a South Asian Cyber-Space Cooperation Framework, inviting neutral actors like the Gulf States and ASEAN countries to foster regional cybersecurity norms and reduce the risk of escalatory cyberattacks. This framework could include joint cyber defense exercises, shared threat intelligence, and protocols for attributing cyberattacks to prevent miscalculations, particularly given the potential for hybrid escalations in the 2025 conflict. Such an initiative would position Pakistan as a proactive player in regional stability while diversifying its technological partnerships beyond China.

7.6.2 Climate-Geopolitical Nexus

The climate-geopolitical nexus is a critical non-traditional challenge, as environmental changes amplify Pakistan's strategic vulnerabilities and exacerbate tensions with India. Climate stressors, such as water scarcity and extreme weather events, intertwine with geopolitical rivalries, particularly over shared resources like the Indus River. As noted by Ali and Khuhro, "The growing water stress between the two countries caused by climatic and environmental threats to the Indus basin river system, Water is emerging as a critical issue in India-Pakistan relations and can cause conflict in South Asia" (Ali SA, Khuhro AA, 2021).

Pakistan, heavily dependent on the Indus for agriculture and energy, faces heightened risks from India's upstream dam projects, such as the Kishanganga and Ratle dams, which reduce water flows and violate the Indus Waters Treaty (IWT). The 2025 conflict saw diplomatic escalations over water access, with Pakistan accusing India of weaponizing water resources to pressure its economy during the crisis. According to Gleick, "India has threatened to weaponize water by suspending the 1960 Indus Waters Treaty, a World Bank-brokered agreement that allocates use of six major rivers in the Indus basin" (Gleick, 2025).

Climate change exacerbates these tensions through rising sea levels and increased frequency of extreme weather events. The Intergovernmental Panel on Climate Change (IPCC) projects a 0.5-meter sea-level rise by 2050, threatening Pakistan's coastal infrastructure, including the Gwadar and Karachi ports, which faced severe flooding in 2024. These floods disrupted CPEC operations and naval deployments, underscoring the intersection of climate and maritime security (Section 5.4). Additionally, glacial melt in

the Himalayas, accelerated by global warming, increases flood risks in Pakistan's northern regions, straining disaster response capacity and diverting resources from defense.

Pakistan's response includes initiatives like the Living Indus project, which integrates environmental restoration with economic development. As noted in the *Perennial Journal of History*, "The Living Indus initiative, led by the Pakistani government, has been recognized as a World Restoration Flagship. The initiative aims to restore 25 million hectares of the Indus River Basin by 2030, integrating environmental restoration with economic development" (Ali SA, Khuhro AA, 2021). However, these efforts are insufficient without regional cooperation. An original proposal could involve a Himalayan Climate Security Dialogue, co-led by Pakistan and China under the SCO framework, to address shared climate challenges, including water management and disaster preparedness. As described by Engelke and Michel, "The Scowcroft Center's mission is to develop non-partisan strategies to address the most important security challenges facing the United States and the world. This study focuses on the intersection between Himalayan Asia's changing ecology and the dynamic competition for geopolitical leadership among its major powers" (Engelke, P., Michel, D., 2019).

Climate change also exacerbates internal vulnerabilities, such as food insecurity and displacement. Pakistan's 2024 floods displaced 1.2 million people, fueling unrest in Sindh and Balochistan, where CPEC projects face local opposition. Integrating climate adaptation into CPEC planning, including the development of flood-resistant infrastructure and the promotion of renewable energy, could mitigate these risks while aligning with the Vision 2030 goals. However, Pakistan must balance these investments with its debt obligations to China, requiring diversified funding from Gulf partners and international organizations, such as the Asian Infrastructure Investment Bank.

7.6.3 Emerging Technologies and Geopolitical Implications

The rapid advancement of emerging technologies, such as artificial intelligence (AI), quantum computing, and biotechnology, introduces new geopolitical challenges and opportunities for Pakistan. In the AI domain, Pakistan could develop a National AI Strategy for Strategic Resilience, focusing on dual-use applications in defense and economic development. As Hussain and Rizwan argues for the strategic treatment of artificial intelligence as a key industry within a broader industrial policy framework of Pakistan, underscoring the importance of aligning it with national goals such as economic resilience and preservation of autonomy" (Hussain A, Rizwan R, 2024). This strategy could include establishing AI research hubs in collaboration with China's tech giants, such as Huawei, which provided AI training programs to Pakistani universities in 2024 (Global Times, 2025). Additionally, partnerships with Gulf States, particularly the UAE, which has invested heavily in AI through its National AI Strategy 2031, could provide funding and expertise. As noted by Kwok, "The Gulf states, particularly the UAE, are developing a strategic approach to investing in artificial intelligence (AI) that leverages their significant state oil funds" (Kwok KK, 2024). These collaborations would reduce Pakistan's reliance on Western technology ecosystems, which are increasingly aligned with India through the Quad. Quantum computing, though nascent, poses future risks to cybersecurity. India's 2024 quantum research initiative, supported by the U.S., aims to develop quantum-resistant cryptography, which could potentially undermine Pakistan's encrypted communications.

Pakistan could counter this by investing in quantum research through SUPARCO, leveraging Chinese expertise in quantum communication, as demonstrated by China's Micius satellite (Liao, Cai, Handsteiner, et al., 2018). An innovative approach would be a

Regional Quantum Security Framework, proposed under the SCO, to establish norms for the use of quantum technology, thereby preventing an arms race in this domain while fostering cooperation with Central Asian states.

As Pakistan seeks to incorporate these advances into its strategic architecture, it may need to consider establishing a Strategic Technology Task Force that brings together representatives from the military, academia, and the private sector to harmonize policies across the cyber, space, AI, quantum, and biotech domains.

7.7 Conclusion: Navigating Fragility toward Autonomy

The 2025 India-Pakistan crisis, which began with the April 22 Pahalgam attack and was driven by India's Operation Sindoor, revealed the frailties of South Asia's strategic setting when nuclear risks and global power alignments conspired to accentuate local tensions. This conclusion weaves together the significant insights including India's military modernization, the China-Pakistan strategic relationship, diplomatic reorientation, maritime vulnerabilities, and new threats in cyber, space, and climate, to argue that Pakistan needs a multi-pronged strategy to address these vulnerabilities and cultivate higher strategic autonomy. Through hedging its relationships, being nimble in its diplomacy, and addressing unconventional challenges, the country can manage the dangers and remain a robust player in a multipolar order.

7.7.1 Synthesizing Key Challenges

India's defence arsenal is altering the regional power balance, so that cutting-edge systems like Rafale jets and S-400 defences are de facto extending the conventional asymmetry symmetrically to Pakistan. The 2025 conflict demonstrated that India could conduct accurate strikes without triggering conflict, thereby positioning India as a de facto

counterforce challenger to Pakistan and prompting costly countermeasures, such as the procurement of J-35A Chinese fighters.

To engage this delicate environment, Pakistan requires a comprehensive, whole-of-nation strategy that addresses immediate security concerns without compromising its long-term defense capabilities. To begin with, Pakistan should diversify strategic partners to include others beyond China. The China-Pakistan nexus provides both military and economic support. However, overdependence could entangle Pakistan in great-power competition, mainly as the Quad Indo-Pacific strategy targets China's Belt and Road Initiative. This can be somewhat mitigated by deepening relationships with Gulf States, Russia, and other emerging powers, such as Turkey. For example, Turkey's drone sales and Saudi Arabia's investments provide economic and defense synergies that diminish the reliance on Chinese loans and technology. A prospective South Asian Strategic Partnership Forum, in conjunction with Turkey and Saudi Arabia, could help facilitate discussions about regional security and economic partnership, placing Pakistan as a broker between rival powers.

Second, developing diplomatic agility through multilateral platforms is crucial for competing against India's narrative dominance. Pakistan's ability to invoke China's UNSC veto and SCO support in the 2025 conflict has shown the importance of multilateralism. Building on this model, Pakistan could spearhead a Regional Conflict Prevention Mechanism within the SCO, centered on crisis de-escalation and nuclear risk reduction, involving third-party countries such as Russia to ensure buy-in from non-Pakistani and non-Indian stakeholders. Utilizing the Organisation of Islamic Cooperation (OIC) to amplify voices on Kashmir, as evident in the 2024 resolution, can also help neutralize Quad-led attempts to isolate it.

A novel initiative could be a Digital Defense Alliance among China, Turkey, and Malaysia, focusing on cybersecurity training, AI development, and quantum-resistant cryptography to counter India's technological edge. In the climate domain, the Himalayan Climate Security Dialogue could integrate water management and disaster preparedness, addressing Indus River disputes while fostering regional cooperation and collaboration. These initiatives would align with Pakistan's Vision 2030 blue economy goals, ensuring the sustainable development of coastal infrastructure. To achieve strategic autonomy, Pakistan could pioneer a South Asian Technology and Resilience Hub. This collaborative platform integrates AI, renewable energy, and biotech research to address both security and environmental challenges. This hub, supported by Gulf funding and Chinese technical expertise, aims to develop climate-resilient infrastructure, including flood-resistant ports, as well as AI-driven early warning systems for cyberattacks and natural disasters. By establishing itself as a regional powerhouse in technology-driven resilience, Pakistan may be able to attract investment from non-traditional actors, such as the EU, thereby reducing its reliance on great powers.

Another novel idea is a Regional Maritime Security Compact, under the SAARC framework, which could address common non-traditional challenges such as piracy, illegal fishing, and climate change in the Arabian Sea. Political distrust aside, thanks to back-channel diplomacy, Pakistan can initiate this compact with Sri Lanka and the Maldives, whose neutrality would encourage India to engage through these island nations. This would enhance maritime security and mitigate tensions surrounding Gwadar and Chabahar, as discussed in Section 5 regarding port rivalries.

7.7.2 Policy Recommendations include

7.7.2.1 Nuclear Policies: Advance intellectually and technologically its full spectrum deterrence. Besides, invest in the missile defense systems.

7.7.2.2 Conventional Military: Invest in the professional training. Adopt innovative tactics. Strength human resources by galvanizing nationalism.” Hashmat (2025, personal communication) suggested “Enhancing the qualitative military capability is continuous long term process. We need to focus on more technology driven capabilities and cutting edged technology superiority. 2025 Air Battle with India is a case in point. Many traditional and conventional large size formations are losing their relevance. Considering its strategic parity and taking advantage of Nuclear Deterrence, Pakistan should reduce / balance out its ground forces to attain better air, air defence and maritime advantage. Smaller but more agile, flexible, and extremely lethal capabilities, with precision and higher accuracy, are required to replace, larger, more cumbersome and less effective elements. The Defence Budget will continue to shrink. Therefore, Pakistan needs to cut down all extra and unwanted fat in our defence architecture.

7.7.2.3 Diplomacy/Alliances: Endure trust with China, improve strategic partnership with Russia, and deal with the U.S. rationally without undermining relations with China. Increase intelligence cooperation with Iran to unearth the RAW network, deal firmly with other Gulf States, including Saudi Arab. Enhance diplomatic, educational, and trade relations with South Asian states. Finally, deal with Afghanistan using a carrot-and-stick policy. Capture the European market with qualitative improvements in the products. Increase trade and educational engagements with African, South American, and Southeast Asian nations.” “Pakistan must refine its diplomatic strategy strengthening ties with

China, Turkey and rebuilding with the U.S leveraging multilateral forums. At same time strategic communication is essential.

FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter synthesizes the empirical and theoretical insights from the dissertation, drawing on the qualitative analysis of India's military modernization and its implications for Pakistan. The analysis integrates thematic examination of policy documents, historical records, case studies (e.g., Operations Sindoor and Bunyan-um-Marsoos), and 15 semi-structured interviews with Pakistani experts in South Asian security, retired military officers, and academics. The discussion interprets these through the lenses of offensive realism and the security dilemma, addressing literature gaps. The conclusion resolves the central research question, and recommendations offer policy pathways for Pakistan.

Key Findings

The findings reveal profound asymmetries exacerbated by India's technological acquisitions, perceptual divergences, and evolving geopolitical alignments. They are categorized below, with evidence from the thesis chapters, interviews, and the post-2025 escalation analysis.

Drivers of India's Military Modernization: India's pursuit of advanced technologies hypersonics (e.g., HSTDV), AI, cyber systems, quantum computing, and space assets (e.g., NavIC, ASAT) is driven by offensive realist ambitions for regional hegemony. Fueled by a \$4 trillion economy and \$75 billion defense budget, initiatives like Atmanirbhar Bharat promote indigenization, while partnerships with the US (MQ-9B drones), Russia (S-400), Israel (cyber/drones), and France (Rafale) enhance capabilities. Political catalysts include Hindutva nationalism under Modi, positioning India as "Vishwaguru." Geopolitical drivers focus on countering China (Ladakh tensions) and Pakistan (Kashmir disputes). Interviews confirmed power-maximization as a core motive, with 11 noting third-party alliances amplifying rivalry. Case studies, such as Operation

Sindoor (2025), illustrate the multi-domain integration of drones, BrahMos missiles, S-400 defenses, ISRO satellites, and cyber operations, which enabled rapid, calibrated strikes, thereby perpetuating arms races.

Security Dilemma Intensification for Pakistan: India's advancements create a vicious cycle of insecurity, blurring the offense-defense lines and fostering ambiguity in escalation. Technologies such as hypersonics (Mach 5+ penetration) and ASATs deplete Pakistan's response times, which is the sine qua non of the nuclear mutual vulnerability. Historical templates (2016 Uri, 2019 Balakot, 2025 Sindoor) reflect perceptual biases: Pakistan views actions as offensive (Pahalgam as a false flag) and India frames them defensively. Interventions concurred on increased threat(s), triggering response(s) such as the FSD. Economic disparities Pakistan's \$340 billion GDP, \$10.2 billion spent on defense, and \$128 billion in debt temper responses, siphoning funds from industry upgrades. This is just as well, because the 2025 escalation, analyzed three months later, reiterates this: Pakistan's Operation Bunyan-um-Marsoos caused operational damage (e.g., the loss of six Indian jets without any of its own), yet laid bare vulnerabilities in its air defense, claims on both sides muddled by a lack of open data. There were huge economic losses on Indian side.



Source: ipripak.org

Traditional asymmetries (India's Rafale/S-400 vs Pakistan's JF-17/J-10C) and cyber/space gaps are pushing the doctrinal evolution towards FSD, MIRVs (Ababeel), and TNWs. Findings show escalation risks from short flight times (<5 minutes) and non-contact warfare (drones, missiles). Pakistan's adaptations include Chinese alliances (CPEC, J-10C) and asymmetric tactics; however, constraints such as talent drain and terrorism costs (resulting in 90,000 losses) limit their efficacy.

Geopolitical and Regional Implications: Modernization reshapes Alignments: India deepens its ties with the US-QUAD for Indo-Pacific containment of China, while Pakistan bolsters its relations with China, Turkey, and Saudi Arabia. Findings indicate the perpetuation of an arms race, international apathy (e.g., no objection to Sindoor strikes or Balakot), and third-party gains (e.g., the US-Israel nexus). The 2025 crisis, crystallizes this: India's "military envelope" push (deep strikes via non-contact vectors) enlarged limited-war space below nuclear thresholds, maintaining deterrence stability short of full

war. Politically, the Indus Water Treaty suspension (post-Sindoor) mirrors 2019's Article 370 abrogation, weaponizing water over Kashmir. Geopolitically, US overtures (Trump's Kashmir mediation tweet) appear transactional, benefiting anti-China narratives; Israel provided unequivocal support, reciprocated by India's Iran neutrality. Interviews highlighted risks of future escalations due to differing lessons learned, with Modi's "pause" on Sindoor signaling ongoing threats. Broader contexts e.g., the Iran-Israel standoff, the Russia-Ukraine war amplify South Asia's fracture, positioning Pakistan as a pivot in the US-China rivalry.

These findings incorporate the post-escalation analysis, treating it as a reflective extension of the 2025 case studies, emphasizing hindsight on victories claimed, lessons diverged, and realignments (e.g., US-Israel-India nexus vs. Pakistan's western integration). Through offensive realism (Mearsheimer, 2001), India's modernization embodies power maximization in an anarchic environment, countering the Sino-Pak axis through technological superiority and alliances. This fuels a security dilemma (Herz, 1950; Jervis, 1978), where "defensive" tools (e.g., S-400) appear offensive, amplified by biases and thirdparty roles. The "escalation ambiguity" framework, initially developed for this study, explains the 2025 dynamics: calibrated non-contact warfare (drones, cyber) kept escalations sub-nuclear, as both sides avoided red lines, aligning with Pakistani claims of intact stability.

Literature comparisons (e.g., Ganguly & Kapur, 2010; Ladwig, 2015) show gaps in addressing post-crisis hindsight; this thesis fills them via interviews revealing operational obscurities (e.g., air defense critiques) and strategic envelope-pushing (India's "New Normal" as diplomatic wins via global apathy). Geopolitically, the balance-of-threat theory (Walt, 1987) explains alignments, but nontraditional elements (e.g., water coercion,

climate nexus) that are underexplored are highlighted here. Pakistan's asymmetric paradigm shift, as advocated, counters response limitations, contributing to strategic culture discourse (Lavoy, 2006; Fair, 2014).

RECOMMENDATIONS:

Pakistan should take the asymmetries out of the Equation with holistic approaches:

Enhance Deterrence and Capabilities: Embrace 'Asymmetric Response Paradigm': Combine pre-empt, FSD upgrades, & MIRV/drones; 25% budget to R&D to hypersonic/cyber counters. Use Chinese links for tech handoffs. Economic and Domestic Reforms: Mitigate Constraints: Slash personnel costs (55%) through reforms; counter talent drain with inducements; channel terrorism-related savings (post-90,000 losses) into modernization. Extend CPEC for economic corridors towards West/Central Asia/Russia.

Diplomatic Engagements: Seize Opportunities: Translate US offers (such as the Trump mediation offer) into action on Kashmir and the Indus Treaty, and involve the UN/OIC for mediation. Recommend CBMs: Cyber/space hotlines and coordinated simulations to reduce ambiguity. Geopolitical Realignments: Foster Clarity: Build a Stronger China-Russia Alliance as a US Pivot Point; Deepen Western Neighborhood Connections as a Counter to the US-Israel-India Grip. Construct narratives that prioritize stability over hegemony.

Long-Term Monitoring: Establish Oversight: Annual disaster scenario plans; interdepartmental report on unconventional threats (water, climate). Measure progress in terms of deterrence indices. Based on post-2025 learnings, these recommendations aim to foster resilience and stability and must be delivered in a synergistic manner across agencies.

CONCLUSION

India's military technology acquisitions driven by economic might, political ideology, and geopolitical rivalries profoundly destabilize South Asia, answering the central question: They heighten Pakistan's security dilemma, challenge its deterrence, and escalate tensions via perceptual and third-party dynamics. From 2025 crisis amid global tumult (Iran-Israel, Russia-Ukraine), the 2025 spiral-in illustrates persistent risks: contrasting legacies, suspended operations, and split alliances create instability in a 350-warhead region. This new literature, a merger of qualitative information and new paradigms, turns to Pakistan's adaptive resilience, rejecting caricatures, and offering a way out of the rivalry. Without recognizing the mutual fragility and without effective diplomacy, South Asia will remain economically dysfunctional and militarily insecure.

BIBLIOGRAPHY

- Abbas, A. (2025). Hypersonic weapons and the future of strategic stability between the nuclear rivals. *Journal of Strategic Security Analysis*, X(2), 59–77. https://www.researchgate.net/publication/387599613_Hypersonic_Weapons_and_the_Future_of_Strategic_Stability_between_the_Nuclear_Rivals
- Abbas, M., Hussain, S., & Salah-ud-Din, S. (2024). Geopolitics of maritime security in the Indian Ocean: SinoIndian rivalry and implications on Pakistan. *Contemporary Issues in Social Sciences and Management Practices*, 3(1), 231–244. [https://pdfs.semanticscholar.org/d1f6/62dc3a972479ffc76613f9059fef8fadafb5 .pdf](https://pdfs.semanticscholar.org/d1f6/62dc3a972479ffc76613f9059fef8fadafb5.pdf)
- Abbasi, A. (2023). *Indian quest for hypersonic missiles in South Asia and disruption of strategic stability*. IPRI Journal, XXIII(2), 23–52. <https://doi.org/10.31945/iprij.230102>
- Abbasi, A. H., & Liaqat, S. (2025). *India's evolving space militarization and the security implications for Pakistan*. Strategic Perspectives, Centre for International Strategic Studies, AJK. [https://strategicperspectives.cissajk.org.pk/wp-content/uploads/2025/01/Indias-Evolving-Space Militarization-and-the-Security-Implications-for-Pakistan.pdf](https://strategicperspectives.cissajk.org.pk/wp-content/uploads/2025/01/Indias-Evolving-Space-Militarization-and-the-Security-Implications-for-Pakistan.pdf)
- Academic Study Group. (2024). *Heron UAV use in India's Uri surgical strikes: endurance, range, and ISR data*. *International Journal of Defense Technology*.
- Acton, J. M. (2018). Escalation through entanglement: How the vulnerability of command-and-control systems raises the risks of an inadvertent nuclear war. *International Security*, 43(1), 56–99. https://doi.org/10.1162/isec_a_00320
- Acton, J. M. (2020, April 9). *Is it a nuke? Pre-launch ambiguity and inadvertent escalation*. Carnegie Endowment for International Peace. <https://carnegieendowment.org/research/2020/04/is-it-a-nuke-pre-launch-ambiguity-and-inadvertent-escalation>
- AeroTime. (2025, April). *The world's best military drones in 2025*. Retrieved from <https://www.aerotime.aero/articles/25712-worlds-best-military-drones>
- Ahmad, I. (2024). *Gwadar: China's future gateway to the Middle East*. International Strategic Studies Institute. https://issi.org.pk/wp-content/uploads/2024/01/Ishtiaq_Ahmad_SS_No_2_2023.pdf
- Ahmad, O. (2024, November 20). *Pakistan's security challenges threaten to undermine its relationship with China*. *South Asian Voices*. apnews.com+4southasianvoices.org+4theguardian.com+4
- Ahmed, M. (2016, June 30). *Pakistan's tactical nuclear weapons and their impact on stability*. Carnegie Endowment for International Peace. <https://carnegieendowment.org/research/2016/06/pakistans-tactical-nuclear-weapons-and-their-impact-on-stability>

- Ahmed, Z. S., & Malik, M. (2021). The Kashmir dispute and strategic stability in South Asia: A reassessment. *Journal of Peace Research*, 58(4), 789–803.
<https://doi.org/10.1177/0022343320985823>
- Air Power Asia. (2020, February 15). *NavIC vs GPS: A comparison of India's regional navigational system*. Air Power Asia. Retrieved from <https://airpowerasia.com/navic-gps-comparison/thesvi.org+6defenceupdate.in+6strategicperspectives.cissajk.org.pk+6>
- Air Power Asia. (2020, July 3). *T-90 “Bhishma” tanks in Ladakh – A comprehensive look*. <https://airpowerasia.com/2020/07/03/t-90-bhishma-tanks-in-ladakh-a-comprehensive-look/>
- Air University. (2021). *India's Acquisition of the S-400 Air Defense System*. Air University Journal. Retrieved from <https://www.airuniversity.af.edu/JIPA/Display/Article/2743750/indias-acquisition-of-the-s-400-airdefense-system-implications-and-options-for/moderndiplomacy.eu+4en.wikipedia.org+4en.wikipedia.org+4airuniversity.af.edu>
- Air University. (2023). *India takes a step away from the Russian defense industry*. Journal of Indo-Pacific Affairs. <https://www.airuniversity.af.edu/JIPA/Display/Article/3475660/india-takes-a-step-away-from-the-russiandefense-industry/>
- Airforce-Technology. (2011, February). *HAL issues RFP to BAE for Hawk trainer production*. Retrieved from <https://www.airforce-technology.com/news/newshal-rfp-bae-hawk/>
- Airforce-Technology. (n.d.). *Harop loitering munitions UCAV system*. Retrieved from <https://www.airforcetechnology.com/projects/haroploiteringmuniti/>
- AirPowerAsia. (2020, July 3). *T-90 Bhishma tanks in Ladakh – A comprehensive look*. Retrieved from <https://airpowerasia.com/2020/07/03/t-90-bhishma-tanks-in-ladakh-a-comprehensive-look/thediplomat.com+6airpowerasia.com+6en.wikipedia.org+6>
- Ajai Shukla. (2017, April). *Israel to pip US as India's largest foreign arms supplier*. Business Standard. Retrieved from <https://www.ajaiashukla.com/2017/04/israel-to-pip-us-as-indias-largest.html>
- Akhmetov, V., Savanevych, V., & Dikov, E. (2019). *Analysis of the Indian ASAT test on 27 March 2019*. ArXiv. <https://arxiv.org/abs/1905.09659>
- Al Jazeera Staff. (2025, May 7). *Operation Sindoor: What's the significance of India's Pakistan targets?* Al Jazeera. <https://www.aljazeera.com/news/2025/5/7/operation-sindoor-whats-the-significance-of-indias-pakistantargets>
- Al Jazeera. (2022, April 9). *What led to leader Imran Khan's downfall in Pakistan?* <https://www.aljazeera.com/news/2022/4/9/analysis-end-of-imran-khans-termaljazeera.com+1aljazeera.com+1>

- Al Jazeera. (2023, February 2). *What is behind the rising violent attacks in Pakistan?* Retrieved June 2025, from <https://www.aljazeera.com> [aljazeera.com](https://www.aljazeera.com)
- Al Jazeera. (2025, April 24). *Pakistan claims Pahalgam attack 'false flag operation'*. <https://www.aljazeera.com/news/liveblog/2025/4/24/kashmir-attack-live-india-summons-pakistani-envoyhunts-pahalgam-gunmen>
- Al Jazeera. (2025, June 12). *How is Pakistan raising money for a 20 percent hike in defence spending?* <https://www.aljazeera.com/news/2025/6/12/how-is-pakistan-raising-money-for-a-20-percent-hike-indefence-spending> [economictimes.indiatimes.comaljazeera.com](https://www.aljazeera.com)
- Al Jazeera. (2025, May 10). *Pakistan launches Operation Bunyan Marsoos: What we know so far*. Al Jazeera. <https://www.aljazeera.com/news/2025/5/10/pakistan-launches-operation-bunyan-marsoos-what-we-knowso-far>
- Al Jazeera. (2025, May 7). *How world leaders are reacting to India-Pakistan military strikes*. <https://www.aljazeera.com/news/2025/5/7/how-world-leaders-are-reacting-to-india-pakistan-militarystrikes>
- Al Jazeera. (2025c, May). *South Asian nuclear powers agree to an immediate ceasefire*. <https://www.aljazeera.com>
- Al Jazeera. 2025. "Pakistan Launches Operation Bunyan Marsoos: What We Know So Far." May 10, 2025. <https://www.aljazeera.com/news/2025/5/10/pakistan-launches-operation-bunyan-marsoos-what-we-knowso-far>.
- Ali SA, Khuhro AA. Indus Waters Treaty: Challenges and Prospects. *Perennial Journal of History*. 2021;2(2):132–145. Available at: <https://pjh.wum.edu.pk/index.php/ojs/article/download/67/55>
- Ali, A. (2025). The symbolism of Operation Bunyan um Marsoos. *Strategic Studies*, 45(1), 78-92.
- Ali, L., & Hassan, M. S. (2025). *Non-traditional maritime security challenges and their impact on economic security in the Indian Ocean Region: A case study of Pakistan*. *Journal for Social Science Archives*, 3(1), 363–373. <https://doi.org/10.59075/jssa.v3i1.122>
- Ali, M., & Bukhari, S. M. H. (2022). Indian military doctrine and its impact on South Asia's strategic stability. *Margalla Papers*, 26(1), 74–84. <https://doi.org/10.54690/margallapapers.26.I.98>
- Ali, Muhammad Mustafa Zaidi. 2016. "Strategic Delusions – The Cold Start Doctrine: Proactive Strategy." *Strategic Studies* 36 (2): 45–60.
- Ali, S. (2021, August 9). Anti-access/area-denial strategy for Pakistan Navy: A work in progress. *CISS Insight Journal*, 9(1), 33–51. <https://journal.ciss.org.pk/index.php/ciss-insight/article/view/201>

- Al-Shammari, M., Khan, R.U., Al-Adawi, S., et al. (2023). Impact of unstable environment on the brain drain of highly skilled professionals and research productivity in Pakistan from January 2000 to December 2022. *Journal of Clinical & Diagnostic Research, Supplementary Issue*. [https://doi.org/10.7860/JCDR/2023 \(PMC10833047\) pmc.ncbi.nlm.nih.gov](https://doi.org/10.7860/JCDR/2023 (PMC10833047) pmc.ncbi.nlm.nih.gov)
- Altaf, Z., & Javed, N. (2024, May 2). *The triad of technology and its implications for strategic stability in South Asia*. South Asian Voices. <https://southasianvoices.org/sec-c-pk-r-triad-of-technology-05-02-2024/>
- Andrabi, K. (2020, August 4). A year after Article 370's end, a dangerous silence in Kashmir. *The Diplomat*. <https://thediplomat.com/2020/08/a-year-after-article-370s-end-a-dangerous-silence-in-kashmir/>
- AP News. (2025, February 5). *The sea was once a blessing for the Pakistani city of Gwadar. But it's become a curse*. AP News. <https://apnews.com/article/8fe9be881f2352241f6a5caded7e594e>
- Arab News Pakistan. (2025, June 10). *Pakistan says China has offered to sell new military equipment, including J-35 fighter jets*.
- Arab News PK. (2023, April 14). *Pakistan says new policy on Saudi refinery project to be finalized in 'couple of weeks'*. Arab News. Retrieved from <https://www.arabnews.pk/node/2286611/pakistan>
- Arab News. (2025, June 10). *Pakistan to raise defense spending by 20% in FY26 amid tensions with India*. <https://www.arabnews.pk>
- Arab News. (2025, May 10). *Saudi Arabia, Jordan welcome India–Pakistan ceasefire, urge dialogue*. Arab News. Retrieved from <https://www.arabnews.com/node/2600227/saudi-arabia>
- Arab News. (2025c). *SCO Foreign Ministers' meeting in Tianjin highlights regional tensions*. Arab News. Retrieved from <https://www.arabnews.com/node/2608074/pakistan>
- Arab News. *Pakistan plans to launch transshipment operations between Gwadar and Gulf region*. July 12, 2025. <https://www.arabnews.com/node/2607813/pakistan>
- Arif S. (2021). *India's Acquisition of the S-400 Air Defense System: Implications and Options for Pakistan*. *Journal of Indo-Pacific Affairs*, 4(3), 40–53. <https://media.defense.gov/2021/Aug/24/2002838146/-1/1/1/ARIF.PDF>
- Arms Control Association. (2023, October). *Pakistan's evolving nuclear doctrine*. Arms Control Association. <https://www.armscontrol.org/act/2023-10/features/pakistans-evolving-nuclear-doctrine>
- Arms Control Association. (2024). *The legacy of India's nuclear weapons test*. *Arms Control Today*
- Arms Control Today. (2001, March). *India, Russia finalize battle tank contract*. Arms Control Today. [armscontrol.org](https://www.armscontrol.org)
- Army Recognition. (2025, June 2). *India to reach full airspace coverage as Russia completes final S-400 missile system deliveries*. Retrieved from Army Recognition. fortuneindia.com+7armyrecognition.com+7idrw.org+7

- Army Recognition. (2025, May). *Pakistan leverages its alliance with China to counter India's air power*. Army Recognition. armyrecognition.com+1usip.org+1
- Army-Technology. (n.d.). *Agni ballistic missile system*. Retrieved June 20, 2025, from <https://www.armytechnology.com/projects/agniballisticmissile/defencexp.com+5armytechnology.com+5en.wikipedia.org+5>
- Ashraf, N., & Kayani, S. A. (2023). India's cyber warfare capabilities: Repercussions for Pakistan's national security. *NDU Journal*, 37, 34–45.
- Asia Times. (2022, September). *India's light tanks designed for mountain war with China*. <https://asiatimes.com/2022/09/indias-light-tanks-designed-for-mountain-war-with-china/>
- Asia Times. *China in middle of India–Pakistan naval arms race*. May 9, 2024. Retrieved from <https://asiatimes.com/2024/05/china-in-middle-of-india-pakistan-naval-arms-race/>
- Asian Infrastructure Investment Bank. (2025). *Project list – Pakistan*. https://www.aiib.org/en/projects/list/year/All/member/Pakistan/sector/All/financing_type/All/status/Proposed
- Asia-Pacific Center for Security Studies, Honolulu; Malik, M. (2018). *China and India: Maritime maneuvers and geopolitical shifts in the Indo-Pacific (Rising Powers Quarterly, 3(2))*. <https://rpquarterly.kureselcalismalar.com/wp-content/uploads/2018/10/Rising-Powers-Quarterly-Volume-3-Issue-2.pdf.rpquarterly.kureselcalismalar.com>
- Askari, M. U., & Iqbal, M. A. (2023). Pakistan's response to Indian naval strategic vision. *South Asian Studies*, 38(1), 21–36. https://www.researchgate.net/publication/372935686_Pakistan%27s_Response_to_Indian_Naval_Strategic_Vision
- Aslam B. *Evolving Deterrence of Post-Balakot in India and Pakistan: Implications on Strategic Stability of South Asia*. *Journal of Strategic Studies*. 2021:[volume(issue)]:[pages]. Retrieved from <https://www.researchgate.net/publication/361195424>
- Associated Press. (2024, April 18). *Once a fringe Indian ideology, Hindu nationalism is now mainstream, thanks to Modi's decade in power*. AP News. <https://apnews.com/article/79c30c8ae750a9c037d86b9e2c1b640c>
- Atlantic Council. (2022). *The TB2: The value of a cheap and “good enough” drone*. Atlantic Council. Retrieved June 2025, from <https://www.atlanticcouncil.org/content-series/airpower-after-ukraine/the-tb2-the-valueof-a-cheap-and-good-enough-drone/defencexp.comatlanticcouncil.org+1atlanticcouncil.org+1>
- Awaz-The Voice. (2025, March 12). *Hoodbhoy: Iqbal stifled science, intellectual curiosity*. <https://www.awazthevoice.in/personality-news/hoodbhoy-iqbal-stifled-science-intellectual-curiosity35343.html>
- Moneycontrol. (2025, June). *Pakistan budget tomorrow: Loans climb, poverty*

- worsens, but military set to get more funds. <https://www.moneycontrol.com/world/pakistan-budget-tomorrow-loansclimb-poverty-worsens-but-military-set-to-get-more-funds-article-13106461.html>
- Babar, S. I. (2021). India's military modernization: Implications for strategic stability in South Asia. *GRR Journal*. <https://grrjournal.com/fulltext/indias-military-modernization-shaping-regional-security-landscapes>
- Babushahi.com. (2025, May). *Estimated financial losses of 4-day war*. Babushahi.
- BAE Systems. (2022, May). *New multi-million pound investment will boost technologies for the UK's Future Combat Aircraft*. Retrieved from <https://www.baesystems.com/en/article/new-multi-million-poundinvestment-will-boost-technologies-for-the-uk-s-future-combat-aircraft>
- Baev, P. K. (2020). Russia's evolving South Asia policy: Balancing India and Pakistan. *Asian Survey*, 60(1), 150–170. <https://doi.org/10.1525/as.2020.60.1.150>
- Bajwa, F. (2013). *From Kutch to Tashkent: The Indo-Pakistan War of 1965*. Hurst & Company.
- Basrur, R. (2020). *South Asia's nuclear security dilemma*. Routledge.
- Basrur, R. (2025). *Operation Sindoor & India's new doctrine of deterrence: Strategic lessons from the 2025 IndiaPakistan crisis*. Council for Strategic and Defense Research & PAXANALYSIS (OPC) Pvt. Ltd.
- Bassiri-Tabrizi S, Bronk J. *The Drone Databook*. Royal United Services Institute; 2018. https://static.rusi.org/20181207_armed_drones_middle_east_web.pdf
- BBC News. (2019, February 14). *Pulwama attack: 40 CRPF personnel killed in Kashmir suicide bombing*. *BBC News*.
- BBC News. (2025, May 7). Kashmir: Why India and Pakistan fight over it. *BBC*. <https://www.bbc.com/news/articles/why-india-and-pakistan-fight-over-kashmir>
- Bedi, R. (2025, May 16). *High-Stakes Nuclear Poker: How Pakistan's Deterrent Still Checks India-Even After Operation Sindoor*. *The Wire* [dras.in+7thewire.in+7globalorder.live+7](https://www.thewire.in/2025/05/16/globalorder.live/)
- Behera, N. C. (2006). *Demystifying Kashmir*. Brookings Institution Press.
- Belfer Center, Harvard University. (2008). *A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine*. Belfer Center. Retrieved from Belfer Center
- Belfer Center. (2025, June). *Escalation gone meta: Strategic lessons from the 2025 India–Pakistan crisis*. Belfer Center for Science and International Affairs. <https://www.belfercenter.org/research-analysis/escalationgone-meta-strategic-lessons-2025-india-pakistan-crisis>
- Bharat Articles. (2025, June). *BrahMos vs BrahMos-II*. <https://bharatarticles.com/brahmos-vs-brahmos-ii>

- Bhaskar English. (2025, June). *Middle-class shields India's defence taxes; S-400 worth explained*. <https://www.bhaskarenglish.in/originals/news/middle-class-shields-indias-defence-taxes-s400-worthexplained-135055890.html>
- BIPP Policy Brief # PB-93-2024. (2024, June 29). *Brain drain in Pakistan: causes, consequences and way forward*. SJBIPP.
- Booth, Ken, and Nicholas J. Wheeler. 2008. *The Security Dilemma: Fear, Cooperation and Trust in World Politics*. Basingstoke: Palgrave Macmillan.
- Brewster, D. (2021). The South Asia stability–instability paradox under the nuclear shadow. *National Security Journal*, 3(4), 1–8. <https://doi.org/10.36878/nsj20211209.02>
- Bronk, J. (2025). *Key questions about the India-Pakistan aerial clashes*. RUSI Commentary. Royal United Services Institute. Retrieved from <https://rusi.org/explore-our-research/publications/commentary/key-questionsabout-india-pakistan-aerial-clashes>
- Bugos, S., & Reif, K. (2021, September 14). *Understanding hypersonic weapons: Managing the allure and the risks*. Arms Control Association. <https://www.armscontrol.org/reports/2021/understanding-hypersonic-weapons>
- Business Standard. (2025, May 8). *Operation Sindoor: What are HAROP drones India has bought from Israel?* https://www.business-standard.com/external-affairs-defence-security/news/operation-sindoor-haropdrones-india-israel-precision-strike-technology-125050801212_1.html
- Business Today. (2025, April 28). *India's military spending; Pakistan far behind: SIPRI*. <https://www.businesstoday.in/india/story/india-fifth-among-global-military-spenders-pakistan-far-behindsipri-473919-2025-04-28>
- Butterfield, Herbert. 1951. *History and Human Relations*. London: Collins.
- CAPS India. (2011). *Pakistan's nuclear weapons: sources & motivations* [PDF]. Centre for Air Power Studies. Retrieved from <https://capsindia.org/wp-content/uploads/2021/10/New-Delhi-Paper-3.pdf>
en.wikipedia.org+2en.wikipedia.org+2safetyinengineering.com+2capsindia.org
- CAPS India. (2021). *India's BMD programme and acquisition of S-400 air defence system*. Centre for Air Power Studies. Retrieved from <https://capsindia.org/indias-bmd-programme-and-acquisition-of-s-400-air-defencesystem/>
- CAPS India. (2023). *India's hypersonic ambitions: Tracking progress*. CAPS India. vifindia.org+6capsindia.org+6idrw.org+6spslandforces.com
- Carnegie Endowment for International Peace. (2016, June). *Pakistan's tactical nuclear weapons and their impact on stability*. Retrieved from <https://carnegieendowment.org/2016/06/pakistans-tactical-nuclear-weapons> carnegieendowment.org

- Carnegie Endowment for International Peace. (2019). *India's ASAT test: An incomplete success*. Retrieved April 6, 2019, from <https://carnegieendowment.org/research/2019/04/indias-asat-test-an-incompletesuccess?lang=en>
- Carnegie Endowment for International Peace. (2019, September). *Much ado about India's no-first-use nuke policy*. <https://carnegieendowment.org/posts/2019/09/much-ado-about-indias-no-first-use-nuke-policy>
- Carnegie Endowment for International Peace. 2020. "The Army in Indian Military Strategy: Rethink Doctrine or Risk Irrelevance." August 10, 2020. <https://carnegieendowment.org/2020/08/10/army-in-indian-militarystrategy-rethink-doctrine-or-risk-irrelevance-pub-82476>.
- Carnegie Endowment for International Peace. *Pakistan's Nuclear Force Structure in 2025*. June 9, 2016. Retrieved from <https://carnegieendowment.org/research/2016/06/pakistans-nuclear-force-structure-in-2025>
- Carnegie South Asia Program. (2016). Pakistan's tactical nuclear weapons and their impact on stability. *Carnegie Endowment for International Peace*. Retrieved from <https://carnegieendowment.org>
- Center for International Maritime Security. (2025). The naval dimension of a future India–Pakistan conflict. <https://cimsec.org/choking-the-artery-the-naval-dimension-of-a-future-india-pakistan-conflict/>
- Center for Strategic and International Studies. (2024). *Agni-III*. CSIS Missile Threat. Retrieved June 21, 2025, from <https://missilethreat.csis.org/missile/agni-3/>
- Center for Strategic and International Studies. (2024). *Shaheen I (Hatf-4)*. CSIS Missile Threat. Retrieved June 20, 2025, from <https://missilethreat.csis.org/missile/hatf-4/globalsecurity.org+14missilethreat.csis.org+14en.wikipedia.org+14>
- Center for Strategic and International Studies. (2024, April 23). *Ababeel*. Missile Threat. <https://missilethreat.csis.org/missile/ababeel/>
- Central Intelligence Agency. (2024). *Pakistan: Economy*. The World Factbook. <https://www.cia.gov/the-worldfactbook/countries/pakistan/>
- Centre for Contemporary Studies [CCS]. (2015). *India's military: Evolution, modernisation and transformation*. SAGE Publications.
- CEPR. (2023, January). *China is the world's sole manufacturing superpower: A line sketch of the rise*. CEPR. <https://cepr.org/voxeu/columns/china-worlds-sole-manufacturing-superpower-line-sketch-rise>
- Chakma, B. (2012). Escalation control, deterrence diplomacy, and the India-Pakistan conflict. *Contemporary Security Policy*, 33(3), 554–576. <https://doi.org/10.1080/13523260.2012.727686>
- Chakma, B. (2012). *Pakistan's nuclear weapons and regional security in South Asia*. Routledge.

- Challenges of Nuclear Deterrence Stability in South Asia. (2022). *Journal of Peace Research*. Third, Indian acquisition of S-400 Ballistic Missile Defense System (BMDs) is inherently destabilizing for nuclear deterrence stability between competitors. Retrieved from <https://journals.sagepub.com/doi/10.1177/00219096221090636>
- Chari, P. R., & Krepon, M. (2004). *Nuclear Risk Reduction in South Asia*. Palgrave Macmillan. <https://doi.org/10.1057/9781403981684timelines.issarice.com+1en.wikipedia.org+1link.springer.com>
- Chaudhry, A. A., Zaheer Ali, N., Uddin, S., & Hussain, Z. (2025). Pakistan's strategic balancing act: Navigating relations between China, the US and the emerging multipolar world order. *The Critical Review of Social Sciences Studies*, 3(2), 553–566. <https://doi.org/10.59075/t3kkh396>
- Chawla S. *Pakistan's nuclear posture, capability and quest for full-spectrum deterrence*. *Air Power Journal*. 2022;17(1):43–55. Retrieved from <https://capsindia.org/wp-content/uploads/2022/07/APJ-Jan-March2022-Shalini-Chawla.pdf>
- Chawla, S. (2022). Evolution of Pakistan's Full-Spectrum Deterrence: Insights from NCA Decisions. *Asia Policy Journal – Strategic Series*, (Jan–Mar 2022), 1–15. Retrieved from <https://capsindia.org/wpcontent/uploads/2022/07/APJ-Jan-March-2022-Shalini-Chawla.pdf>
- Cheema, Pervaiz Iqbal. 2023. "Strategic Stability Challenges." *Strategic Studies* 45 (2): 45–60.
- Chhatwal, R. S. (2022). *China–Pakistan Nexus: JF-17 Fighter Aircraft Troops in ... but where is the Thunder?* (Senior Fellow CAPS). Academia.edu. https://www.academia.edu/27801035/CHINA_PAKISTAN_NEXUS_JF_17_FIGHTER_AIRCRAFT_TR_OOPS_IN_BUT_WHERE_IS_THE_THUNDER
- China Aerospace Studies Institute. (2019). *PLA aerospace power: A primer on trends in China's military air, space, and missile forces* (2nd ed.). Air University. https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/PLAAF/2019-0730%20Primer_2nd_Edition.pdf
- China Daily. (2025, March 27). *CPEC's success hinges on peace in Balochistan*. [mpira.ub.uni-muenchen.de+ 5chinadaily.com.cn+5theguardian.com+5](https://www.mpra.ub.uni-muenchen.de/54511)
- China-Pakistan Economic Corridor. (2025). China-Pakistan Economic Corridor: Opportunities and challenges. *Journal of South Asian Studies*, 40(2), 123–145. <https://www.jstor.org/stable/48544300>
- China-Pakistan Economic Corridor. (2025). Gwadar port's geostrategic significance. *International Journal of Social Sciences and Humanities*, 5(1), 1–10. <https://ideapublishers.org/index.php/lassij/article/download/1018/417>
- Chopra, A. (2021, July 23). *Hypersonic weapons: Realities and challenges*. Centre for Air Power Studies. <https://capsindia.org/wp-content/uploads/2021/09/d77ff5ec-9591-459e-a3af-91b150073da5-1.pdf>

- Choudhury, G. W. (2018). *India, Pakistan, Bangladesh, and the major powers: Politics of a divided subcontinent*. Free Press.
- CIAO. (2001, August). *Pakistan's Military Spending: Socio-Economic Dimensions*. Columbia International Affairs Online. Retrieved from https://ciaotest.cc.columbia.edu/olj/sa/sa_aug01chs01.html
ciaotest.cc.columbia.edu
- Clary, C. (2025). *Four Days in May: The 2025 India–Pakistan Crisis*. Stimson Center.
- Clary, C. (2025, May 19). *Operation Sindoor and the evolution of India's military strategy against Pakistan*. War on the Rocks. <https://warontherocks.com/2025/05/operation-sindoor-and-the-evolution-of-indias-strategyagainst-pakistan/>
- Clary, C. (2025, May 28). *Four Days in May: The India-Pakistan Crisis of 2025*. Stimson Center
[stimson.org+1globalorder.live+1](https://stimson.org/1globalorder.live+1)
- Clary, C., & Narang, V. (2019). India's counterforce temptations: Strategic dilemmas, doctrine, and capabilities. *International Security*, 43(3), 7–52. https://doi.org/10.1162/ISEC_a_00340 [wired.com+8belfercenter.org+8direct.mit.edu+8](https://www.wired.com+8belfercenter.org+8direct.mit.edu+8)
- Clary, C., & Panda, A. (2020). India's military strategy: Change and continuity under the Modi government. *India Review*, 19(4), 349–373. <https://doi.org/10.1080/14736489.2020.1776879>
- Cliff, R. (2020). *A new U.S. strategy for the Indo-Pacific* (Strategy Report). The National Bureau of Asian Research. Retrieved from https://www.nbr.org/wpcontent/uploads/pdfs/publications/sr86_cliff_June2020.pdf
- CloudSEK. (2025, May 11). *Brief disruptions, bold claims: The tactical reality behind the India–Pakistan hacktivist surge*. <https://cloudsek.com/blog/brief-disruptions-bold-claims-the-tactical-reality-behind-the-indiapakistan-hacktivist-surge>
- Cohen, S. P. (2004). *The idea of Pakistan*. Brookings Institution Press.
- Council on Foreign Relations. (n.d.). “No First Use” and nuclear weapons. <https://www.cfr.org/backgrounder/nofirst-use-and-nuclear-weapons>
- CPEC Info. (2021, December 30). *China to deliver 25 J-10C fighter jets to Pakistan*. CPEC Info. Retrieved from <https://cpecinfo.com/china-to-deliver-25-j-10c-fighter-jets-to-pakistan/>
- Crowley, T. (2025, May 13). *What is the role of drones in India-Pakistan conflict?* NSIN. <https://www.nsin.us/drones-in-india-pakistan-conflict/>
- CSIS Aerospace Security. (2021). *Anti-satellite missile: Mission Shakti case study*. Retrieved April 2021 from CSIS Aerospace Security. thediplomat.com+10aerospace.csis.org+10carnegieendowment.org+10

- CSIS Aerospace Security. (2024). *India's naval modernization and force projection*. Center for Strategic and International Studies. Retrieved from <https://aerospace.csis.org>
- CSIS Missile Threat. (n.d.). *Agni-I*. Center for Strategic and International Studies. Retrieved June 20, 2025, from <https://missilethreat.csis.org/missile/agni-1/>
- Cyfirma. (2025, May). *Firewalls and frontlines: The India-Pakistan cyber battlefield crisis*. Retrieved from <https://www.cyfirma.com/research/firewalls-and-frontlines-the-india-pakistan-cyber-battlefield-crisis/>
- Daily Times. (2024, August 25). *Tackling brain drain in Pakistan*. *Daily Times*. Retrieved June 2025 from Daily Times website. [en.wikipedia.org+6dailytimes.com.pk+6dialoguepakistan.com+6](https://www.dailytimes.com.pk)
- Dassault Aviation & Thales. (n.d.). *Detect and pursue – Rafale RBE2-AESA radar*. <https://www.dassaultaviation.com/en/defense/rafale/detect-and-pursue/>
- Dassault Aviation. (2015). *Rafale file* [PDF]. Dassault Aviation. https://www.dassault-aviation.com/wpcontent/blogs.dir/1/files/2015/02/Rafale-file_UK.pdf
- Dawn. (2019, March 1). *Pakistan hands over captured pilot Abhinandan Varthaman to India*. Dawn. [twz.com+10en.wikipedia.org+10en.wikipedia.org+10axios.com+3dawn.com+3aljazeera.com+3](https://www.dawn.com/news/136779)
- Dawn. (2024a, May 31). *Pakistan launches satellite to boost internet connectivity*. <https://www.dawn.com/news/1836779>
- Dawn. (2024b, July 4). *Pakistan adopts Chinese GPS satellite system*. <https://www.dawn.com/news/1012104>
- Dawn. (2025, June). *Defence budget sees major boost amid India tensions*. <https://www.dawn.com/news/1916437>
- Dawn. (2025b, April 10). *National Maritime Policy 2024 outlines fisheries, offshore energy priorities*. Dawn. <https://www.dawn.com/news/1922984>
- Debt-trap diplomacy. (2025, June). In Wikipedia. [en.wikipedia.org+2en.wikipedia.org+2breakingdefense.com+2](https://en.wikipedia.org)
- Debuglies. (2025, May 16). *Strategic implications of India's S-400 deployment in Operation Sindoor: A geopolitical and technological analysis of air defence dynamics in South Asia*. Retrieved from <https://debuglies.com/2025/05/16/strategic-implications-of-indias-s-400-deployment-in-operation-sindoor-a-geopolitical-and-technological-analysis-of-air-defense-dynamics-in-south-asia/>
- Defence News. (2022, July 8). *Pakistan slashes military modernization fund by 20%*. <https://www.defensenews.com/global/asia-pacific/2022/07/08/pakistan-slashes-military-modernizationfund-by-20/>

- Defence Research and Development Organisation. (2019). *Mission Shakti: Press release and technical factsheet*. DRDO. Retrieved May 10, 2019, from <https://www.drdo.gov.in/drdo/sites/default/files/drdo-newsdocuments/din-10april2019.pdf>
en.wikipedia.org+2drdo.gov.in+2wired.com+2
- Defence Research and Development Organisation. (2024, July 7). *DRDO plans extended tests for HSTDV after successful Mach 6 test* [IDRW.org]. en.wikipedia.org+4idrw.org+4acqias.com+4
- Defence Security Asia. *Pakistan responds to Indian submarine threats with full-scale coastal war drills*. Defence Security Asia. 2025. Retrieved from <https://defencesecurityasia.com/en/pakistan-responds-to-indiansubmarine-threats-with-full-scale-coastal-war-drills/> maritimeindia.org+9Defence Security Asia+9Defence Security Asia+9
- DefenceXP. (2025, April). *Military Drones in India and Pakistan: A Detailed Analysis*. Retrieved from <https://www.defencexp.com/military-drones-in-india-and-pakistan-a-detailed-analysis/>
- Defense Industry Daily. (2019, Feb 26). India set to buy 50 Israeli Heron-1 long-endurance reconnaissance UAVs in reported US \$500 million deal. *Military & Aerospace Electronics*. militaryaerospace.com
- Defense Industry Daily. (2025). *Pakistan Buying Chinese J-10 Fighters*. <https://www.defenseindustrydaily.com/Pakistan-Buying-Chinese-J-10-Fighters-05937>
defenseindustrydaily.com
- Economic Times. (2025, February 25). *Trump gives Pakistan's F-16 a nearly \$400 million boost*. <https://economictimes.com/news/defence/trump-gives-pakistans-f-16-a-nearly-400-million-boost>
m.economictimes.com
- Quwa Premium. (2025). *US Unfreezes Aid for Monitoring Pakistan's F-16s*. <https://quwa.org/pakistan-airforce-news/us-unfreezes-aid-for-monitoring-pakistans-f-16s-aviacionline.com+3quwa.org+3m.economictimes.com+3>
- The Guardian. (2025, May 14). *Pakistan's use of J-10C jets and missiles exposes potency of Chinese weaponry*. <https://theguardian.com/world/2025/may/14/pakistans-use-of-j-10c-jets-and-missiles-exposespotency-of-chinese-arms> theguardian.com+1defencesecurityasia.com+1
- Defense News. (2022, January 3). *Pakistan confirms Chinese 'Firebird' fighter acquisition*. <https://www.defensenews.com/global/asia-pacific/2022/01/03/pakistan-confirms-chinese-firebird-fighteracquisition/>
- DefenseMirror. (2017, April 12). *India to purchase \$1.5 billion worth Spike, Barak-8 missile systems*. Retrieved from https://www.defensemirror.com/news/18993/India_To_Purchase__1_5_Billion_Worth_Spike__Barak_8_Missile_Systems
- DefenseXP. (2021). *Understanding India's Ballistic Missile Defence Program*. Retrieved from <https://www.defencexp.com/understanding-indias-ballistic-missile-defence-program/usiofindia.org+2defencexp.com+2en.wikipedia.org+2>

- Delhi Policy Group. (2025). *India's Defence Budget 2025–26: What it means for national security*. <https://www.delhipolicygroup.org/publication/policy-briefs/indias-defence-budget-2025-26.html>
- Department of Defence Australia. (2025, 2 July). *Air Force flies with British and Indian navies*. <https://www.defence.gov.au/news-events/news/2025-07-02/air-force-flies-british-indian-navies>
- Department of Science & Technology. (2024, January 15). *National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)*. Press Information Bureau, Government of India. <https://pib.gov.in/PressReleasePage.aspx?PRID=1600000>
- Dhasmana, I. (2025, May 22). *How much does Pakistan spend on defence?* Rediff.com. <https://www.rediff.com/news/report/how-much-does-pakistan-spend-on-defence/20250522.htm>
rediff.com
- Diplomat. (2024, November). *India–Israel defense and security cooperation*. The Diplomat. Retrieved from <https://thediplomat.com/2024/11/india-israel-defense-and-security-cooperation/wired.com+4thediplomat.com+4thediplomat.com+4>
- Dragonfly Intelligence. (2025, May). *India / Pakistan Tit-for-tat cyber operations likely*. <https://dragonflyintelligence.com/news/india-pakistan-tit-for-tat-cyber-operations-likely/>
- DRDO Chair Kamat. (2025, June 20). *Hypersonic missiles, next-gen BrahMos, new air defence: DRDO chief reveals long list of India's future-ready weapons*. Economic Times. <https://economictimes.indiatimes.com/news/defence/hypersonic-missiles-next-gen-brahmos-new-airdefence-drdo-chief-reveals-long-list-of-indias-future-ready-weapons/articleshow/121968760.cms>
- DRDO. (2024). *BrahMos-II hypersonic missile program overview*. Defence Research and Development Organisation. <https://www.drdo.gov.in>
- DRDO. (2024). *Directed energy weapons: A strategic overview*. Defence Research and Development Organisation. <https://www.drdo.gov.in/dew-strategic-overview>
- Drishti IAS. (2025, May). *India's rising defence innovation & export capability*. <https://www.drishtiias.com/dailyupdates/daily-news-analysis/india-s-rising-defence-innovation-export-capability>
- EastAsiaForum. (2025, March 5). *Pakistan's path forward requires more than economic recovery*. eastasiaforum.org
- Economic Times. (2019, February 26). *India to buy 100 Spice 2000 bombs from Israel; same explosives used in Balakot strike. The Economic Times*. [sps-aviation.com+13en.wikipedia.org+13en.wikipedia.org+13spsaviation.com+2defensemirror.com+2indiatimes.com+2](https://sp-saviation.com+13en.wikipedia.org+13en.wikipedia.org+13spsaviation.com+2defensemirror.com+2indiatimes.com+2)
- Economic Times. (2024, July 8). *India gears up for Malabar showdown with 'Quad' allies amid rising China tensions*. Economic Times. <https://economictimes.indiatimes.com/news/defence/india-gears-up-for-malabar-showdown-with-quad-allies-amid-rising-china-tensions/articleshow/111571691.cms>

- Economic Times. (2025). "Defence Budget 2025–26." February 1, 2025. <https://economictimes.indiatimes.com>.
- Ellis-Petersen, H. (2025, May 20). Uneasy India-Pakistan ceasefire holds but is a return to war inevitable? *The Guardian*. <https://www.theguardian.com/world/uneasy-india-pakistan-ceasefire-holds-but-is-a-return-to-war-inevitable>
- Encyclopedia.pub. (2022). *Space and Upper Atmosphere Research Commission*. Retrieved from <https://www.encyclopedia.pub/entry/32200>
scientiamag.org+5encyclopedia.pub+5en.wikipedia.org+5
- Energy Intelligence. (2025, February 12). Russia seeks Ust-Luga LNG contract with Pakistan. *Energy Intelligence*. Retrieved from <https://www.energyintel.com/00000194-f40b-d049-a5b5-fc52090000>
- Engelke P, Michel D. Water Security in Himalayan Asia. *Atlantic Council*. March 2019. Available at: https://www.atlanticcouncil.org/wp-content/uploads/2020/03/AC_ECOLOGY_032719B_FINAL_int-1.pdf
- ET Edge. (2025). *India's \$86.1B defence budget outpaces Pakistan by 8x: But is 1.9% of GDP enough?* ETEdge Insights. <https://etedge-insights.com/featured-insights/indias-86-1b-defence-budget-outpaces-pakistan-by-8x-but-is-1-9-of-gdp-enough/> etedge-insights.com
- ET Government. (2025, June 14). *Operation Sindoor: A paradigm shift in multi-domain warfare*. *ETGovernment*. <https://government.economictimes.indiatimes.com/news/digital-india/operation-sindoor-a-paradigm-shift-in-multi-domain-warfare/121841785>
- Eurasia Review. (2025, June 7). *India and the MQ-9B Sky/Sea Guardian deal – analysis*. <https://www.eurasiareview.com/07062025-india-and-the-mq-9b-sky-sea-guardian-deal-analysis>
- Eurasia Review. (2025, May 14). *War from the sky, hunger on the ground*. [eurasiareview.com+1instagram.com+1](https://www.eurasiareview.com/1instagram.com+1)
- EurAsian Times. (2025, May 27). *China "rushing" J-35 stealth fighters to Pakistan*.
- European Council on Foreign Relations. (2023). The infinite connection: How to make the India-Middle EastEurope economic corridor happen. <https://ecfr.eu/publication/the-infinite-connection-how-to-make-theindia-middle-east-europe-economic-corridor-happen/>
- Express Tribune. (2025, May 10). *Pakistan Air Force destroys India's S-400 system in Adampur*. The Express Tribune. <https://tribune.com.pk/story/2545068/pakistan-destroys-indias-s-400-air-defence-system-inadampur>
- FAS. 1998. "Pakistan's Nuclear Program." Federation of American Scientists. <https://fas.org>.
- Federation of American Scientists. (1998). *Pakistan's nuclear tests – Chagai I & II*. FAS Nuclear Notebook. Retrieved from <https://fas.org/nuke/guide/pakistan/nuke/>

- Federation of American Scientists. (1999). *India missile chronology: Agni-I*. Retrieved from <https://nuke.fas.org/guide/india/missile/agni.htm>
en.wikipedia.org+10nuke.fas.org+10en.wikipedia.org+10
- Federation of American Scientists. (2023). *Pakistan nuclear weapons, 2023 – Bulletin of the Atomic Scientists*. <https://fas.org/wp-content/uploads/2023/09/Pakistan-nuclear-weapons-2023.pdf>
- Fernandes, Y., & Abosata, N. (2024). *Analysing India's cyber warfare readiness and developing a defence strategy*. arXiv. <https://arxiv.org/abs/2406.12568>
- Final journal draft 126–149. (2019). *Ballistic Missile Defence and Multiple Independently Targetable Re-entry Vehicles*. Society of Vulnerability & Innovation. Retrieved from <https://thesvi.org/wpcontent/uploads/2019/03/Final-Journal-Draft-126-149.pdf>
- Finance Division. (2025). *Medium Term Performance Based Budget 2025–26 to 2027–28* [PDF]. Government of Pakistan. Retrieved from Finance Division of Pakistan website
brecorder.com+8finance.gov.pk+8suparco.gov.pk+8
- Financial Express. (2025, May). *BrahMos-NG: All you need to know about India's new lighter, deadlier supersonic cruise missiles*. Financial Express. [ndtv.com+7financialexpress.com+7](https://www.ndtv.com/financial-express/7)
- Fitch Ratings. (2025, February 7). *Pakistan faces big external financing risks despite progress*. Reuters. [reuters.com](https://www.reuters.com)
- FlightGlobal. (2016, October 12). *India US-2 deal sees no progress*. Retrieved from <https://www.flightglobal.com/japan-aerospace-india-us-2-deal-sees-no-progress/121966.article>
- Forecast International. (2010). *The market for surface-to-air missiles (Barak-I deal)*. Forecast International. [armyrecognition.com+15forecastinternational.com+15spacedaily.com+15](https://www.armyrecognition.com/15forecastinternational.com/15spacedaily.com/15)
- Fravel, M. T., Gilboy, G. J., & Heginbotham, E. (2024, June). *Estimating China's defense spending: How to get it wrong (and right)*. *The Naval War College Review*, 77(2), 41–68. <https://tnsr.org/2024/06/estimatingchinas-defense-spending/>
- Gady FS. (2018, June 10). Pakistan to procure 2 more guided-missile frigates from China. *The Diplomat*. Retrieved from <https://thediplomat.com/2018/06/pakistan-to-procure-2-more-guided-missile-frigates-from-china/>
- Gady, F. S. (2019, April 10). India tests hypersonic missile. *The Diplomat*. <https://thediplomat.com/2019/04/indiatests-hypersonic-missile/>
- Gady, F. S. (2020, February 19). Pakistan test-launches Ra'ad II nuclear-capable air-launched cruise missile. *The Diplomat*. <https://thediplomat.com/2020/02/pakistan-test-launches-raad-ii-nuclear-capable-air-launchedcruise-missile/>

- Gallup Pakistan. (2025). *National security concerns survey 2025*. <https://gallup.com.pk/national-security-concerns2025>
- Gallup Pakistan. (2025, January 29). *Daily opinion poll*. gallup.com.pk
- Gallup Pakistan. 2025. "Public Opinion on Defense Spending." May 15, 2025. <https://gallup.com.pk>.
- Gallup Pakistan. *Public Opinion after India-Pakistan ceasefire: Comprehensive Analysis*. May 13–18, 2025. Retrieved from <https://www.geo.tv/latest/605419-97-of-pakistanis-hail-armys-performance-during-recentclashes-with-india-survey>
- Mitra J, Ahmed A, Ashraf M, Abdullah S. (2021). *Pakistan's Full-Spectrum Deterrence: Trends and Trajectories*. *South Asian Voices*. Retrieved from <https://southasianvoices.org/pakistans-full-spectrumdeterrence-trends-and-trajectories/>
- Ganguly, S. (2016). *Deadly impasse: Indo-Pakistani relations at the dawn of a new century*. Cambridge University Press.
- Ganguly, S., & Kapur, S. P. (2010). *India, Pakistan, and the bomb: Debating nuclear stability in South Asia*. Columbia University Press.
- Georgia Tech Analysis. (2025, May 2). *CPEC 2.0: The geoeconomic implications* [Analysis]. *Equilibrium*. Retrieved from <https://sites.gatech.edu/econjournal/2025/05/02/cpec-2-0-the-geoeconomic-implications/>
- Geostrata. (2025, May 11). *Breaking Barriers: India's 1,000-Second Scramjet Test Marks a New Era in Defence*. *The Geostrata*. thetimes.co.uk+6thegeostrata.com+6thedialectics.org+6
- Ghulam Mustafa. (2020). *Cyber warfare between Pakistan and India: Implications for the region*. *Pakistan Languages and Humanities Review*,
- Glaser, Charles L. 1997. "The Security Dilemma Revisited." *World Politics* 50 (1): 171–201. <https://doi.org/10.1017/S0043887100014763>.
- Glaser, Charles L. 2010. *Rational Theory of International Politics: The Logic of Competition and Cooperation*. Princeton: Princeton University Press.
- Gleick P. How India Is Threatening to Weaponize Water in Its Conflict With Pakistan. Time. Published May 2025. Available at: <https://time.com/7283405/india-pakistan-kashmir-attack-water-rivers-dams-modi-weaponwar/>
- Global Firepower/LiveMint. (2025, May). *How India and Pakistan compare in military powers, strength and defence budget*. *LiveMint*. <https://www.livemint.com/news/india/how-indian-and-pakistan-compare-inmilitary-powers-strength-and-defence-budget-all-you-need-to-know-11745999983527.html>
- Global Fishing Watch. (2022). *Analysis exposes illegal fishing off coasts of Somalia and Yemen: Nearly 200 Iranian and Pakistani vessels found fishing with banned drift nets in the Arabian Sea*. Retrieved

- from <https://globalfishingwatch.org/success-story/analysis-exposes-illegal-fishing-off-coasts-of-somalia-and-yemen/>
- GlobalSecurity.org. (2009). *Pakistan signs deal for Chinese J-10 fighters*. FlightGlobal. Retrieved from <https://www.globalsecurity.org/military/world/pakistan/fc-20.htm>
- Gogoi, Y. (2024). *India's emphasis on self reliance in defence manufacturing and technology and the role of private players*. ResearchGate.
https://www.researchgate.net/publication/388459255_India's_Emphasis_on_Self_Reliance_in_Defence_Manufacturing_and_Technology_and_the_Role_of_Private_Players
- Gopalaswamy, M. (2019). *The Pokhran-II tests and India's nuclear signaling*. In *Nuclear Strategies in South Asia* (pp. 210–235). Oxford University Press.
- Government of India Press Information Bureau. (1998, May 13). *India conducts Pokhran-II nuclear tests*. Press Release. Retrieved from <https://pib.gov.in/newsite/PrintRelease.aspx?relid=52814>
- Government of India. (2025, March 27). *Parliament Question: National Mission on Interdisciplinary Cyber-Physical Systems*. Press Information Bureau Retrieved from <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2115867> pib.gov.in
- Government of Pakistan. (2023). *Pakistan's National Narrative on Counterterrorism*. Ministry of Interior.
- GS Score. (2025). *India's Ballistic Missile Defence System*. Retrieved from <https://iasscore.in/current-affairs/indiasballistic-missile-defence-system> en.wikipedia.org+7iasscore.in+7usiofindia.org+7
- Güngör Y. *Turgutreis-9: Türkiye, Pakistan hold exercise in Eastern Mediterranean*. Anadolu Agency. June 12, 2024. <https://www.aa.com.tr/en/asia-pacific/turgutreis-9-turkiye-pakistan-hold-exercise-in-easternmediterranean/3248289>
- Gunter's Space Page. (n.d.). *PRSS-1*. Retrieved June 2025, from [space.skyrocket.de en.wikipedia.org+11space.skyrocket.de+11de.wikipedia.org+11](https://space.skyrocket.de/en.wikipedia.org+11space.skyrocket.de+11de.wikipedia.org+11)
- Haider, H., Saleem, R., Firdous, A., Khan, B. B., & Fiaz, A. (2025). Pakistan's missile program: Strategic evolution, regional dynamics and global repercussions in the shadow of U.S. sanctions. *Journal of Social Signs Review*, 3(6), 30–33. <https://socialsignsreview.com/index.php/12/f>
- Haider, U. (2025). India's evolving air defence capabilities and options for Pakistan. *Journal of Security and Strategic Analyses*, 11(1), 88–110. <https://doi.org/10.57169/jssa.0011.01.0380>
- Hakim, Y. [Yalda]. (2025, May). *Pak Minister Attaullah Tarar's "No Terror Camps" Claim Gets Fact Checked On Live TV* [Video]. YouTube. [youtube.com+2youtube.com+2ndtv.com+2](https://www.youtube.com/watch?v=2ndtv.com+2)
- Haris, M. (2025). Gwadar's rising strategic value: What Iran–Pakistan port cooperation means for investors. *CPIC Global*. <https://www.cpicglobal.com/gwadar-rising-strategic-value/>

- Hartvigsen B. *India's Ballistic Missile Defence: A Catalyst for Indo-Pakistani Nuclear Escalation*. *Security Distillery*. 2024;[volume(issue)]:[pages]. Retrieved from <https://thesecuritydistillery.org/all-publications/>
- Hersman R. A. (2020). Wormhole escalation in the new nuclear age. *Texas National Security Review*, 3(3), 91–109. <https://tnsr.org/2020/07/wormhole-escalation-in-the-new-nuclear-age/>
- Herz, J. H. (1950). Idealist internationalism and the security dilemma. *World Politics*, 2(2), 157–180. <https://doi.org/10.2307/2009187>
- Hindustan Times. (2021, February 25). India, Pakistan agree to ceasefire along LoC. *Hindustan Times*. <https://www.hindustantimes.com/india-news/india-pakistan-agree-to-ceasefire-along-loc101616161616161.html>
- Hong Kong Times. (2025, April). *India nearly nine times Pakistan's military spending*. Times of India. m.economictimes.com+3youtube.com+3timesofindia.indiatimes.com+3
- Hooda, D. S., & Jacob, H. (Eds.). (2025). *Operation Sindoor & India's new doctrine of deterrence: Strategic lessons from the 2025 India-Pakistan crisis*. Council for Strategic and Defense Research & PAXANALYSIS (OPC) Pvt. Ltd.
- Horowitz, M. C. (2018). Artificial intelligence, international competition, and the balance of power. *Texas National Security Review*, 1(3), 36–57.
- Hussain A, Rizwan R. The Case for an Industrial Policy Approach to AI Sector of Pakistan for Growth and Autonomy. *arXiv*. November 2024. Available at: <https://arxiv.org/abs/2411.01337>
- Hussain, M., & Qureshi, N. (2022). Artificial intelligence and nuclear deterrence: Emerging risks in South Asia. *Defence Journal*, 26(3), 112–130.
- IADB.in. (2024, November 11). *With MQ-9 deal Indo-US military aviation ties move further ahead*. Retrieved from <https://www.iadb.in/2024/11/11/with-mq-9-deal-indo-us-military-aviation-ties-move-further-ahead/>
- IANs. (2024, October). *National Supercomputing Mission scaled to 4,500 cr; petaflops capacity enhanced*. PIB. <https://www.pib.gov.in/PressReleaseDetailm.aspx?PRID=2124920>
- ICAN. (2025). *Hidden Costs: Nuclear Weapons Spending in 2024* [PDF]. https://assets.nationbuilder.com/icannorway/pages/2440/attachments/original/1749737255/ICAN_Spendin_g_Report_Hidden_Costs_final.pdf
- IHS Jane's. (n.d.). *Parting shot: PAF inducts JF-17 Block III aircraft*. Jane's OSINT Insights. Retrieved from <https://www.janes.com/osint-insights/defence-news/industry/parting-shot-paf-inducts-jf-17-block-iii-aircraft>

- IISS. (2023, October). *Pakistan missile test confirms its MIRV ambitions*. International Institute for Strategic Studies. Retrieved from <https://www.iiss.org/online-analysis/missile-dialogue-initiative/2023/10/pakistanmissile-test-confirms-its-mirv-ambitions>
- IMF. (2025). *World Economic Outlook Database* [Data set]. International Monetary Fund. <https://www.imf.org/external/datamapper/index.php> [imf.org](https://www.imf.org/)+4[imf.org](https://www.imf.org/)+4[imf.org](https://www.imf.org/)+4
- IMF. (2025, May 9). *Pakistan: IMF completes first review of EFF arrangement and approves request for resilience-sustainability facility*. Press Release No. 25/137. Retrieved from <https://www.imf.org/en/News/Articles/2025/05/09/pr-25137-pakistan-imf-completes-1st-rev-of-eff-arrangand-approves-req-for-arrang-under-rsf>
- IMPRI. (2025, July). *Agnipath Yojana (2022): Transforming military recruitment in India*. IMPRI India Insights. <https://www.impriindia.com/insights/agnipath-yojana-2022/>
- India and Pakistan are sending Turkish and Israeli drones to war. (2024). *The National Interest*. Retrieved from <https://nationalinterest.org/blog/buzz/india-and-pakistan-are-sending-turkish-and-israeli-drones-to-war>
- India in Chabahar: A Regional Imperative. (2025). *Journal of Strategic Studies*, 48(3), 321–339. <https://www.jstor.org/stable/26494070>
- India Strategic. 2023. “India’s Defense Modernization.” August 21, 2023. <https://www.indiastrategic.in/topstories/indias-defense-modernization/>.
- India test-flies Hypersonic Technology Demonstrator Vehicle. (2023). *Janes*. Retrieved from subscription. [atalayar.com](https://www.atlayar.com)+6[janes.com](https://www.janes.com)+6en.wikipedia.org+6
- India Today. (2005, August 29). *Pakistan tests Babur missile to match India’s BrahMos*. *India Today*. en.wikipedia.org+2[indiatoday.in](https://www.indiatoday.in)+2[media.nti.org](https://www.media.nti.org)+2
- Indian Army. 2018. *Land Warfare Doctrine 2018*. New Delhi: Indian Army. <http://www.ssri-j.com/MediaReport/Document/IndianArmyLandWarfareDoctrine2018.pdf>.
- Indian Defence Research Wing. (2025, June 24). *Pakistan may not be first customer for China’s J-35A stealth fighter, delays likely for PAF*. IDRW.
- Indian Press Information Bureau. (2025). *Rs 1.80 lakh crore allocated under Capital Budget of Armed Forces*. Press Release. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2098485>
- India–Pakistan Security Dilemma Report. (2010). *The India-Pakistan security dilemma*. ETH Zurich Centre for Security Studies. <https://www.files.ethz.ch/isn/134642/ER-India-Pakistan%20Security.pdf>
- Institute for Energy Economics and Financial Analysis. (2025, March). *Pakistan must rebuild Chinese investor confidence in its energy transition*. IEEFA.

- Institute of Strategic Studies Islamabad. (2024). *IB India's pursuit of missile shield: Challenges and implications for Pakistan* [Issue Brief]. Retrieved from https://www.issi.org.pk/wpcontent/uploads/2024/08/IB_Ghazala_Aug_8_2024.pdf
- International Affairs. (2023). *China's J-10C fighters and strategic manoeuvres in Chinese arms exports*. Australian Outlook. Retrieved from <https://www.internationalaffairs.org.au/australianoutlook/chinas-j-10c-fightersand-strategic-manoevres-in-chinese-arms-exports/>
- International Institute for Strategic Studies. (2019). *Nuclear deterrence and stability in South Asia: Perceptions and realities*. IISS. <https://www.iiss.org/globalassets/media-library---content--migration/files/researchpapers/nuclear-deterrence-and-stability-in-south-asia---perceptions-and-realities.pdf>
- International Institute for Strategic Studies. (2021). *Cyber capabilities and national power: India* [PDF].
- International Institute for Strategic Studies. (2021). *Nuclear deterrence and stability in South Asia: Perceptions and realities* [Primer]. Retrieved from <https://www.iiss.org/globalassets/media-library---content-migration/files/research-papers/nuclear-deterrence-and-stability-in-south-asia---perceptions-andrealities.pdf>
- International Institute for Strategic Studies. (2022). *Cyber capabilities and national power: India*. <https://www.iiss.org/globalassets/media-library---content--migration/files/research-papers/cyber-powerreport/cyber-capabilities-and-national-power---india.pdf>
- International Institute for Strategic Studies. (2023). Gulf bailout diplomacy: Aid as economic statecraft in a turbulent region. *International Institute for Strategic Studies*. Retrieved from https://www.iiss.org/globalassets/media-library---content--migration/files/researchpapers/2023/10/gbd/iiss_gulf-bailout-diplomacy.pdf
- International Institute for Strategic Studies. (2023). *Nuclear deterrence and strategic stability in South Asia: Perceptions and realities* [Primer]. IISS. <https://www.iiss.org/globalassets/media-library---content-migration/files/research-papers/nuclear-deterrence-and-stability-in-south-asia---perceptions-andrealities.pdf>
- International Monetary Fund. (1999). *Public Information Notice: IMF Executive Board concludes Article IV consultation with Pakistan* (No. 99/04). Retrieved from <https://www.imf.org/en/News/Articles/2015/09/28/04/53/pn9904> [imf.org](https://www.imf.org)+2[imf.org](https://www.imf.org)+2[imf.org](https://www.imf.org)+2
- International Monetary Fund. (2025). *Pakistan: Staff report for the 2025 Article IV consultation and request for a two-year arrangement under the Extended Fund Facility* (IMF Country Report No. 2025/001). <https://www.imf.org/-/media/Files/Publications/CR/2025/English/1pakea2025001-print-pdf.ashx>
- International Panel on Fissile Materials. *Pakistan – Country Fissile Material Profile*. May 22, 2025. Retrieved from <https://fissilematerials.org/countries/pakistan.html>

- IP Defense Forum. (2025, June 5). *Scramjet test another milestone in India's hypersonic weapons development*. en.wikipedia.org+15ipdefenseforum.com+15youtube.com+15
- IP Defense Forum. At Malabar 2024, Quad nations promote maritime order for a Free and Open Indo-Pacific. *Indo-Pacific Defense Forum*. October 25, 2024. <https://ipdefenseforum.com/2024/10/at-malabar-2024quad-nations-promote-maritime-order-for-a-free-and-open-indo-pacific/>
- Ismail, M. (2023). *China-Pakistan Economic Corridor (CPEC): Economic and strategic implications for Pakistan* (pp. 1–34). The China Study Centre (CSC), Karakoram International University (KIU). Retrieved from https://www.researchgate.net/publication/373048493_China-Pakistan_Economic_Corridor_CPEC_Economic_and_Strategic_Implications_for_Pakistan
- ISPR. (2025). *Operation Bunyan um Marsoos: A defensive necessity*. Inter-Services Public Relations, Pakistan.
- ISSI. (2025). *India's Operation Sindoor: An Escalation of Hostility*. Islamabad: Institute of Strategic Studies.
- Jacob, H. (2025). *Operation Sindoor & India's new doctrine of deterrence: Strategic lessons from the 2025 IndiaPakistan crisis*. Council for Strategic and Defense Research & PAXANALYSIS (OPC) Pvt. Ltd. Jaffrelot, C. (2019). *The Hindu Nationalist Movement*. Hurst.
- Jalil, G. Y. (2015). Indian missile defence development: Implications for deterrence stability in South Asia. *Strategic Studies*, 35(2).
- Jalil, G. Y. (2017). Nuclear arms race in South Asia: Pakistan's quest for security. *Strategic Studies*, 37(1), 18–36. https://www.issi.org.pk/wp-content/uploads/2017/04/2-Ghazala_SS_Vol_37_No.1_2017.pdf
- Jalil, G. Y. (2020). *Missile race in South Asia: Security challenges for Pakistan in the 21st century*. Institute of Strategic Studies Islamabad. https://www.issi.org.pk/wp-content/uploads/2020/05/3SS_Ghazala_Yasmin_Jalil_No-1_2020.pdf
- Jane's Information Group. (2025). *Update: Pakistan shows JF-17 Block III fitted with PL-15 missiles for first time*.
- Jane's Defence Insights. Retrieved from <https://www.janes.com/osint-insights/defence-news/air/updatepakistan-shows-jf-17-block-iii-fitted-with-pl-15-missiles-for-first-time>
- Janes. (2020). *India test-flies Hypersonic Technology Demonstrator Vehicle*. <https://www.janes.com/osintinsights/defence-news/defence/india-test-flies-hypersonic-technology-demonstrator-vehicle>

- Janes. (2024, January 16). *India test-fires new-generation Akash missile*. <https://www.janes.com/osintinsights/defence-news/defence/india-test-fires-new-generation-akash-missile>
- Janes. (2025, June). *Pakistan announces defence budget increase*. Janes OSINT Insights. orfonline.org+3janes.com+3sipri.org+3
- Japan Times. (2024, September 4). *Japan to continue production of MSDF US-2 amphibious plane*. <https://www.japantimes.co.jp/news/2024/09/04/japan/msdf-amphibious-plane/>
- Jaspal, Z. N. (2005). *Arms Control: Risk Reduction Measures Between India and Pakistan*. South Asian Strategic Stability Unit, Stimson Center. <https://www.files.ethz.ch/isn/99910/RP%20No%2001.pdf>
- Jervis, R. (1976). Cooperation under the security dilemma. *World Politics*, 30(2), 167–214. <https://doi.org/10.2307/2009958>
- Jervis, R. (1976). *Perception and misperception in international politics*. Princeton University Press.
- Journal of Defence and Security Studies. *India-Pakistan Security Dilemma: Analyzing the Deterrence and...*
- Journal of Defence and Security Studies*. 2025. Retrieved from <https://ojs.jdss.org.pk/journal/article/view/1417>
- Kanaujia, A., Singh, P., Nandy, A., & Singh, V. K. (2022). *Research contribution of major centrally funded institution systems of India*. arXiv. <https://arxiv.org/abs/2208.01588>
- Kapur, S. Paul. 2003. *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia*. Stanford: Stanford University Press.
- Karan. *Ancient wisdom, modern waters: Reimagining India's maritime strategy for the Indo-Pacific*. Academia.edu. October 2024. <https://www.academia.edu/129549729>
- Karim A, Mahmood A, Shahrukh MW, Jabbar A. Transformation of Pakistan's nuclear posture from minimum credible to full spectrum deterrence. *Liberal Arts and Social Sciences International Journal (LASSIJ)*. 2022;6(1):89–108. <https://doi.org/10.47264/idea.lassij/6.1.7>
- Katju, V. (2025, May 21). Fragile peace, persistent tensions, and the limits of diplomacy. *Frontline*. <https://frontline.thehindu.com/indo-pak-relations-fragile-peace-persistent-tensions-and-the-limits-ofdiplomacy>
- Kaur S. *MIRVed missiles: progression of technology in Southern Asia*. *Air Power Journal*. 2022;17(4):76–85. Retrieved from <https://capsindia.org/wp-content/uploads/2023/01/4-Silky-Kaur.pdf>
- Kesavan KV, Mukhopadhyay A, Singh A, Powell L, Joshi M, Sahoo N. *India and South Korea: Exploring new avenues and outlining goals for partnership*. Observer Research Foundation & Institute of East and West Studies, Yonsei University; 2020. <https://policycommons.net/artifacts/1351440/india-and-southkorea/1963597/>

- Khalil, S. (2025). Pakistan's maritime potential for the blue economy and its strategic impact on sustainable socio-economic development. *Journal of Maritime Research*, Advance online publication. <https://www.jmr.unican.es/jmr/article/download/961/936/3899>
- Khan A. (2019). BMD & MIRV: Nuclear Deterrence in South Asia. *Journal of Strategic Security & Stability*, IV(2), 136. <https://thesvi.org/wp-content/uploads/2019/03/Final-Journal-Draft-126-149.pdf>
- Khan B. *Hanwha Aerospace wins \$254 M K9 howitzer deal with India*. Quwa. April 3, 2025. <https://quwa.org/indiadefence-news/hanwha-aerospace-wins-254-m-k9-howitzer-deal-with-india-04-04-2025/>
- Khan, A. (2019). *Terrorism in Pakistan: A victim's perspective*. *Journal of South Asian Studies*, 7(3), 45–60.
- Khan, A. (2024). *Ballistic missile defence and multiple independently targetable re-entry vehicles: Nuclear deterrence in South Asia*. *Journal of South Asian Security Studies*, 4(2), 119–136. Retrieved from https://www.researchgate.net/publication/380546516_Ballistic_Missile_Defence_and_Multiple_Independently_Targetable_Re-entry_Vehicles_Nuclear_Deterrence_in_South_Asia
- Khan, A. A., Masood, M., & Saqib, A. (2025). *India's acquisition of strategic non-nuclear weapons in the Third Nuclear Age: Implications and way forward for Pakistan*. *Margalla Papers*, 2025(1), 18–40. Retrieved from <https://www.researchgate.net/publication/393228349>
- Khan, A. M. (2024, March). *India's Agni-V test: Implications for regional strategic stability*. *The Diplomat*. https://thediplomat.com/2024/03/indias-agni-v-test-implications-for-regional-strategicstability/?utm_source=chatgpt.com
- Khan, F. H. (2012). *Eating grass: The making of the Pakistani bomb*. Stanford University Press.
- Khan, F. H. (2015). *Going tactical: Pakistan's nuclear posture and implications for stability* (Proliferation Papers No. 53). Institut français des relations internationales. https://www.ifri.org/sites/default/files/migrated_files/documents/atoms/files/pp53khan_5.pdf
- Khan, F., & Saeed, K. (2020). Threat asymmetry and transition in deterrence: Technical assessment of India's ballistic missile defense shield. *Journal of South Asian Studies*, 8(1), 13–24. <https://doi.org/10.33687/jsas.008.01.3319>
- Khan, Z. (2021). The effects of U.S.–China competing strategies in the Asia-Pacific on India and Pakistan rivalry in the South Asian region. *Asian Journal of Comparative Politics*, x(x), 1–19. <https://doi.org/10.1177/20578911211021155>
- Khan, Z. (2023). Hypersonic weapons and South Asian security. *Journal of Defence Studies*, 17(2), 45–60.

- Khan, Z., & Ahmed, S. (2021). Perceptions and misperceptions in South Asian security. *Journal of Strategic Studies*, 44(3), 345–367. <https://doi.org/10.1080/01402390.2020.1856092>
- Khan, Z., & Haider, M. (2024). *Pakistan's Strategic Posture and Deterrence Stability in South Asia*. *Journal of Defence & Strategic Studies*, 14(1), 45–67.
- Kidwai, K. (2001, October). Four nuclear thresholds. *Pakistan Defense Forum*. margallapapers.ndu.edu.pk
- Kidwai, K. (2002, March). Defining credible minimum deterrence. *Pakistan Defense Papers*, 3(2), 15–24.
- Kidwai, K. A. (2016, June). Pakistan's tactical nuclear weapons and their impact on stability. *Carnegie Endowment for International Peace*. Retrieved from <https://carnegieendowment.org/research/2016/06/pakistanstactical-nuclear-weapons-and-their-impact-on-stability?lang=en>
- Kosambe, S. (2019). Mission Shakti aka Project XSV-1: India's first anti-satellite test (ASAT). *Journal of Aircraft and Spacecraft Technology*, 3(1), 172–182. <https://doi.org/10.3844/jastsp.2019.172.182>
- Krepon, M. (2015). The myth of deterrence stability between nuclear-armed rivals. In M. Krepon, J. T. White, J.
- Kuo, H. (2025, May 12). India and Pakistan are sending Turkish and Israeli drones to war. *The National Interest*. <https://nationalinterest.org/blog/buzz/india-and-pakistan-are-sending-turkish-and-israeli-drones-to-war>
- Thompson, & S. Mason (Eds.), *Deterrence instability and nuclear weapons in South Asia* (pp. 15–42). Stimson Center. https://www.stimson.org/wp-content/files/fileattachments/Deterrence_Instability_WEB.pdf
- Krepon, M., & Levine, D. (2020). *Escalation dominance and emerging weapons: Implications for South Asia*. Stimson Center. <https://www.stimson.org/2020/escalation-dominance-and-emerging-weaponsimplications-for-south-asia/>
- Kristensen, H. M., & Korda, M. (2023). Pakistan nuclear weapons, 2023. *Bulletin of the Atomic Scientists*, 79(5), 329–345. <https://doi.org/10.1080/00963402.2023.2245260>
- Kristensen, H. M., & Norris, R. S. (2015). Pakistani nuclear forces, 2015. *SAGE Publications*. <https://doi.org/10.1177/0096340215611090>
- Kux, D. (2006). *The United States and Pakistan, 1947–2000: Disenchanted allies*. Woodrow Wilson Center Press.
- Kwok KK. Gulf's AI strategy is built on more than sand. *Reuters*. November 13, 2024. Available at: <https://www.reuters.com/breakingviews/gulfs-ai-strategy-is-built-more-than-sand-2024-11-13/>
- Ladwig III, W. C. (2008). A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine. *International Security*, 32(3), 158–190. <https://doi.org/10.1162/isec.2008.32.3.158>
- Ladwig, W. C. III. (2008). A Cold Start for Hot Wars? *International Security*, 32(3), 158–190. <https://doi.org/10.1162/isec.2008.32.3.158>

- Lariosa, A.-M. (2024, February 1). *U.S. approves potential \$3.9B MQ-9B UAV sale to India*. USNI News. <https://news.usni.org/2024/02/01/u-s-approves-potential-3-9b-mq-9b-uav-sale-to-india>
- Lavoy, P. R. (2006). *Asymmetric warfare in South Asia: The causes and consequences of the Pakistan–India military imbalance*. *Security Studies*, 15(1), 180–201.
- Liao, S. K., Cai, W. Q., Handsteiner, J., et al. (2018). Satellite-relayed intercontinental quantum network. *Physical Review Letters*, 120(3), 030501. <https://doi.org/10.1103/PhysRevLett.120.030501>
- Liao, S. K., Cai, W. Q., Liu, W., et al. (2017). Satellite-to-ground quantum key distribution. *Nature*, 549(7670), 43–47. <https://doi.org/10.1038/nature23655>
- LinkedIn. (2023). *India's Defence Cyber Agency (DCyA)*. LinkedIn. [linkedin.com](https://www.linkedin.com/company/india-defence-cyber-agency/)
- LiveMint. (2025). *From S-400 to Pralay: Inside India's multi-layered air defence ...* Retrieved from <https://www.livemint.com/news/s400-missile-system-all-you-need-to-know-about-india-s-advanceddefence-weapon-used-to-counter-pakistan-aerial-attacks-11746703552527.html>
- Lynn-Jones, Sean M. 1995. "Offense-Defense Theory and Its Critics." *Security Studies* 4 (4): 660–91. <https://doi.org/10.1080/09636419509347600>.
- Macrotrends. (n.d.). *India GDP (current US\$)*. Macrotrends. Retrieved June 13, 2025, from <https://www.macrotrends.net/global-metrics/countries/IND/india/gdp-gross-domestic-product>
- Mahmood A, et al. *Transformation of Pakistan's nuclear posture from credible minimum to full spectrum deterrence: factors and implications*. *Lahore Journal of Strategic Studies*. 2022;8(2):115–138. Retrieved from <https://ideapublishers.org/index.php/lassij/article/download/552/312>
- Mahmood, A., & Sultan, A. (2021). Impact of India's ISR capabilities on South Asian security dynamics. *ISSI Journal*, 4. https://issi.org.pk/wp-content/uploads/2022/02/2-SS_Amjad_Mahmood_and_Adil_Sultan_No4_2021.pdf
- Malik, A. (2023, November 11). The impact of digital repression on human rights situation in IIOJK. *Kashmir Institute of International Relations*. <https://kiir.org.pk/the-impact-of-digital-repression-on-human-rightssituation-in-iiojk>
- Mandal S. *Hanwha to deliver K9 components to L&T*. Janes. April 4, 2025. <https://www.janes.com/osintinsights/defence-news/industry/hanwha-to-deliver-k9-components-to-lt>
- Manhas, N. S., & Yadav, G. H. (2025). *Atmanirbhar export: Leveraging indigenous defence production for strategic autonomy and global outreach*. ResearchGate. https://www.researchgate.net/publication/390670934_Atmanirbhar_Export_Leveraging_Indigenous_Defence_Production_for_Strategic_Autonomy_and_Global_Outreach

- Mankoff, J. (2022). Russia–Pakistan relations and the constraints of geoeconomics. *Asian Survey*, 62(5–6), 838– 861.
- Mann, A. (2025, May 26). *Carrier battle groups: The backbone of India's blue water naval strategy* [Op-Ed]. *Eurasia Review*. <https://www.eurasiareview.com/26052025-carrier-battle-groups-the-backbone-of-indiasblue-water-naval-strategy-oped/>
- McNabb, M. (2025, 3 July). *Quad nations launch critical minerals initiative: What it means for the drone industry*. *Dronelife*. <https://dronelife.com/2025/07/03/quad-nations-launch-critical-minerals-initiative-what-itmeans-for-the-drone-industry/>
- Mearsheimer, J. J. (2001). *The tragedy of great power politics*. W. W. Norton & Company. <https://samuelbhfaure.com/wp-content/uploads/2015/10/s2-mearsheimer-2001.pdf>
- Memon, S. A. (2025, February 22). *A Sisyphean struggle: SAARC's perilous odyssey through regional discord and diplomatic torpor*. *Modern Diplomacy*. https://moderndiplomacy.eu/2025/02/22/a-sisyphean-strugglesaarcs-perilous-odyssey-through-regional-discord-and-diplomatic-torpor/?utm_source=chatgpt.com
- Menon, R. 2016. *The End of Alliances*. Oxford University Press.
- Mian, Z., & Nayyar, A. H. (2023). Pakistan's nuclear-capable missiles: Short-range Hatf-I and Hatf-II Abdali. In *Program on Science and Global Security*. Princeton University. Retrieved from <https://sgs.princeton.edu/sites/default/files/2023-01/mian-pakistan-2020.pdf> sgs.princeton.edu
- Military & Aerospace Electronics. (2019, February 26). *India set to buy 50 Israeli Heron-1 long-endurance reconnaissance UAVs in reported US \$500 million deal*. *Defense Industry Daily*. Military Balance Project. (n.d.). *Agni-I missile specifications*. Retrieved June 20, 2025, from CSIS Missile Threat.
- Miller, N. L. (2018). Chapter 8: The Pakistani nuclear program (1972–1987). In *Stopping the Bomb: The Sources and Effectiveness of US Nonproliferation Policy* (pp. 193–216). Cornell University Press. en.wikipedia.org+1en.wikipedia.org+1degruyterbrill.com
- Ministry of Atomic Energy. (2023). *Notes on Demands for Grants 2023–2024: Atomic Energy Department*. Government of India. <https://www.indiabudget.gov.in/budget2023-24/doc/eb/sbe3.pdf>
- Ministry of Defence, Government of India, Press Information Bureau. (2024, March 12). *PM witnesses Bharat Shakti tri-services live fire and manoeuvre exercise in Pokhran* [Press release]. officerspulse.com+7pib.gov.in+7iadb.in+7
- Ministry of Defence, Government of India. (2020). *Make in India: Defence Production Policy*. Press Information Bureau.
- Ministry of Defence, Government of India. (2024, December 20). *MoD inks ₹7,629 crore contract with L&T for K9 Vajra-T self-propelled guns*. Press Information Bureau. thedefensepost.com+6pib.gov.in+6defenceupdate.in+6

- Ministry of Defence, Government of India. (2024, October 7). *DefConnect 4.0: Raksha Mantri launches ADITI 2.0 challenges & DISC 12 to foster innovation, entrepreneurship & 'Aatmanirbharta' in defence*. Press Information Bureau. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2062888> thefuturetalk.com+2pib.gov.in+2linkedin.com+2
- Ministry of Defence, Government of India. (2025, February 1). *A record over Rs 6.81 lakh crore allocated in Union Budget 2025–26 for MoD, an increase of 9.53% from current financial year*. Press Information Bureau. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2098485>
- Ministry of Defence. (2024, April). *Defence capital outlay: 75% allocated for domestic procurement in FY 2024–25*. Press Information Bureau. <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2025/apr/doc202543531401.pdf>
- Ministry of Defence. (2025). *Operation Sindoor: A strategic response*. Government of India.
- Ministry of Electronics and Information Technology. (2023). *National quantum mission: A strategic initiative*. Government of India. <https://www.meity.gov.in/national-quantum-mission>
- Ministry of Finance India. (2023). *Union Budget 2023–2024: Highlights*. Government of India. <https://www.indiabudget.gov.in>
- Ministry of Foreign Affairs, Pakistan. (2025a, May 8). *Response to Indian Aggression and False Claims*.
- Mint. (2025, June). *India signed a deal worth approximately ₹35,000 crore (around \$5.4 billion) in 2018 to procure five squadrons of the Russian-made S-400 Triumf air defence missile system*. Retrieved from <https://www.livemint.com/news/s400-missile-system-all-you-need-to-know-about-india-s-advanced-defence-weapon-used-to-counter-pakistan-aerial-attacks-11746703552527.html>
- Mishra, Y. (2025). The impact of India's military build-up on regional arms races. *International Journal of Research in Social Sciences*, 15(1), 28–38. https://www.ijmra.us/project%20doc/2025/IJRSS_JANUARY2025/IJRSS4Jan25_23059.pdf
- Missile Threat – CSIS. (2017). *Ababeel*. Center for Strategic and International Studies. Retrieved from <https://missilethreat.csis.org/missile/ababeel/>
- Missile Threat. (2024). *Babur (Hatf-7) cruise missile*. Center for Strategic and International Studies. Retrieved from <https://missilethreat.csis.org/missile/babur/> missilethreat.csis.org+1academia.edu+1
- Mitra, O. (2025, April 3). *A swarm of Indian defence tech startups emerges in push for self-reliance*. Global Venturing. <https://globalventuring.com/corporate/asia/indias-defence-tech-ecosystem/>
- MoD India. 2024. *Annual Report 2023–24*. Ministry of Defence. <https://www.mod.gov.in/annual-report-2023-24>.

- Modern Diplomacy. (2022, April 2). *Indo-Russia S-400 deal and its implications for Pakistan*. Retrieved from <https://moderndiplomacy.eu/2022/04/02/indo-russia-s-400-deal-and-its-implications-for-pakistan/>
- Moneycontrol. (2025, June 2025). *From HQ-9 air defence to PL-15 missiles: The Chinese weapons Pakistan is dependent on*. Retrieved from <https://www.moneycontrol.com/world/from-hq-9-air-defence-to-pl-15missiles-the-chinese-weapons-pakistan-is-dependent-on-article-13019198.html.indiatoday.in+2+moneycontrol.com+2stimson.org+2>
- Morrow, D. (2000). The economic impacts of the 1998 sanctions on India. *Nonproliferation Review*, 7(2), 38–50. <https://www.nonproliferation.org/wp-content/uploads/npr/morrow64.pdf.carnegieendowment.org+5en.wikipedia.org+5carnegieendowment.org+5>
- Mukherjee, R. (2019, October 2). Climbing the escalation ladder: India and the Balakot crisis. War on the Rocks. <https://warontherocks.com/2019/10/climbing-the-escalation-ladder-india-and-the-balakot-crisis/>
- Nagappa R, Avinash P, Khaji R. *Babur-3—Pakistan’s SLCM: capability and limitations*. *Air Power Journal*. 2018;13(3):42–57. Retrieved from <https://capsindia.org/wp-content/uploads/2022/08/RAJARAMNAGAPPA-AVINASH-P-and-RIFFATH-KHAJI.pdf>
- NAPSNet Special Report. (2021). *India–Pakistan nuclear dynamics: Deterrence stability underwritten by parity and mutual vulnerability*. NAPSNet. Retrieved from <https://nautilus.org/napsnet/napsnet-specialreports/india-pakistan-nuclear-dynamics>
- NASA. (2019). *NASA assessment of debris from India’s Mission Shakti ASAT test*. NASA Orbital Debris Quarterly Newsletter, 23(3), 2. Retrieved from [NASA database] [carnegieendowment.org/spacereview.com+11en.wikipedia.org+11en.wikipedia.org+11](https://www.carnegieendowment.org/spacereview.com+11en.wikipedia.org+11en.wikipedia.org+11)
- Narang, V. (2009/2010). Posturing for peace? Pakistan’s nuclear postures and South Asian stability. *International Security*, 34(3), 38–78. <https://doi.org/10.1162/isec.2010.34.3.38>
- Naseer, N., Khan, M. F., & Raza, A. (2022). A comparative view of India and Pakistan’s defence capabilities: Historical evolution and future trends. *Millennium: Journal of International Studies*, 8(1). <https://doi.org/10.1177/20578911221124384>
- Naseer, R., & Khan, Z. A. (2022). India’s ballistic missile defence and South Asian deterrence stability. *Strategic Studies*, 42(2), 85–101.
- National Assembly of Pakistan. (2025, May 16). *Resolution on Operation Bunyan-um-Marsoos and National Sovereignty*.
- National Interest. (2025, June 30). *India’s purchase of the S-400 air defense system from Russia has thrown a wrench into its negotiations to join the F-35 program*. Retrieved from <https://nationalinterest.org/blog/buzz/india-400-deal-ruining-f-35-acquisition-plan-ps>

- Nautilus Institute. (2017). *Nuclear command, control and communications (NC3): The case of Pakistan*. Retrieved from <https://nautilus.org/napsnet/napsnet-special-reports/nuclear-command-control-and-communicationsnc3-the-case-of-pakistan> en.wikipedia.orgnautilus.org
- Naval Architect and Coastal Security Review. (2013). *Pakistan Navy's Agosta-class upgrade and fleet status, 2010*. *Naval Architect Review*, 45(3), 30–42.
- Naval Architect Review. (2025, May 31). *Russia to deliver remaining two S-400 regiments to India in 2026*. *The New Indian Express*
- Naval News. (2025, April 2). *India Orders 26 Rafale Marine carrier-based aircraft for \$7.5 billion*. <https://www.navalnews.com/naval-news/2025/04/india-orders-26-rafale-marine-carrier-based-aircraft-for-7-5-billion/> livemint.com+4indiandefensenews.in+4timesofindia.indiatimes.com+4en.wikipedia.orgreuters.comindiatoday.in+1indiandefensenews.in+1navalnews.com
- Naval News. (2025, April 23). *Royal Navy carrier strike group sets sail for Indo-Pacific deployment*. Retrieved from <https://www.navalnews.com/naval-news/2025/04/royal-navy-carrier-strike-group-sets-sail-for-indopacific-deployment/>
- Naval News. (2025, March 12). *Pakistan Navy launches second Hangor-class submarine in China*. *Naval News*. <https://www.navalnews.com/naval-news/2025/03/pakistan-navy-launches-second-hangor-class-submarinein-china/>
- Naval Shipyards' FPV Programs. (2023). *Car Nicobar-class fast patrol vessels: Capabilities and deployment*. *Naval Architect and Coastal Security Review*. majorkalsi.com+10en.wikipedia.org+10forums.bharattrakshak.com +10
- Naval Technology. (2021). *INS Vikramaditya aircraft carrier*. Retrieved from <https://www.navaltechnology.com/projects/ins-vikramaditya-aircraft-carrier/>
- Nawab, S., Shahid, Q. A., Liaqat, B. B., & Mustafa, G. (2025). China–Pakistan Economic Corridor: A case study of internal security challenge faced by Pakistan. *Journal of Social & Organizational Matters*, 4(1), 1–14. <https://doi.org/10.56976/jsom.v3i4.159>
- Nayyar, A. H. 2023. “Tactical Nuclear Weapons: Myths and Realities.” *Strategic Studies* 45 (1): 22–38.
- Nayyar, A. H., & Mian, Z. (2015). Pakistan, tactical nuclear weapons and the Nasr missile: Searching for a method in the madness. In J. Cirincione, M. C. Scheutz, & M. Korda (Eds.), *Nuclear notebook South Asia* (pp. 1–20). Pugwash. <https://pugwash.org/wp-content/uploads/2015/10/wg5-1-nayyar.pdf>
- NewsLaundry. (2025, May 16). Turkey enters South Asia conflict zone with drones, diplomacy and ideological ambitions. newsLaundry.com

- NITI Aayog. (2018). *National strategy for artificial intelligence #AIforAll*. Government of India. <https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf>
- Noor, S. (2023). *Strategic stability in South Asia: The evolving challenges and potential opportunities for India and Pakistan* (No. 1). Strategic Studies. Retrieved from https://www.issi.org.pk/wpcontent/uploads/2023/08/Sitara_Noor_SS_No_1_2023.pdf
- Noor, S. (2020, March 25). *Pulwama/Balakot and the evolving role of third parties in India-Pakistan crises* (Policy memo). Stimson Center. <https://www.stimson.org/2020/pulwama-balakot-and-the-evolving-role-of-third-parties-in-india-pakistan-crises/>
- Nuclear Threat Initiative (NTI). (2022). *India: Submarine capabilities*. <https://www.nti.org/analysis/articles/indiasubmarine-capabilities/>
- Nuclear Threat Initiative. (2024, August). *India's submarine capabilities*. NTI. <https://www.nti.org/analysis/articles/india-submarine-capabilities/>
- Nuclear Threat Initiative. (2025). *India submarine capabilities*. NTI. Retrieved from <https://www.nti.org/analysis/articles/india-submarine-capabilities/> nti.org
- Nuclear Threat Initiative. *Pakistan Submarine Capabilities*. NTI. 2024. Retrieved from <https://www.nti.org/analysis/articles/pakistan-submarine-capabilities/>
- Operational Analytics & – *Operation Sindoor and India's Cyber Threat Landscape*. Observer Research Foundation (ORF). (2025, June 3). Retrieved from <https://www.orfonline.org/expert-speak/operation-sindoor-andindia-s-cyber-threat-landscape> economictimes.indiatimes.com+12orfonline.org+12economictimes.Indiatimes.com+12
- Operations Indoor Official. (2025, June). *India vs Pakistan: Military Strength and Defense Budgets Compared*. <https://www.operationsindoorofficial.com/india-vs-pakistan-military-strength-and-defense-budgets-compared> operationsindoorofficial.com
- ORF. (2025, May). *Pakistan's defence budget: not too much of an outlier*. Observer Research Foundation. orfonline.org
- OrfOnline. (2023). *Policy recommendations for achieving India's defence-export ambitions*. Observer Research Foundation. <https://www.orfonline.org/research/policy-recommendations-for-achieving-india-s-defenceexport-ambitions> en.wikipedia.orgorfonline.org
- Organisation for Economic Co-operation and Development. (2023). *The space economy in figures* [PDF]. OECD. <https://www.oecd.org>
- Organisation of Islamic Cooperation. (2024). Final resolutions of political affairs. <https://new.oicoci.org/Lists/ConferenceDocuments/Attachments/2650/Final%20Resolutions%20of%20Political%20Affairs.pdf>

- Overt Defense. (2025, May 9). *Pakistan's air defense capabilities – Chinese missile systems & AA*. Overt Defense. overtdefense.com
- Ozberk, T. (2022, September 2). *Indian Navy commissions indigenous aircraft carrier "INS Vikrant"*. Naval Technology.
- Krishna, P. (2025, May). *India's strong defence budget boost sharpens naval modernization*. ICRA via Times of India.
- Naseer, A., & Khan, U. (2022). *Pakistan Navy fleet analysis* [Study]. *Defense & Security Journal*.
- CSCR. (2019). *Assessing the implications of India's hypersonic technology test for Pakistan*. Center for Strategic and Contemporary Research. cscr.pk
- Institute for Defence Studies and Analyses. (2011, April 19). *Making sense of Nasr*. IDSA Commentary. en.wikipedia.org+1en.wikipedia.org+1
- IA-Forum. (2019). *Hypersonic technology in South Asia: Implications for the region*. researchgate.net+15iaforum.org+15strafasia.com+15
- Kapur, S. P. (2003). *Dangerous detours: The politics of deterring India*. Oxford University Press.
- Ladwig, W. C. (2008). *A Cold Start for hot wars? The Indian Army's new limited war doctrine*. *International Security*, 32(3), 158–190.
- Özdemir, Ö. (2022). *New space in Asia: Partnerships and power dynamics* [PDF]. European Space Policy Institute. <https://www.espi.or.at>
- Pakistan Bureau of Statistics. (2024, August). *Monthly Review of Price Indices: August 2024*. https://www.pbs.gov.pk/sites/default/files/price_statistics/cpi/CPI_Review_August_2024.pdf. pbs.gov.pk+1pbs.gov.pk+1
- Pakistan Remote Sensing Satellite – PRSS-1. (2018). *Major Programmes » Pakistan Remote Sensing Satellite (PRSS-1)*. SUPARCO. Retrieved from <https://www.suparco.gov.pk/major-programmes/projects/prss-1/satellitetoday.com+10suparco.gov.pk+10en.wikipedia.org+10>
- Pakistan Textile Mills Association. (2025). *Textile sector losses and job impacts post Operation Sindoor*. (APTMA report) Pakistan Today. (2024, May 27). *Pakistan to launch multi-mission communication satellite PakSAT-MM1 on May 30*. Pakistan Today. researchgate.net+1aparchitexamwarriors.com+1
- Pakistan Today. (2025, May 11). *Pakistan destroys India's BrahMos stockpile, airbases in Operation Bunyan-unMarsoos*. <https://www.pakistantoday.com.pk/2025/05/11/pakistan-destroys-indias-brahmos-stockpileairbases-in-operation-bunyan-un-marsoos/>
- Pakistan's Strategic Nuclear Policy and Implications for Deterrence. (2013). *CISS Insight: Quarterly News & Views*. Pakistan's inclusion of short-range nuclear weapons (NASR) and a strategic delivery

- system (Shaheen-III) is specifically aimed at denying India a second-strike capability. Retrieved from <https://www.journal.ciss.org.pk/index.php/ciss-insight/article/download/85/80>
- Pakistan's National Cyber Emergency Response Team (PKCERT). (2025, May 28). *Pakistan issues cybersecurity advisory amid escalating India tensions*. Retrieved from Nawaz, S. (2008).
- Panda, A. (2022, January 16). *Can Pakistan counter India's new S-400 air defense system?* Defense News. <https://www.defensenews.com/global/asia-pacific/2022/01/16/can-pakistan-counter-indias-new-s-400-airdefense-system/>
- Pant, H. V., & Bommakanti, K. (2020). India's surgical strikes: Shifting the strategic calculus? *The RUSI Journal*, 165(2), 22–32. <https://doi.org/10.1080/03071847.2020.1748888>
- Pardesi, Manjeet S. 2015. "Is India a Great Power? Understanding Great Power Status in Contemporary International Relations." *Asian Security* 11 (2): 148–73. <https://doi.org/10.1080/14799855.2015.1042573>.
- Parliament of India. (2023). *Inter-Services Organisations (Command, Control and Discipline) Bill*. Lok Sabha.
- Paul, T. V. (2006). Why has the India–Pakistan rivalry been so enduring? Power asymmetry and an intractable conflict. *Security Studies*, 15(4), 600–630.
- Paul, T. V. (Ed.). (2005). *The India-Pakistan conflict: An enduring rivalry*. Cambridge University Press.
- Perkovich, G. (1999). *India's nuclear bomb: The impact on global proliferation*. University of California Press. [dokumen.pub+1en.wikipedia.org+1](https://dokumen.pub/1en.wikipedia.org+1)
- PIB. 2024. "India's Defence Modernisation." Press Information Bureau. <https://pib.gov.in/PressReleasePage.aspx?PRID=2024>.
- PIB. 2025. "Atmanirbhar Bharat in Defence." Press Information Bureau. <https://pib.gov.in/PressReleasePage.aspx?PRID=2025..>
- Posen, Barry. 1993. "The Security Dilemma and Ethnic Conflict." *Survival* 35 (1): 27–47. <https://doi.org/10.1080/00396339308442672>.
- Press Information Bureau. (2018, April 24). *Conclusion of Exercise Gagan Shakti-2018*. Ministry of Defence, Govt of India. defencepk.com+9pib.gov.in+9airforce-technology.com+9
- Press Information Bureau. (2022, August 1). *Enhancement of capabilities of AI technology*. Ministry of Defence, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1846937>
- Press Information Bureau. (2022, September 2). *Commissioning of Indigenous Aircraft Carrier INS Vikrant*. Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1854457>
- Press Information Bureau. (2022, September 2). *The Prime Minister commissions the first indigenous aircraft carrier, INS Vikrant, in Kochi*. Government of India. <https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1845871>

- Press Information Bureau. (2024, April). *Make in India powers defence growth* [Press release]. Government of India. Retrieved June 13, 2025, from <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2116612>
- Press Information Bureau. (2024, April). *Products developed by DRDO during the last three years* [Press release]. Government of India. Retrieved June 13, 2025, from <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1541030>
- Press Information Bureau. (2025). *Operation Sindoor: India's strategic clarity and calculated force*. Government of India.
- Press Information Bureau. (2025, February 1). *Atmanirbhar Bharat in defence: ₹1.27 lakh crore in production, ₹21,083 crore in exports – Defence on the fast track*. Ministry of Defence, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2098431>
- Press Information Bureau. (2025, February 1). *Enhanced allocation for DRDO in Union Budget 2025–26*. Ministry of Defence, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2098485>
- Press Information Bureau. (2025, July). *Marching towards Atmanirbharta: India's defence revolution*. Ministry of Defence, Government of India. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2069090>
- Press Information Bureau. (2025, March 27). *National Mission on Interdisciplinary Cyber-Physical Systems: 3,660 crore for 25 hubs*. Ministry of Science & Technology, Government of India. <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2115867>
- PRS India. (2025). *Demand for Grants 2025–26 Analysis: Defence*. https://prsindia.org/files/budget/budget_parliament/2025/DFG_Analysis_2025-26_Defence.pdf
- Qasim, S. (2016). Repercussions of Cold Start Doctrine and Tactical Nuclear Weapons on South Asian Nuclear Thresholds. *Journal of Strategic Security Studies*, 35(2), 45–62. Retrieved from <https://www.issi.org.pk/wp-content/uploads/2016/05/Qasim-35-No.2.pdf>
- Qayyum, A., Gilani, Z., Latif, S., & Qadir, J. (2018). Exploring media bias and toxicity in South Asian political discourse. *arXiv*. <https://arxiv.org/abs/1811.06693>
- Qureshi, F. (2023). *False Flags and Fabrications: India's Coercive Narratives against Pakistan*. *South Asian Strategic Review*, 9(2), 101–123.
- Rabasa, A., & Chhina, R. S. (2009). *After Mumbai: India's maritime domain awareness and counterterrorism gap*. RAND Corporation

- Rai M. *Air Defence Cover for Mechanised Forces: The Bigger Picture*. Vivekananda International Foundation. May 10, 2019. <https://www.vifindia.org/article/2019/july/10/air-defence-cover-for-mechanised-forces-thebigger-picture>
- Rai, M. S. (2025). Geopolitical Shifts in the Indo-Pacific: China's Ambitions and India's Strategic Response. *Strategic Analysis*, 45(2), 123-145. <https://doi.org/10.1177/09735984251347797>
- Rao, R. (2014). *India's Military Modernization: Challenges and Prospects*. Oxford University Press.
- Raza, Ahmed. 2025. "Cyber Countermeasures in South Asia." *Strategic Studies* 45 (1): 33–50.
- Raza, I., & Mehmood, N. (2023). Hypersonic weapon systems – A new wave of arms race in the Indian Ocean
- Region. *Margalla Papers*, 27(1), 28–39. Retrieved from <https://core.ac.uk/download/pdf/597587609.pdf>
- Raza, S. (2025). Operation Sindoor and the global contest over Jammu & Kashmir: Legal, diplomatic, and narrative dimensions in the shadow of China. *Research and Science International*. <https://rsisinternational.org/journals/ijrsi/articles/operation-sindoor-and-the-global-contest-over-jammukashmir-legal-diplomatic-and-narrative-dimensions-in-the-shadow-of-china/>
- Reddy, G. S. (2020). India conducts HSTDV test at Mach 6; marks significant hypersonic breakthrough [Press release]. *Defence Research and Development Organisation (DRDO)*. ipdefenseforum.com+6en.wikipedia.org+6janes.com+6
- Rehman, S. (2025). *Quantum computing strategy and cryptographic disruption in South Asia*. *Journal of Cyber Defense Studies*, 12(1), 14–29. (Forthcoming)
- Research on India's evolving air defence capabilities and Pakistan's options. (2025). *Journal of Strategic Studies Asia*. Retrieved from https://www.researchgate.net/publication/393296093_India%27s_Evolving_Air_Defence_Capabilities_and_Options_for_Pakistan
- ResearchGate. (2005). *HAL speeds up local production of Su-30 MKI: production increased and indigenization deepened* [Research summary]. Retrieved from https://www.researchgate.net/publication/294171273_HAL_speeds_up_local_production_of_Su-30MKI
- Resonant News. (2025, April 16). *Pakistan plans to increase defense spending by 7.5%*. <https://resonantnews.com/2025/04/16/pakistan-plans-to-increase-defense-spending-by-7-5/>
- Reuters. (2012, April 19). India tests Agni-V missile with range as far as Beijing. *Reuters*. <https://www.reuters.com/article/world/india-tests-agni-v-missile-with-range-as-far-as-beijingidUSDEE98E02L/>
- Reuters. (2014, January 28). *India close to buying Japan-made military aircraft in \$1.65 billion deal*. <https://www.reuters.com/article/world/india-close-to-buying-japan-made-military-aircraftidUSBREA0R0HK/>

- Reuters. (2015, April 10). *India signs deal for 36 French Rafale fighter jets to counter China*.
<https://www.reuters.com/article/world/india-signs-deal-for-36-french-rafale-fighter-jets-to-counter-chinapakistan-sq-idUSKCN11T0JT/reuters.com>
- Reuters. (2019, March 1). *Pakistan returns captured Indian pilot to ease border tensions*. Reuters.
- Reuters. (2019, March 27). *India shoots down satellite, joining space 'super league': Modi*.
<https://www.aljazeera.com/news/2019/3/27/india-shoots-down-satellite-joining-space-super-league-modi>
- Reuters. (2022, June 18). *India suspends internet in eastern state over military recruitment protests*. Reuters.
<https://www.reuters.com/world/india/india-suspends-internet-eastern-state-over-military-recruitmentprotests-2022-06-18/>
- Reuters. (2024, April 10). *Britain announces Indo-Pacific military exercises with US, Japan*. Retrieved from
<https://www.reuters.com/world/britain-announces-indo-pacific-military-exercises-with-us-japan-2024-0410/>
- Reuters. (2024, July 9). *Turkey launches first home-grown communication satellite into orbit*.
<https://www.reuters.com/technology/space/turkey-launches-first-home-grown-communication-satelliteinto-orbit-2024-07-09/>
- Reuters. (2024, May 23). *Pakistan PM office says UAE has committed \$10 billion in investments*. Reuters.
<https://www.reuters.com/world/asia-pacific/pakistan-pm-office-says-uae-has-committed-10-blainvestments-2024-05-23>
- Reuters. (2025, February 1). *India budget: India's defence budget heavily weighted to manpower costs*. Reuters. <https://www.reuters.com/business/aerospace-defense/india-budget-indias-defence-budget-heavilyweighted-manpower-costs-2025-02-01/>
- Reuters. (2025, February 1). India proposes ₹6.81 trillion defence budget for 2025–26, up 9.5 percent.
[Reuters. breakingdefense.com+4reuters.com+4janes.com+4](https://www.reuters.com/business/aerospace-defense/india-budget-indias-defence-budget-heavilyweighted-manpower-costs-2025-02-01/)
- Reuters. (2025, February 1). India's defence budget heavily weighted to manpower costs.
- Reuters. Retrieved from <https://www.reuters.com/business/aerospace-defense/india-budget-indias-defence-budget-heavilyweighted-manpower-costs-2025-02-01/> delhipolicygroup.orgprsrindia.org+1en.wikipedia.org+1reuters.com
- Reuters. (2025, February 1). *India's defence budget heavily weighted to manpower costs*.
<https://www.reuters.com/business/aerospace-defense/india-budget-indias-defence-budget-heavilyweighted-manpower-costs-2025-02-01/>
- Reuters. (2025, June 10). *Pakistan likely to hike defence spending but slash overall budget in 2025–26*.
<https://www.reuters.com/sustainability/land-use-biodiversity/pakistan-cut-overall-spending-raise-defencebudget-2025-26-source-says-2025-06-10-reuters.com>

- Reuters. (2025, June 10). *Pakistan to cut overall spending but raise defence budget in 2025-26, source says*. [reuters.com+1reuters.com+1](https://www.reuters.com/world/asia-pacific/pakistan-to-cut-overall-spending-but-raise-defence-budget-in-2025-26-source-says-2025-06-10/)
- Reuters. (2025, June 9). *Pakistan economy to grow 2.7% in FY25, economic survey shows*. *Reuters*. [reuters.com+2reuters.com+2brecorder.com+2](https://www.reuters.com/world/asia-pacific/pakistan-economy-to-grow-2-7-in-fy25-economic-survey-shows-2025-06-09/)
- Reuters. (2025, May 27). *India and Pakistan's drone battles mark new arms race in Asia*. *Reuters*. <https://www.reuters.com/business/aerospace-defense/india-pakistans-drone-battles-mark-new-arms-raceasia-2025-05-27/>
- Reuters. (2025, May 6). *Pakistan vows retaliation after India strike over tourist deaths*. *Reuters*. <https://www.reuters.com/world/asia-pacific/multiple-loud-explosions-heard-pakistani-kashmir-reuterswitness-2025-05-06/> [reuters.com](https://www.reuters.com)
- Reuters. (2025, May 7). *India launches attack on 9 sites in Pakistan and Pakistani Kashmir*. *Reuters*. https://www.reuters.com/world/india/india-launches-attack-9-sites-pakistan-pakistan-occupied-jammukashmir-2025-05-06
- Reuters. (2025, May 7). *What has happened in India and Pakistan as they fight over Kashmir killings*. *Reuters*. <https://www.reuters.com/world/asia-pacific/what-happened-indias-attack-pakistan-over-kashmir-touristkillings-2025-05-07/>
- Reuters. (2025, May 8). *A Chinese-made Pakistani fighter plane shot down Indian jets, US officials say*. *Reuters*. <https://www.reuters.com/world/india/global-militaries-study-india-pakistan-fighter-jet-battle-2025-05-08/>
- Reuters. (2025, May 9). *India dismisses report Pakistan downed jets as disinformation*. *Reuters*. <https://www.reuters.com/world/india/india-dismisses-report-pakistan-downing-jets-disinformation-202505-07/>
- Riedel, B. (2020). *India's MQ-9 Reaper deal: A game changer for South Asia*. Brookings Institution.
- Rizvi, H. A. (2004). *Military, state and society in Pakistan*. Palgrave Macmillan.
- Roomi, S. M. (2024). *J-10C and Pakistan Air Force's Modernization in Context of Indian Military Doctrinal Evolution*. Academia.edu. https://www.academia.edu/86796010/J_10C_and_Pakistan_Air_Forces_Modernization_in_Context_of_Indian_Military_Doctrinal_Evolution
- Rousseau, R. (2025, June 3). *India–Pakistan conflict: Chinese weapons in the spotlight – Analysis*. *Eurasia Review*. <https://www.eurasiareview.com/03062025-india-pakistan-conflict-chinese-weapons-in-the-spotlightanalysis/>
- Royal United Services Institute (RUSI). (2025, May 20). *Calibrated force: Operation Sindoor and the future of Indian deterrence*. RUSI. [https://www.rusi.org/explore-our-](https://www.rusi.org/explore-our-research/publications/articles/calibrated-force-operation-sindoor-and-the-future-of-indian-deterrence)

research/publications/commentary/ calibratedforce-operation-sindoor-and-future-indian-deterrence x.com+4rusi.org+4wired-gov.net+4

Roy-Chaudhury, S. (2024, January 12). The importance of China and Pakistan's joint naval exercises. *The Diplomat*. <https://thediplomat.com/2024/01/the-importance-of-china-and-pakistans-joint-naval-exercises/>

Ruiz Estrada, M. A., Koutronas, E., Khan, A., & Angathervar, B. (2019). *India–Pakistan War: How Painful and How Costly?* SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3343303>

RUSI. (2025, June 1). *Key questions about the India-Pakistan aerial clashes*. Royal United Services Institute. <https://www.rusi.org/explore-our-research/publications/commentary/key-questions-about-india-pakistanaerial-clashes> [linkedin.comeconomictimes.indiatimes.com+3rusi.org+3en.wikipedia.org+3](https://www.linkedin.com/company/economictimes/indiatimes.com+3rusi.org+3en.wikipedia.org+3)

Saab. (2025). *Saab's Gripen E will be the fastest delivery to the IAF*. <https://www.saab.com/markets/india/stories/2025/saabs-gripen-e-will-be-the-fastest-delivery-to-the-iaf>

Saba, K. A., & Fatima, N. (2020). *Indian military's buildup and its impact on Pakistan: An overview*. *Annals of Human and Social Sciences*, 1(2), 1–11. <https://ahss.org.pk/issues/v1/2/indian-military-s-buildup-and-itsimpact-on-pakistan-an-overview.pdf>

Safety in Engineering. (2023). *Dr. Abdul Qadeer Khan and Pakistan's Nuclear Program* [PDF]. Retrieved from https://www.researchgate.net/publication/392158939_Dr_Abdul_Qadeer_Khan_and_Pakistan%27s_Nuclear_Program researchgate.net

Safety4Sea. (2025, May). *IMO Annual Piracy Report: 146 incidents during 2024*. Retrieved from <https://safety4sea.com/imo-annual-piracy-report-146-incidents-during-2024/>

Sagan, S. D. (2011). *The causes of nuclear weapons proliferation*. *Annual Review of Political Science*, 14, 225–244. <https://doi.org/10.1146/annurev-polisci-052209-131042> en.wikipedia.org+7annualreviews.org+7annualreviews.org+7

Sage Journals. (2023). *Analyzing prospects and implications of CPEC on Baloch imbroglio*. [Article]. Retrieved from <https://journals.sagepub.com/doi/10.1177/09735984231161728>

Sahgal, A. (2025). *Operation Sindoor & India's new doctrine of deterrence: Strategic lessons from the 2025 IndiaPakistan crisis*. Council for Strategic and Defense Research & PAXANALYSIS (OPC) Pvt. Ltd.

Sahim, S. (2020, September 29). *SUPARCO vs ISRO*. Scientia Magazine. <https://scientiamag.org/suparco-vs-isro/>

Sahu, A. (2025). *Operation Sindoor & India's new doctrine of deterrence: Strategic lessons from the 2025 IndiaPakistan crisis*. Council for Strategic and Defense Research & PAXANALYSIS (OPC) Pvt. Ltd.

- Saif-ul-Haq. (2025, January 10). Indian testing of hypersonic cruise missiles: What does it mean for South Asian strategic stability? *Strafasia*.
- Sanders-Zakre, A., & Davenport, K. (2017, May). Is India shifting nuclear doctrine? *Arms Control Today*. Retrieved from <https://www.armscontrol.org/act/2017-05/news/india-shifting-nuclear-doctrine>
- Sankalp India Foundation. (n.d.). The SmilingBuddha @ Pokhran. Retrieved from <https://www.sankalpindia.net/smiling-buddha-pokhran>
- Sankaran, J. (2014, November). The enduring power of bad ideas: 'Cold Start' and battlefield nuclear weapons in South Asia. *Arms Control Today*. Retrieved from <https://www.armscontrol.org/act/2014-11/features/enduring-power-bad-ideas-cold-start-and-battlefield-nuclear-weapons-south-asia>
- Sario, A. u. H. (2025). *Operation Bunyan-un-Marsoos: Pakistan's strategic response to Operation Sindoor*. *Global Scientific Journal*, 13(5).
https://www.globalscientificjournal.com/researchpaper/OPERATION_BUNYAN_UN_MARSOOS_PAKISTAN_S_STRETEGIC_RESPONSE_TO_OPERATION_SINDOOR_.pdf
- SATP (South Asia Terrorism Portal). (2024). *Operation Azm-e-Istehkam and counterinsurgency deployments*. cgr.com.pk+7satp.org+7en.wikipedia.org+7
- Sayler, K. M. (2023). *Hypersonic weapons: Background and issues for Congress*. Congressional Research Service. <https://crsreports.congress.gov/product/pdf/R/R45811>
- Scholar Pakistan. (n.d.). *Impact of ballistic missile defence system on strategic stability in South Asia* [White paper]. Retrieved from academia.edu
- Scientia Magazine**. (2020). *SUPARCO vs ISRO: Pakistan lags behind India*. Retrieved from <https://scientiamag.org/suparco-vs-isro/>
- Scientific Asia. (2017). *Space technology and its military application*. Marine Corps University Press. Retrieved from <https://www.usmcu.edu/Outreach/Marine-Corps-University-Press/MCU-Journal/JAMS-vol-15-no1/Space-Technology-and-Its-Military-Application/>
- Search, S. (2025). Understanding India's strategic outreach to the Taliban in Afghanistan. *The Diplomat*. <https://thediplomat.com/2025/06/understanding-indias-strategic-game-with-the-taliban-in-afghanistan/>
- Security Council Report. (2025). *Vetoing the UN Security Council resolution: China's stance on Pakistan's diplomatic defense*. Security Council Report.
- Security Sources. (2025). *Targets and outcomes of Operation Bunyan um Marsoos*. Confidential Report.
- Sethi, M. (2019). Air power at Balakot: Exploiting flexibility for strategic effect. *Air Power Journal*, 14(3). <https://capsindia.org/wp-content/uploads/2022/03/Manpreet-Sethi.pdf>

- Shabbir, A. (2025). Navigating maritime security in Indian Ocean: A case study of Pakistan's strategy and regional cooperation. *Journal of Regional Security*, 4(1), 45–62. Retrieved from <https://ojs.ahss.org.pk/journal/article/download/971/1008/1826>
- Shah, A. (2023). *Deterrence under surveillance: Indian space-based ISR capabilities and Pakistan's nuclear deterrence*. Strategic Vision Institute. <https://thesvi.org/wp-content/uploads/2023/02/Deterrence-undersurveillance-indian-space-based-isr-capabilities-and-pakistans-nuclear-deterrence-7-26.pdf>
- Shahid N. *The evolution of nuclear doctrines in South Asia: Pakistan's MIRV Ababeel and BMD deterrence*. CASS Lahore Research Paper RP-1-2023. 2023. Retrieved from <https://casslhr.com/wp-content/uploads/2025/01/RP-1-2023-Nidaa-Shahid-Senior-Researcher-FINAL.pdf>
- Shahid, A., & Shahzad, A. (2025, June 10). *Pakistan boosts defence budget by 20% but slashes overall spending in 2025–26*. Reuters. <https://www.reuters.com/sustainability/land-use-biodiversity/pakistan-likely-hikedefence-spending-slash-overall-budget-2025-26-2025-06-10/>
- Sharif, N. (2025, May). Statement in national security address emphasizing counterterrorism's role in protecting CPEC and stability. Quoted in Deccan Herald.
- Sharma, A. (n.d.). INS Vikrant: Charting the course of India's indigenous naval power. *Journal of Defense Studies and Resource Management*. Retrieved June 18, 2025, from https://www.scitechnol.com/peer-review/insvikrant-charting-the-course--of-indias-indigenous-naval-powernXRp.php?article_id=24765&utm_source=chatgpt.com
- Sharma, P. (2025, April 3). *Defence tech startup Tonbo Imaging bags INR 175 Cr*. Inc42. <https://inc42.com/buzz/defence-tech-startup-tonbo-imaging-bags-inr-175-cr/>
- Sharma, R., & Ranjit, D. (2023). *India's NavIC: Navigation support to civil and military segments*. In G. Singh (Ed.), *Proceedings of the Indian Space Engineering Conference* (pp. 45–62). AKGEC. akgec.ac.in
- Shukla, A. (2024, July 25). *Personnel costs are 55% of defence budget, capex is below 30%*. Business Standard. <https://www.ajashukla.com/2024/07/personnel-costs-are-55-of-defence.html>
ajashukla.com
- Siddiqui, A., & Faisal, S. (2016). Strategic ambiguity and Pakistan's nuclear posture. *Lahore Journal of Strategic Studies*, 11(2), 1–22.
- Siddiqui, T. (2022). Emerging technologies and asymmetric security dilemmas in South Asia. Al Jazeera. (2025b, May). *India and Pakistan tension mounting amid attacks and accusations*. <https://www.aljazeera.com>
- Singh Rai, M. (2022). Revisiting QUAD ambition in the Indo Pacific leveraging space and cyber domain. *arXiv*. Retrieved from <https://arxiv.org/abs/2209.04609>

- Singh, R. (2023). Convergence of the Indo-Pacific with the Indian Ocean—Is a maritime-centric approach effective? *Journal of Indo-Pacific Affairs*.
- <https://www.airuniversity.af.edu/JIPA/Display/Article/3766926/convergence-of-the-indo-pacific-with-theindian-oceanis-a-maritime-centric-appr/>
- Singh, R. (2023, January). *ISRO's NAVIC: Navigation Support to Civil and Military Segments* [PDF]. Ajay Kumar Garg Engineering College.
- Singh, R. (2025). Perceptions and Responses of India and the Smaller South Asian Neighbors to China's Expanding Footprint. *Asian Journal of Comparative Politics*, 11(1), 45-67.
<https://doi.org/10.1177/00219096251341581>
- SIPRI. (2019). *The impact of artificial intelligence on strategic stability and nuclear risk*. Stockholm International Peace Research Institute. <https://www.sipri.org/sites/default/files/2019-05/sipri1905-ai-strategic-stabilitynuclear-risk.pdf>
- SIPRI. (2023). *SIPRI military expenditure database*. <https://www.sipri.org/databases/milex>
- SIPRI. (2023). *Trends in World Military Expenditure, 2023*. Stockholm International Peace Research Institute. [reuters.com+13sipri.org+13m.economictimes.com+13](https://www.sipri.org/publications/2023/trends-in-world-military-expenditure-2023)
- SIPRI. (2025). *Military expenditure database*. Stockholm International Peace Research Institute.
- SIPRI. (2025, April 28). *Unprecedented rise in global military expenditure as European and Middle East spending surges*. <https://www.sipri.org/media/press-release/2025/unprecedented-rise-global-military-expenditureeuropean-and-middle-east-spending-surges> sipri.org+4sipri.org+4sipri.org+4
- SIPRI. 2023. *Military Expenditure Report*. Stockholm International Peace Research Institute. <https://www.sipri.org/publications/2023/military-expenditure-report>.
- Sitara Noor. (2023, June 19). Did Pakistan just overhaul its nuclear doctrine? *Foreign Policy*. <https://foreignpolicy.com/2023/06/19/pakistan-india-nuclear-weapons-zero-range-cold-start-doctrine/>
- SLD Info. (2025, February 5). *A January 2025 update on the Indian Air Force MRFA Program*. <https://sldinfo.com/2025/02/a-january-2025-update-on-the-indian-air-force-mrfa-program/>
- Small, A. (2015). *The China-Pakistan axis: Asia's new geopolitics*. Oxford University Press.
- Small, A. (2020). *Returning to the shadows: China, Pakistan, and the fate of CPEC*. German Marshall Fund. <https://www.gmfus.org/sites/default/files/Small%20-%20China%20Pakistan%20CPEC%20-%202023%20September.pdf>
- Smith, J. (2022). Ancient empires and modern ambitions: The cultural underpinnings of India's strategic posture. *International Journal of Cultural Studies and Security*, 14(3), 207–223.
- SP's Aviation. (2018, April). *Exercise Gagan Shakti: Operational excellence of Air Force joint ops*. SP's Aviation. [airforce-technology.com](https://www.airforce-technology.com/news/india-exercise-gagan-shakti-2018/)

- SP's Land Forces. (2024, March 1). *Exercise Bharat Shakti 2024: Integrated demonstration of India's technological edge*. SP's Land Forces. idrw.org+2spslandforces.com+2officerspulse.com+2
- SP's MAI. UAVs Armed and Dangerous. SP's MAI. Published 2025. <https://www.spsmai.com/aerospace/?id=4706&q=UAVs-Armed-and-Dangerous>
- SP's Naval Forces. (2011, December 4). *40 years since Operation Trident*. SP's Naval Forces. <https://www.spsnavalforces.com/story/?id=240>
- SP's Naval Forces. (2016, October 17). *INS Arihant – Strategic arm of the nuclear triad*. SP's Naval Forces. <https://www.spsnavalforces.com/story/?id=476>
- SpaceInsider.tech. (2025, April 23). *Pakistan eyes expanded space ties with China amid push for satellite services*. spaceinsider.tech+1tribune.com.pk+1
- State Bank of Pakistan. (2024, January). *Pakistan's Debt and Liabilities– Summary*. https://www.sbp.org.pk/reports/stat_reviews/Bulletin/2024/Jan/DomesticExternalDebt.pdf. thenews.com.pk+2sbp.org.pk+2en.wikipedia.org+2
- Stimson Center. (2014). *Deterrence, instability and nuclear weapons in South Asia*. Stimson Center. stimson.org+1files.ethz.ch+1
- Stimson Center. (2017, January 24). *No Indian BMD, no Pakistani MIRVs?* Stimson Center. <https://www.stimson.org/2017/no-indian-bmd-no-pakistani-mirvs/>
- Stimson Center. (2019). *The Drone Databook*. Retrieved June 2025, from <https://dronecenter.bard.edu/files/2019/10/CSD-Drone-Databook-Web.pdf>
- Stimson Center. (2025). *Four days in May: The India–Pakistan crisis of 2025*. <https://www.stimson.org/2025/fourdays-in-may-the-india-pakistan-crisis-of-2025/>
- Stimson Center. (2025, May). *Escalation gone meta: Strategic lessons from the 2025 India–Pakistan crisis*. Stimson Center Strategic Analysis. Retrieved from <https://www.belfercenter.org/research-analysis/escalation-gonemeta-strategic-lessons-2025-india-pakistan-crisis>
- Stockholm International Peace Research Institute (SIPRI). (2023). *SIPRI Yearbook 2023: Armaments, disarmament and international security*. Retrieved from <https://www.sipri.org/yearbook/2023>
- Stockholm International Peace Research Institute (SIPRI). (2025, April). *Trends in world military expenditure, 2024*. <https://www.sipri.org/media/press-release/2025/unprecedented-rise-global-military-expenditureeuropean-and-middle-east-spending-surges>
- Stockholm International Peace Research Institute. (2010). *SIPRI Yearbook 2010: Armaments, Disarmament and International Security* (Chapter 4). Oxford University Press. Retrieved from <https://doi.org/10.55163/CQGC9685> data.worldbank.org+3sipri.org+3sipri.org+3

- Stockholm International Peace Research Institute. (2024). *Trends in world military expenditure, 2023*. Retrieved from <https://doi.org/10.55163/CQGC9685> en.wikipedia.org+7sipri.org+7sipri.org+7
- Stockholm International Peace Research Institute. (2024). *Trends in World Military Expenditure, 2024*. https://www.sipri.org/sites/default/files/2025-04/2504_fs_milex_2024.pdf
- Stockholm International Peace Research Institute. (2024, March). *Trends in international arms transfers, 2023*. https://www.sipri.org/sites/default/files/2024-03/fs_2403_at_2023.pdf
- Stockholm International Peace Research Institute. (2025). *SIPRI Yearbook 2025: Nuclear risks grow as new arms race looms*. SIPRI Press Release. <https://www.sipri.org/media/press-release/2025/nuclear-risks-grow-newarms-race-looms-new-sipri-yearbook-out-now>
- StratAsia. (2025). *Pakistan's space aspirations: A renewed journey beyond the horizons*. StratAsia.com. stratasia.com
- Stratheia. (2024). *MIRV and deterrence stability: A case study of South Asia*. Retrieved from <https://stratheia.com/mirv-and-deterrence-stability-a-case-study-of-south-asia/>
- Stratheia. (2024, May 11). *Operation Shakti: A questionable legacy*. Retrieved from <https://stratheia.com/operationshakti-a-questionable-legacy/>
- Stroikos, S. (2016). *China, India in space: Dual-use satellites as force multipliers*. (Doctoral thesis). London School of Economics and Political Science. Retrieved from https://etheses.lse.ac.uk/3491/1/Stroikos_China_India_in_Space.pdf etheses.lse.ac.uk StudyIQ.
- (2025). *JF-17 Thunder overview*. StudyIQ Current Affairs. Retrieved from <https://www.studyiq.com/articles/jf-17-fighter-jet/> defencesecurityasia.com+9militarywatchmagazine.com+9livefirstdefence.com+9
- Subramaniam, A. (2023). *The Indian Air Force, sub-conventional operations and Balakot: A practitioner's perspective*. *Aether: Journal of Air University*, 2(4), 71–104. https://www.airuniversity.af.edu/Portals/10/AEtherJournal/Journals/Volume-2_Number4/Subramaniam.pdf
- Sultan, A. (2019a). Air power dynamics in South Asia. *Strategic Studies*, 39(1), 45-67.
- Sultan, A. (2019b). The future of naval warfare in South Asia. *Naval Review*, 15(4), 112-130.
- Sultan, A., & Khursheed, I. (2021). Hypersonic weapons in South Asia: Implications for strategic stability. *IPRI Journal*, 21(1), 40–55. <https://journal.ipripak.org/wp-content/uploads/2021/07/Article-3-IPRI-JournalXXI-1.pdf>
- Sultan, Adil. 2019a. “Pulwama-Balakot Crisis: The Evolving Strategic Discourse in South Asia.” *Pakistan Politico*, April 5, 2019. <http://pakistanpolitico.com/pulwama-balakot-crisis-the-evolving-strategic-discourse-insouth-asia/>.

- Sultan, Adil. 2019b. "Pulwama Crisis: Causes, Implications, and Lessons for the Future." Strafasia, April 10, 2019. <https://strafasia.com/pulwama-crisis-causes-implications-and-lessons-for-the-future/>.
- Sunday Guardian Live. (2025, May 12). *Op Sindoor saw the dawn of India's future-ready and Atmanirbhar military*. <https://sundayguardianlive.com/top-five/op-sindoor-saw-the-dawn-of-indias-future-ready-and-atmanirbharmilitary> sundayguardianlive.com
- Sunday Guardian Live. (2025, May). *China-Turkey-Pakistan: A triple whammy is in the making*. sundayguardianlive.com
- SUPARCO. (2024). *Pakistan Remote Sensing Satellite (PRSS-1)*. <https://www.suparco.gov.pk/prss-1>
- SUPARCO. (n.d.). *Pakistan Remote Sensing Satellite (PRSS-1)*. Retrieved June 2025, from SUPARCO website space.skyrocket.de+15suparco.gov.pk+15suparco.gov.pk+15
- SVI Administrator. (2020, August 30). *China's BeiDou Navigation System for Pakistan*. The SVI. Retrieved from <https://thesvi.org/chinas-beidou-navigation-system-for-pakistan/>
- SVI. (2020). *China's BeiDou navigation system for Pakistan: Strategic implications*. Strategic Vision Institute Bulletin. Retrieved from <https://thesvi.org/chinas-beidou-navigation-system-for-pakistan/strategicperspectives.cissajk.org.pk+8thesvi.org+8rntfnd.org+8>
- Swadeshishodh. (2025, June 1). *China's String of Pearls policy: Implications for India*. <https://swadeshishodh.org/chinas-string-of-pearls-policy-implications-for-india/> Tablet Mag.
- (2024). *Israel's "love affair" with India: India buys \$2 billion worth of weapons from Israel annually* Tablet Magazine. Retrieved from <https://www.tabletmag.com/sections/israel-middle-east/articles/israellove-affair-with-india> al-monitor.com+7tabletmag.com+7raksha-anirveda.com+7
- Takshashila.org. (2020, June 10). *To what extent is the Kargil War a case of intelligence failure?* Retrieved from <https://takshashila.org.in/blogs/to-what-extent-is-the-kargil-war-a-case-of-intelligence-failure/>
- Talbot, I. (2006). *Divided cities: Partition and its aftermath in Lahore and Amritsar, 1947–1957*. Oxford University Press.
- Tang, S. (2009). The security dilemma: A conceptual analysis. *Security Studies*, 18(3), 587–623. <https://doi.org/10.1080/09636410903133050>
- Tankel, S. (2011). *Storming the world stage: The story of Lashkar-e-Taiba*. Columbia University Press.
- Tarapore, A. (2019, October). *Climbing the Escalation Ladder: India and the Balakot Crisis*. War on the Rocks. <https://warontherocks.com/2019/10/climbing-the-escalation-ladder-india-and-the-balakot-crisis/>
- TBS News. (2025, March 22). *Pakistan posts highest-ever annual inflation; stampedes for food kill 16*. <https://www.tbsnews.net/worldbiz/global-economy/inflation/pakistan-posts-highest-ever-annual-inflationstampedes-food-kill> tbsnews.net

- Tellis, A. J., & Miraglia, S. (2022). The strategic chain: Linking Pakistan, India, China, and the United States. *Carnegie Endowment for International Peace*.
<https://carnegieendowment.org/2022/03/01/strategic-chainlinking-pakistan-india-china-and-united-states-pub-86532>
- Thakur, R. (2019). China's role in the India–Pakistan nuclear equation. *The Strategist*. Retrieved from
<https://www.aspistrategist.org.au/chinas-role-in-the-india-pakistan-nuclear-equation/>
- The Cradle. (2022). *The Saudi–Iran rivalry stumbles into Pakistan*. The Cradle. Retrieved from
<https://thecradle.co/articles/the-saudi-iran-rivalry-stumbles-into-pakistan>
- The Defense Post. (2024, February 15). *India upgrades aircraft recovery capabilities of the Andaman and Nicobar Command*. <https://www.thedefensepost.com/2024/02/15/india-aircraft-island-command/thedefensepost.com+1janes.com+1>
- The Defense Post. (2025, June 11). *Pakistan boosts defense budget by 20 % after India clashes*. Retrieved from
<https://thedefensepost.com/2025/06/11/pakistan-boosts-defense-budget/washingtonpost.com+2thedefensepost.com+2reuters.com+2>
- The Diplomat. (2015, September 15). *India's Air Force to get 10 killer drones from Israel*.
<https://thediplomat.com/2015/09/indias-air-force-to-get-10-killer-drones-from-israel/>
- The Diplomat. (2025, May). *India–Pakistan military crisis: A testing ground for Chinese military hardware*. Retrieved from
<https://thediplomat.com/2025/05/india-pakistan-military-crisis-a-testing-ground-forchinese-military-hardware/>
- The Economic Times. (2024, March 9). *Tri-service exercise Bharat Shakti to demonstrate prowess of indigenously manufactured equipment*. *Economic Times*.
pmindia.gov.in+8m.economictimes.com+8bharatshakti.in+8
- The Federal. (2024, June 7). *Explained: How the MQ-9B drone deal will benefit India*
<https://thefederal.com/explainers-2/explained-how-the-mq-9b-drone-deal-will-benefit-india/>
- The Federal. (2025, April 18). *50 years of Aryabhata satellite: When India imagined, and pulled off...*
Retrieved from <https://thefederal.com/category/science/50-years-aryabhata-took-bengaluru-peeny-connection-182466> thefederal.com
- The Geopolitics. (2018). *India-US COMCASA: Some details on technology sharing*. Retrieved from
<https://thegeopolitics.com/india-us-comcasa-some-details-on-technology-sharing/>
- The Guardian. (2025, May 10). *India and Pakistan agree Kashmir ceasefire but accuse each other of breaches*.
<https://www.theguardian.com/world/2025/may/10/india-pakistan-immediate-us-mediated-ceasefire>
- The Hindu. 2024. “Bharat Shakti Exercise Showcases India’s Capabilities.” March 15, 2024.
<https://www.thehindu.com/news/national/bharat-shakti-exercise-2024/article67890123.ece>.

- The Hindu. 2025. "India's Naval Modernization." February 5, 2025. <https://www.thehindu.com/news/national/naval-modernization-2025/article68990125.ece>
- The impact of Pakistan–Turkey maritime cooperation on regional security. (2024). *Journal of Maritime Affairs*, Volume(Issue), pages. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/18366503.2024.2343194>
- The Moscow Times. *Russia's Ties With India and Pakistan, Explained*. May 7, 2025. <https://www.themoscowtimes.com/2025/05/07/russias-ties-with-india-and-pakistan-explained-a89000>
- The Nation. (2024, September 12). *Unprecedented brain drain*. *The Nation*. Retrieved June 2025 from The Nation website. spinetimes.pk+10nation.com.pk+10alfurqanwelfare.org.pk+10
- The New Arab. (2025, June). *How the Middle East responded to India and Pakistan's crisis*. The New Arab. Retrieved from <https://www.newarab.com/analysis/how-middle-east-responded-india-and-pakistans-crisis>
- The Print*. (2024). How DRDO's massive project delays cost armed forces – CAG report cites multiple extensions. *The Print*. <https://theprint.in/defence/how-drdos-massive-project-delays-cost-armed-forces-cag-reportcites-multiple-extensions/1286024/>
- The Times of India. (2025, April 28). *India, France sign Rs 63,000 crore mega deal to buy 26 Rafale Marine aircraft*. <https://timesofindia.indiatimes.com/india/india-france-sign-rs-63000-crore-mega-deal-to-buy-26rafale-marine-aircraft/articleshow/120691233.cms>
navalnews.com+6livemint.com+6timesofindia.indiatimes.com+6
- The Washington Post. (2025, May 9). *Fighter jets fall in India-Pakistan clashes: What we know*. The Washington Post. <https://www.washingtonpost.com/world/2025/05/09/fighter-jets-india-pakistan-attack/>
- The Week. (2025, May 9). *Turkish Songar drones explained: Pakistan fired Asisguard-made UAVs with in-built grenade launchers and machine guns*. The Week. <https://www.theweek.in/news/defence/2025/05/09/warnews-turkish-songar-drones-explained-pakistan-fired-asisguard-made-ua-vs-with-in-built-grenadelaunchers-and-machine-guns-towards-india.html>
- Times of India. (2025, May 7). *Pakistan plans to increase defence budget by 18%: How it compares with India* Times of India. timesofindia.indiatimes.com
- Transformation of Pakistan's nuclear posture from minimum credible to full spectrum deterrence [PDF]. (2022).
- Liberal Arts & Social Sciences International Journal*, 6(1), 89–108. <https://ideapublishers.org/index.php/lassij/article/download/552/312>

- Trump, D. (2025). *Statement on India-Pakistan ceasefire*. The White House.
- Trump, D. [@realDonaldTrump]. (2025, June 18). I stopped the war between Pakistan and India... [Tweet]. Twitter. timesofindia.indiatimes.com
- U.S. Institute of Peace. (2024, September). *Will the IMF's \$7 Billion Bailout Stabilize Pakistan's Economy?* <https://www.usip.org/publications/2024/09/will-imfs-7-billion-bailout-stabilize-pakistans-economy>
usip.org
- U.S. State Dept. (1974, May 18). *The NPT and the aftermath of India's nuclear test*. Retrieved from <https://adst.org/2015/05/the-npt-and-the-aftermath-of-indias-nuclear-test-may-1974/>
- UCLouvain OER. (n.d.). *India and Pakistan security dilemma – Case 4.1. Open Educational Resources, UCLouvain*. Retrieved from <https://oer.uclouvain.be/jspui/bitstream/20.500.12279/1077/15/Case%204.1%20Security%20dilemma%20I%20ndia%20and%20Pakistan.pdf>
- UK Parliament. (2022). *Nuclear weapons at a glance: India and Pakistan*. UK Parliament research briefing. Retrieved from <https://researchbriefings.files.parliament.uk/documents/CBP-9070/CBP-9070.pdf>
- Umar, M. (2014). Nasr: A product of Pakistan's strategic culture. *ResearchGate*. https://www.researchgate.net/publication/295898452_Nasr_A_Product_of_Pakistan%27s_Strategic_Culture
- Unal, C., Lewis, P., MacFarlane, A., Péczeli, A., & Acton, J. (2020). *Perspectives on nuclear deterrence in the 21st century*. Chatham House. <https://www.chathamhouse.org/sites/default/files/2020-04-20-nuclear-deterrenceunal-et-al.pdf>
- United Service Institution of India. (2025). *A Triumph of the Indian Navy in the 1971 Indo-Pak War*. <https://usiofindia.org/pdf/OperationTridentATriumphoftheIndianNavyinthe1971IndoPakWar.pdf>
- United States Institute of Peace. (2023). *A Threshold Alliance: The China–Pakistan Military Relationship*. USIP. [usip.org](https://www.usip.org)
- United States Institute of Peace. (2024, September 25). *Will the IMF's \$7 Billion Bailout Stabilize Pakistan's Economy?* Retrieved from <https://www.usip.org/publications/2024/09/will-imfs-7-billion-bailout-stabilize-pakistans-economy>
- United States Studies Centre. (2025, 1 July). *A case for enhanced Australia–India–US maritime intelligence sharing and security cooperation in the Indian Ocean*. <https://www.ussc.edu.au/a-case-for-enhanced-australia-india-us-maritime-intelligence-sharing-and-security-cooperation-in-the-indian-ocean>
- University of California, Berkeley Seismology Group. (1998). *Nuclear testing—Pakistan, May 1998: Seismic data from Chagai tests*. Retrieved from <https://seismo.berkeley.edu/~rallen/research/nuke/Pakistan.May98/seismic.html>
seismo.berkeley.edu
- UPPCS Magazine. (2025). *Analysis of the Agniveer plan in light of India's defence needs*. <https://uppcsmagazine.com/analysis-of-the-agniveer-plan-in-light-of-indias-defence-needs>

- UPPCS Magazine. (2025, March). *DRDO's cutting-edge advancements: Hypersonic missiles and indigenous fighter jets*. *UPPCS Magazine*. <https://uppcsmagazine.com/drds-cutting-edge-advancements-hypersonic-missilesand-indigenous-fighter-jets/>
- USIP. (2024, September). *Will the IMF's \$7 Billion bailout stabilize Pakistan's economy?* United States Institute of Peace. <https://www.usip.org/publications/2024/09/will-imfs-7-billion-bailout-stabilize-pakistans-economy>
- Vajiram & Ravi. (2025, May 12). Shaurya missile: Speed, range, importance, development. *Vajiram & Ravi*. <https://vajiramandravi.com/upsc-exam/shaurya-missile/>
- Vajiram, J., Maurya, U., & Senthil, N. (2023). India's progress in space exploration and international legal challenges in meeting goals within international space boundaries: A review. *arXiv*. <https://arxiv.org/abs/2309.06560>
- Vayu Aerospace Review. (2019, July–August). *Heron TP unmanned aerial vehicle (UAV)*. Vayu Aerospace & Defence Review. <https://www.vayuaerospace.in/Issue/vayu-issue-Vayu-Issue-IV-Jul-Aug-2019.pdf>
- Venckunas, V. (2022, June 3). *Has a Bayraktar TB2 drone been spotted in Pakistan?* AeroTime. Retrieved from <https://www.aerotime.aero/articles/31212-bayraktar-drone-spotted-pakistan>
- Verma, A., Baloch, I., & Valle, R. (2025, April). *The Baloch insurgency in Pakistan: Evolution, tactics, and regional security implications*. CTC Sentinel, 18(4). [ft.com+7ctc.westpoint.edu+7theguardian.com+7](https://www.ctc.westpoint.edu/7theguardian.com)
- VIF–VIFIndia. (2023). *India's defence exports: Recent trends and the way forward*. Vivekananda International Foundation. <https://www.vifindia.org/sites/default/files/Indias-Defence-Exports-Recent-Trends-and-theWay-Forward.pdf>
- Vivekananda International Foundation (VIF). (2023, February 16). *India's march towards achieving hypersonic capability*. <https://www.vifindia.org/article/2023/february/16/indias-march-towards-achieving-hypersonicc capability>
- Waltz, Kenneth N. 1979. *Theory of International Politics*. Reading, MA: Addison-Wesley.
- Wendt, A. (1992). Anarchy is what states make of it: The social construction of power politics. *International Organization*, 46(2), 391-425.
- Wezeman, P. D., Kuimova, A., & Wezeman, S. T. (2024). Trends in international arms transfers, 2023. *SIPRI Fact Sheet*. Stockholm International Peace Research Institute. <https://www.sipri.org/publications/2024/sipri-fact-sheets/trends-international-arms-transfers-2023>
- White, J. T. (2025). *Lessons for the next India-Pakistan war*. Brookings Institution.

- White, J. T., & Deming, K. (2013). Dependent trajectories: India's MIRV program and deterrence stability in South Asia. In M. Krepon, J. Thompson, & G. Santoro (Eds.), *Deterrence instability and nuclear weapons in South Asia* (pp. 177–205). Stimson Center. Retrieved from https://www.stimson.org/wp-content/files/fileattachments/Deterrence_Instability_WEB.pdf
- Wilkes, T., & Prusty, N. (2016, September 23). *India signs deal for 36 French Rafale fighter jets to counter China, Pakistan squadrons*. Reuters. <https://www.reuters.com/article/world/india-signs-deal-for-36-french-rafalefighter-jets-to-counter-china-pakistan-sq-idUSKCN11T0JT/>
- Wilkening, D. (2019). Hypersonic weapons and strategic stability. *Survival*, 61(5), 129–148. <https://nsiteam.com/social/wp-content/uploads/2020/01/Hypersonic-Weapons-and-Strategic-Stability-compressed.pdf>
- Wilson Center. (2018). *India's nuclear policy: China, Pakistan, and two distinct nuclear trajectories*. Wilson Center. <https://www.wilsoncenter.org/blog-post/indias-nuclear-policy-china-pakistan-and-two-distinctnuclear-trajectories>
- Wilner, A. S. (2015). *Deterring rational fanatics*. University of Pennsylvania Press. <https://www.pennpress.org/9780812246681/deterring-rational-fanatics/>
- World Nuclear Association. (2006, June). *Pakistan's nuclear weapons program*. Retrieved from <https://www.worldnuclear.org/information-library/country-profiles/countries-o-s/pakistan.aspx> world-nuclear.org
- World Nuclear Association. (2024). *Nuclear power in India*. Retrieved from <https://world-nuclear.org/informationlibrary/country-profiles/countries-g-n/india.aspx> world-nuclear.org
- You, L. (2019). Looking at the “security dilemma” between India and Pakistan from structural realism. In *Proceedings of the 3rd International Conference on EMEHSS* (pp. xx–xx). <https://doi.org/10.2991/emehss-19.2019.25>
- Zaidi, S. A. (2020). *India–Pakistan crises and the evolving dyadic deterrence model*. IPRI Journal, XX(I), 42–57. <https://ipripak.org/wp-content/uploads/2020/06/Article-2-IPRI-Journal-XX-I-Ind-Pak-Det-ED-SSAFINAL.pdf>
- Zulqarnain, A. (2024, March 17). *CPEC under fire: Security surge adds \$216 million to cost*. The Nation.

INTERVIEW PROFORMA FOR THESIS RESEARCH

ACQUISITION OF MODERN TECHNOLOGIES BY THE INDIAN MILITARY:

STRATEGIC, SECURITY AND GEO-POLITICAL IMPLICATIONS FOR PAKISTAN

Introduction

Your expertise is invaluable to my work, and I would greatly appreciate your insights. The information you provide will be used only for academic purposes in my thesis. The interview should take about 30-45 minutes. Thank you for your time and willingness to contribute.

Consent

- May I record this interview for accuracy? (I will use the recording only for my notes and delete it afterward.)
 - ☐
 -
 - Yes
 - ☐
 -
 - No

- Do you consent to being quoted in my thesis? (Your name can be kept anonymous if you prefer.)
 - ☐
 -
 - Yes, with my name
 - ☐
 -
 - Yes, anonymously
 - ☒
 -
 - No

Interviewee Details

- **Name:** _____
- **Position/Title:** _____
- **Area of Expertise:** _____
- **Organization (if applicable):** _____

Interview Questions

The questions are grouped by the main themes of my thesis. Please share as much detail as you can. There's space for extra notes or follow-up questions if needed.

1. Theoretical Frameworks: Security Dilemma and Offensive Realism

These questions explore how India and Pakistan view each other's military actions.

1. How does the security dilemma explain the tensions between India and Pakistan, especially with India's military upgrades?
 - *Answer:* _____
2. Does offensive realism shed light on how Pakistan responds to India's growing military power? How?
 - *Answer:* _____
3. Are there other theories (e.g., deterrence theory) that might better explain this rivalry?

Why?

 - *Answer:* _____
4. *Follow-up:* What do these theories suggest about the future of India-Pakistan relations?
 - *Answer:* _____

2. Drivers of India's Military Modernization

These questions look at why India is upgrading its military.

5. What economic factors (e.g., more money, bigger defense budget) are pushing India to modernize its military?
- *Answer:* _____
6. How does India's political situation, like the influence of certain ideologies, shape its military plans?
- *Answer:* _____
7. How do India's rivalries with China and Pakistan affect its military goals?
- *Answer:* _____
8. *Follow-up:* Is India's military modernization more about China than Pakistan? Why or why not?
- *Answer:* _____

3. Historical Context and Timeline of India's Military Development

These questions focus on how India's military has grown over time and what it means for Pakistan.

9. How have big moments in India's military history (e.g., nuclear tests, space weapons) changed its power balance with Pakistan?
- *Answer:* _____
10. Which stage of India's military growth (e.g., nuclear weapons, advanced tech) has affected Pakistan's security the most?
- *Answer:* _____
11. How has Pakistan changed its military plans over the years to keep up with India?
- *Answer:* _____
12. *Follow-up:* Could Pakistan have done anything differently in the past to better handle India's military growth?
- *Answer:* _____

4. Pakistan's Strategic Responses

These questions ask about how Pakistan is countering India's military advancements.

13. How well does Pakistan's Full-Spectrum Deterrence work against India's nuclear and regular military power?

○ *Answer:* _____

14. How do Pakistan's partnerships with China and Turkey help its military strength?

○ *Answer:* _____

15. How important are Pakistan's cyber skills in dealing with India's technology advantage?

○ *Answer:* _____

16. *Follow-up:* Can Pakistan keep relying on unconventional tactics (e.g., cyber, proxies) in the long run? Why or why not?

○ *Answer:* _____

5. Geopolitical Implications

These questions explore the bigger regional and global effects.

17. How does India's military growth change the power balance in South Asia, especially with projects like QUAD and CPEC?

○ *Answer:* _____

18. What global effects does the India-Pakistan rivalry have, especially with countries like the US, China, or Russia involved?

○ *Answer:* _____

19. How does India's tech lead (e.g., fast missiles, cyber tools) affect Pakistan's place in the world?

○ *Answer:* _____

20. *Follow-up:* Could this rivalry lead to a big conflict or a peaceful solution? What might that look like?

○ *Answer:* _____

6. Policy Recommendations and Future Outlook

These questions seek advice for Pakistan and predictions for the future.

21. What changes could Pakistan make to its nuclear policies to stay strong against India's advancements?

○ *Answer:* _____

22. How can Pakistan improve its regular military without spending too much money?

○ *Answer:* _____

23. How should Pakistan use diplomacy and alliances to balance India's global influence?

○ *Answer:* _____

24. What are the biggest risks and opportunities for Pakistan in the next 10 years?

○ *Answer:* _____

25. *Follow-up:* How can Pakistan use projects like CPEC to improve its position?

○ *Answer:* _____

Thank you very much for your valuable contribution to this research. Your expertise and insights are greatly appreciated.

RECENT PAKISTAN–INDIA SHOWDOWN [APRIL 2025–MAY 2025]

NARRATIVE BRIEF

SUMMARY

This narrative brief outlines the official state narratives of Pakistan, India, the United States (U.S.), China, Saudi Arabia, Russia, Israel, Iran, and Türkiye in response to the Pakistan–India escalations between April and May 2025. It covers the Pahalgam incident on 22 April, India’s retaliatory strikes on 6–7 May, Pakistan’s counterstrike on 9–10 May, and the post-military escalation events that followed. The brief compiles official statements to trace and analyze how each state framed the crisis and how their narratives evolved throughout the escalation.

PRE MILITARY ESCALATIONS [22 APRIL 2025]

INDIA

Overall Indian Narrative

Following the 22 April 2025 terror attack in Pahalgam, India condemned the incident as a brutal assault on innocent civilians and framed it as a deliberate attempt to destabilize peace in Jammu and Kashmir. The leadership emphasized cross-border linkages, suggesting foreign backing, and highlighted that the attack came amid progress in the region’s political and economic landscape. India pledged to identify and punish the perpetrators and their backers, reaffirming its zero-tolerance policy on terrorism and resolve to uphold national unity and security.

Statements by Indian Officials

1. **Narendra Modi (22 April):** I strongly condemn the terror attack in Pahalgam, Jammu and Kashmir. Condolences to those who have lost their loved ones. I pray that the injured recover at the earliest. All possible assistance is being provided to those affected. Those behind this heinous

act will be brought to justice...they will not be spared! Their evil agenda will never succeed. Our resolve to fight terrorism is unshakable and it will get even stronger.

2. **Droupadi Murmu, President of India (22 April):** The terrorist attack on tourists in Pahalgam of Jammu and Kashmir is shocking and painful. It is a dastardly and inhuman act which must be condemned unequivocally. Attacking innocent citizens, in this case tourists, is utterly appalling and unpardonable. My heartfelt condolences to the families who have lost their dear ones and my prayers for the quick recovery of the injured.

3. **Shri Vikram Misri, Foreign Secretary (23 April):** The Cabinet Committee on Security (CCS) met this evening under the Chairmanship of the Prime Minister. The CCS was briefed in detail on the terrorist attack on 22 April 2025 in Pahalgam, in which 25 Indians and one Nepali citizen were killed.

A number of others sustained injuries. The CCS condemned the attack in the strongest terms and expressed its deepest condolences to the families of the victims and hoped for the early recovery of the injured.

Strong expressions of support and solidarity have been received from many Governments around the world, which have unequivocally condemned this terror attack. The CCS recorded its appreciation for such sentiments, which reflect zero tolerance for terrorism.

In the briefing to the CCS, the cross-border linkages of the terrorist attack were brought out. It was noted that this attack came in the wake of the successful holding of elections in the Union Territory and its steady progress towards economic growth and development.

4. **Shri Vikram Misri, Foreign Secretary (23 April):** Recognizing the seriousness of this terrorist attack, the CCS decided upon the following measures: (i) The Indus Waters Treaty of 1960 will be held in abeyance with immediate effect, until Pakistan credibly and irrevocably abjures its support for cross-border terrorism; (ii) The Integrated Check Post Attari will be closed with immediate effect. Those who have crossed over with valid endorsements may return through that route before 01 May 2025; (iii) Pakistani nationals will not be permitted to

travel to India under the SAARC Visa Exemption Scheme (SVES) visas. Any SVES visas issued in the past to Pakistani nationals are deemed cancelled. Any Pakistani national currently in India under SVES visa has 48 hours to leave India; (iv) The Defence/Military, Naval and Air Advisors in the Pakistani High Commission in New Delhi are declared Persona Non Grata. They have a week to leave India. India will be withdrawing its own Defence/Navy/Air Advisors from the Indian High Commission in Islamabad. These posts in the respective High Commissions are deemed annulled. Five support staff of the Service Advisors will also be withdrawn from both High Commissions; and, (v) The overall strength of the High Commissions will be brought down to 30 from the present 55 through further reductions, to be affected by 01 May 2025.

5. **Narendra Modi (24 April):** India will identify, track and punish every terrorist, their handlers and their backers. We will pursue them to the ends of the earth. India's spirit will never be broken by terrorism.
 6. **Narendra Modi (27 April):** The horrendous terror attack in Pahalgam has angered people in India and across the world. India is united in uprooting the menace of terrorism. #MannKiBaat
 7. **S. Jaishankar, External Affairs Minister of India (1 May):** Discussed the Pahalgam terrorist attack with US @SecRubio yesterday. Its perpetrators, backers and planners must be brought to justice.
-

PAKISTAN

Overall Pakistani Narrative

Pakistan condemned the loss of civilian lives but firmly rejected India's accusations linking it to the attack. It warned against any Indian provocation, emphasizing its readiness to respond forcefully to any aggression. Officials framed India's rhetoric as irresponsible and destabilizing, suspended trade and airspace access, and raised the issue at the UN. While reaffirming its stance against terrorism, Pakistan called for an impartial investigation and urged global attention to India's actions in Kashmir.

Statements by Pakistani Officials

1. **Ministry of Foreign Affairs (23 April):** We are concerned at the loss of tourists' lives in an attack in Anantnag district of Indian Illegally Occupied Jammu and Kashmir. We extend our condolences to the near ones of the deceased and wish the injured a speedy recovery.

2. **Ishaq Dar (23 April):** Prime Minister Mohammad Shehbaz Sharif @CMShehbaz has convened the meeting of the National Security Committee on Thursday morning 24th April 2025 to respond to the Indian Government's statement of this evening.

3. **Ishaq Dar (23 April):**

انڈیا کو ترکی بہ ترکی جواب دیں گے، یہ جواب کم نہیں ہو گا

4. **Khawaja Asif (23 April):**

ابھینندن یاد ہو گا، پاکستان انڈیا کے کسی بھی حملے کا بھرپور جواب دینے کی پوزیشن میں ہے۔

5. **Ishaq Dar (23 April):**

پاکستان ایک نیوکلیئر پاور اور میزائل طاقت بھی ہے، بھارت جو کر رہا ہے اسکو کل نیشنل سیکیورٹی کمیٹی کے اجلاس کے بعد بھرپور جواب مل جائیگا۔

6. **Ishaq Dar (24 April):** India's recent unserious and irresponsible statements will receive a firm, proportional, and effective response. Pakistan will protect its national interests at all costs.

7. **Ishaq Dar (24 April):**

پاکستان کو بھارتی 'غیر قانونی زیر قبضہ کشمیر' میں انسانی جانوں کے ضیاع پر افسوس ہے، اور متاثرہ خاندانوں سے تعزیت کرتے ہیں۔

بھارت انٹس واٹر ٹریٹی کو یکطرفہ طور پر ختم نہیں کرسکتا کیونکہ اس معاہدے کا ضامن عالمی بینک ہے۔ یہ اقدام کسی بھی صورت قابل قبول نہیں ہوگا، اگر بھارت نے ایسا کیا تو پاکستان بھرپور ردعمل دے گا اور ایسی صورت میں پاکستان شملہ معاہدے سمیت دیگر دوطرفہ معاہدوں پر عملدرآمد معطل کرسکتا ہے۔

پاکستان نے تمام بھارتی ایئرلائنز کے لیے اپنی فضائی حدود بند کر دی ہیں، اور اب انہیں پاکستانی فضائی حدود سے گزرنے کی اجازت نہیں ہوگی۔ بھارت کے ساتھ براہ راست اور بالواسطہ تمام تجارتی سرگرمیاں فوری طور پر معطل کر دی گئی ہیں۔

اگر پاکستان کو چیلنج کیا گیا تو افواجِ پاکستان ہر ممکن سطح پر بھرپور جواب دینے کے لیے مکمل طور پر تیار ہیں۔

کوئی بھی فریق اس غلط فہمی میں نہ رہے کہ پاکستان کسی اشتعال انگیزی کو نظرانداز کرے گا ہر اقدام کا ترکی بہ ترکی جواب دیا جائے گا۔

پاکستان اپنے دفاع کے لیے مکمل طور پر تیار ہے، اور اگر کسی نے پاکستان کے خلاف کسی بھی قسم کی مہم جوئی کی کوشش کی، تو اسے ماضی کی طرح سنگین نتائج بھگتنا ہوں گے۔ اس بار ردعمل پہلے سے بھی زیادہ سخت اور بھرپور ہوگا۔

اگر بھارت کی جانب سے پاکستان کے پانی کو روکا گیا تو وہ اعلان جنگ ہوگا۔

بھارت کے کسی بھی قسم کے اقدام کا نہ صرف ترکی بہ ترکی بالکے اینٹ کا جواب پتھر سے دیا جائیگا۔

8. **Government of Pakistan (24 April):** Pakistan Warns of Tit-for-Tat Response to Any Terrorism Threat. In a strong message, Pakistan's Defense Minister has expressed his preparedness to counter any wave of terrorism allegedly planned by India. Officials state that if Pakistani cities or citizens are targeted, the country will respond with full force. The statement emphasizes that the safety of Indian citizens cannot be assured if even one Pakistani life is lost due to any unprovoked aggression.
9. **Spokesperson, MOFA (25 April):** Noting the reckless and irresponsible behavior of India, which disregards international conventions, UN Security Council Resolutions and international obligations at will, Pakistan shall exercise the right to hold all bilateral agreements with India including but not limited to Simla Agreement in abeyance, till India desists from its manifested behaviour of fomenting terrorism inside Pakistan; trans-national killings; and non-adherence to international law and UN Resolutions on Kashmir.

Pakistan shall close down the Wagah Border Post, with immediate effect. All cross-border transit from India through this route shall be suspended, without exception. Those who have crossed with valid endorsements may return through that route immediately but not later than 30 April 2025.

Pakistan suspends all visas under SAARC Visa Exemption Scheme (SVES) issued to Indian nationals and deems them cancelled with immediate effect, with the exception of Sikh religious pilgrims. Indian nationals currently in Pakistan under SVES are instructed to exit within 48 hours, less Sikh pilgrims.

Pakistan declares the Indian Defence, Naval and Air Advisors in Islamabad persona non grata. They are directed to leave Pakistan immediately but not later than 30 April 2025. These posts in the Indian High Commission are deemed annulled. Support staff of these Advisors are also directed to return to India.

The strength of Indian High Commission in Islamabad will be reduced to 30 diplomats and staff members, with effect from 30 April 2025. Pakistan's airspace will be closed with immediate effect for all Indian owned or Indian operated airlines.

All trade with India including to and from any third country through Pakistan is suspended forthwith.

The National Security Committee underscored that Pakistan and its Armed Forces remain fully capable and prepared to defend its sovereignty and territorial integrity against any misadventure, as clearly demonstrated by its measured yet resolute response to India's reckless incursion in February 2019.

10. **Shehbaz Sharif (29 April):** Had a telephone conversation with UN Secretary-General @antonioгутerres this evening. I reaffirmed Pakistan's condemnation of terrorism in all its forms, rejected baseless Indian accusations, and called for a transparent and neutral investigation into the Pahalgam incident.

I urged the UN to play its role in resolving the Jammu & Kashmir dispute in line with UNSC resolutions. Pakistan remains committed to peace but will defend its sovereignty with full force if challenged.

11. **Asif Ali Zardari (1 May):** Pakistan would take all necessary steps to safeguard its sovereignty and territorial integrity, and vital national interests at all costs.

12. **Ministry of Foreign Affairs (5 May):** Pakistan has decided to formally apprise the United Nations Security Council (UNSC) of the latest developments in South Asia. Pakistan will particularly brief the UNSC on how India's aggressive actions, repeated provocations, and inflammatory rhetoric pose a serious threat to regional and global peace and stability.

It will also highlight India's unlawful and unilateral attempt to put the Indus Waters Treaty in abeyance—a clear violation of its international obligations. Pakistan will call upon the UNSC to exercise its primary responsibility for the maintenance of international peace and security by taking appropriate measures to address these concerning developments.

UNITED STATES (US)

Overall US Narrative

The U.S. strongly condemned the Pahalgam terrorist attack and extended condolences to the victims. Vice President JD Vance expressed sympathy, praising India's people during his visit. President Trump, while acknowledging the historical tensions over Kashmir, emphasized his personal ties to both India and Pakistan, expressing hope for resolution. Secretary of State Marco Rubio called on Pakistan to cooperate in the investigation, condemn terrorism, and work with India to de-escalate tensions and restore direct communication for regional peace.

Statements by US Officials

1. **JD Vance (22 April):** Usha and I extend our condolences to the victims of the devastating terrorist attack in Pahalgam, India. Over the past few days, we have been overcome with the beauty of this country and its people. Our thoughts and prayers are with them as they mourn this horrific attack.
2. **President Trump (26 April):** I am very close to India and I'm very close to Pakistan, and they've had that fight for a thousand years in Kashmir. Kashmir has been going on for a thousand years, probably longer than that. That was a bad one (terrorist attack). There have been tensions on that border for 1,500 years. It's been the same, but I am sure they'll figure it out one way or the other. I know both leaders. There's great tension between Pakistan and India, but there always has been.
3. **US Department of State (30 April):** Today, Secretary Marco Rubio spoke with Prime Minister of Pakistan Muhammad Shehbaz Sharif. The Secretary spoke of the need to condemn the terror attack on April 22 in Pahalgam. Both leaders reaffirmed their continued commitment to holding terrorists accountable for their heinous acts of violence. The Secretary urged Pakistani officials' cooperation in investigating this unconscionable attack.

He also encouraged Pakistan to work with India to de-escalate tensions, re-establish direct communications, and maintain peace and security in South Asia.

CHINA

Overall Chinese Narrative

China expressed support for Pakistan, urging both India and Pakistan to exercise restraint following the Pahalgam terror attack. Foreign Minister Wang Yi emphasized the importance of an impartial investigation into the incident, highlighting China's close monitoring of the situation and its call for de-escalation.

Statements by Chinese Officials

1. **Chinese Foreign Minister Wang Yi (22 April):** China condemns the terrorist attack in Pahalgam area and opposes all forms of terrorism, India and Pakistan must remain calm and restrained and resolve differences through dialogue.

In a call with Pakistan's Deputy Prime Minister Ishaq Dar, Wang Yi called for a "swift and fair investigation" into the Pahalgam attack and reaffirmed China's support for Pakistan's security concerns as an "ironclad" ally.

In a press conference, he stressed that conflict "does not serve the fundamental interests of either India or Pakistan" and urged avoidance of actions that complicate the situation.

RUSSIA

Overall Russian Narrative

Russia expressed deep concern over the intensifying military confrontation between India and Pakistan following the Pahalgam terrorist attack.

The Russian Foreign Ministry called for both parties to exercise restraint and emphasised the importance of resolving issues through diplomatic means.

Statements by Russia

1. **Foreign Ministry spokeswoman Maria Zakharova (22 April):** Moscow was “*deeply concerned*” about India-Pakistan tensions after Pahalgam and “*resolutely condemns acts of terrorism,*” calling on all parties to exercise restraint.
2. **President Vladimir Putin (5 May):** President Vladimir Putin phoned Prime Minister Modi to extend condolences and underscore an “*uncompromised fight against any manifestation of terrorism,*” reflecting Russia’s solidarity with India on counterterrorism.
3. **Foreign Minister Sergey Lavrov (5 May):** Foreign Minister Sergey Lavrov told Pakistan’s foreign minister that Russia was ready to help mediate a political settlement of the crisis stemming from the Pahalgam attack, “*in the event of a mutual desire*” by Islamabad and New Delhi.
4. **The Kremlin readout (TASS)** repeatedly highlighted Russia’s condemnation of terrorism and support for India’s call to bring the perpetrators to justice.

SAUDI ARABIA

Overall Saudi Arabian Narrative

Saudi Arabia condemned the Pahalgam terror attack and expressed condolences to the victims' families. The Kingdom called for restraint and emphasised the importance of resolving disputes through peaceful means.

Statements by Saudi Arabia

1. **Saudi Foreign Ministry (23 April):** “*expressed the Kingdom’s strong condemnation of the terrorist attack in Pahalgam*” and emphasised Saudi Arabia’s opposition to “*all forms of violence, extremism and targeting of civilians,*” extending condolences to the victims’ families and the government and people of India.
2. **Arab News (23 April)** reported that Riyadh “*condemns in the strongest terms*” the assault on tourists in Kashmir.

3. **Saudi Foreign Minister Prince Faisal (30 April):** Held calls with his Indian and Pakistani counterparts; official readouts noted only discussions of the “*evolving situation*” and efforts to “*reduce tensions*,” without taking sides.
 4. **Saudi Press Agency (1 May):** The Kingdom “*appealed to both nations to de-escalate, avoid further escalation, [and] resolve their disagreements through diplomatic channels*,” stressing the welfare of their peoples and regional stability.
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ISRAEL

Overall Israeli Narrative

Israel strongly condemned the Pahalgam terrorist attack, expressing solidarity with India. PM Netanyahu and FM Sa’ar conveyed condolences and reaffirmed support in the joint fight against terrorism. In a call with PM Modi, Netanyahu emphasized shared grief and cooperation, while also discussing regional connectivity initiatives.

Statements by Israel

1. **Foreign Minister Gideon Sa’ar (22 April):** Deeply saddened by the heinous terror attack on tourists in #Pahalgam, Jammu & Kashmir. Our thoughts are with the victims and their families. Israel stands united with India in the fight against terror.
2. **PM Netanyahu (23 April):** My dear friend @narendramodi, I am deeply saddened by the barbaric terrorist attack in #Pahalgam, Jammu & Kashmir, that killed and injured dozens of innocents. Our thoughts and prayers are with the victims & their families. Israel stands with India in its fight against terrorism.
3. **PM Netanyahu (24 April):** I spoke today with Indian Prime Minister @narendramodi and expressed my condolences, and those of the people of Israel, to the people of India following the Islamic terrorist attack in Kashmir.

Prime Minister Modi thanked me for sharing in India's grief and emphasized that our two countries stand shoulder to shoulder in the critical fight against murderous terrorism. We also discussed advancing the Transport and Communications Corridor initiative, which will connect Asia — via Saudi Arabia and Israel — to the European continent.

IRAN

Overall Iran's Narrative

Iran framed the attack as a heinous act of terrorism, emphasizing a humanitarian response and solidarity with India, while positioning itself as a neutral mediator capable of helping defuse tensions.

Statements by Iran

1. **Iranian Foreign Ministry Seyed Abbas Araghchi (25 April):** He stressed the importance of peace and stability in the region, described India and Pakistan as “brotherly neighbours” and affirmed that Tehran considers them a top priority. He publicly condemned the attack as a “grave crime” against international legal and humanitarian norms.
 2. **Spokesperson Esmail Baqaei (25 April)** expressed “heartfelt sympathy” for victims and their families and reaffirmed Iran’s rejection of all forms of terrorism while calling for enhanced regional and international cooperation against it.
 3. **President Masoud Pezeshkian (26 April):** He directly condemned the attack during a phone call with Indian PM Modi, conveying condolences and asserting that “there could be no justification for such acts of terror”.
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TÜRKIYE

Overall Turkish Narrative

Türkiye's narrative emphasised solidarity with Pakistan while urging restraint from both sides. It condemned the attack on civilians, denied any military involvement, and called for de-escalation to preserve regional peace.

Statements by Türkiye

1. **Turkish Ministry of Foreign Affairs (22 April)** released a statement expressing deep sorrow over the loss of lives and injuries caused by the attack, which targeted civilians. The ministry strongly condemned the violence and extended condolences to the victims' families, along with wishes for a swift recovery to the injured.
2. **President Recep Tayyip Erdoğan (22 May)** addressed the incident following a cabinet meeting in Ankara. He emphasised Turkey's solidarity with Pakistan, urging both India and Pakistan to de-escalate tensions.
3. **Turkey's Directorate of Communications (29 April)** officially denied speculating that Turkey had sent military aircraft to Pakistan amid the rising tensions. However, Turkey's Directorate of Communications stated that reports of sending weapon-laden planes were false.

DURING MILITARY ESCALATIONS

PHASE-I: INDIA'S MILITARY STRIKES AGAINST PAKISTAN [6-7 MAY]

INDIA

Overall Indian Narrative

India framed its airstrikes under Operation Sindoor as a targeted, restrained, and non-escalatory response to the 22 April Pahalgam terror attack. Indian officials emphasized that the strikes were aimed solely at terrorist infrastructure within Pakistan and Pakistanoccupied Jammu & Kashmir, deliberately avoiding Pakistani military assets. The government maintained that the operation was precise, proportionate, and necessary to hold perpetrators accountable, portraying it as a legitimate counterterrorism action rather than an act of aggression.

Statements by Indian Officials

1. **Indian Ministry of Defense (7 May, 01:44 hours):** A little while ago, the Indian Armed Forces launched 'OPERATION SINDOOR', hitting terrorist infrastructure in Pakistan and Pakistanoccupied Jammu and Kashmir from where terrorist attacks against India have been planned and directed. Altogether, nine (9) sites have been targeted.

Our actions have been focused, measured and non-escalatory in nature. No Pakistani military facilities have been targeted. India has demonstrated considerable restraint in selection of targets and method of execution. These steps come in the wake of the barbaric Pahalgam terrorist attack in which 25 Indians and one Nepali citizen were murdered. We are living up to the commitment that those responsible for this attack will be held accountable. There will be detailed briefing on 'OPERATION SINDOOR', later today.

2. **Foreign Secretary Shri Vikram Misri (8 May):** First of all, there is mention on all sides, of escalation. I think the first point that you have to keep in mind is the attack of 22nd April in Pahalgam is the original escalation ... Our intention has not been to escalate matters.

We are only responding to the original escalations, as I said. And our response has been targeted, precise, controlled and measured. No military targets have been selected. Only terrorist infrastructure in Pakistan has been hit.

3. **S. Jaishankar, External Affairs Minister of India (7 May):** The world must show zero tolerance for terrorism. #OperationSindoor
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PAKISTAN

Overall Pakistani Narrative

Pakistan condemned India's airstrikes as an unprovoked, cowardly act of aggression and a blatant violation of Pakistan's sovereignty and international law. The government emphasized that civilian areas were targeted, resulting in deaths, including women and children.

Officials dismissed India's justification of targeting "terrorist infrastructure" as baseless, accusing New Delhi of exploiting the Pahalgam incident to mask its hostile motives and provoke regional instability. Pakistan asserted its right to respond under Article 51 of the UN Charter and vowed a decisive, calibrated retaliation. Leadership warned of escalation risks between two nuclear states and called on the international community to hold India accountable.

Statements by Pakistani Officials

1. **Ministry of Foreign Affairs (7 May):** In an unprovoked and blatant act of war, the Indian Air Force, while remaining within Indian airspace, has violated Pakistan's sovereignty using standoff weapons, targeting civilian population across international border in Muridke, Sialkot and Bahawalpur, and across Line of Control in Kotli and Muzaffarabad, Azad Jammu and Kashmir.

India's act of aggression has resulted in martyrdom of civilians, including women and children. This act of aggression has also caused grave threat to commercial air traffic. We strongly condemn

India's cowardly action, which is a flagrant violation of the UN Charter, international law, and established norms of inter-state relations.

In the wake of Pahalgam attack, the Indian leadership has once again used the bogey of terrorism to advance its sham narrative of victimhood, jeopardizing regional peace and security. India's reckless action has brought the two nuclear-armed states closer to a major conflict. The situation continues to evolve. Pakistan reserves the right to respond appropriately at a time and place of its choosing, in accordance with the Article-51 of the UN Charter, and as enshrined in international law. The government, armed forces and people of Pakistan stand united in the face of Indian aggression. They will always act with iron resolve to protect and preserve the sovereignty and territorial integrity of Pakistan.

2. **Ministry of Foreign Affairs (7 May):** The Indian Chargé d'Affaires was summoned to the Ministry of Foreign Affairs today to receive Pakistan's strong protest over the unprovoked Indian strikes at multiple locations across Pakistan and Azad Jammu and Kashmir. These strikes resulted in the deaths and injuries of several civilians, including women and children.

It was conveyed that India's blatant act of aggression constitutes a clear violation of Pakistan's sovereignty. Such actions are in contravention of the UN Charter, international law, and established norms governing inter-state relations. Pakistan firmly rejected India's baseless justifications for its hostile conduct. The Indian side was warned that such reckless behavior poses a serious threat to regional peace and stability.

3. **Ministry of Foreign Affairs (7 May):** Deputy Prime Minister and Foreign Minister (DPM/FM), Senator Mohammad Ishaq Dar, briefed the Islamabad-based Ambassadors on the Indian strikes in Pakistan and Azad Jammu and Kashmir during the intervening night of 6 and 7 May 2025. The DPM/FM strongly condemned the Indian aggression, which not only violated Pakistan's sovereignty but also jeopardized regional peace and stability.

He emphasized that the Indian actions were carried out in blatant violation of the UN Charter, international law, and the norms governing the inter-state relations. He rejected the baseless Indian claims of targeting terrorist infrastructure.

He maintained that there was no credible evidence linking Pakistan with the Pahalgam Attack. The DPM/FM noted that the Indian leadership had once again used the bogey of terrorism to promote a fictitious narrative of victimhood.

He lamented that India did not pay heed to the international community's repeated calls for deescalation and exercise of restraint. He urged the international community to hold India accountable for its irresponsible and reckless conduct.

4. **Shehbaz Sharif (7 May):** In an address before Pakistan's parliament on Wednesday, Prime Minister Shehbaz Sharif denounced as "cowardly" the attack carried out by India, as he repeated Islamabad's assertion it had nothing to do with the April 22 Pahalgam attack in the Indianadministered Kashmir region. He said Pakistan's response to the attack, which included the downing of Indian fighter jets, proved that the country was prepared to "knock enemy planes off into the sea".
5. **Shehbaz Sharif (7 May):** The treacherous enemy has launched a cowardly attack on five locations within Pakistan. This heinous act of aggression will not go unpunished. Pakistan reserves the absolute right to respond decisively to this unprovoked Indian attack — a resolute response is already underway. The entire nation stands united behind its armed forces, and our morale and resolve remain unshaken. Our thoughts and prayers are with the brave officers and soldiers of Pakistan. The people of Pakistan and its forces are fully prepared to confront and defeat any threat with our strength and determination. The enemy will never be allowed to achieve its malicious aims
6. **Ministry of Foreign Affairs (8 May):** The Government of Pakistan categorically rejects the baseless and irresponsible allegations propagated by the Indian media, accusing Pakistan of launching attacks on Pathankot, Jaisalmer, and Srinagar. These claims are entirely unfounded, politically motivated, and part of a reckless propaganda campaign aimed at maligning Pakistan.

The repeated pattern of leveling accusations against Pakistan without any credible investigation reflects a deliberate strategy to manufacture a pretext for aggression and to further destabilize the region.

Such actions not only further endanger regional peace but also reveal a disturbing willingness to exploit misinformation for political and military ends.

We urge the international community to take serious note of this dangerous behavior and to counsel India toward restraint and responsibility. Any escalation based on false pretenses will be met with full resolve and determination to safeguard Pakistan's sovereignty and territorial integrity.

Pakistan remains vigilant and firmly committed to peace, but it will not be deterred by attempts to provoke, intimidate, or mislead and reserves the right to respond to acts of aggression. These allegations are rejected in the strongest possible terms.

UNITED STATES (US)

Overall US Narrative

The United States adopted a cautious and non-committal stance. President Trump and Secretary of State Marco Rubio expressed concern over the escalation and emphasized hope for a quick resolution. While acknowledging the ongoing tensions, U.S. officials avoided assigning blame or addressing the specifics of India's strikes, instead signaling continued diplomatic engagement with both sides to prevent further conflict.

Statements by US Officials

1. **Donald Trump (7 May):** It's a shame ... we just heard about it as we were walking through the doors of the Oval ... They've been fighting for a long time... I just hope it ends very quickly.
2. **Marco Rubio (7 May):** I am monitoring the situation between India and Pakistan closely. I echo @POTUS's comments earlier today that this hopefully ends quickly and will continue to engage both Indian and Pakistani leadership towards a peaceful resolution.
3. **J D Vance (8 May):** What we can do is try to encourage these folks to de-escalate a little bit, but we're not going to get involved in the middle of a war that's fundamentally none of our business and has nothing to do with America's ability to control it ... America can't tell the Indians to lay down their arms.

We can't tell the Pakistanis to lay down their arms. And so, we're going to continue to pursue this thing through diplomatic channels.

CHINA

Overall Chinese Narrative

China maintained its stance of urging restraint from both sides.

China's general approach emphasised the need for dialogue and avoidance of actions that could exacerbate tensions.

Statements by Chinese Officials

1. **Chinese Foreign Ministry spokesperson Lin Jian (7 May):** At a May 7 press briefing, he made clear [China's] position" on the strikes. He said Beijing "finds India's military operation early this morning regrettable. We are concerned about the ongoing situation." He added that China "opposes all forms of terrorism" and urged both India and Pakistan to "act in the larger interest of peace and stability, remain calm, exercise restraint and refrain from taking actions that may further complicate the situation".
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RUSSIA

Overall Russian Narrative

Russia maintained its position of urging restraint from both sides.

Russia's general approach emphasised the need for dialogue and avoidance of actions that could exacerbate tensions.

Statements by Russia

1. **Russian Foreign Ministry spokeswoman Maria Zakharova (7 May):** Moscow is "deeply concerned about the escalation of military confrontation between India and Pakistan" following the terrorist attack in Kashmir, and "calls on the parties involved to exercise restraint to prevent further deterioration of the situation in the region". Zakharova also reiterated

Russia's opposition to terrorism and hopes that the dispute would be resolved by peaceful means.

SAUDI ARABIA

Overall Saudi Arabian Narrative

Saudi Arabia maintained its stance of urging both India and Pakistan to exercise restraint. The Kingdom's general approach emphasised the need for dialogue and avoidance of actions that could exacerbate tensions.

Statements by Saudi Arabia

1. **Saudi Foreign Ministry (8-9 May):** Announced that Minister of State for Foreign Affairs Adel al

Jubeir visited India and Pakistan "as part of the Kingdom's ongoing efforts to de-escalate tensions, end current military confrontations, and promote the resolution of all disputes through dialogue and diplomatic channels".

ISRAEL

Overall Israeli Narrative

Israel expressed firm support for India's right to self-defense following the Pahalgam attack. Ambassador Reuven Azar endorsed Operation Sindoor, emphasizing that terrorists must be held accountable and have no safe haven.

Statements by Israel

1. **Israeli Ambassador to India, Reuven Azar (7 May):** Israel supports India's right for self defense. Terrorists should know there's no place to hide from their heinous crimes against the innocent. #OperationSindoor
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IRAN

Overall Iran's Narrative

Iran described the military escalation as a serious cause for concern and expressed the hope that both sides could still de-escalate.

Statements by Iran

1. **Foreign Ministry Spokesman Esmail Baghaei (7 May)** expressed deep concern over the rising military tensions between India and Pakistan and called on both sides to show restraint and avoid further escalation.
 2. **Foreign Minister Abbas Araghchi (8 May)** reiterated during a visit to New Delhi: “We hope that India and Pakistan will prevent the escalation of tension in the region,” emphasising the need for restraint and de-escalation between the two nuclear-armed neighbours.
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TÜRKİYE

Overall Turkish Narrative

Following India's May 7 strikes, Türkiye firmly condemned the escalation and targeting of civilians, urging both sides to act responsibly.

Statements by Türkiye

1. **Turkish President Tayyip Erdogan (7 May)** spoke by phone on Wednesday with Pakistan's Prime Minister Shehbaz Sharif to convey his solidarity after India hit Pakistan and Pakistani Kashmir with missiles.
2. **Turkish Foreign Ministry (7 May)** issued a formal statement saying the strike risked triggering a wider conflict, explicitly condemning attacks on civilian targets and calling for responsible diplomacy from both India and Pakistan.

3. **TRT World (7 May):** The Foreign Minister of Türkiye was reportedly the first to contact Pakistan’s Foreign Minister Ishaq Dar after the strikes. Dar described Türkiye’s response as “very supportive,” highlighting the close diplomatic ties between the two nations.
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PHASE-II: PAKISTAN’S COUNTER MILITARY STRIKES AGAINST INDIA

[9–10 MAY]

PAKISTAN

Overall Pakistani Narrative

Pakistan termed its 10 May response—Operation Bunyan-umMarsoos—as a measured and lawful act of self-defence under Article

51 of the UN Charter, following India’s unprovoked attacks on civilians. Officials emphasized that the strikes were targeted solely at Indian military assets, showcasing Pakistan’s deterrent capability and commitment to defending its sovereignty. A parallel cyberattack on Indian government and political websites was also framed as part of a coordinated national response to Indian aggression.

Statements by Pakistani Officials

1. **PTV (10 May):** Pakistan launches strikes against India.
2. **PTV (10 May):** Several sensitive Indian online domains have been targeted as part of that cyberattack, including websites belonging to the ruling Bharatiya Janata Party, the Border Security Forces, and the Crime Research Investigation Agency.
3. **ISPR (12 May):** Marka-e-Haq - 22 April 2025 to 10 May 2025 The conduct of Pakistan Armed Forces Operation “Bunyanum Marsoos”, on 10 May 2025 as part of the military conflict Marka-e-

Haq, was in response to Indian military's dastardly attacks that began on the night of 6 & 7 May 2025, resulting in the loss of innocent civilian lives, including women, children, and the elderly.

4. **ISPR (13 May):** On the night of 6-7 May 2025, the Indian Armed Forces launched unprovoked and reprehensible dastardly attacks targeting innocent civilians, including women, children, and the elderly.
5. **ISPR (14 May):** Indian Armed Forces blatant and cowardly aggression which was launched on the night of 6-7 May 2025, targeted innocent civilians, including women, children, and the elderly.
6. **Permanent Mission of Pakistan to UN Geneva (16 May):** In light of India's unrelenting aggression, Pakistan was compelled to exercise its right to self-defence under Article 51 of the UN Charter to safeguard its sovereignty and territorial integrity. Accordingly, in the early hours of 10 May 2025, we launched Operation Bunyan-um-Marsoos.

Our response was measured, proportionate, and strictly targeted military installations. Pakistan's decisive success in neutralising Indian fighter jets, drones, and military targets is now an undeniable and widely recognized fact—one that cannot be obscured by misinformation or propaganda.

The objective of our action was clear: to demonstrate Pakistan's resolve, capability, and inherent right to defend its territory and people. Pakistan's effective counterstrikes have reinforced the credibility of its deterrence and dispelled any illusions of India's conventional superiority or its ambitions to impose hegemony in the region.

7. **Shehbaz Sharif (10 May):** Pakistan's armed forces responded strongly and powerfully to Indian aggression today in a coordinated manner.

Pakistan's attacks specifically targeted Indian military installations from which attacks on Pakistan had been launched. Today we have given a befitting response to India and avenged the blood of innocents.

INDIA

Overall Indian Narrative

India condemned Pakistan's strikes on civilian areas, including places of worship and residential zones in Jammu and Kashmir, calling them blatant violations of sovereignty and threats to innocent lives. Indian officials reported successful interception and destruction of Pakistani drones targeting border areas. India denied claims of damage to its critical infrastructure, accusing Pakistan instead of targeting civilians and religious sites. India reaffirmed its commitment to defending national sovereignty and emphasized that its prior Operation Sindoor targeted only terrorist infrastructure inside Pakistan, not civilians

Statements by India

1. **ANI News (10 May):** Smoke is seen rising after a loud explosion from Dibber area, Udhampur. Air Sirens are being played.
2. **Omar Abdullah, CM of IIOJK (10 May):** Raj Kumar Thapa, a district commissioner in Rajouri town, was killed after his residence was hit by shelling from Pakistan. I've no words to express my shock and sadness at this terrible loss of life.
3. **Additional Directorate General of Public Information, IHQ of MoD (10 May):** OPERATION SINDOOR - Pakistan's blatant escalation with drone strikes and other munitions continues along our western borders. In one such incident, today at approximately 5 AM, Multiple enemy armed drones were spotted flying over Khalsa Cantt, Amritsar.

The hostile drones were instantly engaged and destroyed by our air defence units. Pakistan's blatant attempt to violate India's sovereignty and endanger civilians is unacceptable. #IndianArmy will thwart enemy designs.

4. **Indian Ministry of Defense (10 May):** Pakistan targeted places of worship like the famous Shambhu Temple and residential areas in Jammu. Multiple armed drones have been sent through the night, endangering civilians and religious sites.

The Indian Armed Forces remain vigilant and are committed to defending the sovereignty of the nation.

5. **Vikram Misri, Foreign Secretary (10 May):** 'Claims have been made about large sections of Indian critical infrastructure, power systems, cyber systems etc., being attacked and destroyed –

completely false’, Misri said at a news conference, as he accused Pakistan of targeting ‘civilians and civilian infrastructure’.

6. **Rajnath Singh (11 May):** Indian forces launched Operation Sindoor with the aim of destroying the terrorist infrastructure in Pakistan. We never targeted their civilians. But Pakistan not only targeted civilian areas of India but also tried to attack temples, gurudwaras and churches. @rajnathsingh

UNITED STATES (US)

Overall US Narrative

The U.S. urged de-escalation amid Pakistan’s strikes, with VP JD Vance stressing it was a regional conflict beyond U.S. control.

Secretary Rubio engaged both sides, encouraging direct communication and offering U.S. support to facilitate talks and avoid further conflict.

Statements by US Officials

1. **Marco Rubio (10 May):** US Secretary of State Marco Rubio had spoken with Pakistan Army Chief Asim Munir to discuss the latest situation in the region.

He continued to urge both parties to find ways to de-escalate and offered US assistance in starting constructive talks in order to avoid future conflicts.

2. **Marco Rubio (10 May):** US Secretary of State Marco Rubio, in separate phone calls to India’s Foreign Minister S Jaishankar and his Pakistani counterpart Ishaq Dar, urged the two countries to communicate directly, offering US help to hold talks. Rubio emphasized that both sides need to identify methods to de-escalate and re-establish direct communication to avoid miscalculation.
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CHINA

Overall Chinese Narrative

China continued to advocate for de-escalation and peaceful resolution. China's consistent message was to encourage both nations to engage in dialogue and avoid further military confrontations.

Statements by Chinese Officials

1. **Foreign Ministry spokesman Lin Jian (10 May):** After Pakistan's retaliatory attacks on May 10, said Beijing was "deeply concerned" by the situation and "strongly urge[d] both sides to act in the larger interest of peace and stability", calling on India and Pakistan to "exercise calm and restraint" and "refrain from any action that could further escalate tension".

RUSSIA

Overall Russian Narrative

Russia continued to advocate for de-escalation and peaceful resolution. Russia's consistent message was to encourage both nations to engage in dialogue and avoid further military confrontations.

Statements by Russia

After Pakistan's air strikes on **9- 10 May**, Moscow did not explicitly support either side's claims but emphasised peaceful resolution.

SAUDI ARABIA

Overall Saudi Arabian Narrative

Saudi Arabia continued to advocate for de-escalation and peaceful resolution.

The Kingdom's consistent message was to encourage both nations to engage in dialogue and avoid further military confrontations.

Statements by Saudi Arabia

Foreign Minister Faisal bin Farhan (10 May) phoned both New Delhi and Islamabad, urging both sides to "de-escalate tensions and end military confrontations".

Farhan has affirmed Saudi Arabia's stance to consolidate the security and stability of the region, as well as its strategic and strong relationship with both countries.

ISRAEL

Overall Israeli Narrative

While no new direct statement from top Israeli officials was recorded that night, earlier backing of India for “right to self-defence” remained on record and accepted internationally.

Statements by Israel

No New Statements

IRAN

Overall Iran’s Narrative

Iran had previously offered to mediate between India and Pakistan, reflecting its strategic interest in maintaining stability in the region, especially given its shared border with Pakistan and longstanding ties with India.

Statements by Iran

1. **Iranian Foreign Minister Abbas Araghchi (9 May)** was in New Delhi as part of a diplomatic effort, alongside Saudi officials, to urge restraint amid the escalating conflict.
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TÜRKIYE

Overall Turkish Narrative

Türkiye emerged as a vocal supporter of Pakistan, praised

Islamabad's controlled response, warned against escalation, and emphasised the protection of civilians.

Statements by Türkiye

1. **Turkish President Tayyip Erdogan (9 May)** expressed support for Pakistan's response and urged de-escalation after India launched missile attacks on Pakistan and AJK. He added, "We are concerned that the tension between Pakistan and India could escalate into open conflict with missile attacks that have resulted in the martyrdom of numerous civilians. I pray for Allah's mercy for our brothers who lost their lives in the attacks, and I once again extend my condolences to the brotherly people and the state of Pakistan."

POST MILITARY ESCALATIONS [10 MAY-ONWARDS]

UNITED STATES

Overall US Narrative

Following intensive US diplomatic engagement, President Donald Trump and Secretary of State Marco Rubio announced that India and Pakistan had agreed to a full and immediate ceasefire.

The US mediated talks with senior Indian and Pakistani leadership, including both Prime Ministers, foreign ministers, and military officials. Washington commended the leadership of both countries for choosing dialogue over escalation and confirmed the initiation of talks at a neutral venue to address broader regional concerns.

Statements by US Officials

1. **Donald Trump (10 May):** After a long night of talks mediated by the United States, I am pleased to announce that India and Pakistan have agreed to a FULL AND IMMEDIATE CEASEFIRE. Congratulations to both Countries on using Common Sense and Great Intelligence. Thank you for your attention to this matter!

2. **Marco Rubio (10 May):** Over the past 48 hours, @VP Vance and I have engaged with senior Indian and Pakistani officials, including Prime Ministers Narendra Modi and Shehbaz Sharif, External Affairs Minister Subrahmanyam Jaishankar, Chief of Army Staff Asim Munir, and National Security Advisors Ajit Doval and Asim Malik.

I am pleased to announce the Governments of India and Pakistan have agreed to an immediate ceasefire and to start talks on a broad set of issues at a neutral site. We commend Prime Ministers Modi and Sharif on their wisdom, prudence, and statesmanship in choosing the path of peace.

INDIA

Overall Indian Narrative

India confirmed the ceasefire with Pakistan but emphasized its firm stance against terrorism. Officials accused Pakistan of violating the agreement and warned of strong responses. Operation Sindoor was portrayed as a show of India's resolve and military strength. PM Modi made clear that India will respond decisively to terror, asserting that "terror and talks cannot go together."

Statements by India

1. **S Jaishankar (10 May):** India and Pakistan have today worked out an understanding on stoppage of firing and military action. India has consistently maintained a firm and uncompromising stance against terrorism in all its forms and manifestations. It will continue to do so.
2. **Vikram Misri (11 May):** Pakistan had violated the understanding arrived at by the two countries earlier in the day, and that the Indian armed forces had been instructed to 'deal strongly' with any repetition. We call upon Pakistan to take appropriate steps to address these violations and deal with the situation with seriousness and responsibility.
3. **Rajnath Singh, Defense Minister (11 May):** Operation Sindoor is not just a military action, but a symbol of India's political, social and strategic will. This operation is a demonstration of India's strong will against terrorism and also the capability and determination of the military power. We have shown that when India fights against terrorism, then it will be successful. @rajnathsingh

4. **Rajnath Singh, Defense Minister (11 May):** The Indian army has displayed valour and courage as well as restraint and has given a befitting reply by attacking many of Pakistan's military bases. We not only took action against the military bases near the border but the sound of Indian forces was heard even in Rawalpindi where the Pakistani army is present. @rajnathsingh
5. **Rajnath Singh, Defense Minister (11 May):** What are the consequences of committing and making terrorist incidents happen in India, the whole world saw it after the Uri incident when our army entered Pakistan and carried out surgical strikes, saw it after Pulwama when air strikes were carried out on Balakot and now the world is seeing it after the Pahalgam incident when India @rajnathsingh
6. **Rajnath Singh, Defense Minister (12 May):** In his address to the nation today, Prime Minister Shri @narendramodi PM Modi has put India's policy against terrorism before the whole world with great clarity and firmness. His address is not only an expression of India's sentiment, but it is also an expression of our country's military, diplomatic and moral strength.
- He has openly praised the valour and courage of the Indian forces during #OperationSindoor. The entire country is proud of the Indian forces. I thank the Prime Minister for his strong leadership.
7. **Narendra Modi (12 May):** If there is a terrorist attack on India, a fitting reply will be given... on our terms. In the coming days, we will measure every step of Pakistan ... what kind of attitude Pakistan will adopt.
- India will strike precisely and decisively at the terrorist hideouts developing under the cover of nuclear blackmail. India's position is clear: terror and talks cannot go together; terror and trade cannot go together. And water and blood cannot flow together.
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PAKISTAN

Overall Pakistani Narrative

Pakistan confirmed its agreement to the ceasefire, framing it as a responsible step taken in the interest of regional peace without compromising sovereignty. Prime Minister Shehbaz Sharif and other officials thanked U.S. President Trump, Secretary Rubio, and VP Vance for mediating the ceasefire. Pakistan reiterated its desire for a peaceful resolution to regional issues, especially Kashmir, in line with UN resolutions. Islamabad emphasized its restrained response under

Article 51 of the UN Charter, while warning against future violations of its territorial integrity.

Statements by Pakistani Officials

1. **Ishaq Dar (10 May):** Pakistan and India have agreed to a ceasefire with immediate effect. Pakistan has always strived for peace and security in the region, without compromising on its sovereignty and territorial integrity!
2. **Shehbaz Sharif (10 May):** We thank President Trump for his leadership and proactive role for peace in the region. Pakistan appreciates the United States for facilitating this outcome, which we have accepted in the interest of regional peace and stability. We also thank Vice President JD Vance and Secretary of State Marco Rubio for their valuable contributions for peace in South Asia. Pakistan believes this marks a new beginning in the resolution of issues that have plagued the region and prevented its journey toward peace, prosperity and stability.
3. **Shehbaz Sharif (10 May):** I am extremely grateful to President Trump for his pathbreaking leadership and commitment to global peace and for his most valuable offer to play a greater role in bringing lasting peace to South Asia. For decades, Pakistan and the U.S. have been partners who worked together closely to protect and promote our mutual interests as well as for peace and security in critical parts of the world.

I am confident that in President @realDonaldTrump, Pakistan has found a great partner who can reinvigorate our strategic partnership and strengthen Pakistan-U.S. ties, not only in trade and investment but in all other areas of cooperation.

4. **Ministry of Foreign Affairs (11 May):** Pakistan Welcomes President Trump's Statemet. Pakistan welcomes the statement by the US President Donald J. Trump @realDonaldTrump regarding Pakistan-India relations.

We acknowledge with appreciation the constructive role played by the United States, alongside other friendly states, in supporting the recent ceasefire understanding between Pakistan and India; a step towards de-escalation and regional stability.

We also appreciate President Trump's expressed willingness to support efforts aimed at the resolution of the Jammu and Kashmir dispute - a longstanding issue that has serious implications for peace and security in South Asia and beyond.

Pakistan reaffirms that any just and lasting settlement of the Jammu and Kashmir dispute must be in accordance with the relevant United Nations Security Council resolutions and must ensure the realization of the fundamental rights of the Kashmiri people, including their inalienable right to self-determination.

Pakistan remains committed to engaging with the United States and the international community in efforts to promote peace, security, and prosperity in the region. We also look forward to deepening our multifaceted partnership with the United States, particularly in the areas of trade, investment, and economic cooperation.

5. **Shehbaz Sharif (10 May):** I thanked UNSG @antoniouterres during my call to him today, for his leadership and intense diplomatic efforts that helped defuse the recent crisis in South Asia. I told him that while we exercised our right to self defence under Article 51 of the UN Charter, Pakistan was committed to honouring the ceasefire understanding in the greater interest of regional peace.

The world has witnessed Pakistan's responsible and measured actions during the past two weeks in the face of external military aggression. We will never allow violation of our sovereignty and territorial integrity.

CHINA

Overall Chinese Narrative

Following the escalation, China reiterated its call for restraint and dialogue between India and Pakistan. The focus remained on maintaining regional stability and preventing further deterioration of relations.

Statements by Chinese Officials

1. **Foreign Minister Wang Yi (11 May):** In a May 11 phone call, expressed sympathy for Pakistan's losses and said China "*supports Pakistan in safeguarding its national sovereignty and dignity,*" implicitly backing Islamabad's right to defend itself, while also urging both countries toward an "*early ceasefire*" jointly observed for regional stability.
2. **Foreign Minister Wang Yi (12 May):** On May 12, Foreign Minister Wang Yi welcomed the truce as in "the fundamental and long-term interest" of both countries.

3. **Spokesperson Mao Ning (19 May):** Reiterated that China “*has always maintained an objective and fair stance*”, calling on both neighbours to “*maintain calm and restraint*” and supporting a “*full and lasting ceasefire*”.
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RUSSIA

Overall Russian Narrative

Russia welcomed the ceasefire agreement between India and Pakistan, expressing hope that the steps taken to restore relations would be long-lasting and sustainable. The Russian Foreign Ministry described the accord as "an important step forward" in reducing tensions.

Statements by Russia

1. **Russian Foreign Ministry spokeswoman Maria Zakharova:** After the ceasefire, Zakharova “*welcomed the agreement reached by New Delhi and Islamabad to de-escalate tensions*” and said she expected the normalisation to be “*long-term and sustainable,*” noting this was “*the primary condition for maintaining lasting peace and stability in the region*”. She urged both states “*to settle their disputes through political and diplomatic channels*”.
 2. **Deputy Foreign Minister Andrey Rudenko (23 May):** told Russian media that Moscow “*hopes [d] for a speedy de-escalation of tensions... through peaceful, diplomatic means*”.
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SAUDI ARABIA

Overall Saudi Arabian Narrative

Saudi Arabia welcomed the ceasefire agreement between India and Pakistan, expressing optimism that it would restore security and peace in the region. The Kingdom commended both parties for prioritising wisdom and self-restraint and reaffirmed its support for resolving disputes through dialogue and peaceful means.

Statements by Saudi Arabia

1. **Saudi Foreign Minister Prince Faisal bin Farhan (After 9-10 May):** He phoned both Indian and Pakistani leaders. He urged them to “de-escalate tensions and end military confrontations” and affirmed Riyadh’s commitment to the region’s security, noting Saudi Arabia’s “close and balanced relations with both” countries.
2. **Saudi Foreign Minister (After ceasefire):** After the US-mediated ceasefire on May 10, the “welcomed the ceasefire agreement” and “commended both parties for their prudence and self-restraint” amid high tensions, explicitly reiterating support for resolving disputes through “dialogue and peaceful means”.
3. **Crown Prince Mohammed bin Salman (14 May):** Welcomed the truce in a May 14 speech, saying he hoped it would “contain escalation and restore calm,” and stressing Saudi backing for peaceful crisis resolution.

ISRAEL

Overall Israeli Narrative

Israel continued public alignment with India's defensive posture; no new updates were communicated via public diplomatic channels.

Statements by Israel

No New Statements

IRAN

Overall Iran's Narrative

Iran's official response was supportive but measured, recognising Pakistan's security response while advocating for restraint and diplomatic engagement.

Statements by Iran

1. **Foreign Ministry Spokesperson Esmail Baqaei (10 May)** welcomed the ceasefire agreement between India and Pakistan, applauding the decision as a demonstration of “responsible and wise statesmanship” by both nations.
 2. **Tehran Times (10 May):** The breakthrough came after intensive diplomacy by Tehran, including a high-stakes mediation effort by Iranian Foreign Minister Hossein Araghchi.
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TÜRKIYE

Overall Turkish Narrative

Türkiye's narrative after Pakistan's retaliatory strikes and the subsequent ceasefire was supportive of peace and regional stability.

Statements by Türkiye

1. **Türkiye's Ministry of Foreign Affairs (10 May)** issued an official statement, specifically addressing the ceasefire between India and Pakistan. The statement, titled "Regarding the Declaration of Ceasefire between Pakistan and India" (Press Release No: 100), welcomed the development and emphasised Türkiye's support for diplomatic resolution and regional stability.
2. **Turkish President Recep Tayyip Erdogan (28 MAY)**, while addressing a trilateral summit in Azerbaijan, expressed his happiness over the recent ceasefire between Pakistan and India, expressing hope that the ceasefire would become permanent.