**India s nuclear forces badly fade S Asian deterrence capability**

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Recently, a Pakistani senior fellow at CISS, spoke about how India’s strategic programme had transformed in nuclear latent capabilities in the last two decades. This includes its civil nuclear energy programme (comprising heavy waterpower reactors) outside safeguards and the nuclear fuel cycle.

More specifically, it appears that India’s fissile material production capabilities, comprising uranium enrichment and fuel reprocessing facilities, as having exponentially expanded in terms of their size and efficiency. Equally worrisome, in his view, is India’s stockpile of a huge strategic reserve of high-quality reactor-grade plutonium which is weapon-usable and far exceeds the fueling requirements for the potential breeder programme. India’s nuclear buildup coupled with its rapidly growing missile and space programme was catalysing transformation in Indian force posture and doctrinal thinking, which has generated instability and undermined deterrence capability in South Asia.

India continues to fulfill its nuclear obsession of modernizing its nuclear weapons arsenal while operationalising its nascent triad. It is estimated that India currently operates eight nuclear-capable systems: two aircraft, four land-based ballistic missiles, and two sea-based ballistic missiles. At least three more systems are in the developmental stage, of which several are nearing completion and will soon be combat-ready. With the operation of its Dhruva plutonium production reactor at the Bhabha Atomic Research Centre complex near Mumbai, New Delhi has its over ambitious plans to build at least one more plutonium production reactor. While adding to the estimated 5,400 kilograms of reactor-grade plutonium included in India’s strategic stockpile (International Panel on Fissile Materials 2018), the under construction unsafeguarded 500-megawatt Prototype Fast Breeder Reactor at the Indira Gandhi Centre for Atomic Research near Kalpakkam could drastically transform India’s plutonium production capacity significantly in the near future.

Deterrence stability in South Asia could have been secured only when the two states, India and Pakistan have had no reason to fight — or if they do, when nuclear and conventional capabilities are balanced and national trajectories are commensurate to the strategic environment

Understandably, Pakistani analysts and government officials have been complaining about Indian strategic developments for decades since the very nuclear explosions at Pokhram-1-11 in 1974 and 1998 respectively. And yet, as both India-Pakistan made a mutual nuclear declaration as a nuclear state in 1998, there appears an immense appeal in the thesis that India-US nuclear civil energy deal in 2005 provoked an unbridled means for India regarding the expansion of its nuclear plans which has drastically created a strategic imbalance / instability in South Asia.

The Pakistani analysts opine that Indian efforts to develop precision-strike, nuclear-capable missile systems as well as ballistic missile defense technology have motivated Pakistan to have continued modernization of both ballistic and cruise missile since the Indian Ballistic Missile Defence (BMD) programme intensifies destabilizing arms race in South Asia. The deployment of BMD certainly increases the reciprocal fear of surprise attack. Hence the logical option for Pakistan is to build nuclear weapons only that needed for deterrence, which is highly imperative for the credibility of Pakistan&#39;s nuclear deterrence that ensures the continuity of strategic stability in South Asia, instead of accelerating arms races in the region Still today, India possesses an enhanced strategic nuclear programme which fields nuclear-capable aircraft and ballistic missiles controlled by a civilian command structure, the Nuclear Command Authority. New Delhi has an estimated stockpile of 120-150 warheads and is expanding its military nuclear capabilities. New Delhi has richly spent over the enhancement of its nuclear weapons as it has been continuously spending over its ballistic missile defense system, longer-range ballistic missiles, nuclear submarines, MIRVs [PDF], and ground-, air-, and sea-launched cruise missiles, among other systems.

Against this backdrop, Pakistan has been justifiably compelled to exercise all available options including a possible strategic realignment with other big powers in the region. Pakistan and India continue to diversify their nuclear weapon capabilities in ways that make deterrence stability more difficult. Two kinds of delivery vehicles — short-range systems that must operate close to the frontlines, and sea-based systems — are especially problematic when command and control is maturing and when operational safeguards are opaque. And consequently, Pakistan has been justified in revitalising the short-range systems– to counter Indian conventional military advantages, and to India’s sea-based nuclear capabilities that are coming online.—takes a high priority.

As for expansion in India’s nuclear power capability, we see that India has five electricity grids – Northern, Eastern, North-Eastern, Southern and Western. All of them are interconnected to some extent, except the Southern grid. All are run by the state-owned Power Grid Corporation of India Ltd (PGCI), which operates more than 95,000 circuit km of transmission line. However, for the longer term, the Atomic Energy Commission envisages some 500 GWe nuclear online by 2060, and has since speculated that the amount might be higher still: 600-700 GWe by 2050, providing half of all electricity.

Another projection is for nuclear share to rise to 9% by 2037. In November 2015 NPCIL was talking of 14.5 GWe by 2024 as a target.In March 2018, the government stated that nuclear capacity would fall well short of its 63 GWe target outlined in the 12th five-year plan for 2012-17. The total nuclear capacity is likely to be about 22.5 GWe by the year 2031.

Arguably, deterrence stability in South Asia could have been secured only when the two states, India and Pakistan have had no reason to fight — or if they do, when nuclear and conventional capabilities are balanced and national trajectories are commensurate to the strategic environment. And yet, the nuclear capabilities are roughly equal on the subcontinent, but disparities in national power are great and growing. The advent of new military technologies and resource advantages/competition between India and Pakistan have downplayed the core of conventional capabilities.

“The Credibility of India’s Nuclear Deterrent,” Manoj Joshi analyzes key conditions driving possible changes in India’s nuclear doctrine — domestic politics, the nature of political leadership, the imperatives of command and control, civil-military relations, and external factors. In order to offset the advantage of stable deterrence to its numerically inferior neighbour, India came up with a limited war doctrine, popularly known as the Cold Start. The doctrine envisaged that following a terrorist attack allegedly perpetrated by Pakistan, India would promptly attack, capture limited territory, cause adequate destruction and consequently embarrass/ discredit its armed forces.

Needless to say, the South Asian security environment is constantly in a state of flux due to the rivalry of two nuclear powers, India and Pakistan. Nevertheless, it is critically important to maintain a stable and credible deterrence at the lowest possible level. Pakistan has often proposed India to develop a “strategic restraint regime” to avert the possibility of a total war that could culminate in a nuclear war.

India’s over ambitious-cum-over obsessive nuclear designs; while Pakistan’s pragmatic restrain have actually resulted in creating strategic instability in South Asia, where the quest for the maximisation of nuclear power(India’s acquisition of MIRVs) creates a ‘security and peace dilemma-thereby fading the concept of deterrence capability in the region. It is unfortunate that India and Pakistan could be repeating the most formidable scenario ushered in by the United States and Russia during the Cold War era: building destructive nuclear forces far out of proportion to their role in deterrence.