Dr. Rizwana Abbasi and Dr. Zafar Khan, Nuclear Deterrence in South Asia: New Technologies and Challenges to Sustainable Peace, (London: Routledge Security in Asia Studies, 2019), 236.

Nuclear Deterrence in South Asia: New Technologies and Challenges to Sustainable Peace is a co-authored book by Dr. Rizwana Abbasi and Dr. Zafar Khan. The subject of nuclear deterrence in South Asia is an area of nuclear studies which has stimulated a lot of topical and scholarly writing from inside and outside Pakistan. As India and Pakistan are developing and constantly improving their deterrent capabilities, this book, comprising six chapters, is relevant for policy makers, academics and strategists. During the past two decades, India and Pakistan have been engaged in conventional and strategic force modernization. This led to doctrinal evolution and the introduction of advanced missile capabilities and strategic nuclear triads with improvements in payloads, ranges, reliability and accuracy of their delivery systems. Numerous viewpoints claim that the competition of matching capabilities in response to amplified threats and the interplay of various technologies—such as tactical ballistic missiles and cruise missiles; sea based weapons; ballistic missile defenses; multiple independently targetable re-entry vehicles (MIRVs); military satellites; nuclear submarines etc—will further exacerbate the threatperception calculus of both countries. In this context, the latest book by Dr. Rizwana Abbasi and Dr. Zafar Khan is a good contribution to emerging narratives that attempt to analyze the changes in nuclear doctrines, policies, and postures in South Asia.

Chapter One is a significant part of the volume, as it sets the framework for the debate and assesses the emerging geo-economic and political trends in the Asia-Pacific region and the US-China technological evolution that directly affects the Indo-Pakistan bilateral relations. The authors have highlighted Asia's growing geo-strategic importance and the emerging shift in US strategic outlook

from the Middle-East and Europe to the Asia-Pacific. The authors have outlined the American 'rebalancing strategy' or 'Pivot to Asia' as a holistic strategy covering economic, political and security commitments to Asia. They observe that the American economic shift toward the Pacific has three motivating factors; promoting growth, maintaining the balance against China's growing strength and sustaining US' long term presence in the region. This chapter covers the evolving technologies and shifting doctrines and the deterrent forces of the US-China, and India-Pakistan equations. It also explores the US military modernization plans (Air, land based, Sea-based missile systems) along with its inventories in Asia-Pacific.

At the same time, the authors list the key factors in China's rise, particularly its military modernization and comparison with the US. Chapter One further underlines the complex quadrilateral relationship and interdependence of many factors amongst these states which follows the security dilemma resulting from arms race and conflict prone strategic environment. It underlines the strategic patterns of these four states in the context of their geo-strategic position and military-economic interests. The authors also make a good effort to highlight these interlocking aspects as drivers of strategic competition between these four regional and global powers and their implications for security and strategic environment of South Asia.

Chapter Two deals with the dynamics of Indo-US relations and their strategic partnership. The authors describe the frosty relationships between India and the US during Cold War due to their divergence in political and strategic approaches to international relations. However, the post-Cold War era and more recent developments in US-India strategic partnership endorse the deep and high pace trends of bilateral cooperation. This strategic re-alignment is based on shared strategic priorities, which can be traced back to the 2005 agreement on enhancing strategic partnership between President Bush and Prime Minister Manmohan Singh. Both countries outlined a roadmap

called the Next Steps in Strategic Partnership (NSSP). It included cooperation in defense, space and nuclear technologies leading to the formalization of US-India Civilian Nuclear Cooperation Agreement. The authorization in strategic trade with India has been under review by US for quite some time, as part of its considered policy shift towards India as its most important strategic partner for the twenty first century. This realignment required exemptions from many legal requirements, and US administrations have made amendments to the US laws and regulations, and its strategic export control regime. During the Obama Administration, it was argued that India would only be eligible if they secure membership into four technology control regimes (Nuclear Suppliers Group, Missile Technology Control Regime, Wassenaar Arrangement, Australian Group (AG). The deepening cooperation between New Delhi and Washington with the inclusion of naval and space collaboration, directly affects regional security and stability, particularly, in the maritime domain. Advances in military technology have serious implications for regional threat perceptions, while at the same time their vulnerability has increased.

Chapter Three assesses India's deterrent force modernization that reflects a shift in India evolving nuclear strategy, and examines whether or not doctrinal shifts in India's declaratory posture and policy is consistent with the credible minimum deterrence doctrine that India conceptualized in its previous draft nuclear doctrines (DNDs). It discusses in detail how India's strategic shift will impact the regional states by exacerbating threat perceptions and fears as one of the essential components of the security dilemma in South Asia.

In Chapter Four, the authors analyze Pakistan's evolving nuclear policy under the essentials of minimum deterrence. They believe that Pakistan's policy is embedded with nuclear ambiguity to deter its adversary's conventional and nuclear attacks. With regard to Pakistan's ballistic and cruise missile systems, the authors suggest that Pakistan could consider Shaheen-II and Shaheen-III as prime

candidates for MIRVing purposes while it may not need to develop an ICBM since its existing ballistic missiles cover major parts of its adversary's territory. They state that Pakistan is a "defensive state" that requires certain capabilities to address the perceived threats. The connotation of "defensive state" could however have been further elaborated by the authors and contextualized under its stated firstuse policy. This chapter aims at covering the maximum historic and contemporary information related to Pakistan's nuclear policy, however in doing so it could not do justice to the broader conceptual, theoretical and analytical details that for better understanding of the subject. Such as, for different nuclear weapons states, the logic and forces that drive the minimalism, sufficiency and parity could be different. To this end, the authors ought to have identified the factors driving the understanding of sufficiency in Pakistan's stated Credible Minimum Deterrence policy and its newly adopted Full-Spectrum Deterrence. This could have been a relatively new contribution to the existing literature on the subject. The references/sources for this chapter are mostly derived from Pakistani sources. A more diverse literature review could have enriched the debate by first highlighting other perspectives and then offering an academic and informed discussion from the author's own research.

On page 106, the authors have listed some good suggestions as to how Pakistan would overcome the emerging challenges to its command and control under the essentials of minimum deterrence. However, they should have given a more realistic suggestions to prevent accidental wars and crisis instability in South Asia since India's emerging posture has clearly moved away from recessed deterrence to a first-use operational posture which makes their suggestion to practice recessed deterrence by India and Pakistan (particularly after sea-based capabilities) as unrealistic and outmoded. On page 110-111, the chapter concludes that "if Pakistan continues to add more nuclear warheads in response to Indian developments just to keep a balance, then it may remain consistent with the minimum deterrence

it conceptualized earlier." Contrary to this, it also says that "strategic approach of practicing too much ambiguity might encourage Pakistan to consider a bigger arms race that may not remain consistent with the minimum deterrence conceptualized earlier.

Chapter Five focuses on investigating the dynamics of conflicts between India and Pakistan and their deepening complexities that, in turn, challenge regional stability and prosperity. It argues that although the nature has shifted in frequency and scale, crises will continue to occur that could lead to further deterioration of the peace process between the two South Asian nuclear states. This chapter begins with the history of India-Pakistan enduring rivalry. It has a detailed account of all the reasons that has contributed to the hostile relationship between the two countries. It elaborates the pre-1998 crisis dynamics and post-1998 crisis dynamics and in this context talks about new dimension in the paradigm of nuclear deterrence the notion of the Stability-Instability Paradox and the emergence of the Indian Cold Start Doctrine/the strategy of Pro-Active Operations, and the Indian construct of a two-front war. The authors narrate that India and Pakistan invalidated the notion and spirit of nuclear deterrence theory, thus sliding into a crisis and believe that the Kargil war and the 2001-2002 Twin Peaks Crisis proved that the space exists for proxy wars, low intensity conflicts, and limited war under the nuclear overhang. Whereas mediation remained a crucial factor to de-escalate the crisis, and US played a crucial role in it.

Although the latest India-Pakistan stand-off in the aftermath of Pulwama Attack is quite recent, yet the book attempts to cover all the major takeaways from this crisis. This chapter can offer a good understanding on the series of conflicts that took place between India and Pakistan that has reinvigorated the debate on growing strategic instability and escalation dominance. Although the authors have presented a detailed commentary on India's nuclear strategy of massive retaliation and asserting escalation dominance, however the debate could have been enriched if supported with empirical

evidences, as the authors have not assessed India's technological and military modernization required for an escalation dominance strategy, which is still a work in progress.

There is a typo on page 133, it says "Although India's nuclear strategy of massive retaliation becomes directionless, as it was for the US during the Cold War Era, India's commitments to achieve nuclear efficiency and sufficiency leads to more inconsistencies and ambiguities in its deterrent postures towards China and India* respectively." (It must be Pakistan and not India). The chapter concludes that the crises are becoming smaller, shorter and briefer in terms of objectives and apprehends a between India and Pakistan.

Overall the research work done for writing this book is a significant contribution to South Asian security studies at multiple levels of analyses, such as strategic, economic, and political. It deserves credit for being a good guideline for analyzing complex interdependent factors applying to big powers and their impact on regional powers in the region. This book is certainly a lucid attempt to develop and propose the framework for conceptualizing security dilemma and evolving strategic-security environment in South Asia.

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