

South Asian security structure: new technologies and nuclear deterrence

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Abstract

This paper argues that India's access to sophisticated western technologies would enhance its strategic outreach as well as grant it significant geopolitical and economic clout. The U.S.-India partnership to rebalance the Asia-Pacific pivot would consequently influence regional states to realign their policies with the emerging geostrategic environment. Cognizant of its national security concerns, Pakistan would continue to aspire for balanced nuclear deterrence in the region, in spite of its economic difficulties to prevent India from initiating a limited conflict under a nuclear overhang. The major factor responsible for India's non-enforcement of its hegemony is due to Pakistan's capacity to nullify it through the strength of its conventional and strategic forces. However, it would be difficult for countries less experienced in the field of Revolution in Military Affairs (RMA) to make effective and credible counter-deterrence threats. This would compel Pakistan to adopt sophisticated manoeuvres with regard to its conventional, strategic, and RMA-related capabilities to neutralize its adversary's coercive policies. Therefore, a comprehensive understanding and careful management of regional security issues is imperative to contain the threats of inter-state war, which is intrinsic to security in South Asia. This would consequently put the entire edifice of nuclear deterrence under stress.

Introduction

In the realm of international politics, distinctive regional significance directly impacts security dynamics. The post-Cold War era has seen a mushroom growth of literature on “new regionalism” and the functions that regional states perform to sustain the “regional security order.”¹ In this context, Barry Buzan writes that the decolonization process that followed the Second World War and the emergence of the Third World RSCs (Regional Security Complexes) within the realm of the “Asian super complex” were primarily based on “interstate rivalry” that directly influenced the South Asian region after 1947-48.² In a regional

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perspective, states that possessed the predominant power pursued their “national interests in an effective manner with neighbouring states, due to their advantage in relative power.” The regional significance of such states was equated in harmony with the prevalent international system.³

The South Asian security dynamic remained attached with the bipolar international political system during the Cold War.⁴ Since the end of the Cold War up until 9/11, this security dynamic remained in a state of limbo. When the United States finally signed strategic and nuclear partnership agreements with India, it enabled New Delhi to become a part of the international alliance system under the U.S. military primacy; stressed further in the U.S. National Security Strategy of 2002, which emphasized a need for a robust relationship with India. The ambit of strategic vision also included collaboration in the fields of civil nuclear, space, missile defence, and access to other critical technologies to India.⁵ In the emerging strategic equation, Pakistan due to its relatively weak economic, diplomatic and military credentials was further affected by the onslaught of terrorism in the wake of the U.S. invasion of Afghanistan. The post-9/11 situation further constricted Pakistan as the flight of terrorists from Afghanistan into its tribal areas made the internal law and order situation much more precarious. This directly undermined Pakistan’s economic, social, and political standing. For its part, the international community urged Pakistan “to do more,” yet made no substantial effort to salvage the country’s deteriorating internal situation thereby further plunging Pakistan into internal and external morass while its economic and political difficulties incessantly mounted.

Additionally, the Indo-U.S. strategic, science and technology, and nuclear cooperation frameworks are further compounding Pakistan’s standing vis-à-vis India. India’s growing economic influx of sophisticated technologies from the West will enhance its political, economic and science and technology clout. On the other hand, Islamabad’s growing dependence on nuclear deterrents is impacted by India’s induction of a variety of state-of-the-art conventional weapon systems; a direct result of its new strategic alliances. This qualitative and quantitative inflow of latest technologies, including the precision guided munitions of RMA vintage, was expected to negatively influence Pakistan’s deterrence posture in the years to come.

Regional-centric deterrence

Before outlining the effects of RMA, it is important to discuss the imperative of nuclear deterrence on regional politics. According to Robert Stewart-Ingersoll and Derrick Frazier, the security system of the subcontinent is not structured on

“hegemonic-based” principles of maintaining unilateral sway of a single power. Rather it is premised on the “integration-based” mechanism “through the intentional promotion of various types of interdependence across the system in order to generate a shared set of interests” with other predominate states in the international system. The “concerted-based” strategy enables the states to coordinate their efforts in harmony with the strongest states in the system to deal with shared threats whereas the “strength-based” security architecture “through the use of material power-based strategies” and “conventional power capabilities” becomes much more prominent.⁶ As explained by Stewart-Ingersoll and Frazier, India apparently seems to be pursuing a three pronged strategy - strength-based, integration-based, and concerted-based, in South Asia.⁷ Presently, India is not in a position to establish its “hegemonic-based” strategy to enforce its domination over the region.

The primary factor responsible for India’s non-enforcement of its hegemony is Pakistan’s capacity to nullify its quest through an apt utilization of its conventional and strategic forces. In this equation, China is another regional, potent player that would continue to blunt India’s pursuit to enforce its domination. Having said this, it is pertinent to note that India is clearly a central and important player within the security dynamics of the region but presently does not possess sufficient potential to establish its hegemony.⁸ India’s present policy in the region can be attributed to a variety of internal factors, including ongoing insurgencies, internal security threats, rise of extreme right-wing religious parties, poverty and of course its failure to foster a collaborative framework for “regional integration.”⁹ Therefore, the present security order of South Asia is expected to continue, while other states, particularly Pakistan, are likely to drift away from any regional security arrangement constructed under the Indian sway.¹⁰ As Alexander Wendt rightly points out, “The distribution of power may always affect states’ calculations, but how it does so depends on the inter-subjective understandings and expectations, on the ‘distribution of knowledge,’ that constitute their conceptions of self and other.”¹¹ Hence, the conception of regional states is expected to influence their behavior and future policies vis-à-vis the states that are operating contrary to their national interests.

Presently, the South Asian security order is not monopolized by any single state. While India is a significant regional power, it possesses limited potential to coerce or compel China and Pakistan. However, Pakistan in spite of being in a disadvantageous position vis-à-vis India still possesses sufficient conventional and strategic strength to deal with New Delhi’s ostensible strategies of compellence and coercion, especially in a crisis situation. In fact, the concept of deterrence revolves around coercive diplomacy, which in essence is “the

potential or actual application of force to influence the action of a voluntary agent.”¹² In the context of “strategic coercion,” state B in order to “resist A’s coercion,” or may be to “initiate” its own coercion process, involves another powerful state to prevent A to enforce its will on B. In such circumstances, invariably the relationship between the states is “unequal.”¹³ The India-Pakistan military crisis of 2002 is a classic example of drawing in another powerful state – the U.S. – to defuse the escalating tension between the nuclear rivals. Given India’s strength-based potential to operationalise its plan of compellence, Pakistan would likely employ its nuclear deterrence strategy in a way to manipulate the behaviour of an adversary to prevent it from pursuing an irrational act, including the use of force to achieve its limited objectives under a nuclear overhang. Patrick Morgan distinguishing between deterrence theory and strategy writes that:

“Deterrence strategy refers to the specific military posture, threats, and ways of communicating them that a state adopts to deter, while the theory concerns the underlying principles on which any strategy is to rest...Mostly there are different strategies, not theories. The strategies vary in how they operationalise key concepts and precepts of the theory.”¹⁴

Pakistan, since the days of opaque deterrence in the 1980s until the overt nuclearisation of South Asia in 1998, had pursued a host of nuclear strategies in parallel with its conventional forces to regulate India’s “unwanted” behaviour.¹⁵ After the nuclear tests, Pakistan relied more on the fine-line of a limited conventional balance coupled with a robust nuclear deterrent posture to hold India’s apparent pursuit to use its conventional edge to enforce domination over the former. In the present situation, while limited-dominating strategies may occasionally be employed by India, Pakistan’s robust nuclear deterrent capability is the biggest obstacle in the way of New Delhi to establish its hegemony. This state of affairs is expected to perpetuate an uneasy peace between the two rivals due to the persisting non-resolution of bilateral disputes, including the core issue of Kashmir.

In order to achieve strategic balance, Pakistan should try to sustain the competency of its deterrent forces along with sufficient measures to ensure their survivability; viable command and control architecture; retaliatory capability to reach adversary’s territories; penetration of enemy’s defence systems; and the establishment of necessary defences against perceived enemy attacks.¹⁶ These measures will go a long way in enabling Pakistan to establish effective nuclear deterrent capabilities to contain India’s power-based strategies to flex coercive diplomacy and compel Pakistan to comply with New Delhi’s biddings. The

appropriate plan would be to work out a conflict resolution and peace and confidence building mechanism (PCBM) in order to prevent a catastrophe in a nuclearized South Asia. In fact, nuclear deterrence is the ultimate strategy to prevent conflicts. First, in the present strategic situation and given a volatile and asymmetrical relationship, it is imperative for Pakistan to possess both the toolkits of general deterrence for confrontation mode, and immediate deterrence to harness “military resources” to efficiently and effectively deal with multiple threats emanating from regional and extra-regional forces¹⁷. Second, Pakistan should evolve appropriate strategies to comprehensively conceal its strategic arsenal in hardened silos with widely deployed arrangements bolstered by an effective command and control system to deal with the emerging crises initiated by its power-based rival – India.¹⁸ Nuclear deterrence is a delicate strategy fraught with uncertainties that in crises situation can further increase “risk and uncertainty.”¹⁹ Therefore, to calibrate highly destabilising and offensive strategies like India’s “Cold Start Doctrine” (CSD) to operationalise the Indian Army’s pursuit of a “new limited war doctrine,” is tantamount to a deliberate brinkmanship.²⁰ According to Thomas Schelling, “Brinkmanship is thus the deliberate creation of a recognizable risk of war, a risk that one does not completely control.”²¹ Surely, India’s CSD is a highly perilous and flawed doctrine under the influence of the force-based power equation order of the region.

During the 1950s, military strategist Bernard Brodie had immediately sensed the inherent dangers associated with nuclear weapons in the post-World War II period.²² He stated that “the first casualty in war is not truth but reason,” which requires sustaining the fine-line of balance with developing nuclear weapons.²³ In such a situation, in order to possess an effective and power based deterrent it is imperative to have in place an offensive-deterrence strategy.²⁴ In addition, it is also significant to acquire the first and second-strike capabilities and the ability to deter provocations.²⁵ In this context, Herman Kahn emphasises the importance of having symmetrical and balanced deterrence in the existence of a bilateral fear of attack in a crisis.²⁶ Essentially, Pakistan should aspire for a balanced nuclear deterrence despite its economic difficulties in order to nullify India’s growing conventional capability. Both countries have much to gain from the stable mutual deterrence postures; otherwise it is likely to “exacerbate the stability problem.”²⁷ Morgan states that stability is dependent upon the ability of both states to deter each other, and if one state intends to initiate a deliberate escalation of tension or conflict, then it is expected to generate deterrence instability.²⁸

In nuclear deterrence, there are “vast uncertainties, unknowns, risks, and dangers” linked with rational decision making processes.²⁹ However, nuclear

escalation can be avoided even in a crisis situation. Therefore, the significance of the credibility problem cannot be over-emphasised though it is likely to be undermined in the event of ambiguous communication and half-hearted resolve.³⁰ In a crisis the belligerents are “not fully in control of events; they take steps and make decisions that raise or lower the danger.”³¹ In this regard, some theorists argue that a crisis possesses an inherent probability of an inadvertent conflict, which is a generator of risk.³² Therefore, the management of regional security issues and conflicts remains the pivotal factor in order to contain the grave threats of inter-state war, which are intrinsic to the South Asian regional security order.³³ In such a volatile environment to postulate an aggressive and flawed concept of initiating a limited war under various rationales and self-assigned labels, like the CSD, is a naive and highly provocative policy that would merely generate more instability and increase the risk of war.

From conventional & strategic tiers to RMA

The world has witnessed tremendous developments in the realms of warfare from the 19th century to the dawn of nuclear revolution in the mid-20th century. The 19th century revolutionized military organization, planning, management, and provided extensive network of railroads that increased the mobility of armed forces during times of war.³⁴ The increased mobility led to an evolution of new approaches to conventional war fighting tactics, including the World War II blitzkrieg warfare. In the areas of strategic conventional weapon systems, it increased the lethality of nuclear, chemical and biological weapons, ballistic missiles, sophisticated radars systems, including cryptography, and other conventional weaponry. The focus of 20th century technological developments in weapons systems was nuclear weapons, biotechnology, and information and communication technologies.³⁵ Since World War II, modern technological and nuclear developments have triggered a revolution in military technology. The term RMA essentially “characterises the current and ongoing transformation” of military technology (MT) concerning warfare.³⁶ According to Elinor Sloan, RMA is “a major change in the nature of warfare brought about by advances in military technology.” The author further elaborates that “combined with dramatic changes in military doctrine and organizational concepts, fundamentally alter the character and conduct of military operations.”³⁷ Of course, RMA was not a sudden phenomenon. It gradually evolved to its present shape over the centuries and is now primarily being spurred by the dawn of the information age.³⁸ The information age revolution is based on three tiers of development in the fields of surveillance, rapid information process, and precision-guided weapon systems.³⁹

The starting point of RMA was the Gulf War of 1991. The factor attributable to these changes was the transformation of the world's political structure from a bipolar state to a unipolar state after the end of the Cold War in 1989 and the disintegration of the former Soviet Union in 1991. The second most significant phase commenced after the 9/11 terrorist attacks, which prompted the U.S. to conduct a thorough review of its military strategy in order to meet the asymmetric challenges of the 21st century warfare.⁴⁰ Bolstered by its developments in science and technology that led to the evolution of a new concept of "preventive war doctrine" and its regime change policies, the U.S. became the unchallenged superpower. Additionally, accounting for 46 percent of the world share in military spending (\$528.7 billion in the 2006 market exchange rate) and harmonizing its technology with the 21st century asymmetrical war fighting tactics, the United States managed to further cement its influence and position.⁴¹ According to *Military Balance 2014*, the U.S. defence budget in 2012, 2013 and 2014 was \$655 billion, \$600 billion and \$612 billion, respectively.⁴²

In military spending, India ranked 10th with the world share of 2 percent (\$23.9 billion in the 2006 market exchange rate).⁴³ However, following the formalization of the Indo-U.S. strategic partnership, the dynamics of the South Asian strategic and military equation was tilted in India's favour. Furthermore, the Indian defence budget also reached the \$33.4 billion and \$36.3 billion mark in 2012 and 2013, respectively.⁴⁴ The world has become more bellicose with the emergence of new phenomenon such as terrorism, non-state actors with strategic outreach, clash of civilizations, growing cultural and economic globalization, and the RMA.⁴⁵ A range of such geopolitical and military-technical developments is expected to impact the fragile nuclear deterrent of South Asia as well. The Indo-U.S. strategic collaboration is a multi-faceted affair, which is likely to negatively impact nuclear deterrence in the subcontinent. This would increase its fragility and place Pakistan in a disadvantage while also profoundly influencing deterrence stability.⁴⁶

From the opaque deterrence of the 1980s to overt nuclearisation in 1998, India and Pakistan have been in a perpetual state of crises that has undermined strategic stability and regional peace. Although little research has been conducted to critically assess the effects of RMA on modern warfare, with particular reference to South Asia, growing military technological development is reducing the Clausewitz's concept of 'fog of war', as the states' growing capabilities to monitor adversary's movements and intentions make it difficult to hide its intentions and capabilities from the other party.⁴⁷ Therefore, it would be difficult for the less developed countries in the field of RMA to make counter-deterrence threats. This would place their deterrent capabilities under a serious dilemma,

especially with regard to their weapons of mass destruction (WMD).⁴⁸ According to Morgan, “The RMA will probably strip less advanced countries of many options by producing effective missile defences, disruptions of command and communications systems.” He further elaborates that the “counter-deterrence threats of these countries will be difficult to make effective and thus credible.”⁴⁹ Fewer capabilities of less developed countries would also make it difficult for them to threaten an adversary with massive and unacceptable damage because their capability to penetrate the advanced state’s high technology defensive shield would be reduced due to an asymmetric nature. This would enhance the advanced countries’ deterrence capabilities in comparison to less developed countries in the coming years. A transformation such as this would also change the traditional dimension of deterrence of the Cold War period with the RMA-based military competency that will contain the less developed countries’ potential to unleash unacceptable damage on the advanced states. Future conflicts would not only be directed with precision and lethality but would also occur in a digitally controlled environment.⁵⁰ Therefore, the damage to the adversary would be well regulated in time and space thereby preventing the deterring state to effectively and credibly communicate its threat.

The RMA primarily exploits dramatic advances in information technology ranging from laser, fiber optic communication systems, encryption technologies, and the rapid processing of data, which has tremendously increased military capabilities around the world. Along with other technologies and military systems, this impacts the command, control, computer, communication, intelligence (C4I); intelligence, surveillance, and reconnaissance (ISR); precision-guided munitions (PGM) with different ranges; new weapon systems based on laser, microwaves, non-lethal weapons, stealth technologies, sensors of various types, different weapon platforms and delivery systems, and other space based weapons thus changing the very dimensions of 21st century warfare.⁵¹ Precision, swiftness, lethality and expanded outreach has increased the vulnerability of adversaries. The overwhelming potential of RMA is the hallmark of today’s warfare, which has not only affected traditional conventional conflicts but has also put under pressure the strategic nuclear deterrence.

This has also led to an evolution of a third tier of warfare under the umbrella of revolutionary military technologies. The Indo-U.S. strategic and nuclear partnership is expected to comprehensively strengthen India’s war fighting potential in order to meet its growing strategic objectives in the Asia-Pacific region. This is ostensibly a move to contain the growing Chinese political, economic, and strategic-military rise at the global level. The increasing competition between the U.S. and China is also assuming a defining factor for

the Asia-Pacific countries.⁵² This would further open new avenues for India to access the latest civilian and state-of-the-art military technologies, which is likely to undermine the stability of nuclear deterrence in the subcontinent. As a result, the threshold of weaker states would become more unpredictable, especially during times of crisis.

In January 1995, India and the U.S. had agreed to expand the framework of their bilateral strategic relationship. It wasn't until January 2004 that they signed the "Next Steps in Strategic Partnership" (NSSP) to formalize a joint collaboration framework in the field of nuclear, space, and latest technologies. Ten years later, in 2005, the New Framework for the U.S.-India Defence Relationship agreement set the ground for enhancing cooperation in defence and security related fields. To streamline the mechanism of their strategic relationship, a variety of joint research and development (R&D) projects were created and a Defence Policy Group was constituted to guide the future roadmap for their partnership.⁵³ The Indo-U.S. nuclear deal of July 2005 was officially formalized in October 2008 after the Nuclear Suppliers Group (NSG) granted India an exemption. These critical agreements in a short span of time set the pace for the evolution of a strong strategic partnership. According to Ashton Carter, the nuclear deal was the pinnacle of India-U.S. endeavours since the 1990s to forge a strategic association.⁵⁴ While in the realm of security, India and the U.S. have also signed a number of agreements, including:⁵⁵

- In 2000, the U.S.-India Joint Working Group on Counterterrorism was set-up. In 2005, the New Framework for the U.S.-India Defense Relationship was conceived in order to reinforce bilateral security interests
- The 2002 High Technology Cooperation Group (HTCG) was formed to exchange dual-use technologies
- In 2002, the India-U.S. Cyber Security Forum was established to safeguard infrastructures from cyber attacks
- The 2005 New Framework Agreement was signed to strengthen defence ties. In this context, the Defense Policy Group (DPG) was established to streamline bilateral defense relations
- The 2006 Indo-U.S. Framework for Maritime Security Cooperation provided a forum to cooperate against a wide range of maritime related threats

- The U.S.-India Counterterrorism Cooperation Initiative (CCI) was signed on 23 July 2010 to enhance cooperation between the coast guards and navies for maritime security.

In addition to security collaboration, U.S.-India bilateral trade also grew from \$59.9 billion to \$92.5 billion between 2009 and 2012.⁵⁶ Indian foreign direct investment (FDI) in the U.S. too increased from \$227 million in 2002 to almost \$5.2 billion in 2012.⁵⁷ On the other hand, “U.S. investment in India was more than \$28 billion in 2012.”⁵⁸ In this context, India is the most important state in the United States’ strategic calculus to rebalance the Asia-Pacific region.⁵⁹ Moreover, since 2009 the U.S. has sold weapon systems and military equipment worth \$9 billion to India and is “looking to change the dynamics of the relationship.” Furthermore, the United States and India have agreed to focus on the Indian Ocean Region (IOR). This seems to be in harmony with the U.S.’ rebalancing policy for the Asia-Pacific region and India’s “Look East policy” of strengthening its relations with Southeast Asian countries.

On September 27, 2013, during the Indian Prime Minister’s visit to the U.S., both countries agreed to further expand the orbit of their strategic cooperation in the realms of intensive defence trade by signing a “Joint Declaration on Defence Cooperation as a means of enhancing their partnership in defence technology transfer, joint research, co-development.” In addition to this, U.S. companies heavily contributed in “partnering India’s efforts to enhance its defence capacities,” and included India’s participation in the scheduled Rim of the Pacific (RIMPAC) naval exercise by the U.S. Pacific Command in 2014.⁶⁰ Additionally, the U.S. agreed to support India’s membership of non-proliferation regimes in order to further facilitate technology sharing under the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, the NSG for the control of nuclear-related technology, the Australia Group for control of chemical and biological technology that could be weaponised, and the Missile Technology Control Regime (MTCR) for the control of vehicles capable of delivering WMD.⁶¹ According to the Defence Trade and Technology Initiative, the U.S. would be transferring the latest technologies along with easing the existing export processes with the intent to enhance its partnership with India.⁶² The growing defence and strategic cooperation partnership is all encompassing – from East Asia, Central Asia and West Asia to the Indian Ocean region.

The regional situation

The South Asian security paradigm needs to be viewed in a holistic perspective. As argued in the preceding paragraphs, after the events of 9/11 the dynamics of the region have been markedly transformed from a traditional conventional and strategic architecture of warfare to a third tier of war fighting with the induction of new technologies and weapon systems. This transformation has taken place in the fields of cyberspace and cyber war, military-technical changes, precision strike weapons, drones, robots and directed energy (laser) weapons, WMD, missiles, and unmanned aerial vehicles (UAVs), all of which have a significant role to play in the modern realm of warfare.⁶³ In conventional and strategic areas, the Indo-U.S. strategic partnership coupled with India's huge expenditure on state-of-the-art weapon systems is likely to influence the power equation and security structure of South Asia.⁶⁴ Most notably, from the shores of the Indian Ocean to the Pacific Rim, India is visibly in a state of harmony with Washington's supposed vision and policy of "Indo-Pacific pivot."⁶⁵ This suggests that India is all set to become a part of a U.S.-sponsored military and security framework for the Indo-Pacific region as a part of its "pivot to Asia" policy.⁶⁶ This in quantum terms would enhance India's strategic outreach, significance, and potential to influence and then to dominate the regional security order. In parallel, the inflow of most advanced technologies and weapon systems would rapidly transform India's position from a regional security-centric to extra-regional-centric state with the expanding orbit of its strategic outreach and influence in the world's two most important regions: the Indian and Pacific Oceans.

The recent rise of India's economic, political, and strategic clout has also influenced its potential to acquire latest technologies that directly impact its war fighting capabilities.⁶⁷ In this regard, the Indian Army Doctrine of October 2004 outlined the imperatives of initiating relevant organizations, doctrines, technologies, and training of personnel to meet the emerging challenges in the new dimensions of warfare. The doctrine catered to wide aspects of RMA-related factors that dominate the present-day dynamics of warfare.⁶⁸ In May 2006, India reportedly enforced the joint doctrine in order to "synergize the efforts of the three services" in harmony with the RMA.⁶⁹ Before the conception of a joint doctrine, the Indian Army had conceived a plan of CSD against Pakistan. The synergy amongst the tri-services and the integrated battle groups (IBGs) under the umbrella of the CSD along with the support of emerging RMA components in the Indian war fighting capabilities is likely to destabilize the delicate strategic balance of the region.⁷⁰ The fast integration of rudiments of RMA in harmony with the CSD would be supported by a whole array of "long-range precision

attacks, a robust C4ISR network, enhanced abilities in the fields of information warfare and network centric warfare” with the intent to increase its mobility, lethality, and precision in the future calibration of limited conflicts under the nuclear overhang.⁷¹

Since 1947, the South Asian security calculus has been conflictual in orientations. Traditionally the security structure of the region has been premised on “strength-based,” which at the dawn of the 21st century gradually began to move toward concerted and integration-based security.⁷² In such a dramatically transformed geopolitical situation, India due to economic, political, and strategic factors started behaving assertively with a further intention to create space for *realpolitik*, which has not only directly impacted India-Pakistan’s bilateral relations but holds much potential to destabilize the strategic stability of South Asia.⁷³ The influx of latest technologies would also influence the Indian policymakers’ perception towards Pakistan.

Pakistan already finds itself in a precarious situation, struggling to address the remnants that trickled in from the Cold War’s final battlefield in Afghanistan in the shape of terrorism, crime and drug trafficking. This has not only undermined Pakistan’s economy and political cohesion but has also undermined the whole structure of security on its north-western frontiers. While it struggles with a myriad of challenges, the U.S is subtly yet swiftly uplifting India’s international clout through political, diplomatic, economic, technological, and strategic tilts. India, for its part, is skilfully streamlining such overtures with its concerted and integration-based toolkits in harmony with the West’s 21st century strategic imperatives. This has created a multi-dimensional security dilemma for Pakistan, which has eroded its political, geo-economic, conventional and strategic standing in comparison with India. The opening of vistas of critical dual-use and other technologies, including nuclear, are expected to yield great advantages for India while undermining the strategic stability of the subcontinent, eventually positioning India as a regional security manager.

All these transformations are in divergence to Pakistan’s national interests and are expected to directly influence its relationship with India. Moreover, such developments would not only enhance asymmetry in conventional and strategic forces but also increase the technological gap between the two, which could further exacerbate the dynamics of regional security structure and place nuclear deterrence under considerable stress. *Military Balance 2013* states that, “India’s defence policy retained a substantial focus on deterring Pakistan, primarily through the larger country’s nuclear-weapons capability,” which is also fast increasing its conventional military capabilities.⁷⁴ As far as South Asian defence

spending is concerned, for the fiscal year 2012-13 India and Pakistan accounted for 77.7 percent and 11.7 percent respectively.⁷⁵ India's total defence spending for the financial year 2012-13 was INR2.1 trillion.⁷⁶ This was 1.99 percent of its total GDP.⁷⁷ On the other hand, Pakistan's total defence expenditure in 2011 was \$5.47 billion, which only slightly increased over the next two years (see Table-1).⁷⁸

India and Pakistan Defence Expenditures

Table-1

Country	2012	2013
India	\$33.4 billion	\$36.3 billion
Pakistan	\$5.81 billion	\$5.89 billion

Source: *The Military Balance 2014* (London: Routledge, 2014), pp. 241, 269.

In addition to defence spending, India possesses the third largest armed forces in the world. In the strategic realm, it is developing the “last element of its nuclear triad with a first generation submarine launched ballistic missile.”⁷⁹ Furthermore, New Delhi has ambitious state-of-the-art conventional weapons procurement/development, and a tri-services cooperation programme with a number of countries including Russia, the U.S., France, the United Kingdom, Israel, and Singapore. According to *Military Balance 2013*, India's current procurement programme includes “new aircraft carriers and the promise to improve India's power projection capabilities substantially over the next decade.”⁸⁰ In this context, India unveiled its indigenously built aircraft carrier, INS Vikrant, and activated an atomic reactor for its nuclear submarine.⁸¹ In holistic terms, Pakistan's future nuclear deterrent posture would come under immense strain due to these asymmetrical (conventional and strategic forces) developments and the influx of dual-use technologies in India's arsenal. India's military modernization programme, both in vertical and horizontal terms, has seeds of triggering “a South Asian arms race.”⁸²

Despite nuclear modernization, India's nuclear strategy and posturing has been contracting over the past decade.⁸³ In such a volatile situation, the prospects of avoiding “undesired” wars based on causal factors like preemption, loss of control, and miscalculated escalation, would be quite difficult to contain.⁸⁴ Alexander L. George writes that states could resort to war when “diplomatic resolution of the dispute is not available within a reasonably short period of

time.”⁸⁵ Both India and Pakistan are presently far away from finding an amicable and acceptable conflict resolution mechanism to resolve their bilateral disputes. India is supposedly planning to fight a limited conventional conflict, which can quite easily lead to inadvertent escalation, consequences, or even a war.⁸⁶ Therefore, Pakistan’s focus should be to balance aspects of conventional, strategic, and MT modernization process in order to “maximize deterrence,” sustain peace, and reduce the prospects of conflict.⁸⁷ This would go long way in correcting the Indian perceptions vis-à-vis Pakistan.⁸⁸

Managing the asymmetrical deterrence

It is challenging for Pakistan to effectively manage the viability of its nuclear deterrence in an asymmetrical security structure in South Asia. However, Pakistan illustrates tremendous potential and resilience as well as strong conventional and strategic capabilities to deal with the challenges of a growing Indian technological, economic and strategic clout. The RMA warrants systematic readjustments in the organization of forces, concepts, and doctrines; presently, a spectacular growth of information technology, MT, and the RMA serves as the primary global trend in transforming the security framework.

For Pakistan, most of the new technologies that contribute toward the RMA are of Western origin, expensive to import, and difficult to develop indigenously. In addition, the internal law and order situation is another impediment. Primarily, it is the economic constraint of the country that obstructs its endeavours to acquire such technologies. Therefore, a gradual acquisition and indigenous development process is imperative in order to meet the need for Pakistan’s defensive strategy against India.

First, Pakistan would have to focus on the urgent need to improve the quality and the robustness of its nuclear capability. Second, the country would have to cater for technologies required in information, space and cyber warfare. Third, it should invest in improving the surveillance and intelligence acquisition capabilities. Fourth, it should possess a robust C4ISR network. Fifth, it must strive to acquire capabilities for precision-strike weaponry, including state-of-the-art aircraft, naval ships/frigates, tanks, and advance airborne intercepted radars. In spite of the economic difficulties it faces, Pakistan cannot afford to overlook the significance of developing sufficient conventional war fighting capabilities and a credible nuclear deterrent to reduce the prospects of a large-scale military adventure under the flawed concept of CSD. Modernisation and the up-gradation cost of nuclear weapons, both in qualitative and quantitative terms, is an unavoidable compulsion. Besides, Pakistan should be selective while

chalking out its conventional, strategic, and RMA-related priorities. Despite its economic constraints, there is an imperative need to retain the full-spectrum capability with a view to effectively deter the adversary from operationalising military misadventure on any pretext or plane. To prepare such a contingency, Pakistan should aim for sufficient but efficient weapon systems that could adequately fulfil its multiple conventional and strategic requirements. Most importantly, all high-tech weapon systems deemed necessary to meet the future requirements of South Asia's volatile environment should be made capable of multiple employment use. Sixth, the Pakistani defence forces should be prepared for a full spectrum conflict, which may include the use of conventional, including low-yield or strategic forces, and for other military contingency objectives. In essence, "tactics is the theory of the use of military forces in combat," writes Carl von Clausewitz, while "strategy is the theory of the use of combats for the object of the war."⁸⁹ Hence, it is crucial to increase the forces capabilities in both offensive and defensive modes to meet the challenges of dangerous modern warfare, internal security, economic, and other non-military threats. The offensive orientation of Pakistan's armed forces' war fighting concepts, doctrines, and organizational readjustments should accordingly be calibrated with the current military technological developments. Similarly, the indigenous RMA-related R&D should also be selectively and efficiently promoted in view of the country's prevalent economic health. Seventh, today smart armies are preferred in comparison to large standing armies due to the emerging revolution in MT. Given the peculiar historical animosities, bilateral disputes, divergent strategic cultures, and security architecture of the region, smart armies would not be practicable at this juncture. However, the right sizing of Pakistan's defence forces could only be assessed and logically constructed once its acquisition of latest technologies are adequate to balance India's asymmetrical weapons acquisition and development plans. "Strategy is about the overall relationship between military means and the ends of policy," writes Lawrence Freedman, "while tactics is concerned with the specific application of military means for direct military ends."⁹⁰ Ostensibly, Pakistan's direct military objective is to prevent conflict – for which its full spectrum capability is critical. Finally, as far as the coordination amongst tri-services is concerned, a joint conventional-strategic doctrine can be realistically conceived after a keen re-evaluation of the country's military capabilities, geo-economics, and geopolitical standing.

On the international front, the salience of nuclear weapons still persists but parallel advancements in conventional weapons are fast assuming the functions earlier assigned to strategic weapons.⁹¹ The significance of nuclear weapons in maintaining mutual vulnerability between the states cannot be over-emphasised, especially when other countries are supplementing their military capabilities with

the induction of advanced conventional weaponry.⁹² Russian Foreign Minister Sergei Lavrov recently stated that “states will hardly accept a situation in which nuclear weapons disappear,” further remarking that “weapons that are no less destabilizing emerge in the hands of certain members of the international community.”⁹³ This speaks volumes for the imperative need of nuclear robustness in South Asia’s volatile security structure. Lavrov deliberated that “it could be argued that although Russia accepted the revised U.S. approach to missile defence and the Prompt Global Strike programmes outlined in the New START, these programs have not been limited in a substantive way.” He remarked that there is “no legally binding constraints on missile defence conventionally armed delivery vehicles that could be used for Prompt Global Strike missions.”⁹⁴

In the regional security order, Pakistan is already struggling to manage the internal security and terrorism threats that have forced the country to divert its major economic resources for the control of this menace. Despite declared nuclear weapons capabilities, India and Pakistan have seen frequent crises erupt over the years, made worse with the absence of any credible confidence and security building measures between the two rivals. In spite of the end of the Cold War and the disintegration of the Soviet Union in 1989 and 1991 respectively, even today the U.S. and Russia have scores of established barriers to NATO-Russian cooperation, which include impediments to information sharing, writes Pavel Podvig.⁹⁵ The “Net-Centric Warfare (NCW) is a new organizational principle,” wrote Neuneck and Alwardt, “that binds together surveillance, command, control and weapons use in a network, cross linked by communication and data interfaces.”⁹⁶ In the 21st century, under the NCW, armed forces would strive to achieve knowledge about the movements of the enemy; their efforts complemented by the multi-dimensional objectives of RMA components that can gain access to the enemy’s movements on the other side of the border.⁹⁷ Presently, both countries do not have an effective NCW that could indicate increased visibility of troop movements on the border during a crisis. Therefore, the fog of uncertainty is expected to linger on for the time being or unless Indian strategic collaboration agreements with the industrially advanced countries or through indigenous R&D, acquire the requisite technology for this objective.

The evolving speed of the RMA is expected to further transform land, sea and air operations in addition to opening up other avenues relating to warfare, primarily in two new spheres: space and the information spectrum. Such progression of the RMA would make land combat dominated by deep strike operations and the non-linear close combat guided by small, highly mobile, stealthy formations, more frequent. Naval warfare driven below the surface, and

land and space-based systems would increasingly dominate the extended sea areas thus requiring a large-scale system for command infrastructure. Future warfare is expected to be dominated by counter-space operations and space-to-ground attacks as well as the emergence of independent as well as integrated information warfare structures, including satellite communications and space assets. However, heavy dependence on sophisticated information warfare apparatus could also become a prospective Achilles heel as protection of such infrastructures would be a great challenge for the emerging beneficiaries of MT.⁹⁸ India apparently does not possess integrated information warfare capabilities. However its expanding scientific and joint R&D projects with its strategic allies will certainly augment its RMA-related war fighting capabilities.

Concluding comments

It is critical for Pakistan to understand that in the current security scenario it cannot depend on industrially developed countries to share cutting edge technologies such as drones, robots, directed energy weapons (DEWs), missiles, and UAVs. On the other hand, in all likelihood the West would selectively share some, if not all, of such technologies with its most important ally, India, with the intention to further its Asia-Pacific pivot policy for the 21st century. Such capabilities would be highly destabilizing. In actual fact, the induction of advanced technological tools in Indian hands are surely to influence its military doctrine, behaviour toward other states, and impact its organizational concepts that are likely to change the very character and conduct of future military operations.⁹⁹ This would naturally require adequate response measures from Pakistan with the aim to blunt India's ostensible efforts to influence Islamabad's foreign and security policy with the sheer force of its overwhelming conventional, strategic, and revolutionary MT components.

However, in terms of a regional security order, India would not be in a position to go without receiving a proportionate response from its peer competitors, China and Pakistan. In addition, technical-tactical limitations to political, social, ethical, and cultural contexts have prevented even a superpower's potential to enforce its strategic domination over its opponents after 9/11.¹⁰⁰ Despite U.S. claims of "The security environment between now and 2015 will also likely be marked by the absence of a global peer competitor able to challenge United States militarily around the world as the Soviet Union did during the Cold War,"¹⁰¹ the state was unable to succeed in achieving its strategic objectives.¹⁰² Recent history bears further testimony to the fact that despite the absence of a peer competitor, the U.S. has been unable to achieve most of its strategic goals enshrined in its first post-9/11 document – *The National Security*

Strategy of the United States of America, through sheer application of unparalleled military force, and political and economic supremacy.¹⁰³ In the South Asian context then, the pivot of military power is unlikely to succeed due to the prevalent geostrategic environment and the growing role of another emerging military and economic power house – China.

In the context of Pakistani polity it is imperative to establish a stable and democratic, knowledge and merit-based society, in order to sustain a resilient military punch. The creation of a knowledge-based society requires generous literacy and a versatile technical framework to meet the challenges of RMA, geo-economics, and non-military security threats. In the realm of security, military and nuclear deterrence would continue to be a robust instrument in the hands of Pakistan to dissuade the adversary from any misadventure. Warfare is perpetually undergoing a revolutionary transformation in the 21st century, which will continue to improve the national security of advanced industrial states and at the same time increase the vulnerabilities of technologically less developed states. Furthermore, the advanced states are increasingly turning to space to strengthen their national security, which provides them the prestige, influence, and clear advantage in information, intelligence, precision, and strategic planning. The only weapon system that is enhancing the mutual vulnerability of states is the existence of nuclear weapons, which prompted Sergei Lavrov to remark on the impracticability of denying the significance of nuclear weapons in present-day international politics, especially when technological asymmetries between the states are increasing.¹⁰⁴

In South Asia, India has already evolved flawed military strategies, including the military modernization process to use a proactive strategy of CSD, to ostensibly fine-tune a policy of “dissuasive deterrence” against Pakistan, and to reinforce “dissuasive defence” with regard to China.¹⁰⁵ The geographical terrain along the Himalayas clearly favours the defender, India, against China. India’s nuclear deterrence continues to reinforce the dominance of defence in its calculus and might be the rationale behind Delhi’s adoption of a policy of strategic defence against Beijing. A strong dissuasive-deterrence potential against Pakistan would continue to enable New Delhi to maintain a pro-active military posture due to its advantage in conventional force ratio. This would translate into maintaining versatile and highly capable conventional defence forces to coerce Pakistan in spite of the existence of robust nuclear weapons capability. Therefore, Pakistan would require a highly responsive counter strategy by integrating all dimensions of conventional, strategic, including counter-value and counterforce,¹⁰⁶ and other components of RMA, in a sufficiently robust fashion to call India’s bluff of operationalising a limited conflict under a nuclear overhang.

In addition, Pakistan should also venture beyond traditional thinking and start conceiving unconventional and dominating manoeuvres with its existing conventional, strategic, and RMA-related capabilities. In geostrategic terms, the landscape of South Asia is gradually and intractably becoming a part of the larger Asian security complex.¹⁰⁷ The emergence of the Asia-Pacific pivot concept in today's strategic lexicon is drawing the lines that are likely to impact the policies of states that are directly coming under its orbit.¹⁰⁸

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