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CLAWS Journal

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CLAWS Vision: To establish CLAWS as a leading Think Tank in policy formulation on Land Warfare, National Security and Strategic Issues.

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MESSAGE

On the occasion of 15 Years of Excellence of the Centre for Land Warfare Studies, I extend my felicitations and best wishes to CLAWS for reaching a milestone. My compliments for having emerged as an institute of excellence in the field of Land Warfare, National Security and Strategic Issues.

As we introspect and reflect on the years gone by, I can say with conviction that the journey of CLAWS has been highly encouraging and productive in accomplishing the objectives and goals with perseverance and dedication. CLAWS has grown in stature with a number of brilliant initiatives such as policy recommendations on matters of national security, the CLAWS Outreach Programme, CLAWS Strategic Vision programme, the Field Marshal Manekshaw Essay Competition, field study projects and its varied publications in addition to PROMEX. I am also happy to note that 'CLAWS Journal' is now hosted on Open Journal Systems. This will enable the Journal's content to be abstracted and indexed across Global Universities and Libraries.

In this journey, the CLAWS Journal, which is the flagship publication has been a key achievement. The Journal has contributed to the building of a rich and diverse knowledge base on areas concerning India's national security; issues of regional and global security; doctrine, military strategy, war fighting concepts, defence technology and acquisition. With every year, the Journal has significantly grown both in scope and scale and has been constructive in offering a multi-dimensional perspective from eminent scholars belonging to both civil and military backgrounds. Certainly, the CLAWS Journal has been instrumental in advancing the ongoing debates by providing a broad spectrum of understanding and assessment on relevant issues. I acknowledge the contribution of every author and dedication of the editors that has helped make CLAWS Journal significant.

As Patron CLAWS, it gives me immense pride to see CLAWS achieve success. I am confident that CLAWS will live up to the trust reposed on it and meet the aspirations of promoting strategic thinking in India. My sincere compliments for your efforts to achieve excellence and resolve towards nation building. I wish CLAWS greater success in future endeavours and would end with a quote by General Patton:-

" If everybody is thinking alike, then somebody isn't thinking"

Jai Hind !

(Gen MM Naravane)
PVSM, AVSM, SM, VSM, ADC
COAS and Patron, CLAWS

Note from the Editor

CLAWS Journal Winter 2020 is a "Special Issue" that holds significance in many ways. Contextually, it highlights the commemorative spirit of the 15 Years of Excellence of the Centre for Land Warfare Studies, and conceptually it puts forward an understanding of China in the current dynamic vis-à-vis India, from a wide range of perspectives, especially from India, United States, Bangladesh and Australia.

The COVID-19 pandemic has caused significant/uncertainty and has been added to the already volatile global security environment, which has been a complex 'no war, no peace' situation. But amidst the pandemic, it is the 'China factor' that has taken a greater precedence in influencing the security matrix. China's Three Warfare Strategy and Wolf Warrior Diplomacy compounded with its increasing expansionist designs against India in Eastern Ladakh are confirmatory of an aggressive and assertive China. Besides, the ramifications of the Belt and Road Initiative are exemplified by the signs of 'debt trap, defying China's "win-win" logic'. With COVID-19 making no difference to China's attitude, it is indeed a red alert! In this regard, the Journal provides a much-needed understanding of the changing security dynamics amid the COVID-19 pandemic and, specifically, focuses on the China factor in India's national security calculus—both directly and indirectly.

Highlighting the consequential effects of COVID-19 combined with the looming China factor on India's national security concerns, both regional and global, the Winter Issue brings together 18 original contributions in the form of articles, commentaries and book reviews by various authors. The articles highlight the fact that the underlying global security concerns are accelerated and marked by 'new challenges to the old notions of threat'. In case of India, with its rising global profile,

the situation gets compounded with growing security challenges from China and Pakistan acting as the key de-stabilisers. The ongoing Fourth Industrial Revolution and technological advances are driving changes in the character of warfare, leading to a few scholars challenging the Clausewitzian propagation of 'unchanging nature of warfare'. What adds to it is the challenges posed by the pandemic, the rapid technological advancements, increasing risks of natural disasters and others that are constantly shaping India's national security paradigm.

The winter issue of the CLAWS Journal will be an insightful and comprehensive read, and indeed makes significant value addition to the ongoing debates on the emerging technologies, analysis of air power, information-cum-psychological warfare, and on issues concerning China's influence operations during the pandemic, its growing footprints in the Middle East and the Military-Civil Fusion Strategy.

In an overall assessment, the Journal with its special focus on China, discusses India's national security from the vantage point of the China factor.

Wish you an interesting and insightful reading!

Editor-in-Chief

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The vision of the CLAWS is to develop a 'strategic culture' to bring about synergy in decision making both at national and operational levels. Since its inception, CLAWS has established itself as one of the leading 'think tanks' in the country. To achieve its vision, CLAWS conducts seminars (at Delhi and with commands), round table discussions and meetings with academia and intellectuals of strategic community both from India and abroad. CLAWS also comes out with a number of publications pertaining to national and regional security and various issues of land warfare.

Members are invited to all CLAWS seminars/round table discussions (details regarding impending events are communicated to all members through e–mail. Information also available on our website, http://claws.in). For the benefit of members, who cannot attend various events, reports are forwarded through e-mail. Members are sent copies of the bi-annual CLAWS Journal & Scholar Warrior, occasional (Manekshaw) Papers and given membership of the CLAWS Library. From 01 January 2020, certain occasional papers would be made available to the members digitally only.

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The Ladakh Crisis and the Opportunity for US-India Relations—with A Catch[1]

Michael Kugelman

Abstract

The recent India-China border crisis in Ladakh underscores the threat posed by Beijing to United States (US) and Indian interests in the Indo-Pacific region. Accordingly, the spat presents opportunities to strengthen US-India partnership. However, the crisis also risks exposing the partnership's limits. This paper argues that to fully capitalise on the opportunities that the crisis generates for US-India relations, Washington and New Delhi should make some definitional and operational calibrations to their relationship. Additionally, America should expand its geographic conception of "Indo Pacific" beyond sea-based theatres and into land-based spaces, including the Line of Actual Control (LAC). This wider purview would strengthen US-India relations and serve US interests more broadly by expanding the scope for cooperation with Indo-Pacific states within the ambit of America's Asia policy.

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Introduction

There is so much that's not known about the India-China crisis in Ladakh, even many months after it began. There are no clear answers to some very fundamental questions: Why did this crisis happen, and why did it happen when it did? However, what is known is that the horrific events of 15 June 2020 plunged India-China relations to their lowest point in decades. From the perspective of Washington, where support for deeper partnership with New Delhi is strong, sustained and wholly bipartisan, there is a clear strategic takeaway: The crisis provides a major opportunity for the US-India relationship. However, for Washington and New Delhi to fully capitalise on this opportunity and achieve real forward movement towards true strategic partnership, some tough policy steps would be required to be taken by both sides.

Deconstructing the Drivers of a Dangerous Dispute

The causes of the Ladakh crisis, to the extent that we can identify them with confidence, go well beyond local factors—such as infrastructure building along the LAC. This is not to minimise the significance of these road projects, but there was clearly much more at play.

Road building along the LAC is not new. It has sparked many India-China border spats in the past; including most recently, the Doklam stand-off in 2017—which was triggered by China's decision to extend a border road. And yet, border spats in the past triggered by road building (including the most recent previous one, back in 2017 on the Doklam Plateau) have not been nearly as long, tense, violent and deadly as the Ladakh crisis. That is because road building was not likely the only trigger for the latest border spat. There are four other more powerful—and more global—drivers likely at play. Each of them, in their own way, demonstrates how the dynamics of the current crisis accentuates the opportunities for strengthening US-India partnership.

First, over the last few years, Beijing has adapted an increasingly muscular foreign policy meant to better pursue its interests overseas, including asserting its territorial claims. Beijing itself has given this new muscular policy a name—"wolf warrior diplomacy."[2] This policy has manifested itself through provocations in the South China Sea, increasingly bellicose language addressed at Taiwan, and a new national security law in Hong Kong—all of which happen to be deeply concerning to Washington and its treaty allies and partners in Asia. It is within this broader context that we should view China's unusually robust provocations—multiple incursions in many areas along the LAC—in Ladakh.

Second, a key geopolitical driver of the current spat is the US-India-China relationship. The US-China relationship is arguably about as tense as a relationship can be without being in a hot war. By contrast, the US-India relationship is on the ascent.[3] It's been growing rapidly since the early 1990s, and especially, the early 2000s, but it's enjoyed a rapid growth mainly under the presidency of Donald Trump. As noted, it is one of the few key US' bilateral partnerships that hasn't suffered in the Trump era. Rising concern about China's activities in Asia is a major reason why the Trump administration's signature Asia policy, its Indo Pacific strategy, is all about counter-balancing China; wherein, it envisions India playing a key role in that endeavour.[4] So, looking at the Ladakh crisis, Beijing's moves can be seen as an effort to deliver a tough message to both Washington and New Delhi: *If you two are going to band together against us, then be ready to get pushed back.*

The third factor is the coronavirus pandemic. Beijing has suffered a major blow in the court of global public opinion, with many key capitals—including New Delhi but especially Washington—issuing harsh criticism of Beijing for its poor initial handling of COVID-19. This criticism argues that China's lackadaisical initial response enabled the virus to rapidly spread beyond China's borders and in due course to become a deadly

pandemic. Beijing, finding itself on the defensive, has harboured a need to go on the offensive to telegraph defiance, toughness and strength. This likely helps explain why China acted boldly in Ladakh.

A fourth key geopolitical factor that can help explain Chinese provocations in Ladakh is India's repeal of Article 370 and 35A of its Constitution in August 2019.[5] Beijing's foreign ministry immediately rejected the move in a strongly worded statement. It also responded unhappily after New Delhi published, in November 2019, new maps reflecting changes in India's cartography that included the reorganisation of Ladakh as a Union Territory, following the abrogation of Article 370 and 35A.

While in late June 2020, two months after the Ladakh crisis began, the Indian journalist Sushant Singh published a report revealing that Indian and Chinese forces had actually experienced a clash along the LAC back on 11 September 2019. That tussle, which injured 10 Indian soldiers, took place just weeks after India repealed Article 370—thereby, suggesting a desire by Beijing to send a tough message to New Delhi about India's actions the previous month.[6]

Significantly, while some voices in Washington—particularly on Capitol Hill—publicly criticised the draconian effects of the Article 370 repeal, such as the detention of politicians in Kashmir and a communications blackout there, the Trump administration did not express any public opposition to India's move. This fact would not have gone unnoticed in Beijing.[7]

These likely drivers of the Ladakh crisis underscore how a complex India-China relationship—one buoyed in recent years by a robust trade partnership and relatively cordial diplomatic ties, but constrained by growing strategic competition and security tensions—has become increasingly fraught. This very aspect highlights the convergences between Washington and New Delhi.

Reviewing the Ramifications

The geopolitical consequences of the crisis underscore both a dangerously tense India-China relationship, and the possibilities for scaled-up US-India partnership—but only if each side is willing to take some ambitious steps.

First, the Ladakh crisis amplifies China's rapidly deepening footprints in South Asia. The main accelerant of Beijing's growing regional reach is the Belt and Road Initiative (BRI). There are four South Asia-focused envisioned aspects of BRI: The China-Pakistan Economic Corridor (CPEC), the Bangladesh-China-India-Myanmar Economic Corridor (BCIM) (which India has not surprisingly rejected), a Trans-Himalayan Corridor involving Nepal, and a Maritime Silk Road initiative enveloping Bangladesh, Maldives and Sri Lanka. In view of this, the Ladakh crisis shows how Beijing does not only use the carrot of BRI to build out its presence in the region, but also the stick of military provocations. First, there was Doklam, now there is Ladakh. This is problematic for New Delhi as well as Washington. To argue so, as interests of the US are not served by Washington's top strategic rival deepening its influence and presence of one of its top regional partners in the backyard.

Another core implication of the crisis gets to the heart of the matter. The US-India relations stand to further improve—but with a potential catch.

The Trump administration has viewed India as a key partner in US efforts to build out its Indo-Pacific strategy, because it has seen India as an emerging power—both economic and military and with the capacity to work with the US to counter-balance Beijing. The administration has also recognised that India and the US are united in their intensifying concern about China's growing power, and the threat it poses to Indian and US interests.

Significantly, such views enjoy bipartisan support in Washington—however, they do not only reflect the Trump administration's thinking.

Indeed, in a January 2020 *Foreign Affairs* essay laying out his foreign policy vision; Joe Biden, a strong proponent of US-India partnership, wrote for the need to "get tough with China." He elaborated as follows:

> "China represents a special challenge. I have spent many hours with its leaders, and I understand what we are up against. China is playing the long game by extending its global reach …We need to fortify our collective capabilities with democratic friends beyond North America and Europe by … deepening partnerships from India to Indonesia to advance shared values in a region that will determine the United States' future."[8]

Beijing's wolf warrior diplomacy is problematic for US Republicans and Democrats alike. This is not just because it entails America's top rival throwing its weight around more aggressively on the world stage, but also because it poses direct threats to the interests of the key US partners like India, treaty allies in East Asia, and friends in Taiwan and Hong Kong—and by extension US interests.

In effect, the Ladakh crisis, for Washington, underscores the harm that China can inflict on India.

It's notable that Washington took on an unusually public role in the Ladakh crisis. Usually when there are India-China border standoffs, the US stays mum publicly while privately offering intelligence support to India. But in this case, several senior US leaders—Alice Wells, until recently the top South Asia official at the State Department; Elliot Engel, the chair of the House International Relations Committee; Mark Meadows, President Trump's chief of staff; and Secretary of State Mike Pompeo—have all been critical of China for its moves in Ladakh. Washington's more public response this time around is not only a function of a hostile US-China relationship, but is also an indication of its concern about its strategic partner India getting embroiled in a dispute with China.

The India-China border dispute stands to strengthen the US-India relationship because it crystallises their mutual concern about the dangers of China's growing power—the main geopolitical pillar undergirding US-India partnership. Additionally, with India-China tensions at a fever pitch, and with New Delhi's longstanding hesitation to antagonise China melting away, New Delhi could be prompted to move closer to the United States and pursue deeper security collaborations with Washington.

But here is the catch. For all the talk of its potential benefits for US-India ties, the India-China crisis actually risks exposing the *limits* of US-India partnership. There are two reasons for this.

First, the crisis has exposed the constraints that India confronts in pushing back against China—the very role Washington envisions New Delhi playing, in cooperation with America and other partners, as part of the Indo-Pacific strategy. India was provoked by China, with Beijing staging incursions on multiple points along the LAC, and yet—short of fighting back hard against Chinese soldiers on 15 June—India did not engage in any military retaliation, in large measure because it lacks the capacity to do so against its more powerful rival. New Delhi has engaged in economic retaliations against Beijing, including banning 59 Chinese apps, but such moves have not impacted China's force posture along the LAC. Indeed, Chinese forces continued to be hunkered down on territory that India considers its own long after the incursions were originally staged. This relative Indian inaction is particularly striking given that some experts in recent months have argued that while China may be the more powerful country, Indian forces actually may enjoy some tactical advantages vis-à-vis the Chinese military along the LAC.[9]

To be sure, India has gone on the offensive at times during the crisis. At the end of August; for example, Indian forces reportedly captured a Chinese military post after Chinese soldiers tried to occupy more territory that India claims as its own. However, while this manoeuvre may have given India a bargaining chip for its negotiations with China, the move—

much like India's economic retaliations against Beijing—likely did not have an impact on China's troop posture.

The second reason why the India-China spat risks accentuating the limits of US-India relations is this: If India moves closer to the US, there will be greater American expectations of India to agree to joint patrols and other operational cooperation with the US that New Delhi has long resisted. If India continues to resist this type of operational collaboration— the type of cooperation that Washington expects of its close allies—then that could impact US-India relations. After all, if India becomes a virtual ally of the US yet still refuses to engage in alliance-type behaviour, then when would it ever agree to do so?

Policy Recommendations

First, India and America should be encouraged, but also be cautious about the opportunity for stronger relations afforded by the India-China spat. Expectations should be carefully calibrated. The two sides should explore ways to transform the relationship into a truly strategic one—a partnership that goes beyond arms sales, intelligence-sharing, technology transfers, and other largely transactional measures that have characterised deepening bilateral security ties. Thanks to India's sinking relationship with China, there may be more political will in New Delhi to do so now than at any time previously—and not just because the fear of antagonising Beijing is not as great. The current crisis raises the possibility, albeit remote, of a future Indian conflict with China. There is little chance that America would intervene on India's behalf—beyond intelligence sharing and other modest tactical support—in a hypothetical India-China conflict. However, the likelihood may increase if Washington viewed New Delhi as a true strategic partner, in the way that it does treaty allies such as Japan and South Korea. And this would entail some big-ticket additions to the relationship—including a series of security guarantees and other accords that go well beyond the foundational agreements that bolster the US-India military partnership today.

This is not to suggest that New Delhi would seek US intervention in the event of an Indian conflict with China. In reality, India likely would be content with modest tactical US support. However, a repurposed US-India security relationship—one with security guarantees and other new features—would be essential if, in the event of a particularly serious and drawn out India-China conflict, the Indian side were to change its position and desire more robust US support.

If the US-India relationship is to undergo such a transformation, it will take ample time to consummate. It would then need to be carefully negotiated through a structured and sustained dialogue—a concept in which the Trump administration took little interest.

The bottom line is that as America and India continue to grow out their security relationship, they will need to contemplate how to craft this partnership so that it addresses both Washington's preference for more operational cooperation and New Delhi's reluctance to engage in alliance-like behaviour. New developments as the year 2020 drew to a close—including movement toward finalising the last of the foundational agreements between the two sides, and momentum towards revitalising the QUAD grouping comprising America, India, Australia and Japan—highlight some of the future contours of the US-India security relationship. However, such developments represent only a start.

Second, the seriousness of the current border crisis—and the likelihood that the deadly clash of 15 June could mean more violence in future stand-offs between the two nuclear-armed rivals—illustrates how the LAC is a new flashpoint in Asia. However, US policymakers have traditionally viewed the Indo-Pacific through a sea-based lens—and not surprisingly, American maritime cooperation with littoral states constitutes a core pillar of cooperation within the Indo-Pacific policy.[10]

And yet, if Washington wants the Indo-Pacific policy to focus on counter-balancing Chinese power, it would need to expand the geographic purview beyond the South China Sea, the Senkaku Islands, and other

sea-based theatres for Chinese power projection and provocations, and situate it in land-based spaces such as the LAC as well. This broader geographic scope would strengthen US-India relations, and it would also serve US interests more broadly by expanding the scope for cooperation with Indo-Pacific states within the ambit of America's core Asia policy.

Notes

1. An earlier version of this paper was prepared as part of a joint research collaboration between the Wilson Center and CLAWS. It was published on the website of both organisations. See "The Ladakh Crisis and The Opportunity for U.S.-India Relations—with A Catch," Wilson Center, August 7, 2020. Available online at https://www.wilsoncenter.org/article/ladakh-crisis-and-opportunity-us-india-relations-catch and https://www.claws.in/the-ladakh-crisis-and-the-opportunity-for-us-india-relations-with-a-catch/, accessed on September 5, 2020.

2. Ben Westcott and Stephen Jiang (2020), "Wolf Warrior Diplomacy: China Is Embracing a New Brand of Foreign Policy," CNN.com, May 29, 2020. Available online at https://www.cnn.com/2020/05/28/asia/china-wolf-warrior-diplomacy-intl-hnk/index.html, accessed on September 5, 2020.

3. For recent appraisals of the US-India relationship, see Michael Kugelman (2020), "Post-Trump's India Visit, the US-India Partnership is in a Good Place," Asan Forum, April 6, 2020. Available online at http://www.theasanforum.org/post-trumps-india-visit-the-us-india-partnership-is-in-a-good-place/ and Jeff Smith (2020), "Rising Above the Fray: The Trump-Modi Chapter in India-US Relations," The Heritage Foundation, February 19, 2020. Available online at https://www.heritage.org/asia/commentary/rising-above-the-fray-the-trump-modi-chapter-india-us-relations, accessed on September 8, 2020.

4. For a recent official articulation of this policy, see "A Free and Open Indo Pacific: Advancing a Shared Vision," U.S. Department of State, November 4, 2019. Available online at https://www.state.gov/wp-content/uploads/2019/11/Free-and-Open-Indo-Pacific-4Nov2019.pdf, accessed on September 8, 2020.

5. Ashley Tellis, a strategic analyst of South Asia, has concluded, based on his conversations with Chinese officials, that the Article 370 revocation was indeed a key motivating factor. See "Ashley J. Tellis on India's China Conundrum," The Grand Tamasha Podcast, Carnegie Endowment/*Hindustan Times*, September 22, 2020. Available online at https://grand-tamasha.simplecast.com/episodes/ashley-j-tellis-on-indias-china-conundrum, accessed on September 25, 2020.

6. Sushant Singh (2020), "First Signs of Trouble in Pangong was Last September, Days After Ladakh Became UT," *Indian Express*, June 28, 2020. Available online at https://indianexpress.com/article/india/india-china-lac-first-signs-of-trouble-in-pangong-was-last-september-days-after-ladakh-became-ut-6479516/, accessed on September 20, 2020.

7. For a useful assessment of Beijing's thinking in the context of the Ladakh crisis, see Yun Sun (2020), "China's Strategic Assessment of the Ladakh Crisis," June 19, 2020. Available online at https://warontherocks.com/2020/06/chinas-strategic-assessment-of-the-ladakh-clash/, accessed on September 15, 2020.

8. Joseph R. Biden, Jr. (2020), "Why America Must Lead Again," *Foreign Affairs*, January 23, 2020. Available online at https://www.foreignaffairs.com/articles/united-states/2020-01-23/why-america-must-lead-again, accessed on September 20, 2020.

9. See Frank O'Donnell and Alexander Bollfrass (2020), "The Strategic Postures of China and India: A Visual Guide," Belfer Center, Harvard Kennedy School, March 2020. Available online at https://www.belfercenter.org/sites/default/files/2020-03/india-china-postures/China%20India%20Postures.pdf, accessed on September 25, 2020.

10. See "Indo-Pacific Strategy Report: Preparedness, Partnerships, and Promoting a Networked Region", U.S. Department of Defense, June 1, 2019. Available online at https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF, accessed on September 25, 2020.
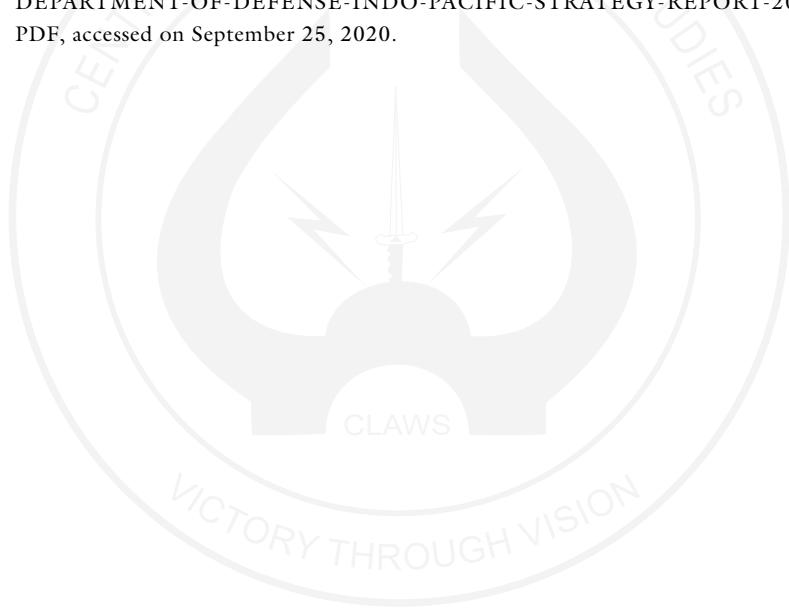
Psychological Warfare:
Call out Adversaries' Designs

V. K. Ahluwalia

"If you twist your enemy's perception of reality, you can manipulate him into strategic blunders that can be exploited for victory".

—Sean Mcfate[1]

Abstract

In the emerging security environment, psychological warfare has become a significant and a cost-effective non- lethal method to influence the target segment that is not controlled by any universally accepted laws, rules, usages and customs. What adds to it are the radical changes in the geo-political and geo-economic environment, information and communication technology (ICT), which is not only the predominant driver of change in the future conflicts, but it is a potent weapon of today and tomorrow. The paper aims to briefly study the historical perspective and application of psychological warfare (psywar) at all levels, including international, national, and military levels. With a brief look at different terms in vogue and the overall aim, it would also briefly analyse the psywar being waged by Pakistan and China against

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*Note: The latest data used in the paper is until 30 September 2020.

India at different levels and what should be India's actions to ensure an effective psywar policy and strategy.

Introduction

Since the recorded history of warfare, a wide variety of psychological, propaganda, deception, subversion methods and tools have been used to gain a position of advantage against an adversary with the aim to ultimately win, with or without the use of kinetic force. The subject has two distinct parts: one, psychological warfare (Psywar) and two, a war winning strategy. While psychology is the study of human mind and its effects on an individual's behaviour, attitude and perception, strategy aims to win by optimum utilisation of resources and achieving a position of advantage in different domains against an adversary.

Psywar refers to a planned use of information, propaganda and deception to achieve a position of psychological advantage against an adversary's cognitive domain by several methods like electronic and print media, and a wide variety of systems and tools available in the armoury of social media. George Gilder, author of *The Quantum Revolution in Economics and Technology,* emphasises on the significance of human mind, as he states, "The most valuable capital is now the capital of human mind and spirit."[2] Therefore, the primary aim of psywar is to target the cognitive domains so as to inform, influence, persuade and shape the perception of the targeted population, leaders as well as rank and file of security forces.

Qiao Liang and Wang Xiangsui, two senior colonels of PLA's Air Force, in their seminal book *Unrestricted Warfare* (1999) posited that:

"From a computer room or from the trading floor of a stock exchange, a lethal attack on a foreign country can be launched from anywhere. In such a world, is there anywhere that is not a battlefield? Where is the battlefield? It is everywhere."[3]

Furthermore, they also mentioned that "[t]he nature of Information Warfare is all encompassing and unrestricted in time and space and scope,"[4] suggesting that the battlefields are omnipresent, in all domains and walks of life. Hence, the scope and potential of information cum psywar is beyond imagination.

There are several terms like psywar, psychological operations (psyops), perception management, influence operations, public information, and propaganda in vogue with near similar meanings and functions. Psywar and psyops have been used interchangeably, as they complement each other. Even among the soft powers, it must be understood that psywar/psyops are an integral part of information warfare (IW). IW, in itself, is a dynamic concept, as its applications vary with the changes in ICT. Therefore, it does not really have a universally accepted definition. However, IW includes many offensive and defensive dimensions such as psywar/psyops, cyber, space, deception, electronic warfare (EW), information processes, networks, and physical structures. In the information age, IW and one of its important sub-sets called psywar is a vital element of national power to influence, persuade and dissuade the potential adversaries from taking any actions against its national interests. Simultaneously, it can mould or manipulate the perceptions of the target audience, at both home and abroad.

Information and psywar are immensely powerful weapon systems. It is evident, as Jaitner argues, "Information can be used to disorganise governance, organise anti-government protests, delude adversaries, influence public opinion, and reduce an opponent's will to resist."[5] Therefore, information cum psywar is not confined to military forces in contact battle alone, but are conducted at three distinct levels: strategic, operational, and tactical. Wherein, at the strategic level psyops exploit the weaknesses of the adversary on political, economic, social, religious, military, and environmental domains. At the operational level, the aim is to target a military theatre/region with two-fold objectives: one, to

demonstrate integration, effectiveness and strength of own forces, and ensure information assurance; two, to demotivate and demoralise the adversary by running false narratives, misinformation and disinformation campaign against it. While in tactical missions, psyops can effectively give a psychological advantage against an enemy by demoralising and delaying decision making, provided a force has a trained organisation and resources to do so.

A Historical Overview

History is replete with examples from ancient, medieval and recent times, wherein deceit, propaganda and psywar, albeit with different names, have been used to achieve one's objectives against an adversary. Corollaries can be drawn from the Indian epics; wherein, in *Ramayana*, Hanuman speaks of Rama and his multi-dimensional strength and the futility of going to war with his force; while in *Mahabharata*, Lord Krishna persuades Arjuna, the Pandava warrior, to go to war against Kauravas. To argue, Krishna's philosophical themes of *Dharma* was nothing but psywar that finally convinced Arjuna to pick up his weapon.

While other significant exemplars from world history include instances, such as: the ancient Greek civilisation's (800 BCE) use of the famous Trojan horse to deceive and defeat Troy; Sun Tzu's *The Art of War* (500 BCE), that advocated the method of attacking by stratagem and said, "He who is skilled in war subdues the enemy without fighting [...] War is a game of deception [...];"[6] and Kautilya's *Arthashastra* (320 BCE); wherein, great emphasis is laid on *Kutayuddha*—a concealed warfare using psywar by ways of disinformation, manipulation of public opinion and treachery in the enemy camp.[7] In the Chapter on 'Defence and War', psywar covers methods of propaganda by way of advertising and announcing the ill effects of bad omens in the enemy camp.[8] These tactics are played on the cognitive domains of the enemy's soldiers. To cite an example, two

centuries later, to prevent his adversaries from pursuing his army which was left with depleted strength, Alexander the Great of Macedonia had created fear among the local forces by leaving behind oversized armour plates, breast plates and helmets.[9]

In the 13th century, Genghis Khan, the Mongol military commander and a pioneer of IW, used unique techniques to carry out psyops and deception to create an illusion of invincible numbers and their brutality; thus, targeting their decision-making process. Techniques used included "agents of influence" to move in advance of his armies for face-to-face psyops, using a network of horsemen called "arrow riders" to communicate quickly with his commanders, and simultaneously targeting enemy messengers to prevent enemy commanders from communicating with each other.[10] The Mongols used espionage to plan their campaigns and deliberately used rumour and other means to exaggerate accounts of their own huge numbers, stupidity, and ferocity.[11]

Psywar was used extensively during World Wars I and II. To suggest two brief accounts of Psyops: first, during World War I, aerial leaflets were dropped by unmanned balloons over German trenches containing postcards from Prisoners of War narrating their humane conditions, surrender notices and general propaganda against the Wilhelm II, the German Kaiser (Emperor) and the German generals. And second, during World War II, several new tactics of deception and psywar were devised for the lead up to the Allied invasion of Normandy on June 6, 1944. The plan for the said operation (Operation Bodyguard) set out a general strategy to mislead German high command of the exact date and location of the invasion by multiple methods like fake radio messages, aerial reconnaissance in different sectors, etc.[12] Psyops and deception campaigns that preceded the Normandy invasion and the German invasion of Russia are in common knowledge.[13] Thereafter, psyops and deception strategies continued to persist using different tools of electronic and print media, until the Gulf War I in 1991.

The Gulf War I, namely the United States' "Operation DESERT STORM" in 1991, has been the most recent war in which IW was integrated with the kinetic operations—often described by a few as the "First IW". The US-led coalition forces had a quantum advantage over the Iraqi forces in terms of ICT, innovations, and technology-enabled systems. Psyops and deception strategies were employed extensively across the entire spectrum of the War, which included 18 hours of daily Arabic broadcasts and 66 loudspeaker teams deployed at the brigade level with coalition forces.[14] To facilitate operations of the Allied Forces, cumulative effect of the electronic, radio, TVs (CNN and other news networks), print, leaflets, and loud speakers were central to manipulating behaviours, attitudes and perceptions of the people. Thus, with the clever use of 'media' as a tool, psywar and propaganda played key to the 'war winning strategy'.

According to the US Department of Defense, it spends more than US$ 250 million per year on efforts to inform, influence, and persuade.[15] However, in assessing the negative results of US intervention in Afghanistan, it can be argued that the effectiveness of the US psyops and military information operations have progressively declined overtime, as noted between 2001 and 2010. To which, one of the major weaknesses that can be cited is that of America's inability to counter the Taliban propaganda campaign against US and the coalition forces on the theme of 'civilian casualties.'[16]

Different Syllables but Near Similar Terms: Seeking Clarity in the Ambiguity

Several strategic analysts have given certain interesting definitions or explanations to the terms like psychological operations, psychological warfare, propaganda, perception management, and influence operations based on their experiences, perceptions and application in the varied operational environments. Here, the imperative lies in de-coding the

existing 'overlap' in the understanding of these terminologies. The explanations of which are as follows:

Psychological Warfare: According to Robert Longley, a historian and government expert, psywar can be explained as a planned tactical use of propaganda, threats, and other non-combat techniques during wars, threats of war, or periods of geopolitical unrest to mislead, intimidate, demoralise, or otherwise influence the thinking or behaviour of an enemy.[17] As per the US Army Field Manual 33-1, published in August 1979; psywar is defined as, "the planned use of propaganda and other psychological actions to influence the opinions, emotions, attitudes, and behaviour of hostile foreign groups in such a way as to support the achievement of national objectives."[18] However, despite the radical changes to the systems and tools of communication, the concept still remains relevant, even today. In a broad assessment, the US Joint Chiefs of Staff defined psywar as one that "employs *any* weapon to influence the mind of the enemy."[19]

Psychological Operations: As per the US Army's Field Manual 33-1, psyops include psywar and encompass those political, military, economic, and ideological actions planned and conducted to create in neutral, friendly, and non-hostile foreign groups the emotions, attitudes, or behaviour to support the achievement of national objectives.[20] Wherein, the purpose is to create in foreign groups the emotions, attitudes, or behaviour to support the achievement of national objectives in which, the planned use of communication can be as simple as spreading information covertly by word of mouth or through any means of mass media.[21]

Perception Management: Simplistically put, based on the stimuli, information and projections, perception would refer to how we think about a person, organisation, military strength or weaknesses, political or economic situation, or social cohesion in a society.

Propaganda: Prima facie, propaganda gives a negative connotation by its very usage, as it is generally directed against an adversary. The purpose

of propaganda is to bring about a change in behaviour and perception of the adversary or targeted audience, in favour of the propagandist. It is noted that to accomplish its purpose, propaganda must fit within the cultural context of the audience; and should avoid direct attacks on the core beliefs and traditions of the target audience.[22]

Influence Operations: This refers to the means used to influence attitudes, behaviours, and decisions, that is "win hearts and minds" of the target audience, without resorting to (or excessive reliance on) the use of force.[23] Information operations and warfare, also known as influence operations, includes the collection of tactical information about an adversary as well as the dissemination of propaganda in pursuit of a competitive advantage over an opponent.[24]

Owing to these perspectives, it is to note that while one of the definitions above suggests that 'psywar is a part of the psyops'; here, it merits a mention that the term 'warfare' is a prolonged process in which operations and battles are a part of it. Similarly, psywar, though a subset of IW, is considered by nature as 'all-encompassing'; but it is essentially comprised of two key elements: First, planned use of communications, information, propaganda, and deception measures against political, economic, military, social, psychological landscapes. And second, aims to achieve the key objective of influencing opinions, attitudes, and emotions of targeted audience/groups—both within and outside the country, to serve its national interests.

To put into perspective, by 'psywar,' William Lind looked at shattering the enemy's psychological cohesion to act—wherein, the focus should not be on physical destruction.[25] In essence, with information superiority, the psywar calls for achieving key aims, such as: first, to demotivate and demoralise an enemy, and degrade the will to fight; second, to sustain and boost the morale of own troops, both on the front line and in the hinterland; third, to influence the emotions, morale, attitudes, behaviour of people, or manipulate the perception of targeted people; and fourth,

to shape the perception of audience at the global level. However, in the long-term perspective, 'credibility' acts as the fundamental principle to achieve success in psyops, wherein, information being provided should be based on truthfulness, to the extent feasible.

Psywar and Hybrid Warfare: New Ways of the Game

One of the key query remains: Can psywar or psyops achieve their objectives in a standalone mode? The answer to which is, 'No'. To argue so, as given the radical changes to the geo-politico-economic-strategic-technological environment, the warfare has evolved from clear territorial wars to uncertain, ambiguous, and irregular wars. In its new *avatar*, information, psychological and cyber threats have emerged as the most potent tools of future wars. Not only is psywar a subset of the overarching IW, it is also a part of the hybrid warfare—a term that gained prominence since 2005, mainly against the 34-day Israel - Hezbollah war of 2006. As the 36th Chief of the US Army, General George W. Casey posited that a new type of war that would become increasingly common in the future will be "*a hybrid of irregular warfare and conventional warfare*".[26] Hybrid warfare, also known as ambiguous warfare, is a blend of economy, military, information, psychology and cyber, with a view to achieve political objectives.[27] The range of hybrid tools continue to increase with changes in the geo-political environment, with new innovations in technologies and new ideas to serve one's national interests. In this process, information, psychological and cyber warfare are central to achieving the objectives of a hybrid warfare.

For instance, several analysts have considered China's application of "Three Warfares"[28] concept in the South China Sea (SCS) as synonymous to Beijing's 'hybrid warfare.' Therefore, hybrid threats are the new battle grounds of the future, as they pose a huge challenge to the national security of a country. IW and psywar are very much a part of the hybrid warfare, which is evident from the following contexts: Sean Sullivan writes about the use of mass communication networks, as it is one of the most powerful

psychological and propaganda tools in the world. Wherein, examples of hybrid warfare include dissemination of disinformation or fake news via social media, cyber-attacks on the IT systems or as the case in conflict in Ukraine, disinformation and the use of anonymous men, dubbed 'Little Green Men.'[29] Interestingly, Patrick Cullen *et al.,* have identified the vulnerabilities being exploited in which information is a vital element: "Hybrid warfare is designed to exploit national vulnerabilities across the political, military, economic, social, informational and infrastructure (PMESII) spectrum […]."[30] While Greg Grant emphatically suggests that as part of the situational awareness, it is easier to know about own troops, but does not solve the problem of finding the *"low signature"* enemy.[31] Thus these understandings clarify that the most potent threats emanate from information, psychological and cyber domains, as these can affect a large portion of the population in a short time.

Exploitation of Vulnerabilities by Adversaries

"*Tactics flow from a superior position,*" Bobby Fischer (Chess Player).

It may be fair to say that hybrid warfare is a strategy which employs blends of conventional warfare, irregular warfare, cyber warfare, communication networks and psywar with other influencing methods—directly or indirectly, to exploit vulnerabilities and thus achieve its political, economic and strategic objectives. In consonance with these objectives, it can be posited that in case of India, its adversaries have been exploiting its vulnerabilities in multiple domains and methods through fake news, false narratives, morphed images, videos, maps, blocking information dissemination systems, creating friction and social dissonance, communal disharmony, exhibition/demonstrating superiority, and others. More specifically, the adversary's psywar strategy is distinctly directed against four select segments: forces on conventional battlefield; leadership, population on both sides; and global community, as noted in Figure 1. It highlights the broad contours of the psywar, especially by China.

Figure 1: Broad Contours of Psywar
(Mainly as used by China against India)

Source: Created by the Author.

Similarly, cartographic aggression is also a form of hybrid cum psywar, which is used by an opponent to indulge in intentional misrepresentation of national/international boundaries on maps as to lay claims to additional territories in continental and maritime domains as well as influence public opinion at all levels. An example of which is cited in Figure 2.

Figure 2: Misrepresentation of the Map of India

Source: Adapted from Raghunandan and Shukla.[32]

Repeated publication of such incorrect maps by adversaries form a larger part of the psywar with an aim to not only influence perceptions to its advantage but also to facilitate legal claims later.

China's Psywar: Fight and Win
'Informationised Local Wars'

Due to lack of adequate information and analysis of China's IW and "Three Warfares Strategy," there remain critical gaps and some form of ambiguity. In the understanding of China's psywar. However, China wants to achieve information superiority, as seen in the Gulf Wars, to maintain battlefield supremacy. Based on Chinese President Xi Jinping's military reforms of 2015, the PLA has developed a potent non-kinetic capability in its new Strategic Support Force (SSF), which comprises of space, cyber, information (psychological) and varied other dimensions to support its IW capabilities. In keeping pace with the US and Russia, Beijing has developed necessary cyberwarfare capabilities, which are consistent with its military strategy and national security objectives.[33] China aspires to become not only the world's largest nation in cyberspace but also among the most powerful.[34] It realises that psywar is not only effective in military campaigns, but also holds far greater relevance to vital elements of national power. It is a powerful tool to change the social, political, and psychological landscape by its influence operations.[35]

An important component of it is the so-called "media warfare," which has been an unequivocal part of China's strategy. Beijing is buying up media outlets and training scores of foreign journalists to 'tell China's story well'—as part of a worldwide propaganda campaign of astonishing scope and ambition.[36] Media organisations involved in selling the China story to the global audience are the international arm of China Central Television (CCTV), China Global Television Network (CGTN), China Radio International (CRI), Global CAMG Media Group, and Oscar, to name a few.[37] They propagate in several languages.

Of the many institutions within the Chinese party-state involved in influence operations is the 'Chinese Influence Operations Bureaucracy,' fully committed to extending China's global influence. Broadly, there are three types of bureaucratic organisations included in the structure: (1) policy coordination; (2) policy formulation and implementation; and (3) organisations with specialised functions[38]—all aimed at propaganda management of China, both home and abroad.

China's 'Three Warfares Strategy': Hyper-active Psywar Strategy

Having seen the impact of IW along with kinetic operations in the Gulf Wars (1991 and 2003), the Kosovo Conflict (1998-99), and the role of mass media, China studied the concept and the method of war fighting in detail. In 2003, China introduced "Political Work Guidelines of the People's Liberation Army," which was subsequently revised in 2010 and called the "Three Warfares Strategy." The revised strategy comprises three main components: public opinion warfare, psychological warfare, and legal warfare.[39] China's PLA, the armed wing of the Communist Party of China (CPC), has effectively used the "Three Warfares Strategy" in its assertive designs against Taiwan and against its neighbours in the South China Sea. As Peter Mattis summarises the role of CPC, by arguing, "The party leads, the PLA follows. The purpose of influence operations is political power."[40]

While the fundamental aim of China has been to achieve information superiority, the essential elements of China's strategy have been: first, to gain political-economic-strategic advantage, it exploits the adversary's fault lines by using information cum psywar; second, wherever it sees any adverse effect on its core interests, including illegal claims on territories that gives it strategic advantage, it has been aggressive in its actions on the ground and has applied the "Three Warfares Strategy" against the adversary; third, to achieve optimum dividends, psywar is coordinated with deception and cyber-attacks, which can paralyse nation's finances,

transportation, health care, education, trade, military networks, and communication systems; fourth, China aims to shape the public opinion by playing the 'victim card', so that use of force or a military action would be acceptable to the global community; fifth, psywar gets enmeshed with China's three-pronged strategy: Debt Trap, Wolf Warrior and The Three Warfare.

Since 138 countries, across the world, have joined the Belt and Road Initiative (BRI) of China, it has invested heavily in the media companies of its BRI countries, to counter the narratives that highlight its (BRI) ills and the 'debt trap' diplomacy in the long run. It went on to organise a Belt and Road Journalist Forum in Beijing on 20 June 2018 to achieve multiple objectives.[41] Pro-China content has been carried as paid inserts/supplements by *The New York Times*, *The Wall Street Journal*, and the UK *Telegraph*. Although the western social media platforms like YouTube, Instagram, Twitter may be blocked in China, it invests heavily on foreign social media to carry, in a subtle manner, their psyops cum propaganda. In addition, at the global level, China is investing in training of journalists (largely from BRI countries) and creating job opportunities, apart from research conducted at Chinese universities and think tanks to project its image.[42]

China Using Psywar in the Himalayas: Military Stand-offs along the India-China Border

China has remained hyperactive in its application of "Three Warfares Strategy" during the 73-days Doklam stand-off in 2017, and with much greater vigour during the recent transgressions across the Line of Actual Control (LAC) at multiple points in Eastern Ladakh and stand-off between the two forces. The military stand-off since May 2020 in Nakula in Sikkim and Eastern Ladakh, followed by violent clashes in the Galwan Valley on night 15/16 June 2020, unleashed a blistering information-cum-psywar on electronic, print and social media. Twitter, Instagram,

Facebook, and YouTube carried morphed images, videos, maps, fake news, and false narratives with a view to influence the population and forces on both sides and gain a psychological superiority.

Simultaneously, the state-owned newspaper *Global Times* and the state broadcaster *CGTN* have been using customised narratives and false news as their main strategy to change the perception of the international audience. Few instances to highlight China's psywar strategy against India are noted below.

For instance, on 1 June 2020, *Global Times* reported, "Since the Doklam standoff with India in 2017, the Chinese military has expanded its arsenal with weapons … that should give China the advantage in high-altitude conflicts, should they arise."[43] It further mentioned, "With a powerful engine, the Type 15 lightweight main battle tank can effectively operate in plateau regions (that is) difficult for heavier tanks, and with its advanced fire control systems and 105 mm calibre armour-piercing main gun, it can outgun any other light armoured vehicles at high elevations."[44] However, it did not mention that while the Indian Army's relatively heavier tanks like the T-72 and T-90 are better protected, with automatic fire control systems, and more heavily armed with 125 mm smooth bore gun to engage the Type 15 at longer ranges. Also, these tanks and infantry combat vehicles (ICVs) complement each other to effectively manoeuvre in mountainous terrain of Eastern Ladakh. It also described the positioning of the unmanned heli-drones along the LAC, and the Z-20 as a medium-lift helicopter that "can adapt to all kinds of terrain and weather and can be used on missions including personnel and cargo transport, search and rescue and reconnaissance." The publication also quoted an official's statement that mentioned, "The Z-20 can operate in oxygen-depleted plateaus thanks to its powerful homemade engine."[45] While it maintained its tempo of psywar when it suggested that the Z-8G is a 'large transport helicopter' that focuses on 'plateau operations'. It claimed, "The Z-8G is the first of its kind in

China and can take off from 4,500 metres above sea level with a ceiling higher than 6,000 metres."[46]

With reference to the deployment of French-made Rafale fighter jet by India, *Global Times* noted, "Chinese experts said that the Rafale is only a third-plus generation fighter jet, and does not stand much of a chance against a stealth, fourth-generation one like the J-20."[47] Even when the diplomatic and senior military level talks were doing rounds, China continued to state that the PLA held high-altitude exercises on the Tibetan Plateau and that the TMC organises artillery exercises, during the day and night. It also reported that artillery firing produced a single shot precision effect at the target. The aim was to test the long-range precision strike and fire assault capabilities of the troops in the high-altitude regions. However, what China seems to ignore is that the Indian Air Force with its Rafale, Sukhoi Su-30 MKI, C17 Globemaster transport aircraft with strategic airlift capabilities, Chinook and Apache helicopters, and other advance facilities, has an edge over the PLA Air Force that operates from the Tibetan Plateau.[48] The primary considerations are the fact that Chinese airfields are at high altitudes, which results in certain operational drawbacks in terms of payload carrying capacities and their weapon systems, as well as the air defence cover on the ground.[49]

China continues to blow hot and cold to make India succumb to its coercion and intimidation tactics. Two days after the horrendous violence on night of 15/16 June 2020, the *Global Times* reported, "From a global perspective, China is India's biggest opportunity." Whom are they trying to woo or fool? Often, during the standoff, the Chinese officials including China's Ambassador to India continued to say that "both countries must avoid differences escalating into disputes."[50] This very statement is regressive in nature. In fact, it would have been more appropriate to suggest that the differences should be resolved, as part of long-term solution of the unsettled borders.

On 6 September *Global Times* expressed its disappointment at India's actions that are detrimental to China's economic interests, including banning 224 Chinese apps in India; and how this could adversely affect investment of 'capital, technology and experience' to bring up IT and infrastructure related projects. While on 9 September, it warned saying that "[…] if the Indian army fires the first shot at the PLA, the consequence must be the annihilation of the Indian army on the spot. If Indian troops dare to escalate the conflict, more Indian troops will be wiped out."[51] Similarly, an editorial read, "Indian border troops bravado will backfire."[52] Also, the State Broadcaster *CCTV* reported that the military was conducting "long distance manoeuvres deployment exercises and live fire drills." China's Psywar campaigns have been propagating their war preparedness, and that Indian troops cannot withstand the rigours of winters, poor logistics preparations, poor economy, and inability to control COVID-19.

Despite the talks between the foreign ministers of India and China at Moscow on 10 September, *Global Times* reported on 15 September, that "if India does not leave (meaning the LAC) and all diplomatic attempts fail, the PLA will be left with no choice but to push India out by force."[53] Chinese social media, websites, print and electronic media have been actively using the lessons of the 1962 War to shape public opinion and reiterate PLA's operational readiness against the current impasse. Such actions suggest that besides building public opinion worldwide and shaping the political landscape, China aims to create political friction, ideological differences, divide population as hyper-nationalists and moderates, to demotivate and demoralise its armed forces and thus implant doubts in India's capabilities both on the borders and in other spheres. By suppressing positive information and highlighting the weaknesses in governance of another country, China glorifies its economy and GDP, physical and technological infrastructure, software capabilities, innovative culture, communication systems and their applications. The aim is to coerce and intimidate neighbours, gain

strategic advantage, capture markets, and thus improve its own economy. True to the 'Unrestricted Warfare' constructs, it is evident that the Chinese government has been using all available tools and unconventional means to be aggressive to influence the target audience. Undoubtedly, China is not keen to settle the boundary dispute. Therefore, it is imperative for India to now re-calibrate its China policy involving political, economic, trade, investment, diplomatic, military, embedded technologies, information and psywar domains.

In response to China's incessant psywar campaign, at least four messages must be clearly given out: first, that Indian troops are battle hardened, both physically and psychologically, and are highly proficient in mountain warfare, and that any military misadventure by China will be dealt with severely; second, Chinese cannot gauge the motivation and morale of Indian soldiers—the man behind the weapon; third, an often quoted statistics has been that Indian military is no match to China's as the latter's economy and GDP is minimum five times that of India. History is replete with examples, including China's conflict with Vietnam, that suggests that outcomes of military conflicts are not dependent on economy and GDP differential alone. Fourth, no matter what, India will not compromise on its sovereignty and territorial integrity, and that China should be prepared for a bloody nose.

Pakistan's Psywar Strategy

"Whether it be Rafale or S-400, Pakistan Army is fully prepared and ready to thwart any Indian aggression."

—DG ISPR, Maj Gen Babar Iftikhar, 13 August 2020[54]

Along with proxy war and state-sponsored terrorism, Pakistan has used all available tools and government machinery to wage information cum psywar to undermine India's political, religious, ideological, societal,

economic, and military strength. While Jammu and Kashmir (J&K) has been the epicentre of *raison d'être*, its broader aim has been to destabilise India and to prevent development of India's comprehensive national power (CNP). The all too powerful organs, the Army and the Inter-Services Intelligence (ISI), and the military media organisation called Inter-Services Public Relations (ISPR) have used all tools of social media and several platforms to carryout propaganda and psywar against India. The media in Pakistan is managed and controlled by the ISI. ISPR was formed in 1949 as the public relations (PR) and media wing of the Pakistan Armed Forces. In recent times, it has shown its hyperactive presence on social media platforms, such as Twitter and YouTube, and has evolved into a well-organised psywar cum propaganda machinery, operating under the aegis of the military hierarchy.

ISPR's actual role and charter is much more than what is stated on its website (ispr.gov.pk). It is a tri-services organisation with a political mission, whose system of funding and utilisation continues to remain 'dark'. It manages Pakistan's entire propaganda through a huge network of influencers and foot soldiers in civvies.[55] It passionately believes that 'victory' is not only about the armed forces, it is determined as much by 'whose stories win.' Simultaneously, it aims to connect with the Indian Muslims through religious and cultural connections and their institutions.

An analysis suggests that the ISPR builds up its narratives logically, wherein: first, it creates a perception, and then convert perceptions into convictions by building better ideas, narratives, and reinforcing repeatedly. It controls and runs national narrative using ISI and Pakistan Electronic Media Regulatory Authority[56] (PEMRA).[57] Both ISI and PEMRA exploit a huge network of WhatsApp, internet, and Twitter 'warriors'. According to the ISPR website, 'ISPR produces movies, publishes books, stages dramas'; resultantly, it cultivates influencers and organises rallies across the world to propagate anti-India stance. ISPR coordinates military-

diplomatic efforts, and several civil luminaries help to maintain a facade of civil participation in government. It runs vast network of think-tanks headed by retired military officers and a few favoured civilian experts. ISPR has requisite resources and authority to run newspapers, TV, and radio programmes, like the state-run/sponsored Pak Observer, The Nation, ARY, Pakistan TV, FM 96, FM 101 and others. More than 3,000 interns join the ISPR every year.[58]

In April 2020, Pakistan Army released the *Green Book 2020*, which specifically calls for information warfare on Kashmir, threatens to derail Afghan peace process to prop up J&K and slams blackout in Valley.[59] Unsurprisingly, the policy recommendations have been made to counter India's action of 5 August 2019, to abrogate Article 370 and 35A in the state of J&K. As the *Green Book* suggests, "Pakistan will have to take the war into non-kinetic domains: Information/Cyber Warfare and Electronic Warfare (EW) Spectrum."[60] Besides recruiting and training several young people, Islamabad's propaganda machinery utilises millions of bots, motivated youth in the form of hackers, social media influencers; strategic think tanks and renowned journalists amidst their ranks. Besides, Pakistani terrorists consider deaths, destruction, violence, and its widespread publicity as a potent psychological weapon to terrorise the population at large.

Such actions by Pakistan fail to cease even in the disruptive times of the COVID-19 pandemic, as it continues to increase the intensity of psyops against India. With several internal challenges in hand, Pakistani leaders, including its Prime Minister, have been using all forms of media as well as social media to express: anti-India sentiments by highlighting oppression of the Muslims in India to maintain its political legitimacy. This is with a view to draw concessions from the world at large and the OIC, in particular. *The EurAsian Times* reported that Modi Government is quietly working to revoke the Indus Water Treaty (IWT) with Pakistan.[61] India's action to abrogate Article 370 and 35A in J&K has become the pivot of

psywar strategy of Pakistan. DG ISPR, be it Major General Asif Ghafoor (2016-20) or his successor Maj Gen Babar Iftikhar since February 2020, have been obsessed with hate India ideology, leading to vigorous psywar campaigns. In a circular issued by Pakistan, a year after the abrogation of Article 370, it declared that henceforth, IOJK will be referred to as IIOJK; thus, adding the word 'illegally' for so-called greater impact. Yet another psywar tactic! On 13 August 2020, DG ISPR drew attention of the media, by stating, "Indian occupation forces are committing genocide against the people of Indian Illegally Occupied Jammu and Kashmir (IIOJK)." Speaking against India has become an article of faith, in order retain political legitimacy. Pakistan uses all platforms and social media to generate false news, narratives, and misinformation on alleged human rights atrocities, depriving people of digital connectivity and communication facilities, violation of ceasefire on the Line of Control (LC), killings of civilians, etc., to arouse anti-India sentiments. To note, social media platforms have seen an exponential increase in messages, videos, images, hashtags since the abrogation of Article 370 in J&K.

Moreover, to build up the tempo to mark 5 August 2020, as the 'Black Day,' Pakistan authorities released a flowchart of activities to be undertaken by various nominated agencies and platforms, both within and outside Pakistan.[62] These activities included organising visit of foreign media and United Nations Military Observers Group in India and Pakistan (UNMOGIP) to LC, statements to be issued by ISPR in support of Kashmiris in their 'just' struggle, special editions of Kashmiris struggle against the Indian occupation, instituting special fund with domestic and global sources to support Kashmiris struggle, initiation of special supplements/transmissions to suggest indigenous insurgency, and composition of songs depicting resilience of the Kashmiris. Globally acknowledged as the epicentre of terrorism, Pakistan, as part of psywar, awarded its highest civilian honour—*Nishan-e-Pakistan*—to India baiter and Kashmiri Separatist leader Syed Ali Shah Geelani in August

2020. In addition, it announced establishment of Pakistan University of Engineering and Emerging Technologies after his name,[63] and the name of the country's main highway, Kashmir highway, was renamed 'Srinagar highway' (by renaming a highway, Pakistan may note that it will not take them anywhere). Again, ahead of the 75th session of the UN General Assembly (UNGA), on 19 September, Pakistan launched an online anti-India and free Kashmir propaganda on various social media platforms, carrying the hashtag "#*KashmirWantsFreedom*."[64] These activities only highlight how heavily Pakistan is invested in waging an anti-India campaign, all across.

The Nexus against India

Both China and Pakistan have information cum psywar organisations at the apex level. Since the stand-off between India and China at multiple points on the LAC in May 2020, Pakistani agencies have coordinated and given further impetus to 'Chinese psywar campaign,' by propagating fake news, narratives, images and misinformation through social media. For instance, a few social media accounts with Chinese characters like '*Zeping*' (with handle '*sawaxpx*'), '*xiuying637*' and '*Yasifxi*' that tweeted on the border violence were traced back to Pakistan as using Chinese names and tweets, the messages were received with greater reliability and credibility. This strategy has not just been limited to adopting Chinese identities. Pakistani accounts have also recently adopted Nepali and Sri Lankan avatars, all with the same motivation: posting information aimed at creating an unfavourable narrative about India.[65] The nexus between China and Pakistan, is outlined in Figure 3.

**Figure 3: Nexus Between China and Pakistan on
Information War against India**

Source: Adapted from Krishnan.[66]

An analysis of Pakistan's psywar cum propaganda campaign suggests that they continue to exploit the 'two nation theory', which pivots on lies, deceit and deception. It has the involvement of several organisations and agencies: Pakistan Army—the deep state, the ISI, and the ISPR. ISI enforces decisions and plans of Pakistani Army using MI, Investigative Bureau, Federal Investigation Agency (FIA), National Accountability Bureau (NAB), and Anti-Narcotics Force. The deep state is facilitated by the military-run-business, ISI and ISPR. While ISPR works under the Joint Headquarters, but it is effectively controlled by the Pakistani Army. As an organisation, it is well-resourced, well-equipped, and well-staffed which has expanded exponentially with the advent of information revolution and digital age. It has a multitude of skill sets which include creative directors, psychologists, audio specialists, animation experts, cartoon and meme creators, mimics, musicians, and speech writers, etc.[67]

India's Response Architecture

Looking at the contours of the psywar campaigns holistically, it becomes abundantly clear that India has largely been reacting and responding to the propaganda or psychological messages unleashed by China and Pakistan. Their strategies, objectives and *modus operandi* have already been discussed earlier. Being more defensive, India has predominantly aimed at shaping the perceptions of the domestic audience, which is not good enough. Although several measures were initiated to inform and counter Pakistan's proxy war and state-sponsored terrorism at the global level, such as the United Nations, India needs to develop a robust strategy—pivoted on pro-activity—against both China and Pakistan. In this process, India's media strategy should form an important part to pro-actively counter its adversaries' psywar and keep the global audience informed.

This brings in the pertinent question: What does the formulation of a successful Psywar Strategy involve? The fundamental elements required for psyops cum propaganda to be successful are: unambiguous psyops objectives in consonance with the national interests; identification and analysis of intended target segments; detailed study and intelligence; most effective method of dissemination of psyops material; credibility and impact of media; most appropriate language and priority of interests of targeted audience; analyse credibility and effectiveness of communications, and others. In addition, a detailed knowledge of the beliefs, likes, dislikes, strengths, weaknesses, vulnerabilities of the target segment or the military force would help to formulate a national policy and strategy.

According to the CIA, knowing what motivates the target is the key to a successful psyops. McFate says, "Pentagon spends US$ 120 million on a single F-35 which never flies in combat." He emphasises the significance of influence operations, and lays down three steps to influence and shape public opinion: first, monitoring intelligence agencies to know the enemy; second, discrediting fake news, alternative facts, bots, trolls, false narratives, etc.; and third, counterattacking by having more weapons in influence arsenal. [68]

One of the most significant measures to nullify our adversaries' psywar cum propaganda campaign is that we, as a country including all political parties, institutions, and people, should support and show solidarity with the government in power. It needs to be understood that psywar is a vital subset of IW; hence, it would require integration and coordination with other elements of the IW. Yet, there is dire need to have a comprehensive strategy and organisation to conduct psyops, which should include media strategy as well. One of the main components to facilitate success of a psywar campaign is to know the core values, and then identify and exploit the fault lines of the adversary. Therefore, the proposed organisation should have experts from psychology, sociology, media, language experts, legal, armed forces, political science specialists, foreign affairs, country experts, communication, and social media. In addition, they should be disciplined, diligent to keep abreast with the latest events and have high level of general awareness to formulate ideas and narratives.

Here, it is significant to note that the fundamental principle of psywar is that the planning should be centralised at the apex level because it addresses politico-socio-economic-psychological threats in all its manifestations. It must coordinate and integrate with vital elements of national power. The key objective lies in knowing: 'How do we really influence others?' This would then require developing capabilities such as public diplomacy, strategic communications, information operations, public relations (PR), discussions at different levels, and influence operations, by a wide variety of means. In addition, they should be disciplined, diligent to keep abreast with the latest events, and high level of general awareness to formulate ideas and counter narratives.

It would be prudent for India to formulate an integrated strategy, which must address all facets of psywar at all levels—international, national and military. Therefore, the need lies in establishing a psywar coordination agency at the apex level for providing guidance and implementation of national psywar actions. This would also include actions at the strategic,

operational, and tactical levels. Wherein, the operational level would entail war campaigns and major operations that are planned, conducted, and sustained to accomplish military objectives within a theatre or other operational areas.

Since psywar aims at targeting the cognitive domains, the strategy must also aim to promote awareness among the population at large and the armed forces. The document could be in two parts: classified and unclassified (available in public domain). Militarily, India must aim to gain information superiority that will provide information assurance to own forces, and have the capability to disrupt information system of the adversary. This would ensure cardinal principles of situational awareness and battlefield transparency, which would further help nullify the psyops campaign of our adversaries.

Notes

1. Sean Mcfate (2019), *The New Rules of War: Victory in the Age of Durable Disorder*, New York: Harper, p. 199.
2. George Gilder (1990*), Microcosm: The Quantum Revolution In Economics And Technology*, New York: Simon & Schuster.
3. Qiao Liang and Wang Xiangsui (1990), *Unrestricted Warfare*, Beijing: PLA Literature and Arts Publishing House.
4. Ibid.
5. Margarita Levin Jaitner (2015), "Russian Information Warfare: Lessons from Ukraine," in Kenneth Geers (ed.) *Cyber war in perspective: Russian aggression against Ukraine*, Tallinn: NATO CCD COE Publications.
6. See *Sun Tzu on The Art of War*, Allandale Online Publishing. Available online at https://sites.ualberta.ca/~enoch/Readings/The_Art_Of_War.pdf, accessed on August 30, 2020.
7. LN Rangarajan (1992), *Kautilya: The Arthashastra*, Noida: Penguin Books.
8. Ibid., pp. 689-690.
9. See "History and Evolution Of Psychological." Available online at https://shodhganga.inflibnet.ac.in/bitstream/10603/143164/13/11_chapter%204.pdf, accessed on September 10, 2020.
10. Adam Elkus (2011), "Information Warfare: A Historical Approach", CTOvision.com, September 16, 2011. Available online at https://ctovision.com/information-warfare-a-historical-approach/, accessed on September 10, 2020.
11. Paul M. A. Linebarger (2010), *Psychological Warfare*, California: Gateway Books and Tapes, p. 15.

12. During World War I, aerial leaflets were dropped by unmanned balloons over German trenches containing postcards from prisoners of war detailing their humane conditions, surrender notices and general propaganda against the Kaiser and the German generals. During World War II, the lead up to the Allied invasion of Normandy on 6 June 1944, many new tactics in psychological warfare were devised. The plan for Operation Bodyguard set out a general strategy to mislead German high command as to the exact date and location of the invasion, by multiple methods like fake radio messages, aerial reconnaissance. See Philip M. Taylor (1999), *British Propaganda in the Twentieth Century: Selling Democracy*, Edinburgh: Edinburgh University Press. Also see Gerhard Weinberg (1995), *A World at Arms: A Global History of World War II*, Cambridge: Cambridge University Press.

13. Adam Elkus (2011), "Information Warfare," n. 10.

14. Jeffrey B. Jones and Michael P. Mathews (1995), "PSYOP and the Warfighting CINC," *Joint Force Quarterly*. Available online at https://ndupress.ndu.edu/portals/68/Documents/jfq/jfq-8.pdf, accessed on September 10, 2020.

15. Christopher Paul (2017), *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Worked Example*, Santa Monica, CA: RAND Corporation. Available online at https://www.rand.org/pubs/research_reports/RR809z4.html, accessed on September 10, 2020.

16. Arturo Munoz (2012), *U.S. Military Information Operations in Afghanistan Effectiveness of Psychological Operations 2001-2010*, Santa Monica, CA: RAND Corporation. Available online at https://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1060.pdf, accessed on September 11, 2020.

17. Robert Longley (2019), "An Introduction to Psychological Warfare," ThoughtCo., October 22, 2019. Available online at https://www.thoughtco.com/psychological-warfare-definition-4151867, accessed on August 20, 2020.

18. Robert H. Keyserlingk (1990), *Austria in World War II: An Anglo-American Dilemma*, Montreal: McGill-Queen's University Press, p. 131.

19. Ibid.

20. Field Manual No. 33-1, *Psychological Operations*, Headquarters Department of the Army, Washington, DC, August 31, 1979. Available online at https://fas.org/irp/doddir/army/fm33-1.pdf, accessed on September 15, 2020.

21. Sunil Narula (2008), "Psychological operations (PSYOPs): A conceptual Overview," *Strategic Analysis*, Vol. 28, Issue 1, pp. 177-92.

22. Field Manual No. 33-1, Psychological Operations, n. 20.

23. Eric V Larson, et al. (2009), Foundations of Effective Influence Operations, RAND Corporation, Arroyo Centre.

24. See "Information Operations," RAND. Available online at https://www.rand.org/topics/information-operations.html, accessed on September 15, 2020.

25. William S Lind (1985), *Manoeuvre Warfare Handbook*, Boulder, CO: Westview Press, pp. 7-8.

26. Greg Grant (2008), "Hybrid Wars: What if the battles of the future are neither conventional nor irregular, but a combination of both?", Government Executive, May 1, 2008. Available online at https://www.govexec.com/magazine/features/2008/05/hybrid-wars/26799/, accessed on September 6, 2020.

27. Matthew Symonds (2018), "The New Battlegrounds: The Future of War," *The Economist*, Special Report, January 27, 2018. Available online at https://www.economist.com/special-report/2018/01/25/the-future-of-war, accessed on September 10, 2020.

28. Sunil Narula (2008), "Psychological operations (PSYOPs)," n. 21.

29. Sean Sullivan (2016), "A Joint Centre to Combat Hybrid Warfare Threats," F-Secure, November 24, 2016. Available online at https://labsblog.f-secure.com/2016/11/24/a-joint-centre-to-combat-hybrid-warfare-threats/, accessed on September 7, 2020.

30. "MCDC Countering Hybrid Warfare Project: Understanding Hybrid Warfare A Multinational Capability Development Campaign Project," MCDC, March 2019. Available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784299/concepts_mcdc_countering_hybrid_warfare.pdf, accessed on September 7, 2020.

31. Greg Grant (2008), "Hybrid Wars," n. 26.

32. Raghunandan MC and Tejusvi Shukla (2020), "Battling Cartographic Aggression against India: A Reality Check," Issue Brief, No. 249, Centre for Land Warfare Studies,September 25, 2020, p. 6. Available online at https://www.claws.in/publication/battling-cartographic-aggression-against-india-a-reality-check/, accessed on September 28, 2020.

33. Lyu Jinghua (2019), "What Are China's Cyber Capabilities and Intentions?", Carnegie Endowment for International Peace, April 1, 2019. Available online at https://carnegieendowment.org/2019/04/01/what-are-china-s-cyber-capabilities-and-intentions-pub-78734, accessed on August 30, 2020.

34. "Chapter Five: China's cyber power in a new era", in *Asia Pacific Regional Security Assessment 2019*, IISS, May 2019. Available online at https://www.iiss.org/publications/strategic-dossiers/asiapacific-regional-security-assessment-2019/rsa19-07-chapter-5, accessed on September 10, 2020.

35. For future psychological-warfare forces in China, China needs to: (a) Develop a psychological-warfare system that integrates specialised and non-specialised personnel, and that emphasizes China's special characteristics. (b) Establish a psychological-warfare coordination agency at the national level to provide guidance and coordination for national psychological-warfare actions. (c) Establish a psychological-warfare command agency, under the unified leadership of the Central Military Commission and the party committee. (d) Establish psychological-warfare scientific research agencies of all kinds to guide the work nationally and in the military. (e) Establish a specialised psychological- warfare corps that would form a consolidated and effective psychological attack force. (f) Develop a modernised basis for psychological-warfare material and technical equipment. (g) Form a people's psychological-warfare mentality by developing psychological- warfare education for the masses and for all commanders in the military. For details, see Timothy L. Thomas (2005), "New Developments in Chinese Strategic Psychological Warfare," http://www.iwar.org.uk/psyops/resources/china/chinesepsyop.pdf, accessed on September 15, 2020.

36. Louisa Lim and Julia Bergin (2018), "Inside China's audacious global propaganda campaign," *The Guardian*, December 07, 2018. Available online at https://www.theguardian.com/news/2018/dec/07/china-plan-for-global-media-dominance-propaganda-xi-jinping, accessed on September 10, 2020.

37. Ibid.

38. "Chinese Influence and American Interests: Promoting Constructive Vigilance," Report of the Working Group on Chinese Influence Activities in the United States, Stanford, CA: Hoover Institution Press, 2018. Available online at https://www.hoover.org/sites/default/files/research/docs/12_diamond-schell_app1_2ndprinting_web.pdf, accessed on September 8, 2020.

39. Peter Mattis (2018), "China's 'Three Warfares' in Perspective," War on the Rocks, January 30, 2018. Available online at https://Warontherocks.Com/2018/01/Chinas-Three-Warfares-Perspective/, accessed on September 5, 2020.

40. Ibid.

41. The State Council Information Office of the People's Republic of China (2018), "2018 Belt and Road Journalists Forum held in Beijing," June 21, 2018. Available online at http://english.scio.gov.cn/aboutscio/2018-06/21/content_52911128.htm, accessed on September 5, 2020.

42. Sevanti Ninan (2020), "Dragon in the room: The media's China 'solution," *The Telegraph Online*, July 27, 2020. Available online at https://www.telegraphindia.com/opinion/china-media-outreach/cid/1787432, accessed on August 20, 2020.

43. "Ladakh row: China touts tank, helicopters for 'high-altitude' warfare," *The Week*, June 1, 2020. Available online at https://www.theweek.in/news/world/2020/06/01/ladakh-row-china-touts-tank-helicopters-for-high-altitude-warfare.html, accessed on August 30, 2020.

44. Ibid.

45. Ibid.

46. Ibid.

47. Li Qiang and Liu Xuanzun (2020), "India's Rafale fighter jets have no chance against China's J-20: experts," *Global Times*, July 30, 2020, https://www.globaltimes.cn/content/1196242.shtml, accessed on August 30, 2020.

48. V. K. Ahluwalia (2020), "Counter China's Design on India – China Border," Centre for Land Warfare Studies, October 2, 2020. Available online at https://www.claws.in/counter-chinas-design-on-india-china-border/, accessed on October 3, 2020.

49. Ibid.

50. Shubhajit Roy (2020), "LAC standoff: China says avoid differences escalating into disputes," *The Indian Express*, August 5, 2020. Available online at https://indianexpress.com/article/india/lac-standoff-china-says-avoid-differences-escalating-into-disputes-6539694/, accessed on September 8, 2020.

51. Hu Xijin (2020), "Outside forces are misreading China's desire for peace," *Global Times*, September 8, 2020. Available online at https://www.globaltimes.cn/content/1200302.shtml, accessed on September 15, 2020.

52. "Indian border troops' bravado will backfire: Global Times editorial," *Global Times*, September 8, 2020. Available online at https://www.globaltimes.cn/content/1200226.shtml, accessed on September 10, 2020.

53. Noted in V. K. Ahluwalia (2020), "Counter China's Design," n. 48.

54. "'Rafale or S-400': Pakistan Army ready to thwart Indian aggression, says DG ISPR",

The Express Tribune, August 13, 2020. Available online at https://tribune.com.pk/story/2259363/rafale-or-s-400-pakistan-army-ready-to-thwart-indian-aggression-says-dg-ispr, accessed on September 15, 2020.

55. Brig Manoj Kumar (2020), Seminar Report on "Pakistan: The Changing Security Dimensions," Centre for Land Warfare Studies, February 2020, pp. 73-77.

56. PEMRA is an independent and constitutionally established federal institution responsible for regulating and issuing channel licenses for establishment of the mass media culture, print and electronic media.

57. Ibid.

58. Ibid.

59. Snehesh Alex Phillip (2020), "Balakot, Article 370 move changed geopolitics of region: Pakistan Army chief in 'Green Book," *The Print*, April 27, 2020. Available online at https://theprint.in/india/balakot-article-370-move-changed-geopolitics-of-region-pakistan-army-chief-in-green-book/409585/, accessed on September 8, 2020.

60. General Headquarters (2020), *Pakistan Army Green Book 2020*, Islamabad: General Headquarters, p. 40.

61. "Modi Government Quietly Revoke The Indus Water Treaty With Pakistan – Reports," *EurAsian Times*, February 4, 2020. https://eurasiantimes.com/modi-government-quietly-working-to-revoke-the-indus-water-treaty-with-pakistan-reports/, accessed on August 30, 2020.

62. Snehesh Alex Philip (2020), "This is how Pakistan plans to protest 1st anniversary of India scrapping Article 370," *The Print*, July 27, 2020. Available online at https://theprint.in/defence/this-is-how-pakistan-plans-to-protest-1st-anniversary-of-india-scrapping-article-370/469031/, accessed on September 10, 2020.

63. Nayanima Basu (2020), "Pakistan's Senate recommends highest civilian honour for Kashmiri separatist leader Geelani," *The Print*, July 28, 2020. Available online at https://theprint.in/diplomacy/pakistans-senate-recommends-highest-civilian-honour-for-kashmiri-separatist-leader-geelani/469717/, accessed on September 15, 2020.

64. Swarajya (2020), "#KashmirWantsFreedom: Pakistan Launches Hashtag, Begins Online Anti-India Campaign Ahead Of UNGA Session," September 18, 2020. Available online at https://swarajyamag.com/news-brief/kashmirwantsfreedom-pakistan-launches-hashtag-begins-online-anti-india-campaign-ahead-of-unga-session, accessed on September 25, 2020.

65. Ananth Krishnan (2020), "Pakistanis behind 'Chinese' info war on India-China border standoff," *The Hindu*, August 3, 2020. Available online at https://www.thehindu.com/news/national/pakistanis-behind-chinese-info-war-on-india-china-border-standoff/article32255760.ece, accessed on September 10, 2020.

66. Ibid.

67. Brig Manoj Kumar (2020), Seminar Report on "Pakistan", n. 55, p. 74.

68. Sean Mc Fate (2019), *The New Rules of War*, n. 1.

China's Military-Civil Fusion Strategy: Building a Strong Nation with a Strong Military

Amrita Jash

Abstract

Since Xi Jinping came to power, new concepts and ideas have come to define China's polity. Of which, Military-Civil Fusion (MCF) is one of the significant concepts added to China's national strategy with the aim to integrate the civilian research and commercial sectors with the military and defence industrial base. The MCF is integral to Xi's vision of China Dream of building a strong country with a strong military by enabling the Military to harness the country's rapid economic growth. Here, the quest lies in building capabilities in 'dual-use' technology and infrastructure to enhance China's overall economic and military capability and secure China's position vis-à-vis the West. The challenge for China is to match the speed and scope of the rapid technological pace to create fast or lose the ability to compete. In this context, the paper seeks to understand the civil-military integration in China, under its current form as 'MCF'. The key elements examined are the objectives, goals and policies of the MCF strategy. It also explores the significance as well as the scepticism attached to China's MCF strategy.

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Introduction

What America terms as 'Civil-Military Integration' (CMI), the People's Republic of China (PRC) under the command of President Xi Jinping has named it "Military-Civil Fusion" (MCF, 军民融合). In general, CMI in the United States represents cooperation between the government and the private bodies in research and development; PRC's MCF is 'state-led, state-directed programme to leverage all levers of state and commercial power' to strengthen the Communist Party of China's (CPC) armed wing the People's Liberation Army (PLA).

What is noteworthy is that unlike the West, China has no single term to denote CMI; as witnessed in the way the use and terminology of CMI has evolved under different leadership. For instance, CMI has been interchangeably used with terms such as: "military and civilian dual use" (军民两用), "military-civilian integration" (MCI, 军民结), combining peacetime and wartime preparations (平战结合), "nestling the military within the civilian" (寓军于民]), "military-civilian fusion-style develop path" (军民融合式发展路子), among others.[1] Here, it is important to note that the language China uses to frame its plans itself becomes a point of query.

While CMI has been phrased differently in the Chinese context, but the essence has remained the same. That is, the aim is to achieve a state of "deep fusion" through the integration of the two essential building blocks: the military, and the civil. Here, 'military' includes every aspect of the national defence and force building endeavour; while 'civil' refers to fields in the economic and social system that are closely related to national defence and force-building.[2] The other key observable difference is that unlike the West, China puts 'military' before the 'civil'; this very priority of order calls for significant 'watch' to understand—*What are China's intentions?*

Xi Jinping's Quest for Reforms in CMI

In November 2013, at the Third Plenum of the 18th Central Committee of the CPC, Xi Jinping called for "deepening national defence and military reform". As the Communiqué emphasised on the:

> "objective of building a line of strong armies for this Party under new circumstances, [...] build a modern military force system with Chinese characteristics. We must deepen military structural and personnel allocation adjustment and reform, move adjustment and reform of military policies and institutions forward, and promote the integrated and deep development of the military and the people."[3]

Following which, in November 2015, at Central Military Commission's Reform Work Conference, Xi expressed the intent to resolutely implement national defence and military reform as part of a comprehensive strategy to build a strong army and to unswervingly follow the path of building a strong military with Chinese characteristics.[4] To which, Xi outlined the targets as: to make breakthroughs in military administration and joint operational command; to optimise the military structure, enhance policy systems and civilian-military integration; to build a modern military with Chinese characteristics that can win digital wars and effectively fulfil its duties; and to perfect the military system with Chinese characteristics[5]—resulting into the "most wide-ranging and ambitious restructuring since 1949."[6]

Underlying these targets, Xi's four-point agenda under PLA's reform called for: adjust China's military leadership and command system, optimise structure and function, reform policies and systems and promote deeper civil-military integration.[7] What is apparent is that seeking a 'deeper civil-military integration' is one of the key ambitions. Highlighting the 'significance,' Xi stated:

"Implementing the strategy of military-civilian integration is a prerequisite for building integrated national strategies and strategic capabilities and for realising the Party's goal of building a strong military in the new era."[8]

Here, the objective is to promote military development through coordinated efforts in sci-tech innovation in key areas between the military and the civilian sector-with integrated and deep development of the military and the people acting as the bottom line of the MCF. Thereby, Xi's addition of "military-civil integration" to the reform agenda has confirmed its significant role in PLA's overall military modernisation and China's larger national security imperative.

Xi's Push Towards MCF

While under Mao Zedong and Deng Xiaoping, the concept of 'civil-military integration' mainly centred on building China's defence industrial base; the concept has significantly evolved under the successive leadership to include new elements such as military personnel education, logistics, and infrastructure planning and construction. Further expanding the scope, Xi identified new areas under MCF, that includes:[9] infrastructure, national defence-related sci-tech industry, weapon and equipment procurement, talent cultivation, socialisation of the support system for the military, as well as the mobilisation for national defence for the integration of military and civilian industries.[10] In view of this, in June 2017, Xi articulated the MCF strategy, by stating that:

"We must accelerate the formation of a full-element, multi-domain, and high-return military-civil fusion deep development pattern, and gradually build up China's unified military-civil system of strategies and strategic capability."[11]

China's reforms have been a result of concerns over lack of resources and the need for defence modernisation. However, under Xi, the push forward is driven by the need to coordinate building of China's economy and defence capabilities simultaneously. This is guided by the objective to balance development and security in the overall national strategy, wherein: "[d]eepening national defence and military reforms are [to be] in line with the requirements of the times to realise the Chinese dream of national rejuvenation and China's strong-military dream."[12] In pursuit of which, Xi stressed that "the ideas, decisions and plans of military and civilian integration must be fully implemented in all fields of national economic development and defence building and in the whole processes."[13]

Xi's push forward in MCF is driven by the imminent need to modernise China's defence science, technology, and industrial base given the growing complexity in the security environment and the need for PLA to match the technological demands of fighting and winning "informationised local wars." This is motivated by the desire to make the PLA well-versed in modern technology-driven warfare; wherein, the lessons learnt by the Chinese from the Gulf Wars and Kosovo Crisis emphasized on the decisive role played by technology in modern warfare and conflicts—calling for the need to upgrade defence technology to match the pace of technological innovation. As the inability to match and adapt to the rapidly changing science and technology (S&T) capabilities will call for dire effects on a country's national security. Highlighting this trend at play, PRC's 2015 Defence White Paper suggests:

> "The world revolution in military affairs (RMA) is proceeding to a new stage. Long-range, precise, smart, stealthy and unmanned weapons and equipment are becoming increasingly sophisticated. Outer space and cyber space have become new commanding heights in strategic competition among all parties. The form of war is accelerating its evolution to informationization."[14]

In this regard, artificial intelligence (AI) is seen critical to next generation warfare, as "War is evolving in form towards informationised warfare, and intelligent warfare is on the horizon."[15] With AI and other range of technologies such as autonomous systems driving the next RMA, MCF aims to pave the way for PLA to conduct "intelligent warfare." Fundamentally, MCF offers to ease the PLA's competition for resources by broadening and strengthening China's defence industrial base by "leveraging of dual-use technologies, policies, and organisations for military benefit."[16] Mainly, with technology becoming increasingly 'dual-use;' thus, blurring the divined between civil and military, it becomes imperative for China to promote MCF in technology sharing.

This is also aided by the fact that the civilian sector is becoming a potent source of major technological innovation. For instance, as an analysis in *Qiushi* observed that "disruptive technological change in the 21st century now usually starts in the civilian sector."[17] To cite a few examples, some private companies working with the PLA in supporting the MCF include: Yunzhou Tech, a leader in unmanned surface vessels; Ziyan, a major player in drones and unmanned helicopters; and Kuang-Chi Technologies, which is applying machine learning to its research on military metamaterials amongst others.[18] Similarly, in the field of AI, Tianjin's new Artificial Intelligence Military-Civil Fusion Innovation Center was established in partnership with the Academy of Military Science; while Qingdao has specialised in undersea robotics systems and is actively exploring applications of AI for this domain.[19] These advancements resonate Xi's sentiments as expressed at the 19th Party Congress, stating: "We must keep it firm in our minds that technology is the core combat capability, encourage innovations in major technologies, and conduct innovations independently."[20]

Furthermore, the MCF is in line with PLA's military preparedness, which aims at: first, to "win informationised local wars" (信息化條件下的局部戰)—which is considered to be the most likely form of combat

the PLA will face in the future; second, to increase the PLA's ability to carry out joint operations on a modern high-tech battlefield.[21] Wherein, by adopting the MCF strategy, Xi seeks to sharpen PLA's combat strength through technological innovation and strengthen Chinese-developed innovations in defence technologies. Accordingly, the CPC is systematically reorganising the Chinese S&T enterprise to ensure that new innovations simultaneously advance economic and military development. As a result, the key technologies that China is targeting to excel under MCF includes quantum computing, big data, semiconductors, 5G, advanced nuclear technology, aerospace technology, and AI— with the ultimate aim to exploit the inherent 'dual-use' nature of many of these technologies, which have both military and civilian applications. Arguably, the pressing concern balancing the imperative of economic development with increasing requirements for national defence has motivated Xi's drive for MCF— thus, enabling China to become both an economic and military superpower.

The Concept of MCF in China's National Strategy

In March 2015, Xi elevated MCF into a national strategy (*ba junmin ronghe fazhan shangsheng wei guojia zhanlüe*, 把军民融合发展上升为国家 战略) by transitioning it from "early-state fusion" to "deep fusion" a "move to rejuvenate the nation and a strategy to strengthen the armed forces" (关乎国家安全和发展全局，既是兴国之举，又是 强军之策).[22] It is to note that it was former Chinese President Hu Jintao in 2007, who was the first to lay the foundation of MCF in Chinese strategic thinking; wherein, at the 17th Party Congress, Hu urged the country to "take a path of military-civilian fusion with Chinese characteristics"—which was intensely pushed further by Xi Jinping.

PLA's National Defense University (NDU) researchers interpret MCF, in the current form to be representing the basic (near-term) and ultimate (long-term) goals of the strategy. Wherein, the 'near-term' goal

of the strategy is to form the "military-civil fusion deep development pattern," which comprises three core components: full-element, multi-domain and high-return (see Figure 1).[23]

Figure 1: Military-Civil Fusion Deep Development Pattern
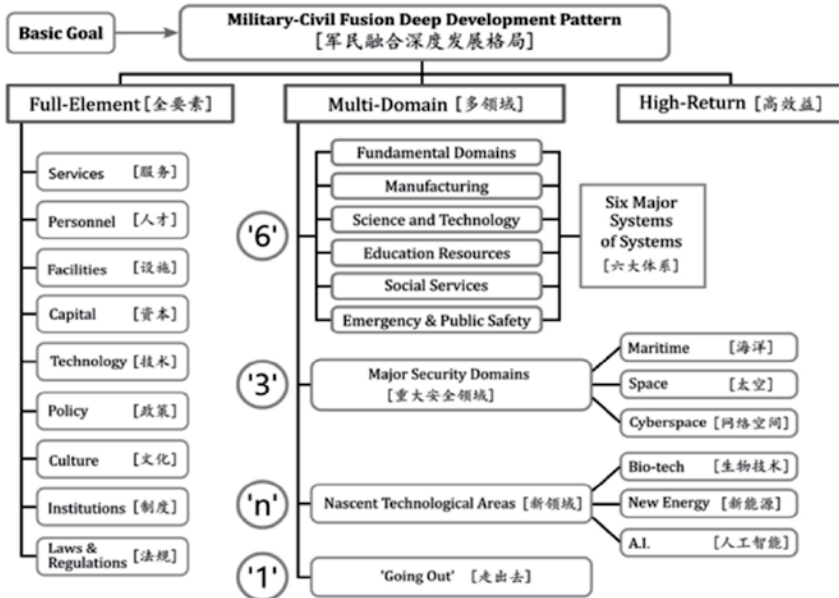
Source: Adapted from Stone and Wood (2020).[24]

Table 1: Domains Prioritised under Xi's MCF Strategy

Six Traditional Domains	Six System of Systems (SoS)*	Three Major Security Domains	"n" Nascent Technological Areas
1. Fundamental (Infrastructure)	1. Fundamental Domain Resource Sharing SoS	1. Maritime	1. Biotechnology
2. Manufacturing	2. Advanced Defence STI SoS with Chinese characteristics	2. Space	2. New Energy

3. Science and Technology	3. Military-Civil Coordinated Technological Innovation SoS	3. Cyberspace Security and Informatisation	3. Artificial Intelligence
4. Education	4.Military Personnel Training SoS		
5. Social Services	5. Socialised Support and Sustainment for the PLA SoS		
6. Emergency and Public Safety	6. National Defence Mobilisation SoS		

The six SoS are related to the six "traditional domains" that are meant to gradually take shape through the promotion of MCF in these domain.
Source: Prepared by the Author with reference to Stone and Wood (2020).[25]

The six SoS as noted above are formed by fusing civilian and defence ecosystems that possess high level of commonality, which were previously operating in silos. The domains as listed in Table 1 and the six SoS form the backbone of Xi's MCF strategy, as noted in Table 2 that follows.

Table 2: The Military-Civil Fusion and the Creation of the Six SoS

Defense Infrastructure	+	Civilian Infrastructure	=	Fundamental Domain Resource Sharing SoS
Defense Technology Industrial Base	+	Civilian Technology Industrial Base	=	Advanced Defense Technology Industrial SoS
Defense Innovation System	+	Civilian Innovation System	=	Military-Civil Coordinated Technology Innovation SoS
Military Personnel Cultivation System	+	National Education System	=	Military Personnel Cultivation SoS
Military Logistics System	+	State Social Service System	=	Socialized Support and Sustainment for the PLA SoS
National Defense Mobilization System	+	State Emergency Management System	=	National Defense Mobilization SoS

Source: Adapted from Stone and Wood (2020).[26]

While the "ultimate goal" is to build "unified military-civil system of strategies and strategic capability"—weaving the components of the MCF strategy into other national strategic priorities to achieve an organic, powerful, and comprehensive national system of strategies (see Figure 2).[27]

Figure 2: China's Unified Military-Civil System of Strategies and Strategic Capability
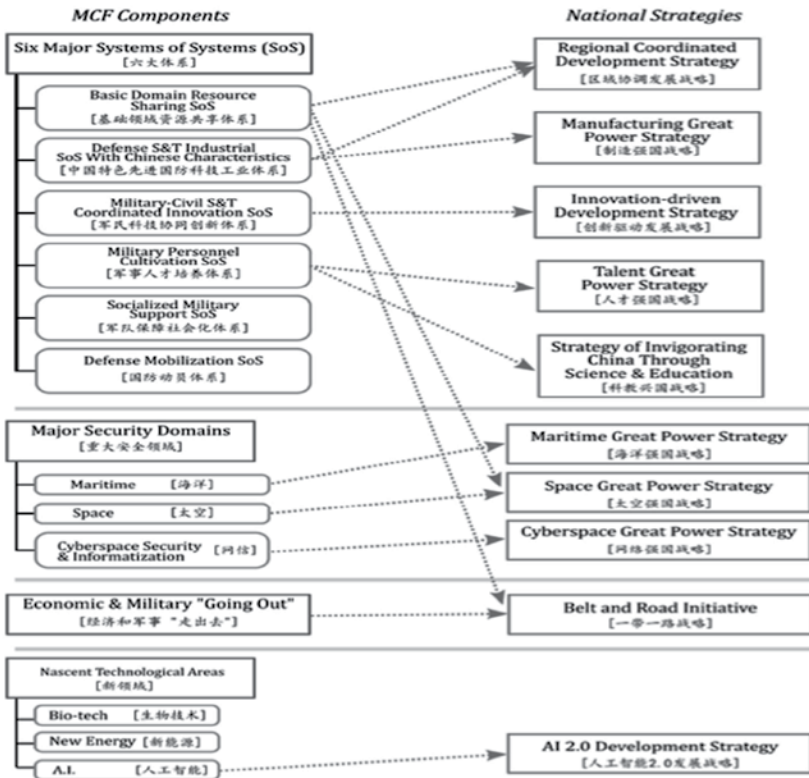
Source: Adapted from Stone and Wood (2020).[28]

With primacy attached, the MCF was written in the China's 13th Five-Year Plan (FYP) for 2016-2020. While on 21 July 2016, the *Opinion on the Integrated Development of Economic Construction and National Defense Construction (2016 Opinion)* (关于经济建设和国防建设融合发展的意见) was released by the CPC Central Committee, the State Council, and the Central Military Commission.[29] Thereafter, MCF has become predominant in Chinese parlance, as highlighted in Figures 3 and 4.

Figure 3: Reference of CMI and MCF in China's FYP (1991-2020)
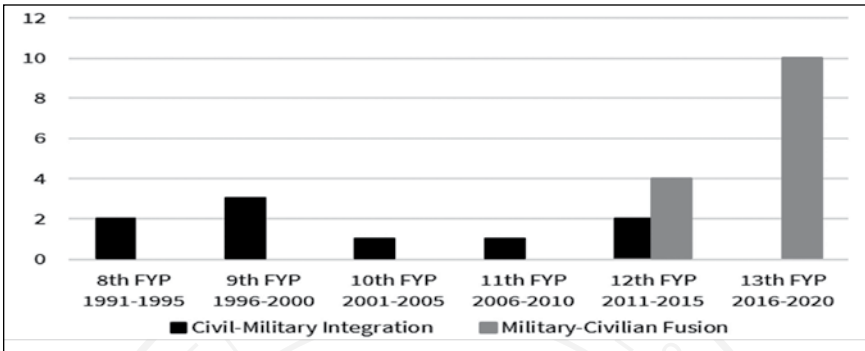
Figure 4: Reference of CMI and MCF in Chinese Academic Publications (1991–2020)
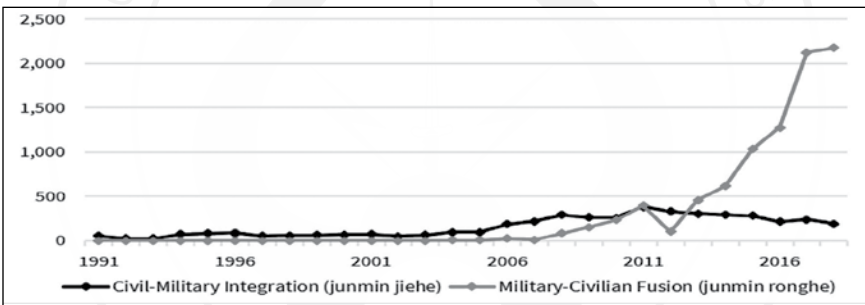
As noted in Figure 3, CMI was first referred in 1991 and MCF made its first appearance under the 12th FYP with a significant spike under the 13th FYP. As noted, 12th FYP had four references, while 13th FYP (2016–20) referenced the MCF strategy ten times. It also represents the shift in China's policy position from CMI to MCF. While Figure 4 highlights the increasing discussion of MCF in academic literature—indicative of the increasing civilian involvement in MCF—further clarifying the blurring divide between military and civil the very aim that China seeks to archive under MCF.

In resonating the MCF strategy, the 2019 White Paper stated: "Building a fortified national defense and a strong military commensurate with the country's international standing and its security and development interests is *a strategic task for China's socialist modernization*" [emphasis added]— calling for China to pursue innovation and accelerate military intelligentisation.[32] Simplistically put, with this strategy, the private sector will be at the forefront to help modernise China's defences and develop cutting-edge technologies—areas that were earlier exclusively under the state-owned enterprises (SOEs).

Given the rapid progress in MCF, it becomes imperative to understand the factors that called for Xi's MCI reforms. As noted, Xi's such a move came in response to his concerns over "problematic mindsets, *tizhi*[33] barriers, and vested interests" that have restricted the development of MCF in all these years—as "integration is a problem that has yet to be resolved."[34] Prior to Xi, much of what China's leadership promoted for CMI mainly pertained to basic reforms related to institutional behaviour such as: changes that allowed private companies to begin to contract goods and services to the PLA, or the effort to encourage joint research, technology transfer, and personnel training agreements between civil and military companies, universities, and research institutions—reorienting political, corporate, and military leaders toward collaborative development processes in which they had little to no experience.[35] Given the complexity attached, China's initial CMI reforms mainly focused on four high-priority areas: weapons and equipment development, social support for the PLA, defence personnel training, and defence mobilisation[36]—which under MCF, the focus areas have been broadened both in scope and scale.

The MCF is also a response to the changing security environment; wherein, China is confronted with "profound changes" in its national security environment and is "responding to the demands of the day for a strong country with a strong military."[37] In light of which, Yu Chuanxin, an expert from China's Academy of Military Science argues that "the

complex and increasing security threats facing China from foreign and domestic enemies, its economy and society need a strong military that can ensure security, stability, and peace."[38] Owing to this perspective, the core objectives behind Xi's MCF strategy are mainly three-fold:[39] First, building a strong national security state, especially prioritising the development of military, internal security, and information control capabilities across a wide array of domains, of which cyber is of central importance; second, building an advanced defence science, technological and industrial base; and third, forging a dual-use civil-military economy.[40]

MCF encompasses six interrelated efforts:[41] (1) fusing the China's defence industrial base and its civilian technology and industrial base; (2) integrating and leveraging science and technology innovations across military and civilian sectors; (3) cultivating talent and blending military and civilian expertise and knowledge; (4) building military requirements into civilian infrastructure and leveraging civilian construction for military purposes; (5) leveraging civilian service and logistics capabilities for military purposes; and, (6) expanding and deepening China's national defence mobilisation system to include all relevant aspects of its society and economy for use in competition and war. This fusion suggests that the aim of MCF is to harness the capability of the civilian sectors, including science, and technology, to advance China's military, economic, and technological prowess—making MCF an all-encompassing approach.

To implement the MCF strategy, in January 2017, the Central Commission for Integrated Military and Civilian Development (*zhongyang junmin ronghe fazhan weiyuanhui,* 中央军民融合发展委员) was set up, with Xi Jinping as the head. The Commission acts as the highest level "decision-making and coordination mechanism" for MCF development, and is instrumental in breaking down institutional barriers across the government, military, and industry that have hindered MCF implementation.[42] In June 2017, at the first plenary meeting of

the Commission,[43] Xi called for more efforts to boost joint military and civilian development in the fields of sea, outer space, cyber space, biology and new energy—further expanding the scope, the level and degree of integration wherever it applied. Xi also stressed that the integration must combine state guidance with the market's role, and comprehensively employ institutional/organisational innovation,[44] policy support and legal guarantee to give full play to military and civilian integration. In doing so, the MCF policy has called for China's academic, corporate and research institutions to invent cutting-age technologies for building China's military and national defence capabilities.

MCF's Significance for China Versus Rising Scepticism

In 2016, at the CPC's Central Politburo meeting, that reviewed and passed the *2016 Opinion*, Xi called the MCF strategy "a grand strategy that benefits the nation, the military, and the people" (一项利国利军利民的大战略);[45] however, there is yet no exact interpretation to Xi's statement—thus, making it open ended. This very gap calls for suspicion over China's intentions. Here, the query is: *What does the PRC seeks to achieve by its MCF Strategy?*

In providing some understanding of Xi's intent, one of the interpretation suggests that MCF can benefit China in four ways:[46] First, it can support China's transformation into a powerful nation—wherein, defence construction can provide a boost to the slowed economic growth. Second, can help China gain advantages in international technological and military competitions by closing the technological gap with other major powers such as the United States and even surpass them in S&T development. Third, provides China with an excellent opportunity for the improvement of China's governance system—integrating the military and civilian sectors and enabling the creation of a governing system across sectors, government bodies, and domains. Fourth, it supports the strategic goal of building a world-class military by gaining

strong economic strength, scientific and technological strength, and comprehensive national strength.[47]

While some Chinese analysts argue CMF as a "strategic requirement" [*zhanlüe xuqiu*, 战略需求] and the only way to build a military capable of winning informationised wars.[48] It is believed that MCF is essential to achieve optimised resource allocation for defence building and economic development by integrating the military and the civilian resources. As Chen Yushu and Li Shandong, researchers from China's PLA NDU, in their book *Building Wealthy Nation and Strong Military by Deepening Integrated Military and Civilian Development* argue that:[49]

"the MCF strategy will greatly enhance the comprehensive national strength of China and contribute to the endeavour of building a wealthy nation and a strong military; however, the military-civilian integration for the research and production of weaponry should be market-oriented and feature 'openness, competition and sharing'."[50]

In Tai Ming Cheung's view, "military-civil fusion remains a top priority for the Xi regime, and perhaps even more so as China finds itself in an increasingly fierce and coupled techno-security competition with the US and its allies."[51] More importantly, MCF is a "central component in Xi's grand vision and strategy of China's long-term geostrategic and geo-economic development, and especially to his goals of becoming a leading global power by the mid-2030s."[52] While MCF surely is providing a boost to China's military prowess, but is raising red alarms for others.

As already noted, Xi's MCF strategy remain open ended to interpretation. Given no clarity and the constant changes to the concept, there is an increasing scepticism over the implications of the MCF for the world at large. Of all, America seems to be more wary of Beijing's intentions, as the US Secretary of State Mike Pompeo stated, "Even if the Chinese Communist Party gives assurances about your technology

being confined to peaceful uses, you should know there is enormous risk to America's national security."[53] As Pompeo pointedly notes, MCF's:

> "goal is to ensure that the People's Liberation Army has military dominance. And the PLA's core mission is to sustain the Chinese Communist Party's grip on power—that same Chinese Communist Party that has led China in an increasingly authoritarian direction and one that is increasingly repressive as well. It runs completely at odds with the tolerant views that are held here in this area and all across America."[54]

America's such an attitude is driven by the perception that PRC's MCF constitutes "a major security challenge to us [United States], its neighbours, and any country with a stake in the open international order."[55] The concerns lies in the fact that MCF can "make *any* technology accessible to *anyone* under the PRC's jurisdiction available to support the regime's ambitions"—while it "is in part about economic power, but it is also, quite centrally, about augmenting Beijing's *military* power" [emphasis added].[56]

What is worrisome about MCF is that the full scope of China's MCF strategy is much broader than simply being public-private partnerships. As noted by the Pentagon, some of China's leading e-commerce companies are directly supporting the PLA by providing them with drones for logistics; while some Chinese shipping companies are contributing to cross-sea transport drills, providing capabilities that could be leveraged for an amphibious landing on Taiwan or in the South China Sea[57] thus, raising concerns over China's intentions behind its MCF strategy.

What calls for severe scrutiny is that by its MCF strategy, China is encouraging civilian enterprises and companies to undertake classified research and get involved in weapons production. Given this approach, the CPC is accused of adopting unlawful measures to bolster its own military

capabilities. According to the US State Department, China is acquiring key technologies by means of: investment in private industries, talent recruitment programs, directing academic and research collaboration to military gain, forced technology transfer, intelligence gathering, and outright theft.[58]

With no more barriers between civil and military, under MCF the Chinese civil sector has been enlisted directly into the country's military industrial complex, which holds global ramifications. Given this dynamic, it is argued that the joint research institutions, academia, and private firms are all being exploited to build the PLA's future military systems—often without their knowledge or consent.[59] Thus, making MCF another manifestation of the 'China Challenge'.

Conclusion

Xi Jinping's push for 'military-civil fusion' is aimed to build China into an economic, technological and military superpower with MCF acting as the lynchpin to China's strategic goal of becoming 'world class military' by 2049. While there is no clear direction on the way China is practising MCF, this has resulted into scrutiny over Chinese intentions. Owing to the scepticism, one cannot dismiss the competitive and security challenge that is posed by it. To which, one cannot ignore the risks posed by the MCF strategy, which is invariably linked to China's geopolitical ambitions both to protect and advance Chinese interests. China's expanded efforts under military-civil collaboration needs a close attention. Thus, with MCF, Xi's quest lies in building a strong China with a strong PLA.

Notes

1.   Alex Stone and Peter Wood (2020), *China's Military-Civil Fusion Strategy: A View from Chinese Strategists*, Montgomery, AL: China Aerospace Studies Institute, Air University. Available online at https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/Other%20topics/CASI%20China's%20Military%20Civil%20Fusion%20Strategy-%20Full%20final.pdf?ver=2020-06-15-152810-733, accessed on September 12, 2020.

2. The military component includes armed forces, national defence technology, industry, facilities, mobilisation, education, resources, as well as the major operational domains. While the civil component includes national science and technology and industrial system, the national talent education and training system, the national social services system, the national emergency management system, as well as emerging domains and nascent technological areas such as maritime, space, cyberspace, and artificial intelligence that are closely linked to the generation of "New Type Combat Capabilities." For details, see Jiang Luming [姜鲁鸣], Wang Weihai [王伟海] and Liu Zuchen [刘祖辰], *Initial Discussion on the Military-Civil Fusion Strategy* [军民融合发展战略探论], Beijing: People's Press, p. 15.

3. "Communiqué of the Third Plenary Session of the 18th Central Committee of the Communist Party of China," China.org.cn, January 15, 2014. Available online at http://www.china.org.cn/china/third_plenary_session/2014-01/15/content_31203056.htm, accessed on September 5, 2020.

4. The fundamental guidelines for deepening reform were stated explicitly: to use the scientific theory of the CPC as its pointer; to use the goal of building a strong army as its guide; to use military strategies and policies under new circumstances as its overall direction; to remove systematic, structural and policy barriers as well as policy problems as its focus; to adopt the modernisation of the military as its orientation; and to unleash the combat capacity and vigour of the military as its aim. For details, see "Building a strong army through reform," *Xinhuanet*, March 16, 2016. Available online at http://www.xinhuanet.com//mil/2016-03/16/c_128804009.htm, accessed on September 5, 2020.

5. Ibid.

6. Joel Wuthnow and Phillip C. Saunders (2017), *Chinese Military Reforms in the Age of Xi Jinping: Drivers, Challenges, and Implications*, China Strategic Perspectives 10 Washington DC: NDU Press, p. 1.

7. Guoli Liu (2017), *China's Foreign Policy in a Changing World*, London: Palgrave Macmillan, p. 59.

8. Quoted in "Xi calls for deepened military-civil fusion," NPC and CPPCC Annual Sessions 2018, *Xinhuanet*, March 12, 2018. Available online at http://www.xinhuanet.com/english/2018-03/12/c_137034168_2.htm, accessed on September 10, 2020.

9. "China names key areas of military-civil integration," *CGTN*, June 21, 2017. Available online at https://news.cgtn.com/news/7741444d30517a6333566d54/index.html, accessed on September 10, 2020.

10. Ibid.

11. Alex Stone and Peter Wood (2020), *China's Military-Civil Fusion Strategy*, n. 1, p. 23.

12. Xi Jinping (2017), "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," Delivered at the 19th National Congress of the Communist Party of China, October 18, 2017. Available online at http://www.xinhuanet.com/english/download/Xi_Jinping's_report_at_19th_CPC_National_Congress.pdf, accessed on September 15, 2020.

13. "China names key areas of military-civil integration," *CGTN*, n. 9.

14. Ministry of National Defense of the People's Republic of China (2015), "China's Military Strategy," May 2015. Available online at http://eng.mod.gov.cn/Database/WhitePapers/, accessed on September 11, 2020.

15. "Full Text: China's National Defense in the New Era," *Xinhuanet*, July 24, 2019. Available online at http://www.xinhuanet.com/english/2019-07/24/c_138253389.htm, accessed on October 20, 2019.

16. Brian Lafferty (2019), "Civil-Military Integration and PLA Reforms," in Phillip C. Saunders, et al. (eds.) *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms*, Washington DC: National Defense University Press, p. 632.

17. Ibid., p. 635.

18. Elsa B. Kania (2019), "In Military-Civil Fusion, China Is Learning Lessons From the United States and Starting to Innovate," *Real Clear Defense*, August 27, 2019. Available online at https://www.realcleardefense.com/articles/2019/08/27/in_military-civil_fusion_china_is_learning_lessons_from_the_united_states_and_starting_to_innovate_114699.html, accessed on September 19, 2020.

19. Ibid.

20. Xi Jinping (2017), "Secure a Decisive Victory," n. 12.

21. Amrita Jash (2019), "Xi Jinping's World-Class Military: Not Only Fights, But Also Wins Wars," *Indian Defence Review*, 34(1), Jan-Mar 2019, p. 48.

22. Alex Stone and Peter Wood (2020), *China's Military-Civil Fusion Strategy*, n. 1.

23. The "full-element" attribute defines the types of resources shared between the military and civilian sectors; the "multi-domain" attribute identifies the domains prioritised for MCF development. Taken together, they provide a roadmap for MCF development, explaining how China plans to achieve the deep fusion pattern. While subject to modifications, these areas, outlined in the chart below, serve as the "backbone" of the MCF strategy. The last attribute—"high return"—describes the effects Chinese leaders and MCF strategists hope to derive from MCF development.

24. Alex Stone and Peter Wood (2020), *China's Military-Civil Fusion Strategy*, n. 1, p. 28.

25. Ibid., p. 30.

26. Ibid., p. 31.

27. Ibid., pp. 36-38.

28. Ibid., p. 38.

29. As of writing, the *2016 Opinion* is believed to be the only public (partial summary) authoritative document on MCF development to date. Since then, MCF has come to the forefront and entered a stage of rapid development.

30. Audrey Fritz (2019), "China's Evolving Conception of Civil-Military Collaboration," CSIS, August 2, 2019. Available online at https://www.csis.org/blogs/trustee-china-hand/chinas-evolving-conception-civil-military-collaboration, accessed on September 22, 2020.

31. Ibid.

32. "Full Text: China's National Defense in the New Era," n. 15.

33. *Tizhi* is a general term for the systems, institutions, methods, forms, etc., involved in matters related to the institutional setup, leadership affiliation, and management authority of state organs, political party organizations, enterprises, and public institutions.

34. Alex Stone and Peter Wood (2020), *China's Military-Civil Fusion Strategy*, n. 1, p. 23.

35. Brian Lafferty (2019), "Civil-Military Integration," n. 16, p. 638.

36. Ibid., p. 639.

37. Xi Jinping (2017), "Secure a Decisive Victory," n. 12.

38. Brian Lafferty (2019), "Civil-Military Integration," n. 16, p. 634.

39. Tai Ming Cheung (2019), "From Big to Powerful: China's Quest for Security and Power in the Age of Innovation," EAI Working Paper, April 2019, p. 3. Available online at https://igcc.ucsd.edu/_files/great-powers/gp_reading_cheung.pdf, accessed on September 20, 2020.

40. Ibid.

41. Office of the Secretary of Defense (2020), "Annual Report to Congress: Military and Security Developments involving the People's Republic of China 2020," p. vi. Available online at https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF, accessed on September 10, 2020.

42. Greg Levesque (2019), "Military-Civil Fusion: Beijing's "Guns AND Butter" Strategy to Become a Technological Superpower," *China Brief*, 19(18), The Jamestown Foundation. Available online at https://jamestown.org/program/military-civil-fusion-beijings-guns-and-butter-strategy-to-become-a-technological-superpower/, accessed on September 15, 2020.

43. The second meeting of the Commission was held in 2018.

44. CMI reforms in organisational innovation must focus on "three systems": (a) *management system* that features unified leadership and coordination between the PLA and local governments; (b) *operational system* in which work is led by the state, driven by demand, and unified by market operations; and (c) *policy system* that features a well-conceived set of policies (which covers all necessary areas), a complete set of policy linkages, and effectively encourages desired outcomes.

45. Cited in Alex Stone and Peter Wood (2020), *China's Military-Civil Fusion Strategy*, n. 1, p. 26.

46. Ibid., pp. 25-26.

47. Ibid.

48. Brian Lafferty (2019), "Civil-Military Integration," n. 16, p. 628.

49. "China names key areas of military-civil integration," *CGTN*, n. 9.

50. Ibid.

51. Quoted in Matt Ho (2020), "Has China gone into stealth mode with its military-civil fusion plans?," *South China Morning Post*, June 5, 2020. Available online at https://www.scmp.com/news/china/military/article/3087785/has-china-gone-stealth-mode-its-military-civil-fusion-plans, accessed on September 15, 2020.

52. Ibid.

53. U.S. Department of State, "The Chinese Communist Party's Military-Civil Fusion Policy." Available online at https://www.state.gov/military-civil-fusion/, accessed on September 20, 2020.

54. Michael R. Pompeo (2020), "Silicon Valley and National Security," U.S. Department of State, January 13, 2020. Available online at https://www.state.gov/silicon-valley-and-national-security/, accessed on September 18, 2020.

55. Christopher Ashley Ford (2020), "The PRC's 'Military-Civil Fusion' Strategy Is a Global Security Threat," U.S. Department of State, March 16, 2020. Available online at https://www.state.gov/the-prcs-military-civil-fusion-strategy-is-a-global-security-threat/, accessed on September 20, 2020.

56. Ibid.

57. Noted in Elsa B. Kania (2019), "In Military-Civil Fusion," n. 18.

58. U.S. Department of State, "Military-Civil Fusion and the People's Republic of China". Available online at https://www.state.gov/wp-content/uploads/2020/06/What-is-MCF-One-Pager.pdf, accessed on September 20, 2020.

59. Ibid.
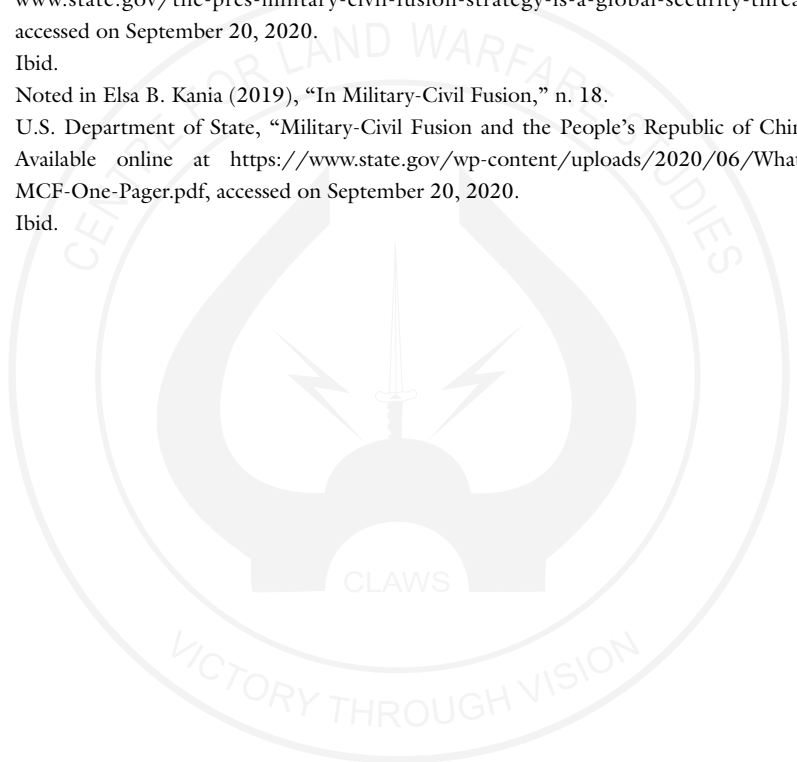
Defence Diplomacy:
A Powerful Tool of Statecraft

A. N. M. Muniruzzaman

Abstract

Defence diplomacy, also known as military diplomacy, is the non-violent use of military forces, adapting public diplomacy, through activities like officer exchanges, combined training programmes, cultural exchanges, and ship visits, etc., to further a country's diplomatic ties and promoting its international agenda. Despite having existed in various forms for hundreds of years, this custom and its usage as an instrument of statecraft has received surprising little attention as a discipline for scholarly studies. Defence diplomacy in the last few decades have developed as a significant tool in the global political platform for statesmen to create better ties between allies and stand as a formidable opponent. This paper clarifies what defence diplomacy is, and what it means for modern international relations. In doing so, the paper seeks to resolve the academic oversight by critically examining the concept of defence diplomacy itself. In particular, this paper plans to address the conceptual ambiguity of the term "defence diplomacy" since its very first use by the British government in the 1990.[1] Breaking down the various existing approaches to defence diplomacy, its tools and execution in different cases studies, this paper identifies the concept as a variant of soft power which is used to integrate the strategic

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thinking of another state. By linking defence diplomacy to the concept of soft power, this paper will not only cover the practices used by the states today, but also illustrate the underlying strategic mechanism that makes defence diplomacy an effective and dynamic geopolitical tool in a global arena.

Introduction

With its rapidly changing, competitive and modern threats combined with budgetary constraints for almost all nations, the globalised atmosphere in which we live means coalition-building and greater international cooperation are essential to modern defence policy. Maximising global scope and impact today includes new alliances and collaborations with governments and worldwide audience. A strong multilateral defence policy, therefore, is a necessary response. Multilateralism in defence must cover all aspects of policy, from generating equipment programmes, keeping up with modern technology and contemporary warfare strategies to supporting multinational institutions, from capacity building in developing nations to even deeper and stronger bilateral partnerships. Public diplomacy can also contribute to this modern arsenal, hence the significance of soft power in military sector is generating a lot of attention.

Public Diplomacy is not new. Historically, it has been quite known for relationships between administrative representatives and military leaders of different nations and kingdoms to grow outside of the courtrooms and battle stations. The Roman Republic invited the sons of neighbouring kings to be educated in Rome, the Greek Ptolemaic dynasty constructed the Great Library of Alexandria.[2] Even Napoleon had planned to order an entire French Army to convert to Islam to help establish French rule in Egypt. Today in defence policy, public diplomacy and using soft power can be a key tool of support preventative strategies. "Defence diplomacy" is relatively a new term, created with a response to post-Cold War in mind, demanding the needs and necessities of alliances and amending broken ties of inter-state conflicts and civil wars of that time. Defence Diplomacy

was used to name new tasks and international functions accomplished by the armed forces and the leadership of the Ministries of National Defence. It does not however, mean any kind of traditional "military plus diplomacy," where diplomacy is an appendix of some sort. The main goal of defence diplomacy is the co-formation and implementation of the state security policy, and its task to create stable, long-term international relations in the field of defence. Conceptualisation of the concept is a starting point for understanding its role as one of the most important instruments of foreign policy and the security of contemporary states.

Defence diplomacy has emerged as one of the most important tools of military statecraft amid this effort to move past the use of force. Typically used as an umbrella term, activities related to it are diverse, such as officer exchanges, ship visits, combined training missions, and joint military exercises, all these are denoted under practices of defence diplomacy. However, the flexibility with which the term was shown in use in global affairs underlies the importance of the central theory and its increasing salience. Every major world power, including the United States, China, France, and the United Kingdom, realising the limits of aggression to attain its goal in global affairs, has in turn embraced defence diplomacy as a central element of its military doctrine and a primary component of its global strategy. But in order to understand why Defence Diplomacy is so desirable in foreign policy, national security and geopolitics, we need to first understand what it is.

Defining the Concept of Defence Diplomacy

There is a lack of a universally recognised definition of Defence Diplomacy which means that, states try to adapt its content to the intentions and needs of their own security and foreign policy. In Poland, the term "defence diplomacy" appears in journalism,[3] yet there is no specific reference to it in the documents related to foreign and security policy. Although the exact definition of defence diplomacy, sometimes labelled

military diplomacy by scholars like K. A. Muthanna,[4] remains uncertain, it is generally considered the non-violent use of a state's defence apparatus to advance the strategic aims of a government through cooperation with other countries.

Defence diplomacy is one of the guiding mechanisms used to help the West face up against the current global security environment. It became an increasingly important part of the "whole government" strategy and, in the United Kingdom, defence diplomacy became one of the eight "defence missions" of the military.[5] The Spanish Ministry of Defence's documents have given out one of the latest proposals for the definition of defence diplomacy, which describes it as "a diverse international activity based on dialogue and cooperation, implemented bilaterally by the defence ministry with allies, partners and other friendly countries to support the achievement of goals of defence policy and Spanish foreign policy."[6] While defining defence diplomacy is a difficult task, but with the progress of the discussions in the paper, more definitions will be presented to discuss the different dimensions and aspects of the concept.

Diplomacy and the Choices of Hard Power and Soft Power

When we talk about diplomacy, we think about hard power and soft power and the way they are utilised to create and maintain ties between states. The key functions of diplomacy, as codified in the Vienna Convention and practised since centuries, are in full effect on the art and science of effective representation, communication and negotiation. So, when discussing diplomacy and foreign policy, the concerns of soft power versus hard power arise, such as: Which method is better—deterrence or the carrots-and-sticks manoeuvre? Or imposing economic sanctions, forces, or by exchanging values, policies and establishing public diplomacy?

Figure 1: Diplomacy and Hard and Soft Power
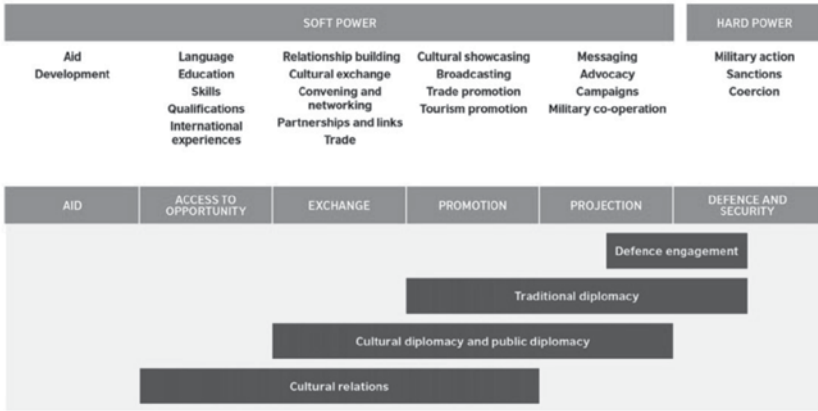
Source: Adapted from Worne (2015).[7]

Typically, hard power used to be traditionally more sought after for diplomacy with regard to regional giants establishing dominance over small states in the neighbourhood. Hard power referred to the ability to change other states' position by force or by inducing military and economic power to coerce them into submission. It is tangible and easy to measure, the effects of which are visible and even predictable to a certain degree. However, the issue is that it is short-termed despite being direct with immediate effect. Besides, there is another option of economic power, where the force is provided through incentives. It can be of both a reward or a punishment, where a powerful state gives economic incentives in the form of trade, investments, joint ventures, etc., as a reward for a small state for cooperation, or puts economic sanctions and border control on it, if the small state does not comply.

On the other hand, soft power refers to the ability to shape the preferences of others through cultural exchanges and understanding, co-option, and influence based on context and necessity. This is different; the effects are intangible, hard to measure and unpredictable. Joseph Nye's concept of 'soft power' is more nuanced,[8] famously coined in the late

1980s as "the ability of a country to persuade others to do what it wants without force or coercion'. Soft power adds to the international relations realm the much broader suit of activities and attributes, which totals to a nation's 'power of attraction.'"

Traditional Diplomacy versus Defence Diplomacy

The spectrum of action of diplomacy extends from traditional diplomatic institutions to economic actors involved in international economic and commercial transactions. The complexity of means and instruments specific to the diplomatic art came naturally as a response to the world evolution.[9] Globalisation, international relations, and the diminishing importance of national borders imposed new paradigms of traditional diplomacy. Originally, diplomacy was the preserve of official foreign institutions, which required a unique diplomatic protocol; but nowadays, it is practiced in all spheres of international economic relations.

In the common sense, diplomacy is the science of foreign relations or foreign affairs of states and in a narrower sense, the science or art of negotiations. Therefore, traditional diplomacy is defined in the literature as being the preserve of state institutions. Diplomats often fail to realise the potential of virtual embassies as diplomacy has traditionally relied on proximity for gathering information and fostering relationships.[10] Curiously, one of the appeals of defence diplomacy is that it provides a less controversial means to work collaboratively on security issues than traditional diplomatic methods.[11] In an increasingly complex global security environment , it is military diplomacy that adds a new and very useful dimension to traditional diplomacy.

Roles, Functions and Goals of Defence Diplomacy

Research in defence studies and related literature shows that one field where the defence institutions' conventional position has changed in post-Cold War is defence diplomacy, which provides a way to address security threats while

maintaining a low risk profile. The role of defence diplomacy depends on the condition of the conflict trajectory, whether it is latent or manifested. That is, defence diplomacy roles vary based on where on the conflict spectrum it is being used, such as: pre-conflict, during conflict or post-conflict. The roles, hence, are also subjected to change based on the nature of the conflict. Although these roles are primarily based on states that are already in conflict or might have grievances that could lead to conflict, roles of states in alliance can also be varied based on their current diplomatic relations.

Foreign and domestic policy goals are becoming accretive and irreversibly interdependent. What's happening in almost any corner of the globe affects us all. Hence, diplomacy influences these local and regional changes to impact globally. Many scholars revisited the strategy initially adopted by the United Kingdom and based their opinion about the defining feature of defence diplomacy on their goals.[12] These initiatives have sought to correct the difference in world views present in the British concept by defining general goals which can be used to achieve defence diplomacy. For instance, Tan and Singh describe defence diplomacy as "the collective application of pacific and/or cooperative initiatives by national defence establishments and military practitioners for confidence building, trust creation, conflict prevention, and/or conflict resolution."[13] While K. A. Muthanna based on an objective-centered approach, envisions defence diplomacy as constructing "sustainable cooperative relationships, thereby building trust and facilitating conflict prevention; introducing transparency into defence relations; building and reinforcing perceptions of common interests; changing the mind-set of partners; and introducing cooperation in other areas."[14] In view of this, the fundamental goal of diplomacy, whether military, defence or otherwise, is to pursue the national interest without using physical, or active force.

From previous pursuits of the current defence diplomacy seen globally, six basic functions of defence diplomacy can be identified:[15] First, supporting the overall diplomatic objective of the state. Second,

collecting and analysing information related to armed forces and the security situation. Third, promoting cooperation, communication and mutual relations between armed forces. Fourth, organising and maintaining official defence relations. Fifth, supporting the export of arms and equipment. And sixth, representing the nation and armed forces at official ceremonies and similar events.

Defence diplomacy has a condition where it can only be effective when it's synchronised with other efforts of government power, such as trade, aid, political relations, culture and people-to-people contacts. In another sense, the message delivered through defence diplomacy can be stronger with the entirety of government position.

Areas of Defence Diplomacy

As previously discussed, most definitions of defence diplomacy do not cover all the areas that it is implemented on, and since most states define and utilise defence diplomacy based on their own agendas and limitations, the areas on which defence diplomacy is used in are diverse and difficult to put under a specific paradigm. Therefore, excessive utilitarianism, progress of liberal democracy and the emergence of new areas of cooperation and relation within defence diplomacy, implementation of tasks within regional organisations, a deep and complicated yet diverse security situation in different regions and their geo-locations, and cultural and regional considerations are just some of the problems that further complicate the development and reconciliation of the general and universally acknowledged definition of defence diplomacy.

The concept of military diplomacy, even though commonly termed instead of defence diplomacy, has to become part of a more ample and diverse concept. It needs to be under the discipline of defence diplomacy itself. In fact, as per the view of contemporary international relations, it is easier to say which areas of cooperation cannot be included in defence diplomacy, rather than calculating the areas precisely. Defence diplomacy

is in fact susceptible to adaptation and flexible to the conditions of action; stretching in many ways, along with the change and shift of the paradigm, range of impacts and necessary forms of contemporary international relations. It is focused precisely on minimising hostility and building and promoting trust between states. However, in contrast to traditional military diplomacy, it defines as many needs and opportunities as possible, supported by the progression of civilisation that ensure mutual exchange of information and interpersonal contacts achievable.

While many scholars have different takes on specifying areas of defence diplomacy, one covers primarily the major and common concerns. According to Lech Drab, the main areas of defence diplomacy are:[16] bilateral and multilateral cooperation—established and maintained at a high level by both civilian and military representatives; education and military training; military exercises; military missions and operations; intelligence cooperation and exchange of information on the military-political situation and other events related to the issues of security and the state of the armed forces of other states; cooperation within international security organisations and alliances; activities related to arms control, disarmament and confidence-building measures; legal and legislative cooperation; cooperation in the field of defence industries; military assistance and support for the armed forces of other countries; and historical military cooperation and patriotic education.[17]

These are currently the main areas of defence diplomacy, implemented as part of bilateral and multilateral cooperation. Some of them, depending on the security standpoint and the development of the international situation, carry special importance in crisis situations, in military emergencies and operations and assistance in realising and transforming the consequences of disasters. Areas of cooperation within the framework of defence diplomacy are not a closed collection of course, new processes and initiatives are constantly emerging, in which the areas for the role and tasks of diplomats in uniform are constantly growing.

Instruments of Defence Diplomacy

Defence Diplomacy depends quite on the type of power preferred by the state, as noted in Figure 2.

Figure 2: Instruments of Defence Diplomacy based on Options of Soft and Hard Power
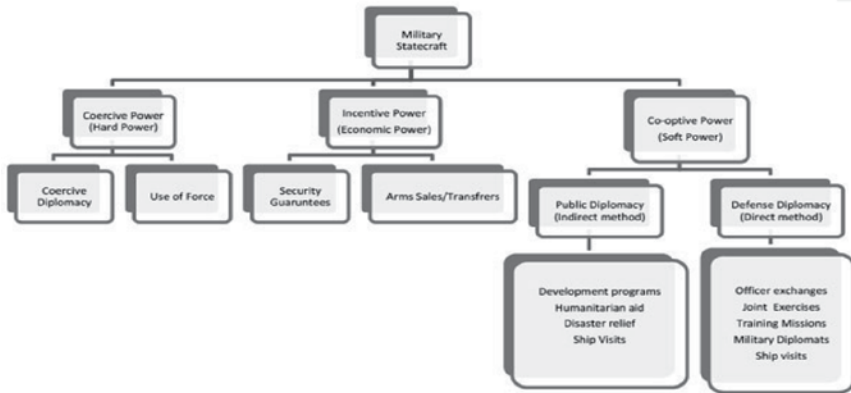
Source: Adapted from Winger (2014).[18]

Apart from the armed forces, the most important instruments of defence diplomacy include:[19] bilateral and multilateral contacts between the highest civilian and military representatives of defence ministries; appointing and maintaining defence attachés in other countries; developing and agreeing bilateral international agreements in the field of military cooperation; training and education of soldiers and civilian employees of the Ministry of Defence; transfer of expertise and consultancy in the field of democratic and civilian control over the armed forces; maintaining regular contacts between military personnel, military units and warships visiting ports; the location of military and civilian personnel in partner countries, both at defence ministries and in military units; deployment of training teams; supplying equipment, armaments and other military materials; and participation in bilateral and multilateral military exercises and training.[20]

As it is evident, the instruments of defence diplomacy are numerous wherein, the fields of activity and instruments of which makes it difficult to talk about a universal defence model compatible with every state. Their specific conditions, administrative system, financial capabilities, economic structure, defence and scientific potential, the size of the armed forces, geopolitical location, security situation, agendas, participation in international security organisations, relations with neighbouring states and many other factors make each of them operate in priority sectors for themselves in their own terms, flexibly and rationally, using the available tools.

Defence Diplomacy as a Significant Tool for Implementing Foreign Policy

Defence Diplomacy is quite quickly becoming a vital aspect of foreign policy, as seen developing among the powerful states, such as the United States, China, United Kingdom, India, France, Spain and Russia. Depending on the state's agendas, powerful states use defence diplomacy to establish dominance among regional neighbours and dictate their foreign policies to clarify their terms and conditions in an alliance. To understand this better, one can revert back to the definition of defence diplomacy as given by scholars. To cite an example, in 2004, Cottey and Forster proposed a flexible, expanding definition of defence diplomacy by stating that it as "peaceful (non-confrontational) use of armed forces and related infrastructure (primarily defence ministries) as a foreign policy and security tool."[21] This approach to the concern hence extends its scope of meaning, taking into consideration both the peaceful use of armed forces, the role of the Ministry of Defence, as well as the use of defence attachés to prevent conflicts.

Defence diplomacy plays a significant role in structuring and implementing security policy in most countries. For many states, it is a specialised instrument of foreign policy and takes a permanent place in

the system of cooperation between states and regional and international organisations. The activities of defence diplomacy, as an instrument of foreign policy and state security, contribute to the development of military cooperation and building appropriate relations between states. In this area, particularly, it activates the resources of the Ministry of National Defence, including the Armed Forces.

Why Choose Defence Diplomacy?

With every new century, a new security challenge is brought forth and the 21st century is no exception to this. What sets the 21st century apart from the 20th; is the multilevel, complex and dynamic aspect of the security challenges that nation-states face today. Changes in these obstacles have already expanded options for states to tackle them, increasingly challenging the effectiveness of traditional resources and tools, such as the defence forces.

An effective and functional defence system in the sense of the system, is one that fundamentally serves to strengthen and stabilise the position of the state on a global playing field. It is an instrument of its foreign policy and national security policy and an element of the counter-crisis system. It stabilises international relations, increases their sustainability and transparency, and thus, reduces the risk of an armed conflict. Military diplomacy such as these perform several basic functions, which include, as discussed before—gathering, screening and analysing of information and intelligence on the armed and security forces and the security situation in the host or receiving state.[22] It also includes promoting of cooperation, creating media of communication and mutually beneficial relations between the armed forces of the guest/sending and the host/receiving state, as well as organisation of working visits of representatives of the defence authorities and support of business contracts in regards to arms and military equipment between the states; and most importantly, representation of the sending state and its armed forces in the receiving

state. So, the contemporary "diplomat in uniform" is not only a contractor of tasks,[23] but the essence of this uniformed diplomat's contemporary mission is to expand the state's knowledge of the international standing, as well as to contribute in the genesis of its national security policy. These roles, as the executive and the co-creator of policies, are not contradictory. However, the importance of the latter is also growing systematically. And this is why defence diplomacy is so vital for a state to not only ensure its stable and strong international position but also etch a structured and functional security policy.

Case Studies

The use of the Armed Forces to represent, promote and support state diplomacy goes centuries back, to the very origins of nations. At the beginning, this support was needed and intended to reinforce national interests by demonstrating a country's military capabilities to impose its interests or agendas on the other. It was also an element to deter foreign intentions; whether political, economic or territorial. During the last century, however, the demonstration of force for deterrent purposes became more refined and profound as new instruments have been considered for ensuring a secured environment and protecting national interests wherever. These new instruments were used to reinforce a country's military capabilities as well as of the allied and like-minded countries through the exchange of procedures, tactics, experiences, and armament. These implementations vary from country to country, as explained in the following cases.

Spain

Spain is a state with a defence diplomacy, that they depend on quite often to establish a better international relation with other states. The defence diplomacy of Spain is diversely formulated and catered based on many international activities. These international activities mainly

focus on preventing conflicts through ongoing interaction in the defence paradigm to enhance transparency, increase mutual confidence, find and define common interests with other states. It also encourages reforms in the security and defence sector, help to reinforce the security and defence capabilities of states and regional organisations to ensure the legitimate execution of their authority in an effective manner within their spheres of sovereignty and jurisdiction.

Based on their definition which the paper covered earlier, and within the general framework of contributing to Spain's actions abroad in order to achieve and maintain national strategic interests, the aims of defence Diplomacy in Spain are to maintain an ongoing dialogue with countries that are significant to Spain's foreign actions on bilateral and multilateral issues of mutual interest in the sphere of defence; support the efforts of other countries in the area of defence; consolidate their democratic structures and the rule of law as a means of contributing to the control and prevention of conflicts; support Spanish industry in its relations with countries of interest; to enhance technological and commercial capabilities, as well as provide an appropriate legal framework that regulates and supports development and evolution in the defence arena, bilateral relations and political dialogue.[24] In their Foreign Diplomacy Plan, it is mentioned that the actions of the Ministry of Defence in the international sphere must be in accordance with and limited to the general framework of Spanish foreign policy, applied in coordination with the Ministry of Foreign Affairs and Cooperation under the principle of unified external action by the State.

In a recent example, the Spanish government recently made an attempt to revamp and revise their defence policy with Latin America and Africa. For instance, Pedro Sánchez, the Prime Minister of Spain, and Margarita Robles, the Defence Minister of Spain, signed a new National Defence Directive, an updated record of the one signed back in 2012.[25] This shows Spain's interests in states with common cultural and linguistic grounds as well as states outside of any common saliences. Furthermore, it

also highlights Spain's interest in evolving and reforming their diplomatic engagements.

Bangladesh and India

Bangladesh and India, being regional neighbours, have a common history and share cultural saliences. With the advent of time, their diplomatic reactions have developed, securing each other a position as a significant ally in not just cases of economic and political but in the arena of defence as well. The context of defence diplomacy has become a topic of debates and discussion, especially based on the series of agreements and Memorandum of Understanding (MoU) signed between the two countries during Bangladeshi Prime Minister Sheikh Hasina's visit to India in April 2017. Some intellectuals and scholars of both the countries are sceptical about the agreements—exemplifying the ineffectual Treaty of Friendship, Cooperation and Peace, which is often referred to as a 'defence pact' signed in 1972 after the Independence of Bangladesh. While many find a sense of optimism for further future alliance with regional and international giants. The drivers of current efforts of defence diplomacy between the states to push mutually beneficial defence cooperation and development are many.

The defence diplomacy of Bangladesh and India has seen significant progress in the last few years. This is evident from the exchange of visits between leaders of the two nations, as well as the conduct of training programmes, joint exercises, and humanitarian assistance and disaster relief such as HADR in 2017.[26] Before 2017, the defence cooperation between the two states did not have any formal mechanism, which automatically provoked questions regarding its sustainability. At present however, India and Bangladesh share an amicable relationship as they cooperate on different political, economic, social, scientific and technological areas. In 2014, the two countries came together to resolve of their maritime boundary dispute, and the following year they resolved their conflict over land.[27]

During Sheikh Hasina's visit, the MOU signed covered many areas for defence cooperation, such as: creating a framework for defence cooperation, between India's Defence Services Staff College and Dhaka's Defence Services Command and Staff College to enhance cooperation in the field of strategic operational studies, and another between Dhaka's National Defence College and India's Defence College.[28] More MoUs were signed to extend a line of credit for the purchase of defence equipment and between the coastguards of the two states. The two states have also talked about cooperation with countering terrorism and organised crimes, for a peaceful Bay among many other.

Conclusion

Defence Diplomacy is a relatively new concept with its roots strongly tied to the needs of a new political language enacting the cooperation and relationship of states and international organisation since the end of the Cold War. Although widely used in political debate and science, it lacks a universally acknowledged definition. One of the ironies of a more integrated world is that there is a greater sense of their special cultural, social and political history among many. To be effective in a new security diplomatic strategy, local idiosyncrasies must be better understood in order to maintain the support of those we wish to aid. And for that, the world needs to understand and utilise the concepts and discover the paradigms of defence diplomacy better. In the past defence policy was often about divides, rivalries and competitions between states, and disputes between cultures. It is not that it's not relevant, but the difference today is that the divides can be overcome by unity—by the collaboration of governments and people around the world for the pursuit of shared priorities and benefits.

Contemporary defence diplomacy is historically influenced by art and literature, and the emerging foreign and security policy needs. It is defined as a way of undertaking negotiations that involves the use of certain means, methods and techniques that do not increase conflict

and are enforced under international law at the same time. The key role of defence diplomacy is to mould states' military relationships. Contemporary security diplomacy is undergoing a continuous adaptive evolution to changing operational conditions and its spectrum of significance is increasing. And to keep up with this continuous tide of evolution, we must study the concerns of defence diplomacy—making this new discourse part of a much studied discipline.

Notes

1. Gregory Winger (2014), "The Velvet Gauntlet: A Theory of Defence Diplomacy," Institutfür die Wissenschaftenvom Menschen. Available online at https://www.iwm.at/publications/5-junior-visiting-fellows-conferences/vol-xxxiii/the-velvet-gauntlet/, accessed on August 11, 2020.

2. Jim Murphy (2012), "The Need for Defence Diplomacy," RUSI. Available online at https://rusi.org/commentary/need-defence-diplomacy, accessed on August 11, 2020.

3. Lech Drab (2018), "Defence diplomacy—an important tool for the implementation of foreign policy and security of the state," *Security and Defence Quarterly*, 20 (3), pp. 57-71.

4. Gregory Winger (2014), "The Velvet Gauntlet," n. 1.

5. Wolfgang Koerner (2006), "Security Sector Reform: Defence Diplomacy," Parliamentary Information and Research Service Library of Parliament, PRB 06-12E, May 17, 2006. Available online at https://web.archive.org/web/20140105072113/http://www2.parl.gc.ca/content/lop/researchpublications/prb0612-e.pdf, accessed on August 11, 2020.

6. "Defence Diplomacy Plan," Ministerio de Defensa, January 2012. Available online at https://www.defensa.gob.es/Galerias/defensadocs/defence-diplomacy-plan.pdf, accessed on August 11, 2020.

7. John Worne (2015), "Diplomacy and Soft Power," Soft Power/Cultural Relations Practitioner Resources, August 7, 2015. Available online at https://culturalrelations.net/2015/08/07/diplomacy/, accessed on August 12, 2020.

8. Ibid.

9. Ioan Popa (2016), "Formal and Significant Mutations of Traditional Diplomacy," Facultatea de Economie Si Administrarea Afacerilor. Available online at http://feaa.ucv.ro/annals/v1_2016/0044v1-022.pdf, accessed on August 12, 2020.

10. Ilan Manor (2019), *The Digitalization of Public Diplomacy*, Cham: Palgrave Macmillan, pp. 217-255.

11. Brendan Taylor, et al. (2014), "Defence Diplomacy Is the game worth the candle?," The Centre of Gravity Series, Australian National University, November 2014. Available online at http://sdsc.bellschool.anu.edu.au/sites/default/files/publications/attachments/2016-03/cog_17_web.pdf, accessed on August 12, 2020.

12. Joyo Sanyal (2018), "Building strategic security: defence diplomacy and the role of army," The Strategist, July 19, 2018. Available online at https://www.aspistrategist.org.au/ building-strategic-security-defence-diplomacy-and-the-role-of-army/#:~:text=The%20 primary%20goal%20of%20diplomacy,basic%20functions%20of%20defence%20 diplomacy%3A&text=promoting%20cooperation%2C%20communication%20and%20 mutual,and%20maintaining%20official%20defence%20relations, accessed on August 11, 2020.

13. Tan Seng and Bhubhindar Singh (2012), "Introduction," *Asian Security* 8(3), pp. 221-231.

14. K. A. Muthanna (2011), "Military Diplomacy," *Journal of Defence Studies*, 5(1), pp. 1-15.

15. Erik Pajtinka (2016), "Military Diplomacy and Its Present Functions," *Security Dimensions: International & National Studies*, no. 20, pp. 179-194.

16. Lech Drab (2018), "Defence diplomacy," n. 3.

17. Ibid.

18. Gregory Winger (2014), "The Velvet Gauntlet," n. 1.

19. Lech Drab (2018), "Defence diplomacy," n. 3.

20. Ibid.

21. A. Cottey and A. Forster (2004), *Reshaping Defense Diplomacy: New Role for Military Cooperation Assistance*, Oxford: Oxford University Press, Adelphi Paper No 365.

22. Erik Pajtinka (2016), "Military Diplomacy," n. 15.

23. Lech Drab (2018), "Defence diplomacy," n. 3.

24. "Defence Diplomacy Plan", Ministerio de Defensa, n. 6.

25. "Spain will strengthen Defence Diplomacy with Latin America and Africa," The Diplomat in Spain, June 12, 2020. Available online at https://thediplomatinspain.com/ en/2020/06/the-government-will-strengthen-defence-diplomacy-with-latin-america-and-africa/, accessed on September 5, 2020.

26. See "HADR at Bangladesh—cyclone Mora," Indian Navy. Available online at https:// www.indiannavy.nic.in/content/hadr-bangladesh-cyclone-mora, accessed on September 5, 2020.

27. Joyeeta Bhattacharjee (2018), "India-Bangladesh defence cooperation: Coming of age, at last?," ORF Issue Brief, Observer Research Foundation, July 26, 2018. Available online at https://www.orfonline.org/research/india-bangladesh-defence-cooperation-coming-of-age-at-last/, accessed on September 5, 2020.

28. See List of Agreements/MoUs exchanged during the State Visit of Prime Minister of Bangladesh to India (April 07-10, 2017). (n.d.). Available online at https://www.mea. gov.in/bilateral-documents.htm?dtl/28360/List, accessed on September 5, 2020.

China's Rise as an Arms Exporter: Implications for India

Anil Chopra

Abstract

The Chinese arms industry today is the world's second-largest producer of munitions. It has overtaken Russia in arms production, a country that was once a major supplier of arms to China. Currently, three of the world's top 10 arms companies are Chinese. China is also becoming a significant exporter of arms around the world. It has emerged as a supplier of weapon platforms to over 50 countries, and is now the world's fifth largest arms exporter. Its main customers are relatively poor countries in South and East Asia, Africa, and Latin America. In each case the sales are linked to lower costs, sometimes cheap loans, and political leveraging. Around 75 per cent went to Asia, with Pakistan being the destination for over 50 per cent of Chinese exports. Defence exports to others in Asia, like Bangladesh, Myanmar, Sri Lanka, and Iran are also of concern to India. Close military ties with Pakistan pose a two-front war to India. In this context, the paper examines the trends in China's defence exports, with special attention to Asia. Furthermore, it analyses the implications it holds for India.

Introduction

Chinese supreme leader Deng Xiaoping had advised the Communist Party

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of China (CPC) to 'hide capability and bide time.' It must gain economic and military strength first and only when must China start looking for a place on the head table of comity of nations. Since as early as 1950s, China has dreamt of being a superpower. It also believed, and openly articulated, that the power flows from the barrel of the gun as exemplified in China's unilateral actions in South China Sea and East China Sea; the expansionist 'debt trap diplomacy' under the Belt and Road Initiative (BRI), and China's recent actions against India in Eastern Ladakh. What calls for China's military activism is its rapid military modernisation. Wherein, one of the important aspects to note are investments in defence technology and procurement, which has resulted into an exponential growth in Chinese Arms Industry.

The Chinese arms industry is now the world's second-largest producer of munitions—a clear shift from the trend decade ago, when China was a major arms importer.[1] It has overtaken Russia in arms production, a country that was once a major supplier of arms to China. Today, three of the world's top 10 arms companies are Chinese. While lack of transparency and state-controlled media hype continues to confuse facts, but as estimated US$ 70-80 billion worth of Chinese munitions are consumed by the Chinese People's Liberation Army (PLA).

China is also becoming a significant exporter of arms around the world. As per latest estimates China has emerged as a supplier of weapon platforms to over 50 countries. In general, between the period of 1998 and 2017, Chinese arms sales developed in volume exponentially by 211 percent, as per *SIPRI* data. China is today launching home-designed aircraft carriers and conducting research in quantum-technology communications. Besides, China also is the world's fifth largest weapons exporter. Its entry into weapon sales is of special concern since Beijing has not signed many arms control regulations, and it only became a signatory to the Arms Trade Treaty,[2] in July 2020.[3] Its main customers are relatively poor countries in South and East Asia, Africa and Latin America. In each

case, the sales are linked to lower costs, sometimes cheap loans, and political leveraging—with an intention initially aimed at establishing a foothold in the local defence market. For instance, Chinese Unmanned Aerial Vehicles (UAV), or drones, are being extensively used in conflicts in both Libya and Yemen.

China and Arms Sales: Hiking Exports versus Shrinking Imports

In 2017, of the 20 largest companies listed in the *SIPRI Top 100*, 11 were based in the USA; 6 in Western Europe; and 3 in Russia.[4] Interestingly as per the 2020 *SIPRI* data, four Chinese arms companies rank among the World's top 20, with combined estimated arms sales totalling US$ 54.1 billion, of which three of the companies were ranked in the top 10.[5] Amongst China's defence industry, Aviation Industry Corporation of China (AVIC) ranks as the country's largest arms company. It mostly produces aircraft and avionics, with arms sales totalling US$ 20.1 billion, and is ranked sixth largest in the world.[6] While China North Industries Group Corporation (NORINCO) is eighth in the Top 100 with sales of US$ 17.2 billion, and is the world's largest producer of land systems as per the SIPRI report.[7] The other two industries include China Electronics Technology Group Corporation (CETC) and China South Industries Group Corporation (CSGC). Owing to these trends, one can rightly suggest that the Chinese defence firms have started giving a tough competition to their American counterparts.

According to the SIPRI data, China's conventional arms sales surged from US$ 645 million in 2008 to US$ 1.04 billion in 2018.[8] Over this period, the lion's share of these exports of around 75 per cent went to Asia; and an additional 20 per cent flowed into Africa. Although China has established itself as a leading arms exporter, the overall value of its trade still pales in comparison to the United States (US), whose exports averaged over US$ 9 billion annually during the last ten years. Countries

in Asia purchased 82.8 per cent of China's arms exports; while African states imported around 20 per cent.[9] Pakistan is the destination for over 50 per cent of Chinese exports; while other top importers of Chinese arms in Asia include Bangladesh, Myanmar, Sri Lanka and Iran.

As China's arms exports are on the rise, its imports are exhibiting a reverse trend exemplifying China's growing capability to produce weapons, which in many cases are through reverse engineering of existing foreign technology. For instance, the Shenyang J-11 fighter was adopted from the Russia Su-27K that Beijing first purchased in 1992.[10] Similarly, China's HQ-9 surface-to-air missiles were inspired by Russia's S-300 platform.[11] In fact, most Chinese weapon platforms seem to have link with some Western or Russian original design. What is important to note that China's economic growth has provided a boost to the spending on research and development, thus adding to China's military-industrial build up.

Another trend to note is Beijing's concentration on emerging technologies, which has enabled it to fill the void left by other suppliers. The US has put restrictions on sale of many high end equipments, including UAVs. China has made its UAVs available to countries such as Pakistan, the UAE, Saudi Arabia, and Egypt. Moreover, in September 2019, Serbia announced that it will buy nine Wing Loong drones from China,[12]—first time ever that a European country has purchased Chinese UAVs. To add, Chinese weapons have also found their way into various conflict zones. What makes it so is the fact that Chinese arms are cost-effective as compared to its American and European counterparts. As the US Department of Defense notes, "Chinese arms are less expensive than those offered by the top international arms suppliers, yet have advanced capabilities."[13] To cite an example, the low-cost K-8 jet trainer is estimated to make up 80 per cent of all jet trainer aircraft in Africa[14]—similarly, the JF-17 may finally get sold to more countries.

Chinese Arms Exports: A Regional Assessment

Latin America

China has historically supplied weapons to countries that are on the United Nation's bad books. These include rogue states such as North Korea and Iran. China's leap forward came when Venezuela's President, the late Hugo Chavez, went to China to diversify arms imports because of an uncomfortable relationship with the United States. It bought the K-8 trainers and air search radars in 2008, and later bought transport aircraft, armoured personnel carriers and self-propelled artillery. China's ability and willingness to supply modern military gear at a highly competitive price makes purchases from it very appealing.

In this regard, the major markets for China are countries that are abandoned by the United States for political reasons, such as Venezuela and Bolivia. Chinese arms exports in Latin America are concentrated in Venezuela, which attracted 87.3 per cent of Beijing's regional weapons sales over the last decade.[15] China is ready to offer financing as an extra incentive. Chinese conventional weapons make up just 3 per cent of the combined North and South American arms import market, which is dominated by the United States (19 per cent), Russia (13 per cent), and Germany (12 per cent).[16]

Africa

The increasing Chinese arms sales throughout Africa is in parallel to its ever-increasing numbers to peacekeepers deployed in Africa. China is now the largest single contributor of personnel to United Nations Peacekeeping.[17] It is also building infrastructure in Africa at knock-down prices. The Chinese-Pakistani made K-8 Karakorum jet trainer is now in service with Egypt, Ghana, Zambia, Zimbabwe, Namibia, and Sudan. China claims with pride that K-8s comprise 80 per cent of the jet trainer aircraft in Africa. The K-8 is particularly notable due to the ease with

which it can be converted over to a light-attack role for counterinsurgency operations. China is actively working to strengthen its foothold in certain markets, such as Algeria. The sales include C-28A frigates. China has sold offshore patrol vessels and other complex naval vessels to nations, including Algeria, Nigeria, Angola, Ghana and Cameroon.[18]

Chinese arms have been used during conflicts in the Democratic Republic of Congo, Côte d'Ivoire, Sudan and Somalia. In July 2014, China North Industries Corporation delivered 100 guided missile systems, over 9,000 automatic rifles, and 24 million rounds of ammunition to the South Sudanese government, whose actions have been widely criticised by the international community.[19]

To complement its sales of advanced arms, China has already built a large maintenance base in Africa with more in development. A naval base in Djibouti will soon be joined by aircraft maintenance and training facilities in Tanzania and the Republic of Congo. Nearly 66 per cent of African nations currently utilise arms made by China; from modest duplicates of small weapons to complex maritime vessels. Since 2008, countries in Africa collectively purchased around 20 per cent (US$ 3.2 billion) of China's overall arms exports; wherein, Northern African countries are the primary destination of Chinese weapons, constituting 49 per cent of Chinese exports to the continent.[20] From 2010 to 2015, China's arms sale expanded by 143 per cent, making it the world's third-biggest exporter of arms. China has taken the market once dominated by Soviet Union or Russia. In terms of trade value with Africa, Russia leads the pack at US$ 14.6 billion in sales since 2008. The US tallied less than half of that at US$ 5.6 billion, while China sold around US$ 3.2 billion.

North America and Europe

China's major weapons sales in the region are limited. These were initially limited to small arms mostly procured by Canada, but in recent years Mexico has become a more significant market. Chinese weapons

are increasingly finding their way to Mexican cartels. More than 99 per cent of China's total arms imports (US$ 14.4 billion) come from Europe, while its exports are an insignificant US$ 17 million of its own weapons.[21] This trend is driven mostly by Russia, which supplies China with 68 per cent of its foreign arms; while France and Ukraine collectively supply an additional 20 per cent of these imports.[22]

Aircraft engines are the main import as China has not yet been successful in producing aircraft engines. Between 2012 and 2019, China purchased over 420 aircraft engines from Russia, and just 24 Sukhoi Su-35 fighter aircraft.[23] Ukraine also provides China with propulsion systems. In 2011, Beijing acquired 250 Ukrainian turbofans for trainer and combat aircraft, along with 50 diesel-powered tank engines and three refurbished IL-78 air-refuelling planes.[24] A sizeable portion of China's orders from France are also for engines. China has sourced French-built diesel engines, such as the 16PC2.5 and 12PA6, for outfitting its naval vessels. There are indications that China has acquired helicopter engines from France. Russian arms sales to China which averaged US$ 2.6 billion through the 2000s, reached a peak of US$ 3.2 billion in 2005. This figure dropped significantly, averaging US$ 816 million between 2010 and 2018. As a result, China's share of Russian arms exports has declined from 47.7 per cent of total sales in 2006 to 13.7 per cent in 2018.[25]

Asia

As accounted, 82.8 per cent of Chinese arms were sold to countries across Asia; wherein, 61.3 per cent of China's conventional weapons sales since 2008 have been to Pakistan, Bangladesh, and Myanmar.[26] Chinese arms sales across South and Southeast Asia grew from US$ 386 million in 2008 to US$ 1.3 billion in 2016, with a dip of US$ 759 million in 2018.[27] To note, US exported US$ 13.8 billion worth of conventional weapons to the same region in the same period.

Of all the countries in Asia, close military ties have paved the way for China to supply Pakistan with more arms than any other country. These exchanges are often tied to political objectives. As a result of the growing cooperation between Beijing and Islamabad, arms sales also surged from US$ 250 million in 2008 to over US$ 758 million in 2009; wherein, since 2009, sales to Pakistan have averaged US$ 584 million.[28] For instance, the co-developed JF-17 aircraft and China's ongoing construction of the Type 054AP class warship for the Pakistani Navy, are significant contributions to Pakistan's inventory.

In case of Bangladesh, between 2008 and 2018, China sold US$ 1.93 billion of weapons to Dhaka. This constitutes 71.8 per cent of Bangladesh's military acquisitions over this period, making China the biggest supplier of arms to Dhaka.[29] China supports these procurements by offering generous loans. Bangladesh's entire tank fleet is of Chinese origin although 44 of these tanks were supplied through Pakistan. Similarly, small arms (16,000 rifles), artillery and air defence weapons are sourced from China. Again, a reasonable number of naval equipment, including its submarines are sourced from China. For instance, in 2016, Bangladesh Navy acquired two used Type-035G Ming-class submarines from China for nearly US$ 203 million.[30] Since 2006, China has also supplied Bangladesh with the majority of its small arms, totalling over 16,000 rifles and 4,100 pistols.

Myanmar is the third largest market for Chinese arms exports in Asia. Since the easing of sanctions against Myanmar in the early 2010s, it has ramped up its acquisition of foreign arms. Since 2013, Myanmar has imported US$ 720 million in conventional weapons from China. Major equipment includes an assortment of Chinese origin small weapons, tanks, artillery pieces and air defence guns. Lately it has acquired 17 JF-17 Chinese origin aircraft from Pakistan along with 12 Rainbow UAVs, two Type 43 frigates, and 76 Type-92 armoured vehicles.[31]

Sri Lanka operates Chinese tanks, armoured personal carriers (APC), artillery and air defence equipment for its Army. Its Navy operates a frigate

and Shanghai class naval vessels. Its air force still operates old vintage Chinese origin combat and trainer aircraft. Currently, Nepal operates limited Chinese origin military equipment comprising a few APCs and rifles.[32] But increasing proximity to China may entail induction of a fair share of weapons and equipment in future.

China's Growing Footprints in India's Sphere of Influence

China is systematically building influence in the South Asia region—a challenge for India. China has reportedly committed around US$ 100 billion in the economies of Afghanistan, Bangladesh, Maldives, Pakistan, Nepal and Sri Lanka.[33] China is now the largest overseas investor in Maldives, Pakistan and Sri Lanka, with investments mainly concentrated in hard infrastructure related to power, roads, railways, bridges, ports and airports; added further with stakes in the Dhaka and Karachi stock exchanges.[34] Given these practices at play, China has been accused of extending excessive credit with the intention of extracting economic or political concessions when countries cannot honour their debts particularly through the BRI. Thus, China's growing foothold in South Asia is calling for concern given its strategic disadvantage for India.

For instance, such fears were amplified after Sri Lanka had to lease out its Hambantota Port to China for 99 years, after being unable to service its debt. Similarly, Pakistan has leased the Gwadar port to China. In addition, strategic experts warn of a Chinese hand behind the strain in India-Nepal ties. What calls for this shift in dynamic is the fact that several South Asian countries seem to be enamoured by the Chinese "generosity", which India is unable to match.[35]

The other aspect to note is the changing dynamic in the bilateral trade. That is, by 2018, China's total trade with Maldives slightly exceeded that of India, while China's trade with Bangladesh is now about twice that of India.[36] Besides, China's trade with Nepal and Sri Lanka still lags behind their bilateral trade; however, the gap has shrunk. Furthermore,

Beijing's active role is also witnessed in its efforts to strengthen the navies of Pakistan, Bangladesh and Sri Lanka, thus enhancing its own footprint in the Bay of Bengal and the Indian Ocean. What can be argued is that, while Pakistan is leaning on China as a low-cost option to neutralise a more powerful India, most other South Asian countries are learning to play India and China against each other—which gives them a greater leverage.

Pakistan's Inventory—Weapons with Chinese Characteristics

Pakistan Army's almost entire armoured fleet comprises Al Khalid, Al Zarar, T-85 and T-69 series of Chinese manufactured tanks.[37] Pakistan Heavy Industries Taxila (HIT) has set up a production line in collaboration with NORNICO to manufacture the Al Khalid tank which has also been exported to Bangladesh.[38] The artillery weapons with Pakistan Army include towed 122 mm howitzer (NORNICO), 130 Type 59 guns which are supported by 122 mm MBRL and A100 MLRS 300 mm rockets[39]— all 'Made in China'. Besides, the Pakistan Air Defence artillery has deployed Chinese LY-80 Low to Medium Altitude Air Defence System (LOMADS), FM 90 and FN 6 MANPAD missile system in addition to 12.7 and 14.5 mm Air Defence guns.[40]

China's support to Pakistan can be traced since the 1960s, wherein, China started supplying PAF F-6 aircraft (air defence version of MiG-19) in 1965—a total of 253 F-6 aircraft were finally supplied to Islamabad. Furthermore, a squadron of Harbin H-5, a Chinese version of Russian Illyshin IL-28 was formed in early 1970s. China also helped to establish Pakistan's Aeronautical Complex at Kamra in 1973. In mid-1980s, PAF received 55 A-5Cs (Chinese MiG-19 ground attack variants) and 186 Chengdu F-7s (Chinese MiG-21). After the United States froze F-16 deliveries as a result of Pressler amendment in 1990, Pakistan went whole hog to China for all its aerospace needs. In 2007, as a part of a joint-venture project, China rolled-out a 'designed for Pakistan' Fighter JF-17

"Thunder". A much more advanced JF-17 Block III version developed in China is already being delivered- while, finally 50 of these are expected.[41]

Currently, PAF has 120 aircraft (numbers likely to increase to 300); 6 ZDK-03 Chinese AWACS (Air borne Warning and Control System); 60 Chinese designed K-8 Karakorum intermediate jet trainers; four CH-4 Recce-cum-strike drones (which can carry up to 4 PGMs and reportedly have endurance of 30 hours) and others.[42] PAF has bought Chinese SD-10 (ShanDian-10) radar-guided, mid-range homing air-to-air missiles to equip the JF-17 fighters. China has transferred 34 M-11, road-mobile, short range ballistic missiles (SRBM) with related technology, and manufacturing capability to Pakistan.[43] In terms of long-range ballistic missiles, *Hatf*, *Shaheen* and *Anza* series of missiles have been built using Chinese assistance—adding to the nearly 150 nuclear warheads. Besides, China has supplied *Burraq* and *Shahpar* series UAV to Pakistan, and plans to allow license production of Wing Loong UAVs.[44] Chinese J-7 and J-17 Thunder fighter aircraft continue to front line platforms of PAF. While on the naval front, the platforms in the pipeline include Type 054A/Jiangkai II-class frigates, Yuan class submarines and anti-ship cruise missiles.[45] This only brings into perspective, the way China is building Pakistan's inventory.

Challenges and Options for India

Success of Chinese arms industry is commendable on one side and of concern to the world on the other side given the change in the status quo that it brings with it. India had a reasonably big defence industry at the time of independence in 1947, while China literally started from scratch in 1949. Strong Communist leadership under Mao Zedong was clear that "power flows from barrel of the gun" and that being self-reliant in defence production was crucial to become a significant power. By 1950s China was already making fighter aircraft, bombers and tanks—some through licensed production, and others by reverse engineering of foreign designs.

Today, China is among the top defence equipment producers, and have two-fifth generation stealth fighters, three aircraft carriers, and a variety of tanks and guns under development or production. Beijing is now already a net-exporter and its defence industry is expanding significantly.

The deteriorating ties between the US and Pakistan, stem from the perception that Islamabad is not doing enough to combat terrorism in Afghanistan. This has resulted in a sharp decline in the US arms supplies to Pakistan on the one hand; however, on the other, it has pushed Pakistan into the Chinese arms. Besides, in case of India, there is a perception of a 'two-front war'; to which, India's Chief of Defence Staff has clearly stated that India needs to prepare for such eventuality. In view of this, in 2018, Indian Air Force conducted a major exercise *Gagan Shakti* simulating a two-front war. What is important to note is that commonality of equipment between Chinese and Pakistani armed forces, who exercise regularly makes things more complex for India. Pakistan is the key to success of Chinese BRI, and in a way for China to boost its military presence can be called the 21st-century version of the East India Company. Thereby, the changed South Asian dynamic (with China rapidly expanding its footprint) necessitates India to adopt an action-oriented approach on an urgent basis.

India on the other side continues to be dependent heavily on imports. Rising Chinese power in Indo-Pacific region has resulted in the US courting India as a counter-balance against China. It has also been in India's interest to secure alliances against the Chinese belligerence. Since 2008, India has acquired many major defence platforms from the US, such as the Boeing P-8I, Lockheed C-130, Boeing C-17, Chinook heavy-lift and Apache Attack helicopters. India also procured M777 towed 155 mm artillery howitzers. Indian Armed Forces continue to have significant Russian inventory which includes top end fighter aircraft like the SU-30 MKI and upgrade MiG-29s. Russia supports India in building tanks, ships and submarines. India has had a close French connection, earlier with

Mirage 2000 and now Rafale. Israel has been supplying UAVs, radars, and other systems, and also supporting indigenisation.

Today, Indian and Chinese armed forces are face-to-face on the LAC. While Chinese armed forces are large in overall numbers, but how much China can bring to bear in the Ladakh region has its limitations. Indian armed forces have the advantage of years of regular deployment and operations at those heights and region—with the Indian Army having a secured critical vantage ground. Also, with just three major Chinese airbases, India has a clear advantage to deploy air power.

Democratic India has been moving very slow in defence production and indigenisation, while China is gradually taking a lead at the global stage. India needs to speed up its defence production act under its 'Make in India' (now *Atmanirbharta*) initiative. Indigenisation should be the key and this requires India to improve its project management approach. There is no alternative to defence indigenisation if India wants to be a significant global player. For as China uses arms sales along with BRI as a tool to encircle and weaken India, it is time for India to take appropriate measures, lest it becomes too late.

Notes

1. "New SIPRI data reveals scale of Chinese arms industry," Stockholm International Peace Research Institute, January 27, 2020. Available online at https://www.sipri.org/media/press-release/2020/new-sipri-data-reveals-scale-chinese-arms-industry#:~:text=%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B,States%20but%20ahead%20of%20Russia, accessed on October 1, 2020.
2. See "Arms Trade Treaty," United Nations. Available online at https://www.un.org/disarmament/convarms/arms-trade-treaty-2/, accessed on October 1, 2020.
3. Statement of the People's Republic of China to the Sixth Conference of States Parties to the Arms Trade Treaty," August 17, 2020. Available online at http://www.china-un.ch/eng/dbtxwx/t1807021.htm, accessed on October 1, 2020.
4. "New SIPRI data reveals scale," n. 1.
5. Ibid.
6. Ibid.
7. Ibid.

8. "SIPRI Arms Transfers Data," China Power. Available online at https://chinapower.csis. org/data/sipri-arms-transfer-data/, accessed on October 2, 2020.

9. Ibid.

10. Anil Chopra (2020), "Design Copies-Reverse Engineering-Way to Aviation Power ," Air Power Asia, April 21, 2020. Available online at https://airpowerasia.com/2020/06/20/ design-copies-reverse-engineering-way-to-aviation-power-are-j-20-and-j-31-overhyped/, accessed on October 2, 2020.

11. Ibid.

12. Dusan Stojanovic (2019), "China to boost Serb military with drones, other equipment," *ABC News*, September 10, 2019. Available online at https://abcnews.go.com/ Technology/wireStory/china-boost-serb-military-drones-equipment-65509859, accessed on October 3, 2020.

13. Office of Secretary of Defense (2019), "Annual Report to US Congress Military and Security Developments Involving the People's Republic of China 2019," May 2, 2019. Available online at https://media.defense.gov/2019/May/02/2002127082/-1/- 1/1/2019_CHINA_MILITARY_POWER_REPORT.pdf, accessed on October 3, 2020.

14. Oscar Nkala (2015), "Chinese Company Builds Growing African Presence," Defensenews. com, October 10, 2015. Available online at https://www.defensenews.com/training- sim/2015/10/10/chinese-company-builds-growing-african-presence/, accessed on October 4, 2020.

15. Allan Nixon (2016), "China's Growing Arms Sales to Latin America," *The Diplomat*, August 24, 2016. Available online at https://thediplomat.com/2016/08/chinas- growing-arms-sales-to-latin-america/, accessed on October 5, 2020.

16. "How dominant is China in the global arms trade?," China Power, April 26, 2018. Available online at https://chinapower.csis.org/china-global-arms-trade/#:~:text=Between%20 2008%20and%202018%2C%20China,Russia%2C%20Germany%2C%20and%20France, accessed on October 5, 2020.

17. He Yin (2019), "China takes the lead in UN peacekeeping," *China Daily*, September 26, 2019. Available online at https://www.chinadaily.com.cn/a/201909/26/ WS5d8bfa01a310cf3e3556d7f3.html#:~:text=Currently%2C%20China%20has%20 2%2C534%20military,permanent%20UN%20Security%20Council%20members, accessed on October 5, 2020.

18. James Shinnie (2017), "Chinese Arms Exports Contradict Its International Messaging," RUSI, April 20, 2017. Available online at https://rusi.org/publication/rusi-defence- systems/chinese-arms-exports-contradict-its-international-messaging, accessed on October 6, 2020.

19. Shannon Tiezzi (2015), "UN Report: China Sold $20 Million in Arms and Ammunition to South Sudan," *The Diplomat*, August 27, 2015. Available online at https://thediplomat. com/2015/08/un-report-china-sold-20-million-in-arms-and-ammunition-to-south- sudan/, accessed on October 5, 2020.

20. Abel Abdel Ghafar and Anna L. Jacobs (2019), "Beijing calling: Assessing China's growing footprint in North Africa," Brookings Doha Center Publication, September 23, 2019.

Available online at https://www.brookings.edu/research/beijing-calling-assessing-chinas-growing-footprint-in-north-africa/, accessed on October 8, 2020.

21. "How dominant is China," n. 16.

22. Ibid.

23. Franz-Stefan Gady (2019), "Russia Completes Delivery of 24 Su-35 Fighter Jets to China," *The Diplomat*, April 17, 2019. Available online at https://thediplomat.com/2019/04/russia-completes-delivery-of-24-su-35-fighter-jets-to-china/, accessed on October 5, 2020.

24. Michael Kofman (2014), "Ukraine's China Problem," Wilson Center, December 8, 2014. Available online at https://www.wilsoncenter.org/article/ukraines-china-problem, accessed on October 7, 2020.

25. Kanwal Sibal (2020), "Why clash with China may not impact Russian arms supplies to India," *The Economic Times*, June 25, 2020. Available online at https://economictimes.indiatimes.com/news/defence/why-clash-with-china-may-not-impact-russian-arms-supplies-to-india/articleshow/76590394.cms?from=mdr, accessed on October 5, 2020.

26. "How dominant is China," n. 16.

27. Nikita Kwatra and Sriharsha Devulapalli (2020), "Mapped: How China has raised its clout in India's neighbourhood," *LiveMint*, June 30, 2020. Available online at https://www.livemint.com/news/india/mapped-how-china-has-raised-its-clout-in-india-s-neighbourhood-11593498026189.html, accessed on October 5, 2020.

28. "How dominant is China," n. 16.

29. Ibid.

30. "China Sells Two Submarines To Bangladesh Navy," *Outlook*, November 14, 2016. Available online at https://www.outlookindia.com/newswire/story/china-sells-two-submarines-to-bangladesh-navy/960372, accessed on October 8, 2020.

31. "How dominant is China," n. 16.

32. Brig N K Bhatia (2020), "Chinese weapons in Indian neighbourhood," Indian Defence Industries, May 7, 2020. Available Online at https://indiandefenceindustries.in/chinese-weapons-india-neighbourhood, accessed on October 8, 2020.

33. Anil Chopra (2020), "China's Growing Defence Exports in Asia- Implications India," Air Power Asia, August 11, 2020. Available online at https://airpowerasia.com/2020/08/11/chinas-growing-defence-exports-in-asia-implications-india/, accessed on October 8, 2020.

34. Ibid.

35. Ibid.

36. Nikita Kwatra and Sriharsha Devulapalli (2020), "Mapped: How China has raised its clout in India's neighbourhood," *LiveMint*, June 30, 2020. Available online at https://www.livemint.com/news/india/mapped-how-china-has-raised-its-clout-in-india-s-neighbourhood-11593498026189.html, accessed on October 5, 2020.

37. Franz-Stefan Gady (2019), "The two South Asian rivals field two of the world's largest tank armies," The Diplomat, February 28, 2019. Available online at https://thediplomat.com/2019/02/india-and-pakistans-main-battle-tank-forces-an-overview/, accessed on October 7, 2020.

38. Brig N K Bhatia (2020), "Chinese weapons in Indian neighbourhood," n. 32.

39. Ibid.

40. Ibid.

41. Franz-Stefan Gady (2020), "Pakistan's JF-17 Block III Fighter Jet Makes Maiden Flight," *The Diplomat*, January 6, 2020. Available online at https://thediplomat.com/2020/01/pakistans-jf-17-block-iii-fighter-jet-makes-maiden-flight/, accessed on October 7, 2020.

42. Anil Chopra (2020), "China's Growing Defence Exports," n. 33.

43. Ibid.

44. Ibid.

45. Ibid.

China's Great Game in the Gulf: Implications for India

Manjari Singh

Abstract

Chinese interaction with the Gulf started under Deng Xiaoping when its economy was opened and Beijing felt that it needs to interact with the outside world. China's relations with Persian Gulf countries can be divided into three phases: one, wherein it first interacted amicably with the countries in the region in 1978; two, furthering of relations due to Chinese thirst for energy security and economic investments through BRI; and three, China's extra-economic or strategic footprints in the Gulf. It is the last phase that will have some implications for India, thus is of much interest globally and in particular for New Delhi which has huge stakes in the region based on its own energy security, human security due to its 9.5-10 million strong diaspora and economic and trade investments. Therefore, the article argues that New Delhi should be watchful of Chinese intent with regard to the Gulf, though as of now it need not worry.

Introduction

China has not only emerged as an important player and a rising/risen power of the 21st century but has also, during the same time, become an increasingly significant and active player in the West Asia/Middle East. However, its engagement with the Middle Eastern region has been

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restricted to economic investments and import of crude oil. It is only recently, since 2013 that with its over ambitious Belt and Road Initiative (BRI), China has increased its engagement with the region in the other spheres as well, military and naval cooperation being the significant ones. Nevertheless, this transition is a new phenomenon and many western analysts such as Jonathan Fulton, Guy Burton and Camille Lons believe that China still seems reluctant to fill in for the United States (US) in terms of playing the role of a security guardian to the Middle East.[1] However, many policymakers are yet clueless or have little knowledge on China's actual motives, objectives and its position vis-à-vis the Middle East. Additionally, the uncertainty regarding China's potential role in the Middle Eastern security architecture is also evaluated in terms of mid-term and long-term regional stability and political dynamics of West Asian economies.

The recent beyond economic investment Chinese posturing especially with Iran and Turkey raises a question as to what is China's 'Great Game' in the region. India has huge stakes in the Middle East—especially, with respect to the Gulf economies, New Delhi's energy security interests with investments in major projects such as Chahbahar, around 9.5-10 million Indian diaspora in the Gulf alone, and strategic partnership with significant regional actors. Thus, needless to mention that China's growing interest in the Middle East, which is India's extended neighbourhood, calls for New Delhi to have a close watch on Beijing's intentions in the predominantly Islamic region.

'Made-in-China' products are flooded in the region's markets ranging from a cigarette lighter to traditional Arabic attires, all are manufactured by China.[2] Thus, while Chinese investments are omnipresent in the Middle East, its recent economic and beyond economic adventurism in the Gulf should be of particular interest to India. The reasons are obvious and already stated above! The paper is divided into four sub-themes, namely China's engagement with the Gulf; China's economic and energy

interests in the region; its extra-economic aspirations; and finally, Chinese Great Game in the Gulf region and its implications for India.

For practical purposes, as per Nicholas Lyall,[3] China's engagement with the Persian Gulf can be divided into three distinct phases, namely: Phase I: 1978-1991 or the slow emergence of China from the shadows of the US and the then USSR; Phase II: 1992-2007 or the era of Thirst for Oil and Phase III: 2008 to present or the time with China's increasing security footprint and geostrategic focus in the Gulf. It is to be noted that Phase II and Phase III merge with each other and the timeline given is not suggestive of the fact that China had economic and energy interests in the Gulf only until 2007. It continues to invest economically and is the largest importer of crude oil from the region; however, it has started to have extra-economic or strategic footprints in the region, which is a new phenomenon, given Chinese reluctance earlier to engage with the region other than economy. This clearly indicates that China feels it is ready to take that responsibility but will do it differently; that is not by might but through investments and projects!

Phase I: Chinese Engagement with the Gulf

Indian Minister of External Affairs, Subrahmanyam Jaishankar, in his recently published book *The India Way: Strategies for an Uncertain World*,[4] wrote that both India and China, the two ancient and great civilisations, missed the industrial revolution (1760-1840) because of their closed economy and reluctance to interact with the outside world and Communist thinking in China. And thus the world saw the emergence of Western powers turning into superpowers for more than two centuries. This transition in power was not smooth and resulted in bloody wars (First and Second World Wars) followed by a Cold War period.

To change the status quo, China under the leadership of Deng Xiaoping underwent reform phase and subsequently opened its economy in 1978. This incident not only brought a sea-change domestically but

also facilitated China to expand its foreign relations with Persian states. Other historic events that increased the engagements were Islamic Revolution of 1979 and the disintegration of the Soviet Union in 1991.[5] Both the Persian Gulf countries and particularly Iran were looking for stable relations with outside nations and similarly with the disintegration of the Soviet Union, China needed new associations.[6] Additionally, to control and contain its Western province of Xinjiang, a predominantly Muslim populated region, from any probable "unrest," China required heightened alliances with the Islamic nations. Therefore, these combined concerns led to China being drawn to the Middle East and more specifically to the Persian Gulf countries.[7]

This shift in China's stance towards the Persian Gulf has not been smooth and was guided by Chain's own reluctance to indulge with the monarchies as well as international player's active role in the region in terms of power projections. Prior to 1978, China's relation with the Persian Gulf states was purely based on ideological differences. The communist regime in the People's Republic of China (PRC) viewed the monarchical Gulf States with deep suspicion throughout the 1950s and 1960s. Classic example in this regard being China's expansion of its ties with Iraq in 1958 after the nation's ruling regime was overthrown.[8] It is to be noted that during 1967-1971, China has been supporting revolutionary movements in the region. However, with improved PRC-US relations during that time and its growing hostility towards Russia, China adopted a softer approach in the Gulf by focusing on socialist modernisation instead of revolution. Tables turned since the 1990s when the US' active support to Kuwait against Iraq secured it a stable role as a security provider in the region and marked its regional dominance. That along with disintegration of Soviet Union and global condemnation of the Tiananmen Square massacre isolated Beijing at the global stage and therefore it maintained a low profile in the Gulf. As per Wu Bingbing, China remained "detached generally, involved appropriately" in the

region[9] for a very long time until its drive for economic growth and energy security kick started!

Phase II: China's Economic and Energy Considerations in the Gulf

During Phase II (1992-2007), with China's intentions for economic expansions to be at par with the world powers, energy security became crucial. China became net petrochemical products importer by 1993. Most importantly, throughout this phase, China's relationship with the region was largely defined by China's "insatiable need for Gulf petrochemicals to fuel its rapid growth."[10] Until 2008, Beijing avoided any political interference in the larger Middle East and restricted its engagement with the conflict-ridden region to economy and energy.

As stated earlier, in the 21st century, China has emerged as a rising/risen power. The transition or shift of power from western hemisphere to eastern hemisphere has not been achieved merely through military prowess but because of rapid economic growth. This is a unique feature in world history! And even though, there has been a decline in the Chinese economic growth by 1.1 per cent annually, China continues to be the world's largest energy consumer of crude oil and will account for about 22 per cent of world's energy consumption by 2040.[11] Therefore, the core Chinese concern has been to ensure a regular and uninterrupted supply of oil since 1949. Even though, China has been self-reliant and self-sufficient in catering to its domestic demands by home production of coal, yet import of crude has played a very important role in sufficing the needs of its huge population and its growing economy.

Moreover, while China is a world leader in terms of renewable energy production and is the largest producer of hydroelectricity, solar power and wind power globally, crude oil imports have begun to play a crucial role in catering to the growing demand. According to International Energy Agency (IEA) 2019 study, China's oil import dependence is likely

to increase from 67 per cent in 2017 to 76 per cent in 2040.[12] This means that China will have to ensure a sustainable supply of crude oil to meet its growing demand and requirements and it is in this context that the country has shown more interest in the Persian Gulf countries.[13]

As the largest consumer of energy and leading importer of Gulf oil and gas, by 2035, China is projected to become the largest importer as its demand is speculated to rise from the current 6 million barrels per day (bpd) to 13 million bpd.[14] Additionally, Paris-based IEA has speculated that by 2035, Chinese imports from Persian Gulf will be doubled. Similarly, other estimates suggest that 90 per cent of Middle Eastern oil will to Asia as there is a decline in American imports due to fracking, hydraulic fracturing and shale gas production.[15]

An estimate by Daniel Workman reveals that over 44 per cent of the total Chinese crude oil imports in 2019 came from the Gulf (see Figure 1) and that Saudi Arabia is its top exporter of crude oil (16.8 per cent) followed by Russia (15.3 per cent) and Iraq (9.9 per cent). In the list of top 15 exporters of oil to China, six countries are from the Persian Gulf. This in itself suggests that Persian Gulf is crucial to China to meet its crude oil requirements. Interestingly, given the sanctions on Iran, the official figures stand at 3 per cent export of crude to China, however, the increased bonhomie between the two countries is suggestive of the fact that much of the crude oil trade must be happening under the table. This is confirmed by a report published by the Reuters in July 2019 where it was claimed that research by three data firms have revealed that between 4.4 million and 11 million barrels of Iranian crude were discharged to China. The firms calculated this to be around 1,42,000-3,60,000 bpd. Moreover, as per Trump Administration official estimates, about 50-70 per cent of Iranian exports flow to China and the rest 30 per cent goes to Syria amidst Iranian sanctions.[16]

Figure 1: China's Crude Oil Imports, 2019
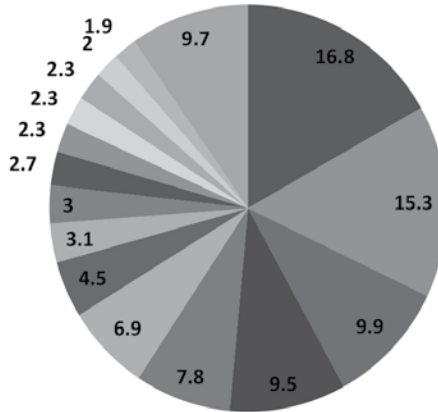
Source: Prepared by the Author with reference to Daniel Workman.[17]

Similarly, Table 1 suggests that Chinese imports and total trade with the Persian Gulf has been increasing. The data available is limited to 2012-15 because of two reasons: Chinese National Bureau of Statistics has not been releasing data on the subject post-2017 most probably owing to sanctions on Iran and that the Chinese Bureau of Statistics cannot be accessed by India as of now given the standoff at Eastern Ladakh. Nevertheless, it is obvious from the table that Saudi Arabia continues to be net major exporter of crude to China. However, net imports from Saudi Arabia to China have considerably reduced from US$ 54,861.80 million in 2012 to merely US$ 30,021.05 million in 2015. Likewise, total trade has also reduced for the same period from US$ 73,314.22 million to US$ 51,633.98 million in 2015 (Table 1).

It is in this regard that the sudden Chinese bonhomie with sanctioned Iran is precarious! As per the table, Iran does not figure as major oil exporter to China, that it is under sanction, is supposedly belligerent, and does not have much to offer except for safe passage of BRI project lines. It is noteworthy that even when Chinese dependence is more on

Table 1: China's Imports and Total Trade from Gulf (in US$ million), 2012–2015

Countries	2012		2013		2014		2015	
	Imports	Total	Imports	Total	Imports	Total	Imports	Total
Bahrain	348.03	1,550.81	305.18	1,544.11	183.96	1,415.75	111.54	1,123.39
Iran	24,868.39	36,465.84	25,389.36	39,426.51	27,503.85	51,842.34	16,057.54	33,827.55
Iraq	12,655.77	17,567.59	17,984.86	24,878.85	20,761.24	28,505.08	12,674.63	20,583.86
Kuwait	10,467.81	12,556.99	9,586.94	12,262.15	10,004.96	13,433.69	7,497.04	11,269.84
Oman	16,965.44	18,787.02	21,040.61	22,941.46	23,795.86	25,861.24	15,047.42	17,163.81
Qatar	7,27,810	8,483.20	8,46,335	10,174.26	8,336.73	10,590.74	4,614.37	6,890.01
Saudi Arabia	54,861.80	73,314.22	53,450.71	72,190.53	48,508.03	69,083.27	30,021.05	51,633.98
UAE	10,851.97	40,420.29	12,823.83	46,234.82	15,768.36	54,797.86	11,514.03	48,534.20
Total	8,58,829.21	2,09,145.96	986916.49	2,29,652.69	154862.99	2,55,529.97	97537.62	1,91,026.64

Source: Adapted from National Bureau of Statistics of China.[18]

Saudi Arabia, the latter is a US ally, is Wahhabi and thus conservative and is entangled in its domestic affairs. Thus, Beijing seems to be careful in wooing Saudi Arabia and does not want to rub the US the wrong way. Therefore, the Chinese posturing in the region will have to be supported even by Iran, which has its proxies running across the region despite economic sanctions, under table trade deals are possible with Iran and as it has fairly anti-US sentiments, it seems slightly more desirable to China. Additionally, one must keep in mind that both Iran and China are seen as revisionist powers, Persian Iran in the Middle East and China globally. Therefore, even when the extent of expansionist aspirations is different, they both have near similar intentions! And this is something that New Delhi needs to be watchful of!

Apart from energy considerations, China has economic stakes and investments in the region under its BRI project. Jeremy Garlick and Radka Havlova argue that through BRI, China has forged its economic diplomacy with the Gulf nations. Therefore, to fully implement its economic diplomacy in the region PRC needs to equally indulge with Iran as well as Saudi Arabia and also needs to ensure to not rub off the US the wrong way! The scholars opine that "to implement the trade and infrastructure connectivity goals of the BRI and to secure the continued flow of diversified energy supplies, China needs to boost relations with both regional powerhouses, Iran and Saudi Arabia, without alienating either of them or the regional hegemon, the United States."[19]

Much along the same lines, Julia Gurol and Jacopa Scita from *The Atlantic Council* believe that BRI serves as a non-political leverage point for China to get its way in the region without getting much involved in the regional disputes. The authors argue that this apolitical stance is important for China to stay away from choosing sides even when there is a strategic component attached to BRI. Both further state:

This allows China the almost impossible—which is to expand its economic and military activities in a highly competitive environment—without being bogged down in the turmoil of regional, political and security conflicts. However, the success and consolidation of this strategy seems to be bound to a minimum degree of stability in the Persian Gulf.[20]

Gurol and Scita are in agreement with Garlick and Havlova on "keeping Tehran and Riyadh content." Another regional player of interest to China is UAE. It is stated:

China has established comprehensive strategic partnerships with Saudi Arabia since 2016 and the United Arab Emirates since 2018. According to the China Global Investment Tracker, Beijing's investments in the two countries between 2008 and 2019 reached a total of $62.55 billion, while the total amount that China invested in all the Gulf Cooperation Council (GCC) countries during the same period is around $83 billion. Current developments notwithstanding, this puts the Gulf monarchies into the center of Beijing's economic projection towards the Middle East. Against the backdrop of China's growing hunger for oil, it is not surprising that most Chinese investments in Saudi Arabia and the UAE were made in the energy sector, albeit not solely.[21]

Thus, while the economic and energy interests of China in the Persian Gulf are on the upswing, few experts believe that under the garb of BRI, China has strengthened its counter-terrorism, military and naval cooperations with the major countries in the Gulf.

Phase III: Chinese Strategic Footprint in the Gulf

In 2008 when China dispatched its three naval vessels to participate in the multilateral counter-piracy operations in the Gulf of Aden;[22] it gave the first hint of its beyond economic footprint in the region. However, given

the centrality of the larger Middle East and Persian Gulf in particular in China's BRI; the latter has increased its strategic footprint in the region, and this marks the phase III of the relations between China and the Gulf. This is seen in China's drive to elevate its relations with the region by signing "strategic" or "comprehensive strategic partnerships"[23] with majority of the Gulf economies post-2013 (see Table 2). It is noteworthy that except for Bahrain, China has either strategic or much elevated comprehensive strategic partnership with all the other Gulf economies.

Table 2: China's MENA Partnerships

Countries	Level of Partnership	Year Signed
Algeria	Comprehensive Strategic Partnership	2014
Djibouti	Strategic Partnership	2017
Egypt	Comprehensive Strategic Partnership	2014
Iran	Comprehensive Strategic Partnership	2016
Iraq	Strategic Partnership	2015
Israel	Comprehensive Partnership for Innovation	2017
Jordan	Strategic Partnership	2015
Kuwait	Strategic Partnership	2018
Morocco	Strategic Partnership	2016
Oman	Strategic Partnership	2018
Qatar	Strategic Partnership	2014
Saudi Arabia	Comprehensive Strategic Partnership	2016
Turkey	Strategic Partnership	2010
UAE	Comprehensive Strategic Partnership	2018

Source: Prepared by the Author.

Of all the strategic interactions with the Gulf, China's growing nexus with Saudi Arabia and Iran are of particular concern and interest. Immediately after elevating its relations with Saudi Arabia to "Comprehensive Strategic Partnership" in 2016, Beijing and Riyadh

started to deepen their ties in the security realm. Since October 2016, the Chinese People's Liberation Army (PLA) and Saudi military have been conducting joint counter-terrorism exercises in China's Western province of Xinjiang, which is predominantly Muslim populated.[24] To note, Riyadh has conducted such exercises only with Washington, as of now.

On another occasion, Chinese navy vessels have visited Jeddah port on anti-piracy manoeuvre in the Gulf of Aden in November 2019; a month before the Iran-Russia-China trilateral exercise,[25] in order to hold joint drills at the King Faisal Naval Base. Arms exports and technology transfer are future areas of cooperation and China has already hinted that it is ready for such arrangements. For instance, the US has shown its unwillingness to sell armed Unmanned Aerial Vehicles (UAVs) to Saudi Arabia and China has stepped up to build a manufacturing plant for CH-4 UAV drones which is similar to US MQ-1 Predator already there with the Kingdom.[26] The UAE and Pakistan along with Saudi Arabia have also purchased the Wing Loong model from China.[27]

More significantly, in August 2020, it was reported that China and Saudi Arabia were cooperating in the construction of a nuclear facility to extract Uranium yellowcake from Uranium ore. This was seen as a major shift from Saudi Arabia's civilian nuclear programme. For the unversed, such extractions are also used in nuclear weapon development—an idea that Riyadh has been pursuing for decades now with the Chinese help. This is yet another example of Saudi Arabia and China's closeness and confirms that Riyadh is ready for a Plan B after US withdrawal from the region. As of now, allegedly only Israel possesses nuclear weapons in the region; while Iran's nuclear programme has been time and again foiled by the US and its allies. Therefore, Saudi Arabia's possession of such weapons is a matter of concern for the West, because of its regional clout and sour relations with other regional powers. Furthermore, given Israel's democratic set up, its image at the global table binds it towards holding a 'responsible behaviour', which may not be the case with the monarchical Saudi Arabia.[28]

These are enough hints that even the strongest US ally in the region, Saudi Arabia, sees China as sort of an alternative just in case the US withdraws from delivering security blanket to the country. Although in the long-term, China is aware of its limitations to fill in for the US as a security provider to the region given Beijing's economic aspirations, however, its growing strategic footprint in the region cannot be ignored. Also, one does not know China might surprise by playing the guardian angel to the region as the US withdraws. The likelihood of such an instance seems bleak as of now though!

Moreover, currently, China has concluded partnership agreements with at least 15 West Asian countries after initiating its BRI project. As already stated, it participates in anti-piracy and maritime security missions in the Arabian Sea and the Gulf of Aden. Beijing conducted large-scale rescue operations for its nationals stuck in Libya in 2011 and in Yemen in 2015. It has increased its mediation efforts in Syria and Yemen crises. It has increased its regional clout by persuading Iran to sign the Nuclear Deal. Further, China established its first overseas military base in Djibouti and has militarised Pakistani port of Gwadar—all of these have increased its military presence in the Gulf and near the crucial maritime chokepoints, Strait of Hormuz and Bab el-Mandeb.[29]

Notwithstanding these, China's most crucial and noteworthy step has been increasing its relations with sanctioned Iran. While protecting Tehran, Beijing went to the extent of ignoring Washington's imposed sanctions and warning over waivers. Not only that, its continued support for Tehran was also noticed when Mahan airlines flew to and fro Tehran and Beijing despite COVID-19 pandemic restrictions and warnings on the flights. It is worth noting, Tehran was put on radar for uncontrolled spread of coronavirus and for becoming the super-spreader in the region.[30] Nevertheless, the most notable development in the Tehran-Beijing relations is the July 2020 "Comprehensive Strategic Partnership" for 25 years wherein, China promised to invest around US$ 400 billion in economy, trade and military. As per the 18-page agreement, China would expand its "presence in

banking, telecommunications, ports, railways and dozens of other projects [in Iran]. In exchange, China would receive a regular—and, according to an Iranian official and an oil trader, heavily discounted—supply of Iranian oil over the next 25 years."[31] This created a hue and cry in India as the deal coincided with Iran going along with the construction of railway project under Chahbahar development on its own citing Indian delay to invest in the project. However, Iran clarified that the two are not linked and Indian Defence Minister Rajnath Singh and Foreign Minister S. Jaishankar's visit to their counterparts further emboldened the relations between New Delhi and Tehran. During Foreign Minister Jaishankar's halt at Tehran on his visit to Moscow for Shanghai Cooperation Organisation (SCO) in September 2020, it was stated that he discussed Chahbahar and Afghanistan with his Iranian counterpart.[32]

Chinese Great Game in the Gulf and Implications for India

The Chinese Great Game in the Gulf, if not clear in entirety but is apparent that China has started to spread its strategic footprint in the region under the garb of BRI. It may act as a security provider to the region the same way it has become a rising power, that is through economic growth and investments. Besides, on the sidelines of BRI, Beijing has started to develop counter-terrorism, anti-piracy, military and naval cooperation and is conducting joint exercises with some of the major countries in the Gulf. Therefore, New Delhi must note that China is not in competition with India in the region rather it is seen as a potential substitute to the US in the wake of the latter's disengagement from the region.

Needless to mention that India has huge stakes in the Gulf in the form of 9.5-10 million strong diaspora, energy security consideration as of the total 84 per cent of India's energy requirement, more than 45 per cent is fulfilled by the Gulf. Economic and trade investments is another area of concern. Moreover, Gulf being the extended neighbourhood is crucial

for India's national security, especially with regard to India's own Muslim population.[33] Thus, growing Chinese presence in the Gulf is indicative of its "all weather friend's" presence in the region too, which happens to be India's western adversary and a notorious one!

Notwithstanding these, New Delhi needs to stop harping on the fact that Indian diaspora and its contribution is the strength! It could be argued that for a potential actor to be a net security provider, number of natives in the region is not the prerequisite condition. The US had its naval and air bases, while China under its rising/risen power dynamic, has and will have BRI investment projects, that includes its bases in the Gulf as well. In addition, on the sidelines of BRI, China is also developing military and security cooperation with major regional actors. Therefore, New Delhi needs to pull up its socks, rise to the occasion, and work on its delayed delivery syndrome and act responsibly!

India needs to be watchful of China's extra-economic indulgence in the Gulf, if not now the situation will be worrisome in the future. India needs to work on its investments projects and prove its mettle, otherwise William Clay's permanency in mutual interests in International Relations will prove fatal for India. For instance, India's incapability to deliver on time allegedly forced Iran to carry on the railway project under Chahbahar on its own. This should act as a learning lesson for New Delhi in pursuit of its future projects.

As the Gulf is the extended neighbourhood to India, it needs to increase its interaction with the region in multi-directional ways to keep it engaged through its innovative projects and investments. Private companies should be encouraged to invest in the region as much of the needed infrastructure has already been developed. Notably, in International Relations, extra points are given for intent and not just for capability. Thereby, New Delhi needs to fathom Chinese intent and its 'great game' in the Persian Gulf, and fasten its seat belt accordingly!

Notes

1. Camille Lons et al. (2019), "China's Great Game in the Middle East," European Council on Foreign Relations, Policy Brief, October 2019. Available online at https://www.ecfr. eu/page/-/china_great_game_middle_east.pdf, accessed on October 2, 2020.

2. Personal Interviews with Mohammed Masawadeh, a medical student in a Private University in Madaba, Jordan and Omer Rifai, a shop owner in the local Suq (market) in Downtown Amman in March 2018.

3. Nicholas Lyall (2019), "China in the Middle East: Past, Present and Future," *The Diplomat*, February 16, 2019. Available online at https://thediplomat.com/2019/02/china-in-the-middle-east-past-present-and-future/, accessed on October 2, 2020.

4. Subrahmanyam Jaishankar (2020), *The India Way: Strategies for an Uncertain World*, New Delhi: HarperCollins India.

5. Manjari Singh (2020), "Leveraging Energy Requirements: Deals with Iran, the China Way," *Scholar Warrior*, Spring 2020, pp. 52-59.

6. John Calabrase (1998), "China and the Persian Gulf: Energy and Security," *The Middle East Journal*, 52 (3), pp. 351-56.

7. Ibid.

8. Scott J. Lee (2020), "From Beijing to Baghdad: Stability and Decision-making in Sino-Iraqi Relations, 1958-2012," Scholarly Commons, University of Pennsylvania, Unpublished Graduate Thesis. Available online at https://repository.upenn.edu/cgi/viewcontent. cgi?article=1187&context=curej, accessed on October 2, 2020.

9. Wilson Center (2010), "China and the Persian Gulf," Conference Video, July 12, 2010, https://www.wilsoncenter.org/event/china-and-the-persian-gulf, accessed on October 2, 2020.

10. Nicholas Lyall (2019), n. 3.

11. International Energy Agency (2017), "World Energy Outlook 2017: China," December 2019, //www.iea.org/reports/world-energy-outlook-2017-china, accessed on October 2, 2020; BP Statistics (2019), "BP Energy Outlook 2019," https://www.bp.com/content/dam/bp/ business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energyoutlook-2019-country-insight-china.pdf, accessed on October 2, 2020.

12. International Energy Agency (2017), n. 11.

13. Manjari Singh (2020), n. 5.

14. International Energy Outlook (2016), "US Energy Information Administration," May 2016. Available online at https://www.eia.gov/outlooks/ieo/pdf/0484(2016).pdf, accessed on October 2, 2020.

15. "The Great Well of China," *The Economist*, June 18, 2015. Available online at http://www.economist.com/news/middle-east-and-africa/21654655-oil-bringing-china-and-arab-worldcloser-economically-politics-will, accessed on October 2, 2020.

16. "China Continued Iran Oil Imports in July in Teeth of US Sanctions: Analysts," *Reuters*, August 8, 2019. Available online at https://www.reuters.com/article/us-china-iran-oil/china-continued-iranoil-imports-in-july-in-teeth-of-u-s-sanctions-analysts-idUSKCN1UY11S, accessed on October 2, 2020.

17. Daniel Workman (2020), "Top 15 Crude Oil Suppliers to China," August 20, 2020 http://www.worldstopexports.com/top-15-crude-oil-suppliers-to-china/, accessed on October 4, 2020.

18. See, National Bureau of Statistics of China, *China Statistical Yearbook*, http://www.stats. gov.cn, accessed on October 3, 2020.

19. Jeremy Garlick and Radka Havlova (2020), "China's 'Belt and Road' Economic Diplomacy in the Persian Gulf: Strategic Hedging Amidst Saudi-Iranian Regional Rivalry," *Journal of Current Chinese Affairs*, pp. 1-24. Available online at https://journals.sagepub.com/doi/pdf/10.1177/1868102619898706, accessed on October 3, 2020.

20. Julia Gurol and Jacopa Scita (2020), "China's Persian Gulf Strategy: Keep Tehran and Riyadh Content," The Atlantic Council, January 24, 2020. Available online at https://www.atlanticcouncil.org/blogs/menasource/chinas-persian-gulf-strategy-keep-tehran-and-riyadh-content/, accessed on October 3, 2020.

21. Ibid.

22. Gaye Christffersen (2020), "China and Maritime Cooperation: Piracy in the Gulf of Aden," *Institut fur Strategie-Politik-Sicherheits-und Wirtschaftsberatung*, Berlin. Available online at https://www.files.ethz.ch/isn/111041/piracy_gulf_aden.pdf, accessed on October 2, 2020.

23. As per "quick guide to China's Diplomatic levels" published by the South China Morning Post on January 20, 2016, a "strategic partnership" implies more closely coordination on regional and international affairs including military affairs; "comprehensive strategic partnership" means full pursuit of cooperation on regional and international affairs again including military affairs.

24. "China Holds First Anti-Terror Drills with Saudi Arabia," *Reuters*, October 27, 2016. Available online at https://www.reuters.com/article/us-china-saudi-security/china-holds-first-anti-terror-drills-with-saudi-arabia-idUSKCN12R0FD, accessed on October 5, 2020.

25. "China, Russia, Iran Begin Joint Naval Drills," *DW*, December 27, 2019. Available online at https://www.dw.com/en/china-russia-iran-begin-joint-naval-drills/a-51807634, accessed on October 5, 2020.

26. Christopher Diamond (2017), "China to Open a Drone Factory in Saudi Arabia," *Defence News*, March 28, 2017. Available online at https://www.defensenews.com/air/2017/03/28/china-to-open-a-drone-factory-in-saudi-arabia/, accessed on October 5, 2020.

27. Natasha Turak (2019), "Pentagon is Scrambling as China 'Sells the Hell Out of' Armed Drones to US Allies," *CNBC*, February 21, 2019. Available online at https://www.cnbc.com/2019/02/21/pentagon-is-scrambling-as-china-sells-the-hell-out-of-armed-drones-to-americas-allies.html, accessed on October 5, 2020.

28. Mordechai Chaziza (2020), "Saudi Arabia's Nuclear Program and China," Middle East Institute, August 18, 2020. Available online at https://www.mei.edu/publications/saudi-arabias-nuclear-program-and-china, accessed on October 10, 2020.

29. Camille Lons, et al. (2019), n. 1.

30. Author's Interview with *The Epoch Times*. For details see, Venus Upadhyay (2020), "Countries With Major Coronavirus Outbreak Clusters Delayed Response Due to Strategic Ties With China: Experts," *The Epoch Times*, March 16, 2020. Available online at https://epochtimes.today/countries-with-major-coronavirus-outbreak-clusters-delayed-response-due-to-strategic-ties-with-china-experts/, accessed on October 5, 2020.

31. Farnaz Fassihi and Steven Lee Myers (2020), "Defying U.S., China and Iran Near Trade and Military Partnership," *The New York Times*, July 22, 2020. Available online at https://www.nytimes.com/2020/07/11/world/asia/china-iran-trade-military-deal.html, accessed on October 6, 2020.

32. Subhajit Roy (2020), "Jaishankar Meets Iran Counterpart, Discusses Chahbahar, Afghanistan," *The Indian Express*, September 9, 2020. Available online at https://indianexpress.com/article/india/jaishankar-meets-iran-counterpart-discusses-chabahar-afghanistan-6588554/, accessed on October 6, 2020.

33. P R Kumaraswamy, Muddassir Quamar and Manjari Singh (2019), *Persian Gulf 2018: India's Relations with the Region*, Singapore: Palgrave Macmillan.
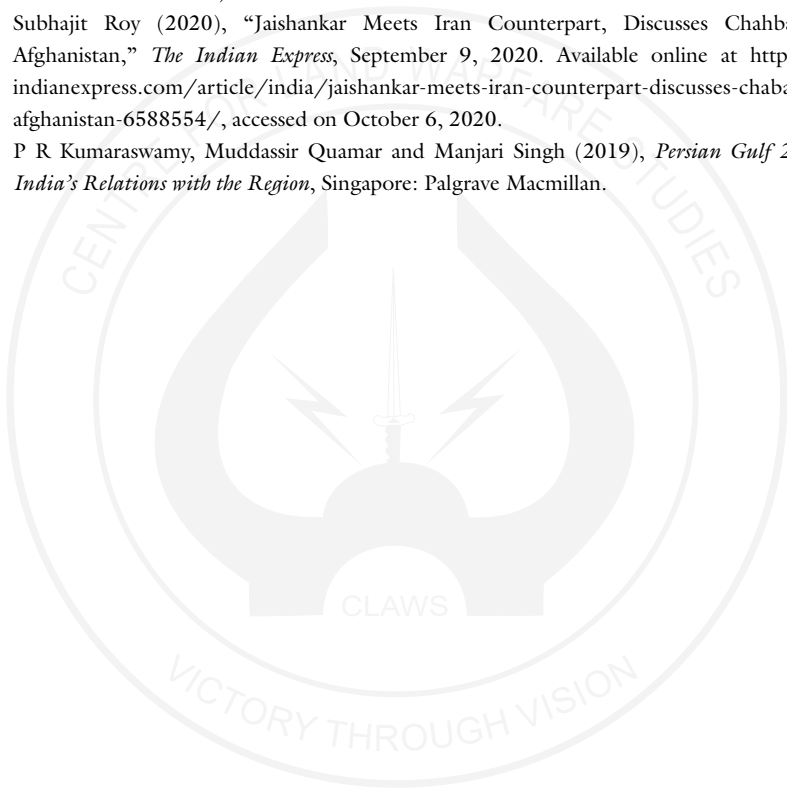
Disaster Management in the Context of India's National Security: An Assessment

Naresh C. Marwah

Abstract

Disasters and environmental degradation are generally considered parts of non-traditional threat to National Security. India by virtue of its geo-climatic and socio-economic conditions is one of the five most affected countries in the world in terms of number of deaths and due to various natural disasters that make it vulnerable. However, India has also transitioned to a position of being an important 'provider of assistance in international disasters.' Since India has a progressive and forward looking development agenda of inclusive growth, which is getting impacted by disasters, disaster risk reduction has emerged as a high priority focus area in India's national policy framework. In this perspective, the paper examines the 'vulnerability' aspect of India in the larger context of disaster management in India's national security.

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Introduction

"Hazards are less predictable, Exposure is growing and Vulnerability is compounding [...]"

— *Global Assessment Report, 2019.*[1]

Globally, in recent times natural disasters coupled with impact of Climate Change have led to substantial increase in loss of lives and economic losses. Especially in developing countries, this phenomenon has also led to displacement of population inhabited in vulnerable regions, thereby severely impacting their livelihood. By virtue of its geo-climatic and socio-economic conditions India is one of the five most affected countries in terms of number of deaths and affected population due to various natural disasters. With impact of Climate Change becoming more pronounced it is estimated that by 2030 up to 4.5 per cent of India's GDP is likely to be at risk. Unless some effective Disaster Risk Reduction and Climate Change Adaptation measures are taken, by 2050 situation is likely to be grim.[2]

India is embarking on creation of infrastructure with huge investments which is an important pre-requisite for sustained development. Statistics prove that economic losses due to any major disaster in terms of expenditure in rescue and relief, evacuation and rehabilitation of affected/displaced population and reconstruction of critical infrastructure is colossal. Disaster losses impact overall economy, and consequently meeting aspirations of improving standard of living of the population.

Disasters and environmental degradation are generally considered part of Non-traditional threat to National Security. Disasters impact safety of citizens and economy, impinging on sustained development, which are important tenants of National Objectives. Therefore it is important that Effective Disaster Management and Climate Change Adaptation should be part of National Security Strategy so that in policy formulation and execution these issues remain in focus.

Disaster Management: Understanding the National Perspective

According to United Nations Office for Disaster Risk Reduction (UNDRR, formerly UNISDR), 'disaster' (as revised) is defined as:

> "A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following : human, material, economic and environmental losses and impacts."[3]

The Disaster Management Act 2005 defines disaster in a very comprehensive manner, as follows:

> "a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area."[4]

Owing to these definitions of 'disaster,' it becomes essential to have an understanding of 'what it means by disaster management.' To which, as per the revised terminology of UNDRR, Disaster Management (DM) is understood as " the organisation, planning and application of measures preparing for, responding to and recovering from disasters."[5] While Disaster Risk Management is "the application of disaster risk reduction (DRR) policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses."[6]

However, the term DM as used in the DM Act 2005, National Policy on Disaster Management (NPDM) 2009,[7] and National Disaster Management Plan (NDMP) 2019,[8] is far more comprehensive and covers all aspects that encapsulates: prevention of danger or threat of any disaster; mitigation or reduction of risk of any disaster or its severity or consequences; capacity building; preparedness to deal with any disaster; response to a threatening disaster situation or disaster; evacuation, rescue & relief and rehabilitation and reconstruction.

The template for the national framework for DM is based on the responsibility of undertaking rescue, relief and rehabilitation measures in the event of a disaster rests with the State Government. The Central Government supplements the efforts of the State Governments by providing logistic and financial support in case of severe natural calamities. The logistic support includes deployment of aircraft, boats, special teams of Armed Forces, Central Armed Police Forces (CAPFs) and National Disaster Response Force (NDRF),[9] arrangements for relief materials and essential commodities including medical supply, restoration of critical infrastructure including communication network and such other assistance as may be required by the affected States and UTs to meet the situation effectively.

However, the DM Act 2005 & NPDM 2009 marked a paradigm shift in India's disaster management, by shifting from a relief–centric approach to a holistic and integrated approach covering the entire gamut of disaster management (prevention, mitigation, preparedness, response, relief, reconstruction and rehabilitation). The approach is based on the conviction that development cannot be sustainable unless disaster mitigation is built in the development process. This led to the establishment of National Disaster Management Authority (NDMA), as the apex body headed by the Prime Minister to steer various facets of DM as enshrined in the DM Act 2005. To note, the vision of NDMA aims at building:

"a safer and disaster resilient India by a holistic, pro-active, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation."[10]

Global Trends of Disaster and India's Vulnerability Profile

Globally, in the last 20 years there has been a rising trend especially in the Hydro-met disasters (account for 91 per cent of 7255 recorded major disasters), with 92 per cent deaths occurring in under-developed countries.[11] Wherein, the Asian Region remains to be the epicentre of global disasters with 45 per cent of global disasters, 42 per cent of economic losses, 83 per cent of mortalities and 86 per cent of people getting affected. With 80 per cent of global disasters being weather related, impact of Climate Change is very significant. Fast economic growth, high population growth, rapid urbanisation (largely unplanned) and the fact that over 1 billion people in Asia survive below base poverty line, poverty drives vulnerability to disasters.

Since 1980, more than two million people and over US\$ 3 trillion have been lost to disasters caused by natural hazards, with total damages increasing by more than 600 per cent from US\$ 23 billion a year in the 1980s to US\$ 150 billion a year in the last decade.[12] With 10 per cent of global disasters occurring in India, it is one of the five worst affected countries in the world in terms of number of deaths and people affected According to the Global Climate Risk Index report 2019, India ranked to be the 14th most vulnerable country in the world, accounting for loss of around 2,736 lives in 2017 due to disasters with economic losses accounting for around US\$ 13,789 million, the 4th highest in the world.[13] However, as per the 2020 UNDRR Report on "Human Cost of Disasters," India has been ranked third, after China and the US, in recording the highest number of natural disasters over the last 20 years (2000-19), paying a huge economic and human cost[14]—highlighting the vulnerable profile of India.

To note, in 2019 India recorded the highest number of deaths due to disasters. India, due to its unique geo-climatic and socio-economic conditions, is vulnerable, in varying degrees, to all types of disasters. As per the NDMA's report, 58.6 per cent landmass is prone to earthquakes; 12 per cent land is prone to floods; out of 7,516 km coastline, 5,700 km is prone to cyclones and tsunamis; 68 per cent of the cultivable land is vulnerable to drought, 15 per cent of landmass is at risk from landslides and avalanches.[15] Out of the 36 States and Union Territories (UTs) in the country, 27 are prone to one or more disasters with 5,161 Urban Local Bodies (ULBs) being prone to urban flooding.[16]

While additional hazards include fire incidents, industrial accidents and other manmade disasters involving chemical, biological and radioactive materials. The risks are further compounded by increasing vulnerabilities related to changing demographics and socio-economic conditions, unplanned urbanisation, development within high risk zones, environmental degradation, climate change, geological hazards, epidemics and pandemics.[17] Clearly, these contribute to a situation where disasters seriously threaten India's economy, its population and sustainable development.

Climate Change & Disaster Management in the Context of National Security

Climate Change is a reality and its manifestation in recent times has been very pronounced. Climate Change is a global phenomenon but with local consequences. As a populous, tropical developing country, India faces a bigger challenge in coping with the consequences of Climate Change than most other countries.

With changing weather patterns and rising global temperatures, increasing number of extreme weather events have become the 'new norm'. Almost every month of 2018 had one or the other 'unprecedented' weather event in the form of hailstorms, unseasonal rainfall, strong thunderstorms

and lightning, floods and droughts, long dry spells, cyclones, and both our monsoons—Southwest and Northeast—were below normal; while the average temperature over the country was 'significantly above normal,' making 2018 the sixth warmest year on record since 1901.[18] Thus, it would be no exaggeration to term 2018 as a year of multiple disasters; both in terms of 'visible ones' such as the catastrophic floods in Kerala in August, and 'silent ones' like an unprecedented monsoon rainfall deficit of more than 20 per cent in the Northeast region of the country.[19] Continuing with manifestation of changing weather patterns, 2019 saw frequent extreme weather events across the country from excruciating heatwaves to record number of cyclones, extremely long dry spells to record-breaking amounts of rainfall, viz. floods in Karnataka and Kerala, Cyclone *Fani*, floods and heatwave in Bihar.[20]

There are both external and domestic dimensions to India's Climate Change policy which has been articulated through two key documents. One is the National Action Plan on Climate Change (NAPCC) adopted on 30 June 2008; and the other is India's Intended Nationally Determined Commitments (INDC) submitted to the UN Framework Convention on Climate Change (UNFCCC) in October 2015.[21] To note, the NAPCC has an essentially domestic focus, while the INDC is a statement of intent on Climate Change action. Primarily, the NAPCC incorporates eight "national missions" enshrined in India's vision of ecologically sustainable development and steps to be taken to implement it. It is based on the awareness that Climate Change action must proceed simultaneously on several intimately inter-related domains, such as energy, industry, agriculture, water, forests, urban spaces and the fragile mountain environment.[22]

To avert economic losses due to climate change and disasters, countries need sustainable economic growth and good development and disasters and climate change put both at risk. For instance, the 2010-2019 decade marked the costliest in the modern record for global natural

disasters on a nominal and inflation-adjusted basis. Total direct economic damage and losses tallied US$ 2.98 trillion during this decade. This was US$ 1.1 trillion higher than the previous decadal period (2000-2009); US$ 1.8 trillion.[23] As per World Bank's data, average annual losses due to disasters amount to approximately US$ 520 billion, which is adversely impacting economic well-being of affected countries. It is estimated that without urgent action, climate impacts could push an additional 100 million people into poverty by 2030.[24] The world lost as much as US$ 232 billion (Rs 16.5 lakh crore) due to natural disasters in 2019. In India, June-October monsoon floods caused a loss of US$ 10 billion with 2019 Cyclone *Fani*, which affected Odisha, was the tenth-most costly natural disaster in the world. India suffered death of 1,750 people—the most among all natural disasters last year.[25]

The United Nations in a report, released ahead of the International Day for Disaster Reduction on 13 October 2018, has said that India lost US$ 80 billion to natural disasters over the past 20 years and ranks among the top five countries that have suffered the most. The report's analysis makes it clear that economic losses from extreme weather events (constituting 77 per cent of losses) are unsustainable and a major brake on eradicating poverty in hazard exposed parts of the world.[26] It is estimated that in a decade (by 2030), climate change and global warming could put 2.5 to 4.5 of India's GDP at risk annually.[27] To note, studies suggest that impact of climate change is likely to not only increase the frequency of extreme weather events but also their intensity causing devastating losses unless rigorous mitigation and adaptation measures are taken.

Above stated statistics do not include loss due to manmade disasters such as fire, chemical industrial disasters and environmental degradation due to natural or manmade disasters such as oil spill, coastal erosion, forest fire, river bank erosion, population displacement, and others. With regard to biological and public health emergencies, considering the impact of an unprecedented event like the COVID-19 pandemic in

terms of loss of life and huge economic loss suffered due to lockdown of industries and consequent effect on livelihood of millions, also needs to be factored in our future planning. Since India has a progressive and forward looking development agenda of inclusive growth, which is getting impacted by disasters, DRR has emerged as a high priority focus area in India's national policy framework. Hence, disaster management which encompasses all aspects of prevention, mitigation, preparedness for response, rescue and relief, and rehabilitation needs to be an important tenant of the National Security Strategy.

National Security is multifaceted and an all-encompassing concept, including effective management of challenges of external security and ensuring internal stability which is pre-requisite for provision of an environment for sustained economic growth, development and building Comprehensive National Power. Another perspective of National security has been described as the ability of a state to cater to the protection and defence of its citizenry. United Nations Office for the Coordination of Humanitarian Affairs' (OCHA) expanded definition of human security calls for a wide range of areas including economic, health, food security and so on.[28]

Therefore, citizens of the country and their well-being in conditions of internal and external peace and stability should be and are part of India's national objectives. Though India does not have a National Security Strategy, its broad objectives would be to cater to external and internal security, non-traditional threats, providing for welfare and good standard of living for every citizen and creating a political, social and security environment to enable sustained high rates of inclusive economic growth. Increasingly, threat to a nation is more due to non-military threats, which include activities such as terrorism, ethnic extremism, cyber security, energy security, epidemic or pandemic affecting public health, poverty, shortage of food, stability of society, demographic challenges, narcotics trafficking, etc. It is also being recognised that natural disasters,

environmental degradation and climate change pose threats to national security.

Natural hazards such as earthquake, droughts, floods, cyclones, etc., being geophysical in nature, can emanate in one part of the region and affect many other parts. Disaster can cause major destruction of communication and critical infrastructure affecting development and local economy, pushing a region or a country back by a couple of decades. Besides triggering displacement of affected population and making them disaster-refugees, such events in India's neighbourhood do impinge on its national security. To cite few examples, a calamity such as Muzaffarabad earthquake of October 2005 seriously impacted bordering State of Jammu and Kashmir (now a Union Territory); floods in Pare Chu in China affected bordering districts of Himachal Pradesh along Satluj in August 2004; *Kosi* floods in August 2008 consequent to breach of *Kosi* embankment in Nepal led to submerging of number of villages in North Bihar; and more recently earthquake in Nepal in 2015 considerably affected India's bordering states. Likewise, tropical cyclones and Tsunami emanating in South and South East Asian region seriously impact India's coastal states.

It has been experienced that major disasters affect functioning of government and public life due to disruption of IT and communication impacting banking system, power, damage to critical infrastructure such as rail or air movement, and others. Major natural disasters and health crisis in recent times, such as the Kerala floods (2018 & 2020), Cyclone *Ockhi* (2017), Cyclone *Titli* (2018), *Fani & Bulbul* (2019), *Amphan & Nisarga* (2020); urban floods in Mumbai, Chennai (2015) and COVID-19 pandemic led to economic losses due to the disruption of commercial activity. Huge economic losses due to destruction caused by disasters and consequent investment in reconstruction of damaged/lost infrastructure and rehabilitation of affected/displaced population seriously impinge on economic strength of the Nation. Since disasters

cause substantial loss of lives, property, infrastructure and degradation of environment, as discussed above, it is pertinent to include disaster management as an essential tenant of India's National Security Strategy.

Though it is not possible to eliminate the risks of disasters, based on Hazard Risk Vulnerability Analysis (HRVA) and Cost-Benefit Analysis of investment in Risk Reduction, but development initiatives can be planned to reduce the losses. For instance, the 2015 UNISDR Report notes that a sustained investment on DRR strategies could reduce economic losses by 20 per cent.[29] In this regard, it is for the first time that the 15th Finance Commission has recommended creation of National and State Disaster Mitigation Fund. In their interim Report for FY 2020-21, allocation has been proposed for Natural Disaster Risk Management Fund to cater for mitigation, capacity building, response and relief, and recovery and reconstruction.[30]

Threats posed by disasters and effects of climate change need to be tackled with a holistic, flexible, cooperative, coordinated and multifaceted approach. Therefore, DM as a tenant of National Security Strategy would encompass focus on all elements of DRR including capacity building besides climate change adaptation measures.

Finding Solutions to Manage Disasters: Initiatives Taken by India

In recent years India has transitioned to a position of being an important 'provider of assistance in international disasters.' This position potentially allows India to leverage its DM/HADR operations abroad for furthering and securing its national interests through projection of 'soft power.' To add further, India plays an active role in global initiatives on DRM, such as, India is signatory to the "Sendai Framework for Disaster Risk Reduction,"[31] and other global initiatives with a commitment to achieve laid down objectives through systematic and institutional efforts. With multi-dimensional initiatives and expertise at play, India is taking a leading

role in strengthening regional and international efforts in mitigating and reducing effects from disasters. For instance, India is working closely with the UNDRR, and other UN agencies based in India. Besides, India has also signed MoUs/agreements with many countries for cooperation in the field of DM to include exchange of ideas and expertise, capacity building, sharing of technical inputs and provision of assistance on occurrence of calamities and post disaster reconstruction/rehabilitation. India has embarked on several initiatives at regional and global level which are in form of 'soft power' projection—that go beyond provision of relief material and dispatch of NDRF/Teams of Armed Forces.

Some of the recent initiatives taken by India include the following: First, India has increasingly undertaken several HADR missions to render help to countries in the region and beyond, which got affected by major calamities. For instance, in Nepal, India's response action comprised of sending 16 Teams of NDRF and Armed Forces, including positioning of helicopters for rescue and dispatch of immediate relief material to remote areas, dispatch of huge wherewithal and medicines (worth Rs 380 Cr); as well as India also pledged support of US$ 100 million for reconstruction purpose.[32]

Second, India has taken various regional initiatives, such as: (a) established SAARC Disaster Management Centre at Gandhinagar, that provides Capacity Building Training to Nepal, Bhutan and Bangladesh Disaster Response Teams. (b) India's South Asia Satellite (GSAT-9),[33] formerly known as SAARC Satellite, is a geostationary communications and meteorology satellite operated by Indian Space Research Organisation (ISRO) for the SAARC region. (c) India provides technical support by sharing of data on Early Warning and forecasts through Indian Meteorological Department (IMD), Central Water Commission (CWC), ISRO and Indian National centre for Ocean Information Services (INCOIS).[34] (d) India conducts joint DM exercises with SAARC countries. For instance, post the Nepal Earthquake, in November 2015

India conducted the first International DM Exercise, wherein, Search & Rescue Teams of all Member States participated. To note, India has also conducted a Multi-State Tsunami Exercise in November 2017 with BIMSTEC countries and in 2019 organised a joint DM exercise for Shanghai Cooperation Organisation (SCO) Member countries.

Third, India has hosted various international events under multilateral frameworks, such as: Forum for India-Pacific Islands Cooperation in 2015 BRICS Ministerial Conference on DM in 2016; Asian Ministerial Conference for Disaster Risk Reduction (AMCDRR) with UNDRR in 2016; International Workshop on Disaster Resilient Infrastructure (IWDRI) in 2018 and 2019; Indian Ocean Rim Association Meeting (IORA) on Disaster Risk Management in 2019; and others.

Fourth, India has signed various MoUs on DM, bilateral MOUs with number of countries, significant being Memorandum of Cooperation (MoC) with Japan for enhancing collaboration between research institutes, cities and the private sector in the field of DRR.[35] India played a major role in assuring the success of the COP-21, UN Framework Convention on Climate Change, and adoption of the landmark Paris Agreement in December 2015. Wherein, India's initiative on the setting up an International Solar Alliance for promoting solar power worldwide was widely welcomed. India became Member of Consultative Group (CG) of Global Facility for Disaster Reduction and Recovery (GFDRR) in 2015. Consequent to its active engagement and laudable initiatives in the field of DRR, India has been unanimously chosen as co-chair for the fiscal year 2020.[36]

Fifth, India established Coalition for Disaster Resilience Infrastructure (CDRI). One of the most substantial initiatives that India has taken is to establish a CDRI in October 2019 pledging financial support of Rs 480 crore towards its corpus. It is a concept which was announced by PM during inauguration of AMCDRR in November 2016. As of now 18 countries and four organisations have joined the Coalition.

CDRI is a global partnership of national governments, UN agencies and programmes, multilateral development banks, the private sector, academic and knowledge institutions that aims to promote the resilience of infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.[37] The mission of CDRI is to support countries to upgrade their systems to ensure disaster and climate resilience of existing and future infrastructure.

And Sixth, India became part of the International Search and Rescue Advisory Group (INSARAG).[38] Considering international exposure that NDRF had during the 2015 Nepal Earthquake and the initiative to conduct DM Exercises with SAARC, BIMSTEC & SCO, India has embarked on seeking INSARAG certification for selected NDRF Teams. On certification, the UN can send these teams for response anywhere in the world. INSARAG facilitates coordination between international USAR Teams which make themselves available for deployment.

Steps for Way Forward

The world has been unable to move away from a vicious cycle of disaster–respond–rebuild–repeat. Financing has historically focused on picking up the pieces post-disaster. Development assistance for risk reduction has been marginal as compared to financing for disaster response. As per the World Bank data, a total of US$ 5.2 billion spent for disaster risk reduction between 2005 and 2017 represents a marginal fraction (3.8 per cent) of the total amount spent as overseas development assistance.[39] Therefore it is important that DRR measures are embedded in all major development plans. Likewise, risk reduction processes have multiple connections with climate change mitigation, adaptation and vulnerability reduction. Failure to include climate change scenarios in assessment and risk reduction planning will build inherent redundancy in all we do. As per a UNDRR publication, India suffered a whopping US$ 79.5 billion economic loss due to climate-related disasters in the last 20 years.[40]

Globally, the need for mainstreaming DRR as an integral part of development has been accepted since it helps reduction of vulnerabilities and exposure to risks besides strengthening resilience. Harmonising and integrating Climate Change Adaptation with Sustainable Development and linking with DRR effort is considered a new development paradigm. Essentially, Disaster Risk Management (DRM) approach encompasses risk identification, risk assessment, risk treatment and risk communication. An exercise to undertake Hazard Risk and Vulnerability Assessment (HRVA) including mapping of resources, development of Disaster Loss Data Base and Cost-Benefit Analysis of investment in Risk Reduction is likely to provide useful inputs to the Government for formulating development schemes/investment plans.

Investing in risk reduction and building resilience saves more than lives and livelihoods, it is also a good return on investment. Every US$ 1 invested in risk reduction and prevention can save up to US$ 15 in post-disaster recovery; and every US$ 1 invested in making infrastructure disaster-resilient saves US$ 4 in reconstruction.[41] While the World Bank suggests that mainstreaming disaster risk management into development planning can reverse the current trend of rising disaster impact. As noted, when countries rebuild stronger, faster and more inclusively after disasters, they can reduce the impact on people's livelihoods and well-being by as much as 31 per cent, potentially cutting global average losses.[42]

The changing profile of risk from disasters suggests that we must put concerted efforts to find new ways of response. Disasters are increasingly unpredictable; intensities are growing and 'unprecedented' events have become the new norm. Cyclone *Fani* in India in May 2019 was the strongest storm in 20 years. Slow-onset disasters, including drought and coastal erosion, are putting people increasingly at risk. Sea level rise point to certain areas becoming uninhabitable in the future. It is surmised that global resource requirements to deal with growing risk are increasing faster than national and international capacities to meet them.

Some of the critical areas of focus in India's policy planning include: recognising and empowering local leadership on risk reduction issues; focusing attention on emerging public health issues (epidemics/ pandemics); protecting and enabling access to social infrastructure, lifeline Infrastructure—schools, hospitals, community centres, access to housing, water and sanitation; supporting innovative ways to reduce risks, leveraging new technologies for systemic solutions; investing in education of youth and children to build long-term resilience; and diversifying funding routes to meet humanitarian needs and sustain NGOs. In view of this, India's Perspective Plan should entail the following.

- Strengthening of multi-hazard Warning System and ensure last mile connectivity for speedy dissemination.
- Formulating a robust Disaster Communication Network with GIS enabled Decision Support System (DSS) connecting Emergency Operations Centre (EOC) at the National, State and District level.
- Launching of Pan-India Earthquake, Floods and Landslide Mitigation Programmes similar to ongoing World Bank funded National Cyclone Risk Mitigation Programme covering coastal regions.
- Establishing the National Disaster Mitigation Fund, Risk Financing & Risk Insurance.
- Planning Higher Education and Research in DRR.
- Enhancing local capacity through volunteers so as to promote community resilience.

In addition, India has also taken numerous initiatives to engage with various international frameworks and having bilateral strategic dialogue/ partnership/ MoUs/agreements covering cooperation in the field of DM. However, the whole process needs to be formalised and requires a close coordination with the PMO, intelligence agencies, relevant Ministries besides the MEA, MHA, MoD/HQ IDS/Armed Forces HQs, along with Indian embassies in foreign countries providing specialist advice and

support. In this, the National Security Strategy should spell out suitable framework for the same.

While India has vast experience of undertaking HADR operations through Armed Forces, however response and involvement of the civil authorities/agencies remains sub-optimal. In order to evolve a cogent national strategy and plan, so as to render timely assistance, the civil capacity and capability requires to be bolstered and HADR needs to be included in India's National Security Strategy. In order to do this, a study of India's response during the 2004 Tsunami, 2011 Fukushima nuclear disaster in Japan and recent experience of stupendous effort in responding to Nepal earthquake of April 2015 could be taken up to formulate an effective framework and coordination mechanism for prompt international response.

Besides, the impetus to maritime engagements of the Indian Navy and Indian Coast Guard in responding to a calamity at sea and undertaking Search and Rescue (SAR) and HADR operations cannot be overemphasised. While providing disaster response, India could work either bi-laterally, or through multi-lateral institutions. In certain cases, bilateralism, may lead to India operating outside the mainstream international/HADR response. In case we opt to work through multi-lateral institutions, for example, like UNSC, UN OCHA, INSARAG, etc., then we would have to adopt their procedures and coordination mechanisms. These aspects need to be included in the SOPs/training manual for NDRF/other disaster response forces. India needs to leverage its DM/HADR operations abroad for furthering and securing Indian interests in the region. Therefore, it is important to broad-base this "assistance" and institutionalise it in order to further bolster national security.

In view of the complexity and interdependence of the various elements of national security and the multiplicity of organisations responsible for the implementation of all subsets of National Security Strategy, there is

a need to draw up a holistic action plan with an inter-ministerial, inter-departmental and inter-agency approach.

Conclusion

India has indeed come a long way in terms of enhancing our capacity to respond to various types of disasters which we face almost every year. Considering the size of the country and our vulnerability to almost all types of natural disasters, the focus of our effort on DRR and mitigation remains a big challenge. Since India has embarked on various initiatives entailing huge investment on development of infrastructure, it is important that disaster resilience should be cornerstone of our strategy for achieving Sustainable Development. Harnessing technological advancements too is likely to play a vital role in preventing and reducing impact of a disaster.

In this regard, number of initiatives have been taken up by NDMA and the States to involve local administration, NGOs, Corporate and most importantly the Community. It is the local community which is the first to get affected and so also first to respond to any mishap, hence enhancing their level of awareness so as to prevent human-induced disasters and building their capacity to withstand impact of disasters is one of the important element of DM Plans at National/State/District level. Role of Volunteers to supplement capacity at the local level cannot be over emphasised. Initiatives in this regard by NDMA and the State Governments need to be given impetus.

During the period when we are reeling under impact of COVID-19, parts of India got affected by perennial floods, cyclones and heatwave which posed a great challenge to administration and response forces. It is important that our plans, SOPs and drills cater for tackling multi-hazard situations. Scenario building for major DM Exercises should factor impact of pandemics also.

India has reached a stage where sound legal, institutional and scientific frameworks are being put in place; we now need a social framework to take the message of Disaster Risk Reduction as a way of life to each and every citizen of the country. Thus we need to build a safer and disaster resilient India, which should be embedded as one of our National Security objectives. National Security Strategy should adequately dwell upon measures to be taken to reduce the huge impact of disasters and rigours of climate change, causing recurring losses of lives and property, so that we can achieve our goals of sustained development. Our initiatives in international cooperation to project our capacity and technical prowess in the field of DM should promote our national interests and help us to leverage the same.

Notes

1. UNDRR (2019), "Global Assessment Report on Disaster Risk Reduction," United Nations Office for Disaster Risk Reduction (UNDRR), Geneva, Switzerland. Available online at https://gar.undrr.org/sites/default/files/reports/2019-05/full_gar_report.pdf, accessed on August 15, 2020.
2. Jonathan Woetzel, et al. (2020), "Climate risk and response: Physical hazards and socioeconomic impacts," McKinsey Global Institute, January 2020. Available online at https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Sustainability/Our%20Insights/Climate%20risk%20and%20response%20Physical%20hazards%20and%20socioeconomic%20impacts/MGI-Climate-risk-and-response-Full-report-vF.pdf, accessed on August 20, 2020.
3. United Nations Office for Disaster Risk Reduction (2017), "UNISDR Annual Report 2016," United Nations Office for Disaster Risk Reduction (UNISDR), Geneva, Switzerland. Available online at https://www.preventionweb.net/files/52253_unisdr2016annualreport.pdf, accessed on August 20, 2020.
4. National Disaster Management Authority, Government of India, "Introduction". Available online at https://ndma.gov.in/en/contact-us/67-citizens-corner/natural-disaster/landslides/619-introduction.html, accessed on August 20, 2020.
5. See "Terminology," UNDRR. Available online at https://www.undrr.org/terminology, accessed on August 24, 2020.
6. Ibid.
7. Ministry of Home Affairs, Government of India, "National Policy on Disaster Management 2009,"national Disaster Management Authority, October 2019. Available online at https://ndma.gov.in/images/guidelines/national-dm-policy2009.pdf, accessed on August 28, 2020.

8. The DM Act 2005 mandates that there shall be a NDMP for the whole country and it enjoins all Ministries and Departments of Government of India to prepare comprehensive DM Plans detailing how each of them will contribute to the national efforts in the domains of disaster prevention, preparedness, response and recovery. NDMP 2019 (revised version of the first NDMP 2016) synthesizes various themes into a futuristic plan. The period envisaged as "Long Term" in the NDMP is co-terminus with year 2030, the ending year of the above mentioned 2015 global frameworks. The main pillars of NDMP 2019 include: conforming to legal mandates—DM Act 2005 & NPDM 2009; participating proactively to realise the global goals, as per three important International Agreements of 2015, to which India is signatory—Sendai Framework for Disaster Risk Reduction, Sustainable Development Goals, and Paris Agreement on Climate Change (COP-21); Prime Minister's 10 Point Agenda for DRR articulating contemporary national priorities (enunciated in 2016); and Mainstreaming DRR as an integral feature.

9. One of the significant fallout of enactment of the DM Act 2005 was creation of NDRF, a specialised Force which over the years has expanded (currently 16 Battalions including four under raising) and is well equipped and trained to speedily respond to all types of disasters. This development has led to substantial reduction of employment of Army for disaster response.

10. National Disaster Management Authority, Government of India, "NDMA Vision." Available online at https://ndma.gov.in/en/about-ndma/vision.html, accessed on August 28, 2020.

11. Danan Gu (2019), "Exposure and vulnerability of natural disasters for world's cities," Department of Economic and Social Affairs, United nations December 2019. Available online at https://www.un.org/en/development/desa/population/publications/pdf/technical/TP2019-4.pdf, accessed on August 20, 2020.

12. The World Bank (2020), "Disaster Risk management," April 14, 2020. Available online at https://www.worldbank.org/en/topic/disasterriskmanagement/overview, accessed on August 29, 2020.

13. Yashobanta Parida and Prarthna Agarwal Goel (2020), "India is not prepared for natural disasters," *BusinessLine*, January 3, 2020. Available online at https://www.thehindubusinessline.com/opinion/india-is-not-prepared-for-natural-disasters/article30463153.ece, accessed on August 30, 2020.

14. Pradeep Thakur (2020), "UN report: India third most disaster-prone," *The Times of India*, October 14, 2020. Available online at https://timesofindia.indiatimes.com/india/un-report-india-third-most-disaster-prone/articleshow/78650913.cms, accessed on October 18, 2020.

15. National Disaster Management Authority, Government of India, "Annual Report 2018-2019," p. 1. Available online at https://ndma.gov.in/images/annreport/NDMA-Annual-Report-2018-19-English.pdf, accessed on August 25, 2020.

16. Ibid.

17. Ibid.

18. Vijayalakshmi Viswanathan and Anshu Sharma (2019), The Face of Disasters 2019, New Delhi: SEEDS. Available online at https://www.seedsindia.org/THE-FACE-OF-DISASTERS-2019.pdf, accessed on August 28, 2020.

19. Ibid.

20. "Top 5: Most Devastating Natural Disasters to Affect India in 2019," *The Weather Channel*, December 27, 2019. Available online at https://weather.com/en-IN/india/news/news/2019-12-26-top-5-most-devastating-natural-disasters-affect-india-2019, accessed on August 29, 2020.

21. Shyam Saran (2019), "India's Climate Change Policy: Towards a Better Future," Ministry of External Affairs, Government of India, November 8, 2019. Available online at https://www.mea.gov.in/articles-in-indian-media.htm?dtl/32018/Indias_Climate_Change_Policy_Towards_a_Better_Future, accessed on August 27, 2020.

22. "8 govt missions under National Action Plan on Climate Change (NAPCC) designed to heal India," *India Today*, October 25, 2018. Available online at https://www.indiatoday.in/education-today/gk-current-affairs/story/8-missions-govt-napcc-1375346-2018-10-25, accessed on August 30, 2020.

23. Robert Glasser (2020), "The Climate Change Imperative to Transform Disaster Risk Management," *International Journal of Disaster Risk Science*, 11, pp. 152-154.

24. The World Bank (2020), "Climate Change," September 30, 2020. Available online at https://www.worldbank.org/en/topic/climatechange/overview, accessed on October 5, 2020.

25. Kiran Pandey (2020), "Natural disasters cost $232 bln in 2019," Down to Earth, January 28, 2020. Available online at https://www.downtoearth.org.in/news/climate-change/natural-disasters-cost-232-bln-in-2019-69011, accessed on August 27, 2020.

26. Segun Osisanya (2015), "National Security versus Global Security," UN Chronicle. Available online at https://www.un.org/en/chronicle/article/national-security-versus-global-security, accessed on August 20, 2020.

27. Jonathan Woetzel, et al. (2020), "Climate risk," n. 2.

28. Segun Osisanya (2015), "National Security," n. 26.

29. UNDRR (2015), "Global Assessment Report on Disaster Risk Reduction," United Nations Office for Disaster Risk Reduction (UNDRR), Geneva, Switzerland. Available online at https://www.preventionweb.net/english/hyogo/gar/2015/en/gar-pdf/GAR2015_EN.pdf, accessed on August 25, 2020.

30. See Rohin Garg and Saket Surya (2020), "Report Summary: Report of the 15th Finance Commission for FY 2020-21," PRS Legislative Research, Institute for Policy Research Studies, February 2, 2020. Available online at https://www.prsindia.org/sites/default/files/parliament_or_policy_pdfs/Report%20Summary_15th%20FC_2020-21.pdf, accessed on August 27, 2020.

31. UNDRR (2015), "Sendai Framework for Disaster Risk Reduction 2015-2030," United Nations Office for Disaster Risk Reduction (UNDRR), Geneva, Switzerland. Available online at https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030, accessed on August 30, 2020.

32. "India extends Rs 1.6 bn aid to Nepal for rebuilding earthquake-hit houses," Business Line, June 10, 2019. Available online at https://www.thehindubusinessline.com/news/india-extends-rs-16-billion-aid-to-nepal-for-rebuilding-earthquake-hit-houses/article27764441.ece, accessed on August 27, 2020.

33. The satellite was launched on May 5, 2017.

34. IMD has been designated as Regional Centre for Cyclonic Warning by UNESCO. Likewise INCOIS is designated as Regional Tsunami Service Provider (RSTP) to provide Tsunami EW to Indian Ocean Rim countries.

35. Ministry of Home Affairs, Government of India, "Annual Report 2018-19," n. 15.

36. "India to co-chair Consultative Group (CG) of Global Facility for Disaster Reduction and Recovery (GFDRR)," Press Information Bureau, May 14, 2019. Available online at https://pib.gov.in/Pressreleaseshare.aspx?PRID=1572014, accessed on August 28, 2020.

37. See CDRI. Available online at https://www.cdri.world/coalition-for-disaster-resilient-infrastructure.php, accessed on September 5, 2020.

38. INSARAG is a network of over 80 countries and organisations under the UN, which sets minimum international standards for Urban Search and Rescue (USAR) teams in earthquake response.

39. The World Bank (2020), "Disaster Risk management," n. 12.

40. UNDRR (2018), "Economic Losses, Poverty & Disasters: 1998-2017," United Nations Office for Disaster Risk Reduction (UNDRR), Geneva, Switzerland. Available online at https://www.undrr.org/publication/economic-losses-poverty-disasters-1998-2017, accessed on September 5, 2020.

41. See "Funding," UNDRR. Available online at https://www.undrr.org/about-undrr/funding, accessed on September 5, 2020.

42. The World Bank (2020), "Disaster Risk management," n. 12.

COVID-19's National Security and Defence Lessons: Key Takeaways for Australia and India

<div align="right">John Coyne</div>

Abstract

Since February 2020 hardly a day has gone by where a national security academic or policymaker has not used the word 'unprecedented' to describe global affairs in the age of COVID-19. The pandemic has created tectonic shifts in the globe's economic, social, political and international plates. With a vaccine yet to be found, there is increasing evidence that COVID-19's second-order impacts have assured one thing: further uncertainty in international affairs. The crisis after the crisis of COVID-19 is yet to take shape, but it is coming. To prepare for what could well be a decade or more of strategic uncertainty, countries like Australia and India need to consider COVID-19s national security lessons and how these might impact on assumptions regarding preparation for what comes next. This paper explores some of COVID-19s initial national security lessons for Australia and India.

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Introduction

Despite the warnings of health experts, many policymakers across the globe had in the first two months of 2020 optimistically hoped that the rapidly evolving COVID-19 crisis would play out like the 2003 Severe Acute Respiratory Syndrome (SARS).[1] They likely hoped there would be lots of hype with broad media coverage, followed by a rapid policy response that would quickly constrain further transmission.[2] While COVID-19 has not been an apocalyptic pandemic, as of 28 September 2020, it has killed almost a million people globally.[3] At the time of writing, 32 million people had been infected across the globe: with figures likely to be significantly higher given the varying quality of testing regimes. The pandemic is far from over and looks set to remain a global issue well into 2021.

Since February 2020, hardly a day has gone by where a national security academic or policymaker has not used the word 'unprecedented' to describe global affairs in the age of COVID-19. The pandemic has created tectonic shifts in the globe's economic, social, political and international plates. In April 2020, Richard Hass, President of the Council on Foreign Relations, argued that these changes are accelerating history rather than changing it.[4] Of course, the impact of these shifts varies between countries and regions. There are however, some worrying trends already emerging—especially, where accelerating change is putting pressure on existing international fault lines and vulnerabilities. These developments could well lead to systemic failures in the rules-based order.

Globalisation's promise of rapidly integrated, just in time, supply chains have now been tested in adversity and been found wanting just when they were needed the most.[5]

The pandemic has sent the world into an economic recession, of the kind not seen since the Great Depression of the 1930s.[6] In many countries, COVID-19 measures have resulted into a swift decline in the demand for a range of products: which has had an impact on the

global economy. This demand reduction has also led to a rapid decline in employment. The final economic hit has been that global foreign direct investment has slowed to a trickle.[7]

Great power competition was increasing in intensity well before COVID-19, but it is here where the pandemic's accelerative impacts can be seen first-hand. The Indo-Pacific had become the main stage on which competition between the United States (US) and the Chinese government was playing out. This trend has significantly intensified over the last eight months, with little to suggest any improvements any time soon.

There is more than enough evidence to suggest that the Chinese government has sought to leverage COVID-19 to its advantage.[8] It has, without a doubt, sought to increase its influence across the region all the while undermining the rules-based order. Throughout the COVID-19 crisis, there has been evidence of the Chinese government flexing its economic influence in countries like Australia.[9] From military skirmishes between Indian and Chinese troops in the Himalayas[10] to unplanned Chinese military aircraft encroaching dangerously close to Taiwan airspace,[11] international relations in 2020 are looking more and more like that of the last Cold War.

With a vaccine yet to be found, there is increasing evidence that COVID-19's second-order impacts have assured one thing: further uncertainty in international affairs. The crisis after the crisis of COVID-19 is yet to take shape, but it is coming. To prepare for what could well be a decade or more of strategic uncertainty, countries like Australia and India need to consider COVID-19s national security lessons and how these might impact on assumptions regarding preparation for what comes next.

National Security and Defence Policy

Even before COVID-19 entered our daily vernacular, Australian and Indian strategists were increasingly concerned with the Chinese government's

efforts to undermine the global rules-based order. Moreover, there was a growing awareness that the Chinese government was building its soft and coercive power influence across the Indo-Pacific.[12]

In 2019, Australia focused on its pacific step-up,[13] while India watched the Chinese government's economic and security activities in Pakistan and the Himalayas.[14] Both understood the old Cold War was long gone, and the new one brewing was closer to home. Policymakers in both Canberra and New Delhi believed that while Beijing's ambitions did not represent an existential threat, it was not something to be ignored.

The problem here was not just a result of Chinese government policy. From Canberra to New Delhi, there was a concern about the impact of US President Donald Trump's erratic decision making on alliances and policy red lines. Many in Australia was comfortable that its alliance with the US was safe: in fact, closer than ever. Nevertheless, Trump seemed to be more interested in making friends with despots in North Korea and Russia than maintaining its long-held alliances. By mid-2019, Trump had managed to create unseen levels of strategic unpredictability.

In Australia's case, its then pre-eminent national security strategy document, the 2016 Defence White Paper, was deeply rooted in the 1980s thinking that assumed 10 or more years of strategic warning before any future conflict.[15] There was a reason for change. The security context described in the 2016 Defence White Paper had declined far quicker than anticipated. India was perhaps in a much better position to deal with the declining strategic context given its ongoing land border tensions with Pakistan and China.

By late 2019 Australia's Defence Minister had directed a strategic update of the Defence White Paper 2016. The outbreak of COVID-19 delayed the release of the review. The review's authors appear to have leveraged the delay as an opportunity to ensure that the update factored the early lessons of COVID-19, especially to resilience.

In August 2020, the Australian Defence Organisation released its 2020 Defence Strategic Update.[16] The update argued that the global security situation had deteriorated much faster than was anticipated in the 2016 Defence White Paper. Furthermore, for the first time since the 1980s, its authors argued that the warning time for major conflict was now under 10 years. It convincingly argued that:

"Australia now faces an environment of increasing strategic competition; the introduction of more capable military systems enabled by technological change; and the increasingly aggressive use of diverse grey-zone tactics to coerce states under the threshold for a conventional military response."[17]

The 2020 Defence Strategic Update contended that unlike previous global conflicts and during the Cold War, a future conflict, and it precursors would occur closer to home. This changing context has meant that Australia was no longer a strategic backwater in great power competition but key terrain in the struggle between the Chinese and the US governments over the Indo-Pacific. As such, it also reorientated the defence organisation to concentrate on its immediate region: ranging from the north-eastern Indian Ocean, through maritime and mainland South East Asia to Papua New Guinea and the South-West Pacific. It contained all-new strategic objectives to deploy military power to shape Australia's strategic environment, deter actions against its interests and, when required, respond with credible military force.

The headline story here is not one of a change in strategy, but of declining strategic context that is now gathering speed. COVID-19 has shown policymakers that many of the assumptions that underpin national security and defence policy no longer hold true in the new strategic context. Once lauded Chinese government initiatives like Belt and Road Initiative (BRI), are now being seen more widely for what they are:

influence building activities and planting the seeds for economic coercion and soft power influence.

Moreover, COVID-19 has illustrated that our national security strategies, established on long-term thinking, may require a level of agility not seen for several decades: if at all.

Supply Chains and National Resilience

One of the first national security and defence lesson from the COVID-19 pandemic has been that globalisation's promises about the security of vertically integrated global supply chains appeared to crumble from the start of this global crisis.[18] After decades of allowing market forces to dictate the shape of just in time global supply chains, many a country was left with severely depleted national industrial capacity: especially, for manufacturing. In many cases, market forces had worked against the maintenance of a scalable industry base. To which, countries like Australia were far less resilient in the face of this crisis than they had assumed.

The early stages of the pandemic provided Australian policymakers with some timely lessons. Initially, its industry base could not surge and scale to manufacture personal protective equipment, including masks, ventilators and hand sanitiser. The rapid rise in global demand for these goods, and the slowing down of global supply chains was a hard policy lesson. It is also now a reminder of the importance of maintaining sovereign industry capabilities.

The pandemic has resulted in broad questions around strategic reserves and manufacturing capability. COVID-19 has been a stark reminder for Australian defence planners and strategists to review national resilience assumptions. For example, in Australia, a lack of strategic fuel reserves became a painfully evident policy priority during COVID-19.[19] Furthermore, the pandemic has also led more than a few Australian policymakers to reconsider their assumptions that future major conflict will be heartbreakingly destructive, but mercifully quick.[20] If these

assumptions are incorrect, is Australia's industrial base agile and scalable enough to sustain the nation during a period of protracted conflict? In the case of precision munitions, Australia finds itself with limited strategic reserves all the while sitting at the end of exceptionally long and vulnerable supply chains. COVID-19 has illustrated how a global crisis can result into a greater competition between allies for access to finite supplies.

In this context, it can be rightly argued that both Australia and India will need now to consider the size and scale of their respective strategic reserves of crucial commodities, and this will not be inexpensive. There is also additional pressure to develop national policies that assure a scalable industry base to support a range of contingencies.

These hard lessons on capacity have given rise to several echoing public discussions on the need to decouple somewhat from China's economy to ensure resilience economically. An attractive option, but to do so nations like Australia and India will need to decide on what has become a sovereign capability, and where and how they will recouple their economy to create much-needed resilience and supply chain security. There will undoubtedly be winners and losers in this recoupling process.

Governments Capacity to Surge

As the COVID-19 virus took hold, large tracts of government's bureaucracy worldwide reluctantly adopted work from home strategies Australia and India were no exception to this. For the most part, the bureaucracy was able to maintain services. However, the more considerable challenge was the sudden increase in resource demands from some specific areas of the bureaucracy. From contact tracing clusters of infections, to assuring national supply chains, the priority given to functions of government have changed. Previously low priority functions of government now require all new resources with no luxury of time to recruit and train new staff. COVID-19 required an all-new approach from senior public servants. It required the development of an all-new capability. The capability to surge

appropriately trained, security cleared and experienced public servants to all-new jobs, while still maintaining COVID-19 prevention protocols. At the same time, the bureaucracy had to come to terms with the reality that it could not maintain the same level of service delivery as that which occurred before lockdowns and staff reallocations.

In broad terms, the lesson here was that nations facing national crises need a more agile public service. Moreover, this agile public service is as critical to national security as it is to emergency and crisis management. Exercising this kind of agility in government is no easy task. At the very least, COVID-19 has revealed that policymakers must consider promoting greater public service agility. The pandemic highlights the need for a more formal process for assessing and communicating the impacts of government decisions to surge its public service capability in response to a national crisis. For countries like India, with a large, layered and complex bureaucracy, promoting greater public service agility is a byzantine affair. This observation serves to highlight the urgency behind getting the machinery of government arrangements right before any future challenges arise.

Military Support to Emergencies

In both Australia and India, the respective militaries have a long history of supporting government responses to national emergencies. From floods to fire and cyclones to tsunamis, the military in both countries has figured prominently in emergency responses. These responses have ranged from the provision of specialist military capability, including areas such as command and control, logistics, medical and transport, as well as physical labour for searching and immediate response for recovery and reconstruction.

In Australia, 2020 began with a significant bush fire emergency which required the deployment of a range of specialist military capabilities. Moreover, just as the risk abated, COVID-19 made its appearance. Again, the Australian Defence Force (ADF) deployed a range of capabilities to support state and federal governments with their ongoing responses to

the COVID-19 threat. In many cases, ADF personal are still providing the staff to support the quarantine process for Australians and permanent residents returning home. As the crisis lingers on, these arrangements are having a more significant impact on the ADF's ability to conduct individual and collective training.

While many continue to disagree on global warming, it seems self-evident that the frequency and intensity of natural disasters appears to be increasing in the Indo-Pacific. Already, the Australian Defence Organisation has acknowledged, in its 2020 Force Structure Update, that there will be increasing demands on the ADF to assist in emergencies.[21] On its own this increasing demand for defence resources would place a strain on the ADFs ability to raise, train and sustain its forces. However, this increasing demand is occurring at a time when the Indo-Pacific region is facing mounting strategic uncertainty. The situation for India is far worse with the increased security challenges and threats. Amidst the pandemic, India was hit by two cyclones—*Amphan* and *Nisagra* and has been constantly engaged militarily with China and Pakistan at the border.

So, while acknowledging that military support to COVID-19 measures has been admirable, many senior defence officials are likely concerned that this success may result in further tasking in the future. Moreover, that such a development could degrade their respective war-fighting capabilities. It seems that defence leaders will face a choice here, accept the praise and accolades and prepare to provide future support. Alternatively, these leaders could champion other policy approaches to support emergency responses. Such an approach could take many forms. One approach could be to continue to leverage existing defence capabilities. However, the allocation of additional resources and policy on the creation of new and more cost-effective military capabilities for responding to emergencies must underpin this approach. Alternatively, it could champion the creation of a more qualified and professionalised civil defence capability. Governments cannot expect to have their cake and eat

it too: an increasing demand for military assistance requires additional funding, or it will mean degrading capabilities.

Re-engaging with Risk

In 2018, Dr. Johnathan Quick was not the first to raise concerns over both the increased likelihood and deadly consequence of a global pandemic.[22] Quick, using a range of sources, did however write the script for COVID-19: including its health social and economic impacts. His work argued that denial, complacency, and hubris were preventing governments from being ready for the next global pandemic: and as bad luck would have it, they did.

Despite the presence of longitudinal evidence of disease outbreaks occurring at increasing frequency, and risk assessments that indicated that a pandemic was possible, the insurance policy of preparation was deemed too expensive for such an unlikely event by many a government. Despite medical evidence and near misses with SARS and Ebola, experience did not encourage governments to engage with the disastrous consequences and likelihood of a Spanish Flu-like pandemic.

Most countries failed to take the pandemic risk sufficiently seriously. In many cases, they failed to engage with the possible scale and scope of a future pandemic because of an inability to reconcile humanity's progress with a threat type last seen in 1918 with the Spanish Flu.

Quick was right, in Australia's case, despite the conduct of a range of national-level desktop exercises with it world-class health system, during COVID-19 it quickly found itself with medical equipment shortages and no way to meet them.[23] Arguably policymakers had become all too comfortable with their ability to mitigate risk. Understandably, complacency about the risk was likely a key factor.

Finally, and probably linked somewhat to policymakers denial of the problem, hubris led to an overconfidence in the national and global capacities to deal with a pandemic problem.

The consequences of the COVID-19 pandemic have varied dramatically between countries. Those countries with strong testing regimes and first-world medical capabilities are, despite high infections in the US, doing relatively well. Many developing nations are yet to fully understand the scale and impacts of the pandemic on their communities. Nevertheless, in those countries, often accustomed to dealing with epidemics of infections nearly eradicated in the first world, are appearing to be better equipped socially to deal with and recover from COVID-19.

Of course, hindsight is a beautiful gift, but rarely of use after the fact. However, the longer governments in Canberra and New Delhi struggle to deal with the pandemic, the more it will indelibly affect current and future leaders. It is more likely too that COVID-19 will bring a nagging discomfort with their understanding of national risk. It seems likely that governments will exit from the COVID-19 crisis more risk-averse and willing to invest in mitigation, response and recovery.

Defence and national security could well find themselves in the front and centre of this readjustment process. At the very least, for the time being, governments will think differently about the risks associated with the growing strategic uncertainty in the Indo-Pacific and the Chinese government's interference in the region. This changing dynamic will require much thought, more than likely over a noticeably short time frame. Senior military advisors and national security policymakers will need to be mindful to ensure that the immediacy of COVID-19 does not leave them ill-prepared to meet other contingencies driven by its consequences.

Strategic Miscalculation and Operational Misadventure

The previous and current US Presidents, Barrack Obama and Donald Trump respectively, have done little during their terms to stem the growing tensions between their nation and the Chinese government. Obama's consistent failure to act when his government's official 'red lines' had been

crossed—like when the Syrian regime used chemical weapons against their people—has served to illustrate a systemic weakness in the resolve of the US to support a rules-based order and international norms.[24]

Trump's America first policy, disdain for long-term allies and engagement with some of the globe's worst despots, has shown that he cares little for rules-based order. While his government has made efforts to respond to Beijing's increasingly assertive policies, this has more to do with domestic politics. Trump's unpredictable behaviour serves only to project doubt over his commitment to the Indo-Pacific.

Over the last several years, there has been an acceleration in concern over the Chinese governments behaviour and intentions amongst governments in New Delhi, Canberra and Tokyo. This awareness has resulted in a reassessment of defence and national security strategies. There had been a reluctance amongst these governments to develop and implement comprehensive strategies to mitigate economic and national security vulnerable to Chinese government exploitation. Many a policymaker wanted to believe that the miracle of globalisation was good enough a reason to delay the resource costs of acting.

The lack of action was also likely a nagging concern over the economic impacts of unnecessarily standing in the way of Beijing's ambitions. And for a good reason. In 2010, the Chinese government used its domination of the rare earth element supply against Japan during a territorial dispute.[25] While unsuccessful in their efforts on that occasion, Beijing has become far more agile at using such methods in the decade since.

The Chinese government's assertive maritime strategy in the South China Sea, and grey zone tactics, continue to test Australia's resolve. There is an expanding body of evidence of the Chinese government's attempts at exerting influence in Australian affairs. Despite the severe impacts the Chinese government has continued to use of economic coercion against the Australian government: more recently seemingly as punishment for its leadership on an independent inquiry into COVID-19.

The Indian government faces not too dissimilar developments. India continues to stare down the Chinese government's assertive behaviour along its shared land borders. It has witnessed, first-hand, the increasingly destabilising impacts of China's BRI on regional security. The BRI projects in Pakistan have served to provide the Chinese government with new port access to the Indian Ocean and increased land connections with access to resources and markets. New Delhi now faces the spectre of China's increasing maritime activities across the Indian Ocean.

The emerging cold war between the US and Chinese governments is vastly different to the last. The rules for this cold war are far less precise than those between the US and the Union of Soviet Socialist Republics (USSR). While the USSR was intent on testing the US resolve, the existential threat of a nuclear war ensured cool heads and steady hands. Today, the Chinese government is unconstrained in its efforts to assert itself. In doing so, it increasingly tries to undermine the existing rules-based order through creating its own truth.

Unfortunately, COVID-19 is playing out at with this great power competition as a backdrop. It seems that Covid-19 is serving to accelerate the existing trend of increased strategic instability and uncertainty in the Indo-pacific.

The Chinese government's debt-trap diplomacy and dominance of strategic markets: like rare earth elements has afforded them a great deal of coercive economic power. COVID-19 has served to awaken some nations to the security vulnerabilities created by economic globalisation. Moreover, to the implications of China's status as the globes manufacturing house. Already, various discussions are being had about economic decoupling from the Chinese economy, building national resilience and supply chain security.[26] These responses have, without doubt, drawn the ire of the Chinese government. This COVID-19 driven development, has increased the strategic intensity in the Indo-Pacific region.

The last cold war's possible consequences included the existential threat of thermonuclear war. Thankfully, this kind of existential threat seems to be an unlikely consequence for the current strategic environment. The world is not out of the woods yet though. The possibility of a conflict in the Indo-Pacific, resulting from strategic miscalculation or operational misadventure, is more likely than ever.

Strategic uncertainty surrounding US diplomatic red lines and foreign policy, along with the accelerated policy development during COVID-19 have increased the possibility of the kind of strategic miscalculations that could well lead to unplanned and unwanted conflict. With the Chinese People's Liberation Army flexing its muscles across multiple domains, the possibility of an operational misadventure, such as has been seen in the Himalayan Mountains and the South China Sea, leading to a geographically broader conflict is also an all too real possibility for the Indo-Pacific.

Both Canberra and New Delhi need to adapt to deal with this new uncertain strategic reality rapidly. Central to this adaption will be responding consistently to Chinese government policy decisions in a way as to mitigate the possibility of future miscalculation in Beijing. At the same time Australia and India's junior commanders at sea, on the land and in the air will need to be thinking about their decisions and actions from a far more strategic perspective than ever before.

Conclusion

The world is still battling COVID-19, and is yet to come to terms with the scale and scope of the crisis after this crisis. It is, however, clear that if Australia and India are to emerge from these dual crises successfully, then they both must quickly learn their lessons and adapt to meet what comes next. Both nations need a stable and secure Indo-Pacific if they are to enjoy a stable and secure future.

To successfully navigate the somewhat uncertain decade that will likely follow 2020, Australia and India will need to enhance their connectivity across the Indo-Pacific. Moreover, by deepening and reinvigorating ties with longstanding allies and friends.

On a positive note, the pandemic offers both Australia and India a once-in-a-lifetime opportunity to critically review and reset policy and the assumptions that underpin them. For Australia and India, there is an opportunity to cooperate on economic and national security issues that will reduce strategic uncertainty. It also offers both a chance to mitigate some of the less desirable impacts of the last three decades of rapid globalisation.

The world that emerges after COVID-19 will need strong, like-minded countries like India and Australia to work closely together to set the foundation for continued global stability. Strategists will need to carefully consider the policy implications of each of COVID-19's lessons: of course remembering that the pandemic, and the crisis that will inevitably follow it, are far from over.

Notes

1. See World Health Organization (2020), "Severe Acute Respiratory Syndrome (SARS)." Available online at https://www.who.int/health-topics/severe-acute-respiratory-syndrome#tab=tab_1, accessed on September 25, 2020.
2. Talha Burki (2020), "The origins of SARS-CoV-2," *The Lancet Infectious Diseases*, Vol. 20, Issue 9, pp. 1018-1019, September 1, 2020. Available online at https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30641-1/fulltext, accessed on September 28, 2020.
3. World Health Organization (2020), "WHO Coronavirus Disease (COVID-19) Dashboar." Available online at https://covid19.who.int/, accessed on October 6, 2020.
4. Richard Hass (2020), "The Pandemic Will Accelerate History Rather Than Reshape It: Not Every Crisis Is a Turning Point," Foreign Affairs, April 7, 2020, at https://www.foreignaffairs.com/articles/united-states/2020-04-07/pandemic-will-accelerate-history-rather-reshape-it, accessed on October 5, 2020.
5. Deakin University (2020), "COVID-19 pandemic exposes weakness in Aussie supply chain," Media Release. Available online at https://www.deakin.edu.au/about-deakin/media-releases/articles/covid-19-pandemic-exposes-weakness-in-aussie-supply-chains, accessed on October 6, 2020.

6. The World Bank (2020), "COVID-19 to plunge the global economy into the worst recession since World War II," Press Release, June 8, 2020. Available online at https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii, accessed on October 6, 2020.

7. OECD (2020), COVID-19 and the global contraction in foreign direct investment," Development Matters, June 29, 2020. Available online at https://oecd-development-matters.org/2020/06/29/covid-19-and-the-global-contraction-in-foreign-direct-investment/, accessed on October 6, 2020.

8. Elise Thomas, Albert Zhang and Jake Wallis (2020), "COVID-19 disinformation and social media manipulation," Australian Strategic Policy Institute, September 29, 2020. Available online at https://www.aspi.org.au/report/covid-19-disinformation, accessed on October 6, 2020.

9. Michael Shoebridge (2020), "Wine-dumping 'investigation' shows Australian businesses must plan for Chinese coercion," The Strategist, August 21, 2020. Available online at https://www.aspistrategist.org.au/wine-dumping-investigation-shows-australian-businesses-must-plan-for-chinese-coercion/, accessed on October 5, 2020.

10. Jin Wu and Steven Lee Myers (2020), "Battle in the Himalayas," *The New York Times*, July 18, 2020. Available online at https://www.nytimes.com/interactive/2020/07/18/world/asia/china-india-border-conflict.html, accessed on October 4, 2020.

11. Stephen Lee Myers (2020), "China sends warning to Taiwan and U.S. with big show of airpower", *The New York Times*, October 5, 2020. Available online at https://www.nytimes.com/2020/09/18/world/asia/us-taiwan-china-jets.html, accessed on October 6, 2020.

12. Marc Purcell (2020), "We have to be hard-nosed about soft power in Asia," A*ustralian Financial Review*, March 13, 2020. Available online at https://www.afr.com/policy/foreign-affairs/we-have-to-be-hard-nosed-about-soft-power-in-asia-20200312-p549ci, accessed on October 3, 2020.

13. "Pacific Step-up," Department of Foreign Affairs and Trade. Available online at https://www.dfat.gov.au/geo/pacific/Pages/the-pacific, accessed on October 3, 2020.

14. Shi Jiangtao (2020), "India's latest row with Pakistan adds to tensions in Himalayan region after China border clash," *South China Morning Post*, June 25, 2020. Available online at https://www.scmp.com/news/china/diplomacy/article/3090479/indias-latest-row-pakistan-adds-tensions-himalayan-region, accessed on October 3, 2020.

15. Department of Defence (2016), "2016 Defence White Paper." Available at https://www.defence.gov.au/whitepaper/docs/2016-defence-white-paper.pdf, accessed on October 3, 2020.

16. Department of Defence (2020), "2020 Defence Strategic Update." Available online at https://www.defence.gov.au/strategicupdate-2020/, accessed on October 3, 2020.

17. Ibid.

18. Deakin University (2020), "COVID-19 pandemic," n. 5.

19. John Coyne, Tony McCormack and Hal Crichton-Standish (2020), "In a crisis, Australians might be soon running on empty," The Strategist, May 13, 2020. Available online at

https://www.aspistrategist.org.au/in-a-crisis-australians-might-soon-be-running-on-empty-2/, accessed on October 6, 2020.

20. Ross Babbage (2020), "Ten questionable assumptions about future war in the Indo-Pacific," *Australian Journal of Defence and Strategic Studies*, 2(1), August 2020.

21. "Department of Defence (2020), "2020 Defence Strategic Update," n. 16.

22. Jonathan Quick (2018), *The end of epidemics: the looming threat to humanity and how to stop it,* Victoria: Scribe Publications.

23. Ibid.

24. Ben Rhodes (2018), "*Inside the White House during the Syrian 'Red Line' crisis,"* The Atlantic, June 3, 2018. Available online at https://www.theatlantic.com/international/archive/2018/06/inside-the-white-house-during-the-syrian-red-line-crisis/561887/, accessed on October 5, 2020.

25. Julian Ryall (2020), "Japan moves to secure rare earths to reduce dependence on China," *South China Morning Post*, August 17, 2020. Available online athttps://www.scmp.com/week-asia/politics/article/3097672/japan-moves-secure-rare-earths-reduce-dependence-china, accessed on October 2, 2020.

26. Valbona Zeneli and Joseph Vann (2020), "The real strategic end game in decoupling from China," The Diplomat, September 18, 2020. Available online at https://thediplomat.com/2020/09/the-real-strategic-end-game-in-decoupling-from-china/, accessed on October 5, 2020.
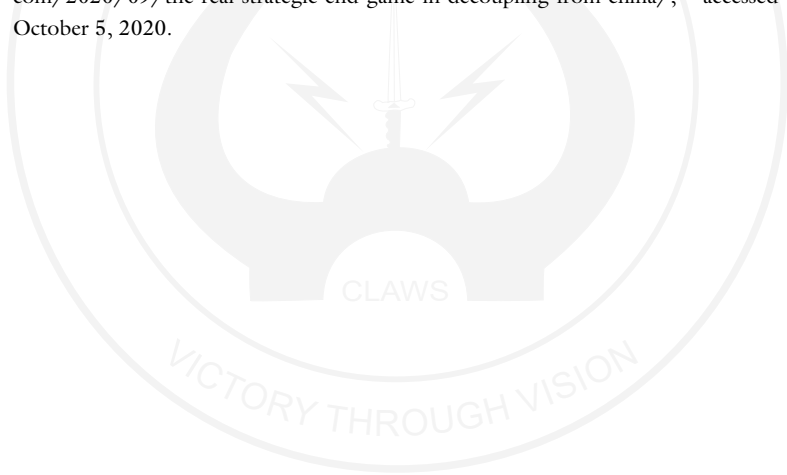
ISI in Pakistan's Domestic Politics: An Assessment

Jyoti M. Pathania

Abstract

The article showcases a larger-than-life image of Pakistan's Intelligence agencies highlighting their role in the domestic politics of Pakistan, by understanding the Inter-Service Agencies (ISI), objectives and machinations as well as their domestic political role play. This is primarily carried out by subverting the political system through various means, with the larger aim of ensuring an unchallenged Army rule. In the present times, meddling, muddling and messing in, the domestic affairs of the Pakistani Government falls in their charter of duties, under the rubric of maintenance of national security. Its extra constitutional and extraordinary powers have undoubtedly made it the potent symbol of the 'Deep State'.

Introduction

The incessant role of the Pakistan's intelligence agencies, especially the Inter-Service Intelligence (ISI), in domestic politics is a well-known fact and it continues to increase day by day with regime after regime. An in-depth understanding of the subject entails studying the objectives and machinations, and their role play in the domestic politics.

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ISI is the main branch of the Intelligence agencies, charged with coordinating intelligence among the three military services. Headquartered in Khayaban-e-Suhrawardy Street in Islamabad, the entrance according to the journalist, Declan Walsh, "is suitably discreet: no sign, just plainclothes officer packing a pistol who direct visitors through a chicane of barriers, soldiers and sniffer dogs," with a sliding giant electric gate, revealing a sleek grey building, with one difference that nothing is signposted.[1]

Powerful and notorious in equal measure is this premier spy agency, which for decades has operated behind a dense veil of secrecy, impervious to allegations of election rigging, terrorist training, abductions and assassinations, which many Pakistanis themselves call—"State within a State."[2] Over the years many analysts have dubbed the ISI as the "invisible government"—the potent symbol of the Deep State.

Objectives and Machinations of the ISI

The main objectives and responsibilities include coordinating with the intelligence networks of the Army, Navy and Air-force; a collection of foreign and domestic intelligence; conducting covert offensive operations like in Kashmir and the Afghan conflict, surveillance of foreigners, domestic media—both print and online, foreign diplomats and also Pakistani diplomats serving outside the country. All these fall under the charter of duties of the ISI.

Though ISI was created in 1948 primarily to oversee exogenous/external activities in the Pakistan-controlled Kashmir and the Northern areas, but the endogenous/domestic role was not clearly laid out. The fact of the matter is that it has been playing a central role in the internal political activities for a long time. Genesis of its political role were a direct result of the coup led by General Ayub Khan in 1958. In the present times, meddling and muddling in the domestic affairs of the government fall very much in their charter of duties, under the rubric of maintenance of national security.

According to the Carnegie Endowment for International Peace Report 2009, intelligence agencies in Pakistan are still trying to maintain their objectives regarding social control; protect the regime against all sources of disturbance, and promoting acceptance of regime policies by the population.[3] Iftikhar Malik, writing about the working of the intelligence agencies states that, "operations against dissenting politicians, objective intellectuals and other activists were carried out through systematic harassment, disinformation campaigns, fictitious trials, kidnappings, torture, and assassination."[4] In the words of Mazhar Ali Khan, the late Editor of the Pakistani newspaper *Dawn:*

"The ISI is seen by many people to be an unwanted legacy of the military rule. While Under martial law regimes, the agency's expanding constitutional role was at least understandable, because with the constitution suspended, the will of the military dictators took precedence over every rule, law and tradition, but after the end of military rule and restoration of the Constitution, for ISI's functioning to go o beyond its parameters was violative of the Constitution. It also defied the regulations that govern the network of agencies and the institutions that serve the armed forces".[5]

ISI has acquired a larger-than-life image among all the institutions in Pakistan, with over 25,000 permanent employees and reportedly 30,000 on its rolls as informants and other related roles; the ISI is a well-organized and well-oiled outfit.[6] According to Frederic Grare Pakistan's intelligence agencies' political role is a combination of militarisation, political surveillance, and state terror, though the intensity and relative importance of each component varies over time and according to a specific situation, all three are always present at all times.[7] It has subverted the political system to its advantage, by making the civilian governments victim of their manipulations, by using various means like: funding the

political parties; providing support to the religious parties; setting up alliances or breaking alliances of the political parties to suit its interests; influencing the social media; manipulating political violence and even democratic control through constitutional and legal changes.[8]

The reason why intelligence agencies have been called upon to be directly involved in political matters is with an assumed logic. The logic is to play divide and rule, Rizvi notes that "their interests in these matters stem from the assumption that a polity in turmoil cannot sustain a professional military,"[9] and also that a weak and divided polity can be instrumental in preserving the position of the Military; hence, the necessity of involvement of ISI. This logic enables the military to manipulate politics and indirectly rule the country and also ensures that the civilian intelligence agencies remain marginalised, as these might perhaps one day become powerful with the patronage from an elected government.

ISI's Role in Pakistan's Domestic Politics

Pakistan's history is replete with the ISI involvement in domestic politics. As mentioned earlier, General Ayub Khan led coup 'd'état in 1958 was the beginning of a direct political interference by the ISI. This led to the monitoring of the politicians, overseeing the media or surveillance on the civil society/social organisations, trade organisations, student groups, etc. ISI was called upon to deliver warnings and threats if such organisations were getting too much in the way of the military and ordered the establishment of a covert action division in the structure.[10] All the three intelligence agencies were placed under his direct control, and together they became the stronghold for consolidating his regime. Any threat to his rule was crushed on the pretext of endangering national security. In the 1964 presidential elections, the agencies were used again to ensure that the winning candidate remained General Ayub Khan.

The next ruler, General Yahya Khan, further enlarged the power of the Intelligence agencies to include, overseeing the activities of the

ethnic minorities and the separatists. This was primarily done to check the political activities of the leading nationalist Party, the Awami League of East Pakistan. ISI was instrumental in waging the genocide in East Pakistan, now Bangladesh, A nationalist security council was specifically created to infiltrate the Awami League circles and to control the 1971 elections to ensure that no political party won. Hence, the policies and strategies adopted by Ayub Khan and Yahya Khan made ISI the most powerful intelligence agency within Pakistan,[11] with its primary and specific functions becoming more and more blurred as well as enlarged.

Even the civilian leaders did not hesitate in using intelligence agencies for their personal political motives. Prime Minister, Zulfikar Ali Bhutto, further expanded the ISI's political role by creating an internal security wing/political cell primarily for monitoring his political opponents. One official of that time confirmed this saying, "[…] even his ministers' phones and offices were bugged and their personal lives monitored since Bhutto trusted no one and relished replaying tapes in front of those who had fallen from grace."[12] Another incident during his regime was recalled by Late B. Raman, a senior RAW Officer of India stated, "ISI's Internal Political Division had Shah Nawaz Bhutto, one of the two brothers of Benazir Bhutto, assassinated through poisoning in the French Riviera in the middle of 1985, in an attempt to intimidate her not returning to Pakistan for directing the movement against General Zia-ul- Haq."[13] The political cell was used for rigging the 1977 election as well as against the Balochi Nationalists. According to author Zahid Hussain, Bhutto also used the ISI to keep surveillance not only on his opponents but also on his party men and cabinet ministers.[14]

In General Zia-ul-Haq regime, ISI spread its tentacles to include information on political and religious organisations that opposed Zia's regime. For instance, collecting intelligence about Sindhi nationalists' activities and monitoring of the activities and leadership of Pakistan's People's Party (PPP) of Benazir Bhutto who had launched the Movement

for Restoration of Democracy in the early 1980s.[15] Besides, the activities of Pakistan's Shi'i organisations were being controlled and monitored as well as the dissident political leaders were also constantly harassed. In this process, the Military Intelligence too became involved and its role became evident in the dismissal of two Bhutto-led Governments in August 1990 and November 1996 respectively.[16]

In May 2006 in London, former Prime Ministers of Pakistan, Benazir Bhutto and Nawaz Sharif signed the "Charter of Democracy."[17] According to Article 32 of the Charter: "The ISI, MI, and other security agencies shall be accountable to the elected government through the Prime Minister Secretariat, Ministry of Defence and cabinet division respectively".[18] Also to note, even the 2008 election manifesto of Pakistan People's Party mentioned that "all security agencies, including ISI and MI, will be answerable to the elected Prime Minister".[19] Benazir Bhutto took the courageous step of reforming the intelligence agencies; wherein, she formed a committee under Air Chief Marshal Zulfiqar Ali Khan to review the role of all intelligence agencies in a democratic system of governance. But, this was of no consequence as the influence and spread of ISI was starkly evident during the visit of Indian Prime Minister Rajiv Gandhi to Pakistan in December 1988, when both the leaders were told to be careful in their conversations as the ISI had "bugged" her office and residence.

Under General Pervez Musharraf, the ISI was given full freedom to finance and weaken the major parties to ensure the complete loyalty of the ruling coalition. Bribes and blackmail were used extensively. Even a tactical support to a group of dissidents was given who, after the 1999 military coup, had broken away from former Prime Minister Nawaz Sharif's Pakistan Muslim League-Nawaz (PML-N) party, to create the Pakistan Muslim League Q (PML-Q).[20] It also helped in convincing Muttahid Majlis-e-Amal (MMA) leaders to accept General Musharraf as the President in Uniform.[21]

ISI's Subversion of Pakistan's Political System

Apart from the military dictators/rulers under whose leadership ISI manipulated domestic politics, ISI on its own too has been utilising various means to subvert the political system to its advantage primarily to ensure an unchallenged Army's rule. This became even more evident after the Soviets left Afghanistan. A manifold increase in their political activities was seen, be it the funding of the political parties or dismissal of civilian governments. Such political interferences became a regular feature, and the narrative started building up both in the print and social media that the intelligence agencies area above law and accountable to neither the executive nor the judiciary.

These agencies have been at the forefront of many a strategic depth misadventure, while, on the home front they have been used to subvert the political process, manipulate elections and silence those who disagree with state policy.[22] The Supreme Court Chief Justice, Sajjad Ali Shah, revealed during the hearing on the ISI's role in domestic politics in the year 1997, General (retd) Mirza Aslam Beg admitted to the practice of ISI supporting candidates and using secret service accounts for the disposal of money during the election season he said that Lieutenant General Assad Durrani had received Rs 60 million for funding certain candidates.

Setting up *alliances* and *factions* within political parties is another way of manipulating the domestic politics in its favour. In 1988, the ISI set up *Islami-Jamhori Ittehad* (IJI), an alliance that united right-wing politicians (like Nawaz Sharif) with religious leaders. It was also funded by the ISI to counter Benazir Bhutto's PPP from sweeping the polls (this is now a matter of court record, thanks to the Asghar Khan case and according to former ISI director General Hamid Gul's admission). In General Beg's words, "the decision to hold onto or relinquish power rests squarely with the Army," even creating rifts within political parties if a particular party becomes too powerful or non-compliant.[23]

The funding of political parties is another way to consolidate its hold on the party activities. For instance, it was found that ISI had distributed over Rs 140 million among favourite politicians during the 1990 elections.[24] While the Mehran Bank Scandal too had ISI involvement during the 1990s politics. The intelligence agencies prevailed upon politicians from different parties to trade their loyalties for a price. The objective was to destabilise a hostile government and then put in place a friendly regime. The scandal comprises the entire gamut of financial crimes, like fake loans, kickbacks, illegal transactions, and bribes, and involved several high profile names of politicians and a serving Army chief.[25] On June 28, 1997, Pakistani newspaper *Nation* commenting on the ISI involvement in the Mehran Bank Scandal stated:

"The case has refocused public attention on what is widely perceived to be a government within a government—the intelligence agencies and their virtually autonomous role in the political affairs of the country. The baneful influence of the intelligence agencies has spread it malign shadow over the political destiny of the country."[26]

Another significant aspect is the support of ISI to the religious parties, which appears to be the norm. Military rulers like Zia-ul-Haq gave full backing of the State to Islamisation. Zia co-opted the religious parties, notably the JI, undertook a process of Islamisation that included the introduction of new Islamic laws, setting up a federal Sharia court, making Islamic education compulsory in schools, and promoting religious schools or madrassas. He took steps to Islamise the army by including Islamic teachings into the military's training.[27] For instance, support to religious parties like the *Islami Jamhoori Ittehad (IJI)*, manipulation of elections, and help in the creation of party like *Mohajir Quami Movement (MQM)* in 1984 created a rift within MQM to split the party into three dissidents factions, MQM—Afaq Ahmad, Aamir Khan, and Badar Iqbal.

While ISI's support to the armed religious parties is also a well-known fact. As noted, between 1982 and 1990, the Central Intelligence Agency (CIA), working with the ISI and Saudi Arabia's intelligence service, funded the training, arrival, and arming of some 35,000 Islamic militants from 43 Muslim countries in Pakistani madrassas—sowing "the seeds of al-Qaeda and turn Pakistan into the world center of jihadism for the next two decades." [28] Such linkages and close connections with the Islamic fundamentalist groups, like the *Harkat-ul-Ansar*, *Lashkar-e-Toiba* continues till date fostering on anti-India stand. Prime Minister Imran Khan himself admitted that the Pakistani Army and the ISI trained *al-Qaida* and other terrorists groups to fight in the Afghanistan war.[29]

Creating rifts within parties if they are becoming too powerful and non-complaint is another way of subverting the political system. ISI was no stranger during the constitution of the PML-Q and it openly twisted politician's arms to join the newly formed "King's party."[30] This was done to change its support base from the PPP to the opposition. Discredit certainly goes to the Intelligence agencies for having instigated political violence, be it with jihadi or sectarian groups or the MQM, the agencies have created a series of Frankenstein whose powers they have had to limit at times by pitting them against each other without trying to eliminate them, but simply making sure that they would remain compliant enough for whatever task they were assigned in the process, the ISI has created a culture of violence that is likely to be a lasting legacy for the country.[31]

Under the democratic means of the constitution, statutory laws, and remedies, certain Articles like Article 4, Article 8, and Article 90 have been provided for to check the extra-constitutional and extraordinary powers of these intelligence agencies, but it is of no use.[32] These are supposed to work within the general gambit of the federal governments' executive powers, contained in Article 90 of the constitution. But this remains a

mere hogwash. On the contrary, the military rulers have brought in laws to suit their own rule and tighten the rein on those political parties which don't suit their interests.

During General Ayub Khan's rule, Article 173 of the 1962 constitution prohibited any person from contesting elections as a member of a political party unless permitted by an act of the central legislature. The Political Parties Act, passed in July 1962, allowed only limited political activity. Successive dictators perpetuated these and other tough measures against political parties, introducing various laws and regulations to restrict or ban those political parties and political activities that threatened their rule.

After Pakistan's second coup led by General Zia-ul-Haq in 1977, a large portion of the constitution was placed in abeyance, including fundamental rights and Article 17 on the freedom of association. Zia also promulgated the Martial Law Order (MLO) in June 1978, setting up disqualification tribunals to inquire into charges of misconduct against those who had contested the 1977 elections. All forms of political activity were effectively controlled and dissent was dealt with through harsh punishment under laws specially devised for this purpose. Musharraf and the military maintained power for almost nine years, utilising the same tactics of suppressing democratic forces and rigging national and local elections. He consolidated his power in December 2003 primarily through the passage of the seventeenth amendment to the constitution, which transferred several powers from the prime minister to the president, including the authority to dismiss the prime minister and the national assembly. [33]

Civilian leaders, like Benazir Bhutto tried to reorganise and reform the intelligence agencies by issuing a notification on transferring the ISI directorate from the prime minister's office to the interior ministry, but so much was the power of the Intelligence agencies that within hours, the order was withdrawn. On 26 July 2008, the PPP-led government surprised everyone by bringing the ISI under civilian control, through a

memorandum. The memorandum placed administrative, financial, and perennial control of both the ISI and the IB under interior ministry with the hidden aim borne out of fear, pressure, and anxiety to control the ISI. The PPP considers ISI as the main force behind all anti-PPP activities. In October 2007, she also hinted at their role in assassinating her. But it is a well-known fact that the political establishment in Pakistan is not in a position to assert itself vis-à-vis the military and intelligence forces.[34] Prime Minister, Nawaz Sharif too realised that the ISI was a useful tool for governing and used it to investigate the financial dealings abroad of various politicians and bureaucrats, including Benazir Bhutto. He wanted to start a new Federal Investigative Agency (FIA), precisely for this purpose; but it did not fructify. This proves that the role of the intelligence agencies in domestic politics has increased stupendously over the years, so much so that at times it seems that they are the real power wielders. Furthermore, the present selected Prime Minister is only playing up to the tunes of what can be called an "Uniform-ed Democracy."[35]

Therefore, ISI has acquired a role that is far beyond its original charter of providing external and military-related intelligence. Its extra-constitutional powers and extraordinary powers enable it to control Pakistan's domestic politics; hence, truly symbolising ISI, as the "Deep State."

Notes

1. Declan Walsh (2009), "The ISI, Pakistan's notorious and feared spy agency, comes in from the cold," *The Guardian*, August 5, 2009. Available online at https://www.theguardian.com/world/2009/aug/05/inter-services-intelligence-directorate-Pakistan, accessed on September 10, 2020.

2. Ibid.

3. Fredric Grare (2009), "Reforming the Intelligence Agencies in Pakistan's Transitional Democracy," Carnegie Endowment for International Peace, March 6, 2009, p. 2. Available online at https://carnegieendowment.org/2009/03/06/reforming-intelligence-agencies-in-pakistan-s-transitional-democracy-pub-22817, accessed on September 10, 2020.

4.   Iftikhar H. Malik (1997), *State and Civil Society in Pakistan: Politics of Authority, Ideology, and Ethnicity*, New York: St. Martin's Press, p. 104.

5.   Cited in Bidana M. Chengappa (2000), "The ISI role in Domestic politics," *Strategic Analysis*, 23(11). Available online at https://ciaotest.cc.columbia.edu/olj/sa/sa-feb00-2.html, accessed on September 14, 2020.

6.   Kamal Davar (2017), *Trust With Perfidy: The Deep State of Pakistan*, New Delhi: Rupa Publications Pvt. Ltd, p. 68.

7.   Fredric Grare (2009), "Reforming the Intelligence Agencies,", n. 3.

8.   Ibid.

9.   Hasan-Askari Rizvi (1998), "Civil-Military Relations in contemporary Pakistan," *Survival*, 40(2), p. 100.

10. Kamal Davar (2017), *Trust With Perfidy*, n. 6, p. 49.

11. D. Suba Chandran (2008), "ISI: The War Within," Centre for Land Warfare Studies, Issue Brief No. 3. Avaiable online at https://archive.claws.in/images/publication_pdf/1195864070_CLAWSIssuebrief%2CNo.3%2C2008.pdf, accessed on September 14, 2020.

12. Kamal Davar (2017), *Trust With Perfidy*, n. 6, p. 55.

13. Ibid., p. 57.

14. Zahid Hussain (2007), *Frontline Pakistan: The Struggle with Militant Islam*, New York: Columbia University Press.

15. Fredric Grare (2009), "Reforming the Intelligence Agencies," n. 3, p. 18.

16. Ibid.

17. See "Text of the Charter of Democracy," *Dawn*, May 16, 2006. Available online at https://www.dawn.com/news/192460/text-of-the-charter-of-democracy, accessed on September 14, 2020.

18. Quoted in Fredric Grare (2009), "Reforming the Intelligence Agencies," n. 3, p. 42.

19. Ibid.

20. Sheila Fruman (2011), "Will the Long March to Democracy in Pakistan Finally Succeed?," United States Institute of Peace, Peaceworks No. 73, July 2011. Available online at https://www.files.ethz.ch/isn/141381/Democracy_in_Pakistan.pdf, accessed on September 15, 2020.

21. Ibid.

22. "Dawn-Editorial," *Dawn*, April 29, 2007. Available online at https://www.dawn.com/news/1070056/dawn-editorial-april-29-2007, accessed on September 16, 2020.

23. Umber Khairi (2017), "Holy and Unholy Alliances," *The News on Sunday*, October 8, 2017. Available online at https://www.thenews.com.pk/tns/detail/564149-holy-unholy-alliances, accessed on September 18, 2020.

24. "ISI Funded Political Parties in Pakistan," rediff.com, August 20, 2002. Available online at https://www.rediff.com/news/2002/aug/20pak1.htm, accessed on September 15, 2020.

25. Bidana M. Chengappa (2000), "The ISI role in Domestic politics," n. 5.

26. Ibid.
27. Jayshree Bajoria (2011), "Islam and Politics in Pakistan," Council on Foreign Relations, April 20, 2011. Available online at https://www.cfr.org/backgrounder/islam-and-politics-pakistan, accessed on September 16, 2020.
28. Ibid.
29. Chidanand Rajghatta (2019), "PM Imran Khan admits Pakistani Army and ISI trained al-Qaida," *The Times of India*, September 24, 2019. Available online at https://timesofindia. indiatimes.com/world/pakistan/imran-khan-admits-pak-army-trained-al-qaida/ articleshow/71269802.cms, accessed on September 14, 2020.
30. Sheila Fruman (2011), "Will the Long March to Democracy," n. 20, p. 7.
31. Fredric Grare (2009), "Reforming the Intelligence Agencies," n. 3, p. 25.
32. Article 4 states that enjoying the protection of the law is the inalienable right of every citizen of Pakistan. Article 8 states that laws inconsistent with, or in derogation of fundamental rights, are null and void, no law that benefits intelligence work can infringe on the constitutional rights of the citizens. Article 8 states that laws inconsistent with, or in derogation of fundamental rights, are null and void, no law that benefits intelligence work can infringe on the constitutional rights of the citizens.
33. Sheila Fruman (2011), "Will the Long March," n. 20.
34. D. Suba Chandran (2008), "ISI: The War Within," n. 11, p. 3.
35. Jyoti M. Pathania (2018), "Verdict is Out & the Winner is - "Uniform-Ed Democracy," Centre for Land Warfare Studies, August 17, 2018. Available online at https://archive. claws.in/1924/commentary-on-pakistan-elections-2018-verdict-is-out-the-winner-is-%E2%80%9Cuniform-ed-democracy%E2%80%9D-dr-jyoti-m-pathania.html" archive. claws.in › Pakistan-elections- Aug 17, 2018, accessed on September 18, 2020.

Countering the Contagion Effect of COVID-19:
An Appraisal of China's Influence Operations

Vivek Verma

Abstract

For China to realise its millennium goal, it needs to radiate its influence globally and simultaneously engage internally with the local population to ensure social stability. COVID-19 has disrupted China's dream of showcasing to the world a model state with Chinese characteristics. Influence operations thus form the basis of curating and presenting a credible image of the Communist Party of China (CPC) besides altering the behaviour of its adversaries. China has tried to firewall the western influence besides making inroads into other countries' economic, political and societal institutions. At the time of COVID-19 crisis, it is employing leverages to correct the narrative while gaining situational awareness through revamped structures and employment of technologies. It is thus imperative to appraise China's influence operations capabilities.

Introduction

On 8 September 2020, China celebrated the success against the COVID-19. Chinese President Xi Jinping in his lengthy speech at the

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Great Hall of the People used the occasion to recount the merits of the one-party rule and emphasised the need for strong leadership as "the most reliable backbone" for the Chinese people in times of crisis.[1] According to World Health Organization (WHO), there have been 45,942,902 cases with 1,192,644 deaths worldwide; while in China, there have been 91,921 cases with 4746 deaths, as on 1 November 2020.[2]

Though China may be rejoicing and showcasing to the world and their local populace that it has been able to tame the pandemic, but it is aware of the headwind facing it. The origin and delay in sharing COVID-19 specimen details with the world and naming it as 'Wuhan Virus' or the 'China Virus' has tarnished China's image. China does not want history to be unkind to it, and it is set to face the world squarely through its influence mechanism.

With the United States (US) being affected the most under COVID-19, with more people lost to a pandemic than it did during the raid on Pearl Harbour during World War II or the attack on the World Trade Centre on 11 September 2000; the US is leading the charge against China over handling of COVID-19 by manipulating the WHO. The US Secretary of State Mike Pompeo even justified the US unilateral action of quitting the WHO.[3] The sequence of events leading to the pronouncement by the WHO of declaring COVID-19 as a Public Health Emergency of International Concern (PHEIC) on 30 January 2020, has been at the centre of the debate. Incidentally, the initial WHO timeline was replaced on 29 June 2020, with the curated version by the WHO to set the record straight.[4] According to WHO's initial statement the cluster of cases of pneumonia of unknown cause was noticed by Chinese authorities in its Wuhan City, Hubei Province, on 31 December 2019, and genetic sequence of identified COVID-19 was shared on January 12, 2020; and it was only on 11 March 2020, WHO declared COVID-19 as a 'pandemic.'

Contextualising COVID-19: The Pre-COVID Actions by China

Quelling the Truth

China's core national defence aim is to safeguard national political security, people's security and social stability.[5] China seemed to be well aware of the pandemic fallout on the society and had probably assessed the capability degradation to administer and control the movement of populations.[6] The foremost priority for the CPC, therefore, was to deal with societal turbulence and to quell any noise within the medical and media fraternity. This was evident from the quick reaction by the China Public Security Bureau to suppress Dr. Li Wenliang's warning of a SARSs-like virus in Wuhan on 30 December 2019—an issue that had the potential to disturb the social order.

The timing of disclosure and messaging are of importance to the CPC. By mid-December 2019, the guidelines for the local journalists were issued by the CPC to ensure content sanctity includes cinema, TV, journalism, music, radio, social media and all the new ways to consume content. The Cyberspace Administration of China (CAC), the Chinese government's watchdog, has set up supervision on platforms that include those run by microblogging service provider *Sina Weibo*, short video and news apps operator ByteDance, and Tencent Holdings, WeChat app known as *Weixin* in mainland China where it has more than 1 billion users. "WeChat account shutdowns" became a trending topic on *Weibo* before the discussion page was removed on 6 February 2020.[7]

Ramping up the Effort

Despite growing cases in Wuhan, China carefully weighed the pros and cons with the nurtured support at the WHO. While the flurry of activities was taking place at WHO emergency committee to submit the report, China used the period to ramp up the state machinery in a quasi-

warlike mode to deal with the virus which it knew to be pandemic. The leadership was probably aware of the unknown virus. Hence, it used the time to secure the supplies of epidemic related medical equipment from the worldwide market, including the US, which exported 2.4 million pieces to China between 24 January and 29 February 2020.[8]

Almost a week before the WHO declared COVID-19 as a pandemic, Xi Jinping on 25 January, on the eve of the Chinese New Year of Rat, declared the tough measures to tackle the COVID-19 threat which had Wuhan at its epicentre. Within a day Premier Li Keqiang was made the head of the leading small group of epidemic control with 32 departments established under its wing, mobilisation of the People's Armed Police (PAP), activation of PLA Logistics Command at Wuhan and pairing of 19 provincial regions with 16 cities to prepare for Hubei-like outbreak of the COVID-19.

Pushing the Narrative in the Post-COVID-19 World by the CPC

The CPC intended to showcase the existence of strong command governance system under Xi. The agile governance narrative was woven to tell the citizen in China and the world community at large that the CPC cared for its people and the willing participation by the people helped in stemming the pandemic outbreak. The WeChat and *Weibo* were put under vigilance. Amidst global destabilisation, the strategic objective for Xi Jinping is clear—to protect the supremacy of the CPC and prevent the snowballing of crisis. It endeavours to localise the impact due to COVID-19 while ensuring social stability within its borders so that its millennium goal of prosperity remains intact. For the CPC, its image is very important to it. It needs to be seen as the champion of the Chinese cause. China recognises that the stigmatisation due to COVID-19 will add another humiliation narrative attributing to the CPC rule—a narrative it can ill afford. Hence, employing the 'three warfare' strategy is the only choice available to it to control the opinion,

legal and psychological space to correct the battle of perceptions both locally and internationally.

The CPC's bigger concern rested on handling of the narrative coming out from Wuhan. As a result of which, Ms Sun Chunlan, the Vice Premier and former United Force Work Department (UFWD) minister,[9] was appointed instead of an epidemic expert to deal with the Wuhan crisis. A Big-Data surveillance plan through mobile applications like AliPay and WeChat were used to enforce restrictions and allowed the government to keep track of people's movement. The news of the mysterious disappearance of 21 million mobile users[10] at the start of the pandemic had to be refuted. To communicate the curated images and assuage the local population apprehensions, daily briefings by the State Council were undertaken. Chinese prowess in dealing with the epidemic was showcased by building of a 1000-bed hospital over ten days with the two-pronged aim—firstly to calm the population about the lack of medical facility and secondly to market Chinese healthcare systems to the countries tied to China's Belt and Road Initiative (BRI).[11]

To further control the narrative, Research Paper Sanitisation Directive was promulgated for the research scholars.[12] Sponsored research such as "China's Fight against COVID-19" was jointly compiled by China Daily, Tsinghua University and Peking Union Medical College was published to showcase agile governance, strong leadership of President Xi and applause people's contribution in containing the virus.[13] Besides, China's National Library has been tasked to record the history of COVID-19.[14]

The world, distanced, divided and destabilised, is being shaped by geoeconomics and geopolitical tumult. The origin of COVID-19 or so called 'China Virus' seriously impacts the credibility and image of China and the CPC. The Party is therefore fully engaged in a concerted influence war to show the world that the handling of the pandemic by the liberal democracies of the world has been casual and causal for its spread. At the same time, it intends to firewall any UN-led initiative to trace its origin

of the COVID-19 as alluded by the UN Secretary-General, Antonio Guterres.[15] While the world is struggling to deal with the pandemic spread, the CPC has its game plan cut out that entails: first, concerted influence operations to correct the narrative globally. Second, employ situational awareness programme to gain strategic intelligence. And third, localise conflict through a well-orchestrated war-control strategy

China's Influence Operations

Influence operation relies on persistent communication capability driven by the content, carrier and the audience compartmentalised into echo chambers to alter their behaviour. The content weaves the narrative that is controlled, curated and filtered and disseminated to the masses, and the global audience in accordance with the CPC guidelines. The modern world has made communication ubiquitous with exponential pace of proliferation. The problem that China encountered with the collapse of the Soviet Union was the rapid growth driven by the internet explosion and the ability of the western world to penetrate Chinese society through new innovative products from social media platforms, to search engines tools to smartphones. The cyber dependency tied to economic and societal progress created vulnerabilities for the CPC to control the narrative. Behavioural dynamics attributed to social platforms have also triggered protests in Hong Kong and Arab Spring. Hence, to firewall, the vulnerabilities shaped by influence mechanism, the CPC has instituted multi-pronged measures, as discussed below.

Securing Data, Cyber and Space

The Internet of Thing (IoT) led by Big Data is supported through Artificial Intelligence (AI), and quantum computing tools to handle the veracity, velocity and volume of data flow. It created echo chambers based on the individual choices. The data tool is used to trigger tailored responses against the targeted audience. The intent is to infuse and sustain

a narrative and eclipse it if it turns negative. Thus, overdependence on data technologies across governance structure, business and financial environment is guiding the new age competition and conflict. Data breaches and cyber-attacks have emerged as the top global risks. Since the data economy is reliant on cyber and space for storage and flow of data, hence, it has tasked the PLA to protect and secure the critical domains of cyber and space. Thus, structures within the CPC and PLA have been reformed and revamped to deal with the influence operations.

Securing Strategic Technologies

According to 2017 PricewaterhouseCoopers report, China has pre-empted the US in rolling the 5G connectivity and AI. It has used predatory methods to secure strategic technologies to bridge the capability gap. The large efforts of its agencies are also devoted to influence and obtain key technologies. Some of them may fall within the economic realm, but most of the targeted source is through cyber business espionage and intelligence-based operations. The Chinese modus operandi is outlined in Table 1.

Table 1: China's Modus Operandi to acquire Technology and Talent for Capability Development

Joint Ventures (JV)	Uses JVs for acquiring technology and technical know-how.
Research Partnerships	Seek partnerships with government laboratories to acquire specific technology and soft skills to run such facilities.
Academic Collaborations	Uses collaboration with universities to acquire specific research and gain access to high-end research equipment.
S&T Investments	Sustained long-term state investments in S&T infrastructure.

Merger & Acquisitions	Seeks to buy companies tied to technology and talent.
Front Companies	To obscure the CPC links in acquiring export-controlled technologies.
Talent Recruitment	Influence foreign talent to work for Chinese key projects.
Intelligence Services	The Ministry of State Security and intelligence units are deployed to acquire technologies.
Legal and Regulatory	China uses the law to disadvantage foreign companies.

Source: Adapted from National Counterintelligence and Security Center (2018).[16]

Firewalling Cybersecurity through the Legal Framework

In 2017, China legislated Cybersecurity Law to ensure 'Hierarchical Protection of Information Security'—to mandate localisation of data in China while making the network operators responsible for cybersecurity. The sales of critical cybersecurity products are subjected to security certification. Article 38 of the law imposes a steep penalty on compromising the critical information that may cause serious damage to national security, economy and public interest as notified by the State Council. Thus, legislation has been used to allow predatory practices by the CPC.

Predatory Practices

On 1 December 2019, China rolled out Cybersecurity Multi-level Protection Scheme (MLPS 2.0) to deal with emerging technologies like mobile applications, Big Data, cloud computing and IoT. On 1 March 2020, Information Security Technology—Implementation Guide for Classified Protection of Cyber Security[17] was legislated to regulate technical and organisational internet security controls of companies and individuals. Thus, it allows the Ministry of Public Security and the CCAC and the Office of the Central Leading Group for Cyberspace Affairs have complete access to regulate the internet, and control content. The aim is

to firewall Chinese interests through surveillance and controlling the flow of data out of the Ministry of Public Security precinct. However, the data is available to be used by the CPC to bolster state-owned enterprises like the CETC, Huawei, and others.

Strengthening Cyber Defence

According to the 2013 *Science of Military Strategy*, 'low cost, high benefit and low risks' is what makes cyberwar a preferred tool for influencing. The publication is sceptical of the US military and the phenomenal overreach of FANG (Facebook, Amazon, Netflix and Google) to undermine the society. The cyber defence measures initiated by the CPC include: First, alternate applications, to provide alternate flavour to its society, China has mirrored the social platform by creating BAT (Baidu, Alibaba and Tencent) while banning Facebook, Twitter, etc. The list of mirrored platforms is in Table 2. It allows China to monitor content and control its spread which was effectively used by the cyber agencies of China to prevent the societal disturbance during COVID-19 outbreak.[18]

Table 2: List of Mirrored Apps by China

Chinese Platform	Mirrored Equivalent
WeChat	Facebook
Sina Weibo	Twitter
Tencent QQ	Instant Messenger
Zhihu	The Quora of China
DouYin (TikTok)	Short-video App akin to YouTube
Youku Tudou	Former YouTube of China
Baidu Tieba	A Search Engine Forum
Momo	Tinder of China
Maimai	LinkedIn of China

Source: Prepared by the Author with reference to DeGennaro (2020).[19]

Second, indigenous technology Development based on 5G and AI, to firewall outside influence and improve its penetration across the globe, China has invested heavily in localising the Information Communication Technology (ICT) industry aided by 5G and AI. According to CCAC, China has 802 million netizens and a digital economy of US$ 3.86 trillion, and it estimates that the cybersecurity market by 2021 may reach US$ 11.2 trillion. Thus, China is keen to bite into this exclusive market share. The leaked files of China Zhenhua Data Information Technology with suspected connections with the Ministry of State Security intelligence service reveal that it has collected data on more than two-million prominent individuals worldwide including 10,000 Indians using AI-enabled algorithm.[20]

Controlling Influencers

Chinese firms have courted Hollywood's film industry to control the influencers. More than half of the ten best movies of 2019 selected by Time magazine were financed by Beijing-friendly firms, such as Tencent Pictures, Sunac Group, Shanghai Road Pictures Film and Television, Media Asia Film, and Bona Film Group. Chinese conglomerate Wang Jianlin, founder of *Dalian Wanda* and member of CPC acquired US AMC Entertainment for US$ 2.6 billion in May 2012, and Hollywood studio Legendary Entertainment and theatre Carmike Cinemas in 2016 raising heckles within the US policymakers. According to a report by PricewaterhouseCoopers, China became the world's largest cinema market in 2020, with box office revenue expected to jump to US$ 15.5 billion by 2023.[21] Thus, Chinese firms are seizing every opportunity to shape China's external image.

Media Remodelling

China has put its weight behind its foreign-language news outlets to regulate the narratives. In December 2016, CCTV (the state television broadcasting

news service), rebranded itself as China Global Television Network (CGTN). It broadcasts six channels in English, Arabic, French, Russian, and Spanish with reporting teams in more than 70 countries. *Xinhua*—the Party's primary news agency—has almost 200 foreign bureaus;[22] while *China Daily* and *Global Times* publish English language editions. In March 2018, CCTV, CRI, and China National Radio were merged to form the China Media Group, also called Voice of China, led by the Propaganda Department of the Central Committee of the CPC.[23] China Radio International broadcasts 392 hours of programming each day in almost 38 languages from 27 overseas bureaus.[24] The November 2015 *Reuters* investigation reports show that the media firms also covertly run influence operations through more than 30 radio stations in 14 countries through front companies. On 15 December 2019, the code of ethics legislated for the Chinese journalists makes it clear to them to "safeguard the political and the cultural security of the country" besides ensuring social stability.[25] Hence, the domestic media in China is the CPC's key mouthpiece.

Education Exchanges

China has more than 541 Confucius Institutes spread across six continents and affiliated with China's ministry of education mirroring cultural associations like the UK's British Councils, but it partners with universities.[26] Broader concerns about improper influence over teaching and research, industrial and military espionage surveillance prompted the US to enact Foreign Influence Transparency Act in March 2018 to regulate the funding in the US academic colleges. China has tried to improve the ranking of its institutions like Peking University and Tsinghua University as it helps in gaining access and controlling research. Chinese Students and Scholars Associations (CSSA) have been involved in promoting party works and reporting against the dissidents within the domestic and foreign universities. They are guided by the CPC members at the embassies.[27]

Economic Inducement and Ambushes

China has used BRI as a platform to showcase its economic prowess to the beleaguered nations across the world. The whole attempt is to create client state and support for the Chinese model of governance. It also aggressively looked at acquiring economic stakes in successful businesses across the world given the economic meltdown post-COVID outbreak. The large stake acquisition in India's financial bank prompted India to review its Foreign Direct Investment policy in April 2020.[28]

# Influence Operations Stake Holders

China's international influence activities groups are the External Propaganda Leading Group, which has a dual bureaucratic identity as the State Council Information Office; the Central Committee Propaganda Department; the Central Committee UFWD; the Central Committee Foreign Affairs Commission; and the Central Committee Education Leading Small Group. Although bureaucratically ranked slightly lower, the Ministry of Culture and Tourism, the Ministry of Education, the newly created Voice of China, and the *Xinhua News Agency* all exercise policy formulation and oversight roles in their functional domains. The two major players in China influence operations are the UFWD and the PLA Strategic Support Force (PLASSF).

UFWD-China's Magic Weapon

UFWD coordinates influence operations related to the management of potential opposition groups inside China and is now geared for important foreign influence mission too. Xi Jinping has energised a century-old organisation by adding almost 40,000 new UFWD cadres in first few years of his Presidency[29] and established a leading small group on UFWD with himself at its head, signifying a direct line of command from CPC Politburo to UFWD. The UFWD has been actively involved in implementing the Chinese 'three warfares'

strategy in concert with the Central Military Commission (CMC) and Ministry of State Security. It looks deeply into the fault lines and has invested in social engineering using cyber tools, political subversion, and supporting anti-national elements. The surreptitious ploy also aims to instigate the neighbours of country in dispute with China. It can be seen by browsing the credentials of Chinese ambassadors posted to South Asian countries. Nong Rong, Ambassador to Pakistan; Li Jiming the current representative in Bangladesh; and former Chinese Ambassador to Sri Lanka Cheng Xueyuan all have links with the UFWD. Even the Chinese Ambassador in Nepal Hou Yonqi was Director, Department of External Security Affairs in 2012-2013, and has been at the forefront of keeping the communist movement in Nepal together and engineering conflict with India on border issues.[30]

Figure 1: United Front Works Department (UFWD) Bureaus and Affiliations
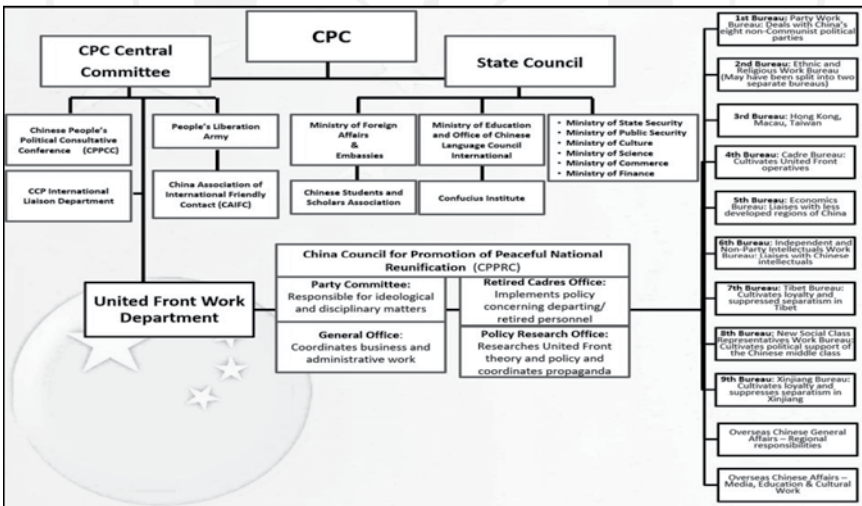
Source: Adapted from Cole (2017).[31]

PLASSF-New Information Warfare Force

Military strategists in China have laid out a "unified field theory" of war in which the kinetic dimension is no longer dominant.[32] The articulation on "Unrestricted Warfare" or "wars beyond rules" by Senior Colonels from the PLA, Qiao Liang and Wang Xiangsui simply illustrate that warfare has extended beyond the preserve of the military and civil-military fusion is the trend. Dual-use technologies like AI, 5G, robotics, unmanned systems and sensors, have been associated with economic development as well as security management. Mega-corporations' participation in the development of dual-use technologies has aggravated security concerns. China is enamoured by the big tech-giants in the US who are not only commercially engaged across the world but are intricately linked to the Pentagon. It feels that the information domain is a strategic space created by the western world to undertake influence operations by shaping the opinion and occupying the cognitive space of leadership and society.

The colour revolution and the Hong Kong 2019 protests have reconfirmed their hypothesis. Strategy to influence has emerged through synchronous effort provided by space, cyber and electromagnetic technologies. China realises that besides strengthening its economy and securing its territorial sovereignty, it has to secure these new emerging sovereign domains through unlimited ways and calibrated asymmetrical response for effective control followed by a recalibrated response to retain the influence. The reforms ushered in 2016 by Xi was with an intent to restructure and rebalance the PLASSF to meet the demands of safeguarding China's national security in the new era. The cyber tools provide an excellent means for manipulation and narrative insertion. The CPC has entrusted psychological and public opinion operations with the task of influencing political, economic and intellectuals in other countries and the objective of systematic penetration into systems of targeted country to the Network Systems Department (NSD) of the PLASSF while the strategic information support has been given to the Space Support Department (SSD).

NSD-The Cyber Force

The NSD dovetailed computer network attack handled by the GSD Fourth Department (4PLA), the GSD Informatisation Department handling the PLA counter-network defence operations and the cyber-espionage elements of the former 3PLA except for the PLA's counter-network defence mission, which remains with the JSD Information Support Base under its Network Security Defence Centre.[33] NSD retains the headquarters of the former 3PLA along with its twelve bureau-centric structure.[34] These bureaus are tasked to collect intelligence by targeting the government, defence, research and technology sectors, including the specific targeting of space, aerospace, and communications. Cyber espionage remains the low-cost high yield approach by China to acquire economic and technological know-how to bridge the capability gap in niche technologies and enable wealth creation besides image build-up.

SSD-The Space Force

The SSD has consolidated almost all aspects of PLA space operations including space launch, telemetry, tracking, control and space intelligence, surveillance and reconnaissance measures. The Aerospace Reconnaissance Bureau of PLA Second Department (2 PLA) has been transferred to SSD for strategic intelligence collection while the balance 2 PLA has been merged with the Joint Staff Division (JSD) for carrying out human intelligence, signals intelligence and management of clandestine agents and military attaches. According to 2019 US DIA report, China views space superiority as part of its ability to control the information sphere. It aims to replace the GPS in BRI countries with its own *BeiDou* Satellite system. It has even tested anti-satellite weapons and directed energy weapons as part of non-nuclear deterrence capability. According to *2013 Science of Military Strategy*, the three critical components to achieve the goals of deterrence are 'magnitude of deterrence, determination, and information conveyance.' The methods to be employed intend to

'increase the number of strategic options and enhance strategic flexibility to prevent or win war, secure stability and defend interests.'

Building Situational Awareness

Influence operations ride on the wealth of intelligence inputs. Situational awareness is something that China relies on to build response options. It has used surveillance technology infusion in governance to secure internal stability. Yet, the gap exists at the global level, which it needs to bridge or create an asymmetric capability to block the access to information to technologically superior powers. PLA is aware of the US Strategic Command outreach based on the transparency provided by the US Global Information Grid and ability of the US to target critical infrastructure within and outside China. Computing, storage and communication survivability is therefore an essential imperative for China. Strengthening space situational awareness and freedom to operate and communicate is part of situational awareness developmental overdrive by the PLA. These initiatives include unhackable ISR systems. Few initiatives undertaken by China are as follows:

Early Warning System

China Electronics Technology Corporation (CETC) has been at the helm of putting China on the map of high-end radar besides laying the foundation of missile defence and development of laser and nuclear EMP systems as part of the nuclear missile defence system.[35] Long-range phased array radars (LPAR) in P Band with 4000 km range helps in ballistic missile tracking.[36] To counter the stealth bombers, it has developed anti-stealth radar-like SLC-7 and YLC-8B. To ensure the survivability of radar systems to electronic warfare measures, it has developed jamming resistant JY 27 A VHF active electronically scanned array (AESA) radars that form the backbone of China's PLAAF and PLAN airborne early warning and control (AEW&C) systems. The quantum radar technology by CETC makes stealth technology

redundant as it allows better discrimination properties.[37] The ground-penetrating radar, Eagle Eye-A, built under China Aerospace Science and Industry Corporation is capable of detecting soil, pipelines and even tunnels as deep as six meters underground. Its integration of AI system and *BeiDou* satellite navigation and GPS systems allows the efficiency of auto-detection and high precision positioning of underground targets.[38]

Unmanned Surveillance System

The JY-300 (*Tian Shao*) which has a range of more than 1,000 km and a practical ceiling of more than 5,000 metres, is the world's first unmanned Airborne Warning and Control System (AWACS) aircraft. It integrates radars with the airframe, which means radar antennae are part of the craft's skin.[39] It is likely to have fielded stealthy Shendiao for early warning. Morning Star and Rainbow are being developed for persistent surveillance for months as launch on-demand systems thus providing an alternative to satellites with greater flexibility.[40]

Space System

China has developed a robust architecture of space systems to support its strategic situational awareness. Though there is a large difference in holding of satellites between China and the US, the Chinese ranks second after the US in terms of the number of satellites that are currently operational. These satellites provide a wide range of sensors that include ELINT, electro-optical (EO) sensors, synthetic aperture radar (SAR), staring camera, stereoscopic imagers, and hyperspectral, among others.

Maritime Surveillance

The PLAN, with its global commitment and competition along its island chains, recognises the importance of a maritime strategic

early warning system. The PLAN maritime surveillance capabilities are through the sea- and space-based systems, ranging from the launch of satellites dedicated to that mission to the construction of an 'underwater great wall' of sensors, augmented by a range of underwater sensors and unmanned and autonomous underwater vehicles. China's militarisation of the South China Sea has involved the placement of a network of radars on its various installations on features, such as Fiery Cross, Subi Reef, and Mischief Reef. These radars may contribute to early warning, signals intelligence, and even stealth detection, including via high-frequency arrays.

Laser Surveillance System

China has heavily invested in the use of Lidar (a portmanteau of light and radar), AI and 5G technologies to synergise detection and dissemination of the images and intelligence. Lidar uses ultraviolet, visible, or near-infrared light to image objects. It can be used with a wide range of targets, including non-metallic objects, rocks, rain, chemical compounds, aerosols, clouds and even single molecules. However, it has an atrophying effect in fog and murky water. China's new satellite 'Project Guanlan' which means 'watching the big waves' launched in May 2019 at the Pilot National Laboratory in Qingdao uses high-powered lasers to spot objects deep underwater up to 500 metres. It is capable of scanning an area of around 100 km on land. When used alongside microwave radar, it can scan and identify surface movement and also penetrate through the foliage. A narrow laser beam can be used to map physical features with very high resolution. It brings transparency both on land and sea and exposes weapon systems like submarines.[41]

Modernising Command and Control Network

The PLA intends achieving networked C4ISR and counter-C4ISR capabilities that enable systems and subsystems to kinetically or non-

kinetically defeat or paralyse the enemy's decision support systems. China's advances in space-based capabilities, drone technology, and information processing could provide sufficient means to provide situational awareness and targeting quality data to overseas Chinese forces anywhere in the world by 2030 or 2035.[42] 5G has been developed by Chinese defence academics and engineers to improve battlefield communications with faster and more stable information transmission, increasing the timeliness and integration of information. The increased bandwidth could help the PLA to 'intelligentise' its military.

Conclusion

Situational awareness and influence operations go hand in gloves. In future, China could employ more integrated strategic early warning systems. While the PLA has made rapid stride in technology infusion, but it is saddled with legacy equipment, and integration of these systems is a challenge. The efforts of the Chinese defence industry, particularly those of CETC, in providing improved datalinks for real-time sharing and integration of intelligence for enhanced situational awareness have matured. PLASSF, as the new informational umbrella and custodian of the situational awareness engine, is responsible for facilitating information transmission, processing, and distribution, and for supporting early warning. Devising hack-free algorithm is an area China aims to have information parity with the US and information dominance against countries with which it has disputed. It is rapidly exploring the fields of quantum technologies to provide resilience to its communication, sensor technologies and space exploration.

Pandemic has created chaos of an unprecedented kind. The nations struggling to contain the pandemic with limited capabilities are finding themselves overwhelmed by the enormity of the crisis. However, amidst this chaos, China finds itself securely perched having braved the initial brunt of contagion attack, and now it is focussed to advance its agenda

of influence and image preservation. The likely Chinese strategy of handling this crisis may be akin to 'influence-beachhead' by China into other countries' strategic interests. The pandemic has thrown open major fault lines across the world which are being carefully studied by China and will form part of new developing warfare—virtual societal warfare with psychological impacts vectored in leadership choice of response.

Notes

1. Wang Xiangwei (2020), "*Amid China's coronavirus success, low marks for local 'social credit' apps,*" *South China Morning Post,* September 12, 2020. Available online at https://www.scmp.com/week-asia/opinion/article/3101221/amid-chinas-coronavirus-success-low-marks-local-social-credit, accessed on September 13, 2020.

2. World Health Organization (2020), "WHO Coronavirus Disease (COVID-19) Dashboard," November 1, 2020. Available online at https://covid19.who.int, accessed on November 1, 2020.

3. Dan Sabbagh and Heather Stewart (2020), "*Mike Pompeo attacks WHO in private meeting during UK visit,*" The Guardian, July 21, 2020. Available online at https://www.theguardian.com/world/2020/jul/21/mike-pompeo-attacks-who-in-private-meeting-during-uk-visit, accessed on September 11, 2020.

4. World Health Organization (2020), "*WHO Timeline - COVID-19,*" April 27, 2020. Available online at https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19, accessed on September 11, 2020.

5. "Full Text: China's National Defense in the New Era," *Xinhuanet*, July 24, 2019. Available online at http://www.xinhuanet.com/english/2019-07/24/c_138253389.htm, accessed on September 14, 2020.

6. National Intelligence Council (2008), "*Global Trends 2025: A Transformed World,*" November 2008. Available online at https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/2025_Global_Trends_Final_Report.pdf, accessed on September 15, 2020.

7. Iris Deng (2020), "Coronavirus: China tightens social media censorship amid outbreak," *South China Morning Post,* February 6, 2020. Available online at https://www.scmp.com/tech/policy/article/3049342/coronavirus-china-tightens-social-media-censorship-amid-outbreak, accessed on September 15, 2020.

8. Sam Cooper (2020), "*United Front groups in Canada helped Beijing stockpile coronavirus safety supplies,*" Global News, April 30, 2020. Available online at https://globalnews.ca/news/6858818/coronavirus-china-united-front-canada-protective-equipment-shortage/, accessed on September 15, 2020.

9. Alexander Bowe (2018), "China's Overseas United Front Work: Background and Implications for the United States," US-China Economic and Security Review Commission, August 24, 2018, p. 22. Available online at https://www.uscc.gov/sites/default/files/Research/China's%20Overseas%20United%20Front%20Work%20-%20Background%20and%20Implications%20for%20US_final_0.pdf, accessed on September 17, 2020.

10. Shirley Zhao (2020), "China's Mobile Carriers Lose 21 Million Users as Virus Bites," *Bloomberg*, March 23, 2020. Available online at https://www.bloomberg.com/news/articles/2020-03-23/china-s-mobile-carriers-lose-15-million-users-as-virus-bites, accessed on September 17, 2020.

11. Hussein Askary (2020), "The role of BRI in building a global healthcare system," *Global Times*, May 16, 2020. Available online at https://www.globaltimes.cn/content/1188547.shtml, accessed on September 17, 2020.

12. Nectar Gan, Caitlin Hu and Ivan Watson (2020), "Beijing tightens grip over coronavirus research, amid US-China row on virus origin," *CNN*, April 16, 2020. Available online at https://edition.cnn.com/2020/04/12/asia/china-coronavirus-research-restrictions-intl-hnk/index.html, accessed on September 17, 2020.

13. "Report: China's fight against COVID-19 (full text)," *China Daily*, April 21, 2020. Available online at https://covid-19.chinadaily.com.cn/a/202004/21/WS5e9e2c62a3105d50a3d17880.html, accessed on September 17, 2020.

14. "China's national library launches 'collective memory bank' to document coronavirus outbreak stories," *CGTN*, April 25, 2020. Available online at https://news.cgtn.com/news/2020-04-25/China-s-national-library-launches-project-to-record-COVID-19-stories-PYZLBm4vZu/index.html, accessed on September 18, 2020.

15. United Nations Secretary-General (2020), "Statement by the Secretary-General on the World Health Organization," April 14, 2020. Available online at https://www.un.org/sg/en/content/sg/statement/2020-04-14/statement-the-secretary-general-the-world-health-organization, accessed on September 18, 2020.

16. National Counterintelligence and Security Center (2018), "Foreign Economic Espionage in Cyberspace," p. 6. Available online at https://www.dni.gov/files/NCSC/documents/news/20180724-economic-espionage-pub.pdf, accessed on September 18, 2020.

17. Hogan Lovells (2019), "China Marches into Cybersecurity Classified Protection 2.0," May 31, 2019. Available online at https://www.lexology.com/library/detail.aspx?g=87dbca80-c278-4463-9a60-dd12442cd816, accessed on September 20, 2020.

18. Louise Matsakis (2020), "How WeChat Censored the Coronavirus Pandemic," *Wired*, August 27, 2020. Available online at https://www.wired.com/story/wechat-chinese-internet-censorship-coronavirus/, accessed on September 20, 2020.

19. Tony DeGennaro (2020), "10 Most Popular Social Media Sites in China (2020 Updated)," Dragon Social, June 30, 2020. Available online at https://www.dragonsocial.net/blog/social-media-in-china/, accessed on September 20, 2020.

20. Praveen Swami (2020), "Unlike Pegasus, Zhenhua lacks prowess to spy; China's claims on data harvesting a smokescreen, exposes its weaknesses," *Firstpost*, September 14, 2020. Available online at https://www.firstpost.com/world/unlike-pegasus-zhenhua-

lacks-prowess-to-spy-chinas-claims-on-data-harvesting-a-smokescreen-exposes-its-weaknesses-8815081.html, accessed on September 20, 2020.

21. See "Global Entertainment & Media Outlook 2016-2020". Available online at https://www.pwc.com/gx/en/entertainment-media/pdf/outlook-cinema-article-2016.pdf, accessed on September 20, 2020.

22. Albert, E. (2018, February 09). *China's Big Bet on Soft Power*, op.cit.

23. Chapter Eighteen, Part II: The Chinese Communist Party's Global Ambitions (UPDATED)," *The Epoch Times*, June 2, 2020. Available online at https://www.theepochtimes.com/chapter-eighteen-the-chinese-communist-partys-global-ambitions-part-ii_2822429.html, accessed on September 20, 2020.

24. Ibid.

25. Zou Shuo (2019), "Revised code of ethics for journalists released," *China Daily*, December 16, 2019. Available online at https://global.chinadaily.com.cn/a/201912/16/WS5df6ed76a310cf3e3557e5c6.html, accessed on September 23, 2020.

26. For details see Pratik Jakhar (2019), "Confucius Institutes: The growth of China's controversial cultural branch," *BBC News*, September 6, 2019. Available online at https://www.bbc.com/news/world-asia-china-49511231, accessed on September 15, 2020.

27. Zou Shuo (2019), "Revised code," n. 25.

28. Ministry of Commerce & Industry, Government of India (2020), "Government amends the extant FDI policy for curbing opportunistic takeovers/acquisitions of Indian companies due to the current COVID-19 pandemic," *Press Interest Bureau*, April 18, 2020. Available online at https://pib.gov.in/newsite/PrintRelease.aspx?relid=202359, accessed on September 20, 2020.

29. Ibid.

30. Shishir Gupta (2020), "China sends hardcore ambassadors to South Asia to push BRI and undermine India," *Hindustan Times*, September 14, 2020. Available online at https://www.hindustantimes.com/world-news/china-sends-hardcore-ambassadors-to-south-asia-to-push-bri-and-undermine-india/story-Oz8Aakf28IQJqHB1uJKOQL.html, accessed on September 20, 2020.

31. J. Michael Cole (2017), "China Seeks Vicious Circle of Violence through United Front Activities in Taiwan," *Taiwan Sentinel*, September 26, 2017. Available online at https://sentinel.tw/china-violence-ufw-tw/, accessed on September 23, 2020.

32. Rajiv Narayanan (2018), *PLA Reforms of Xi Jinping in an Era of Assertive Diplomacy*, New Delhi: Vij Books India Pvt Ltd, p. 16.

33. Ibid.

34. Joe McReynolds and John Costello (2019), "China's Strategic Support Force : A Force for a New Era," in Arthur S. Ding, et al. (eds.) *Chairman Xi Remakes the PLA*, Washington DC: National Defense University Press., pp. 460-461.

35. Elsa B. Kania (2019), "China's Strategic Situational Awareness Capabilities," On the Radar, July 29, 2019, p. 2. Available online at https://ontheradar.csis.org/issue-briefs/china-situational-awareness/, accessed on September 20, 2020.

36. Ibid.

37. "China can use quantum radar technology to monitor high-speed aircraft from space," *Global Times*, June 15, 2018. Available online at http://military.china.com/zxjq/11139042/20180618/32546024.html, accessed on September 18, 2020.

38. "China develops AI radar for underground space detection in cities," *Xinhuanet*, November 28, 2012. Available online at http://www.xinhuanet.com/english/2018-11/28/c_137637800.htm, accessed on Septemebr 18, 2020.

39. Zhao Lei (2018), "Flying radar' is first early-warning drone," *China Daily*, November 10, 2018. Available online at http://www.chinadaily.com.cn/a/201811/10/WS5be6173ba310eff303287c2c.html, accessed on September 18, 2020.

40. Liu Zhen (2018), "Chinese solar-powered drone Morning Star spreads its wings in successful test flight," *South China Morning Post*, October 31, 2018. Available online at https://www.scmp.com/news/china/military/article/2171081/chinese-solar-powered-drone-spreads-its-wings-successful-test, accessed on September 17, 2020.

41. Phoebe Weston (2018), "US subs would be sitting ducks for new Chinese 'Death Star' laser satellite that will be able spot them 1,600ft below the surface," *Mail Online*, October 1, 2018. Available online at https://www.dailymail.co.uk/sciencetech/article-6226683/Chinas-new-spy-satellite-use-LASERS-light-ocean.html, accessed on September 18, 2020.

42. Cortez A. Cooper III (2018), *PLA Military Modernization: Drivers, Force Restructuring, and Implications*, Santa Monica, CA: RAND Corporation. Available online at https://www.rand.org/content/dam/rand/pubs/testimonies/CT400/CT488/RAND_CT488.pdf, accessed on September 20, 2020.
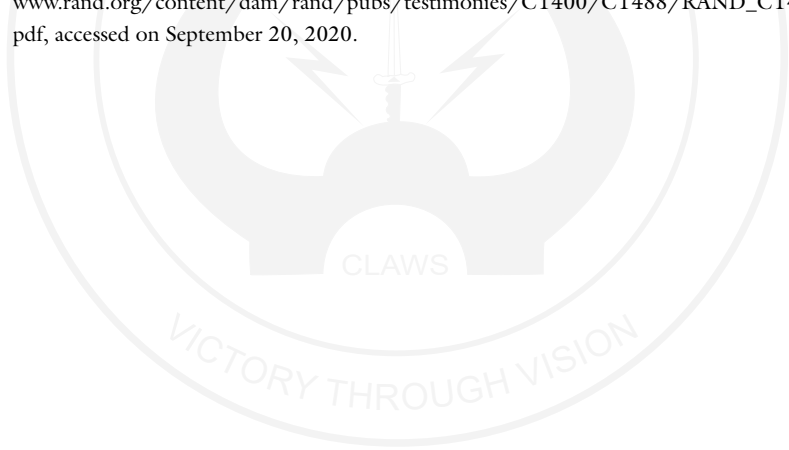
Loitering Munitions:
Bridging Sensor to Shooter Voids in Artillery Fires by Precision

Ranjan Prabhu

Abstract

Artillery fires are aimed at crippling the enemy's war-waging machinery. Such operations are time-sensitive since they need to ensure that the enemy is engaged effectively and sufficiently degraded at critical points in time and space to achieve combat superiority. A robust, persistent and seamless sensor to shooter link ensures the shortest loop between acquisition and targeting. Loitering Munitions if inducted into the Indian Artillery will be a game-changer in this field and will fill the existing voids in surveillance-cum-precision engagement capability between 40-200 km. In view of this, the paper examines the capability voids to suggest a solution based on the employment of Loitering Munitions to fill such lacunae—both in lethal and non-lethal domains, taking into consideration the present and the future security paradigm in the region.

Introduction

Firepower has proved its dominance as a 'battle-winning factor' time and again over the years in all conflicts. Destruction of the enemy's combat

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potential and degrading his will to fight will always remain the foremost aim in all operational plans made by military commanders. Artillery fires are aimed at crippling the enemy's war-waging machinery so that it cannot utilise and put into effect its full combat potential for offensive or defensive actions as the case may be.

Such operations are time-sensitive, since they need to ensure that the enemy is engaged effectively and sufficiently degraded at critical points in time and space to achieve combat superiority. The main requirements of these types of operations are, therefore, to be able to build up real-time Intelligence Surveillance & Reconnaissance (ISR) picture which allows timely and precise targeting of enemy High-Value Targets (HVTs). The concept of 'Sensor to Shooter' link was born out of this very necessity of having the shortest time loop between target acquisition and targeting.

Artillery and the 'Sensor to Shooter' Link: Capability Analysis

Kinetic operations attempt to target static as well as moving targets. Both in offensive and defensive actions, any military force will need to concentrate its forces for maximum effect. To do that, it will mass its peacetime dispersed forces and move to the intended area of operations. It is at this massing and movement times, that the enemy forces will be at its most vulnerable moments. Therefore, early targeting of such forces as part of degradation operations will reap rich dividends.

Artillery has traditionally been the provider of the land component of long-range firepower for offensive and defensive operations. Combined with the reach and lethality of Air Force and Missile Forces, Artillery can cause havoc to the enemy's military as well as important civilian nerve centres. To be effective on the target, all means for precise acquisition and targeting is required to be put into place. As Dr. Jack Watling, rightly argues that in the next decade, while the range of artillery could double across most systems (155 mm howitzers would have a range of 70 km

Multiple Launch Rocket Systems with a range of 150 km and tactical battlefield missiles with a range of about 500 km), however, beyond the range of 40 km, these systems would need precision munitions.[1] Thus, most of the developments in the field of technology have been oriented towards R&D for precision delivery of munitions onto the target.

Precision Guided Artillery shells and missiles have been developed which can hit a target with pinpoint accuracy. While the accuracy has been catered for, however, the large time differential between the acquisition of the target, the decision to engage it and the engagement itself lends to missed opportunities especially, with time-critical targets and targets which are on the move. While the Air Force can take on such targets, the lethality of heavily contested airspace of the future may not allow the Air Force to operate with free will. Thus, capability development in the field of stand-off targeting with minimum time differential between acquisition to engagement is a key battle-winning factor, in so far as operations to destroy enemy forces which are massing or moving is concerned as they are time-critical targets. It is in this context that an extremely agile, highly networked and robust 'sensor to shooter' link is required by the long-range land vectors of the Artillery. The present technology available with our forces includes a variety of long-range surveillance assets like satellites, RPAS and Air force aircraft fitted with surveillance pods. While some of these assets are capable of acquiring and transmitting the target data in real-time; however, the targeting capability of time-critical and moving targets is still below the desired levels. Hence, it is this capability void that can be fulfilled by loitering munitions.

Employment of Loitering Munitions: Filling the Capability Void

In the early hours of 14 September 2019, Saudi Arabia suffered the deadliest attack on its oil facilities in recent times when a small army of drones attacked two major oil plants, destroying nearly 50 per cent of the

country's global supply of crude. The attack purportedly carried out by a Houthi rebel group based in neighbouring Yemen led to crippling effect on the global oil supply and oil prices for almost ten days, before Saudi Arabia's assurances on continued oil supply stabilised the situation. The attack which bypassed and circumvented the high-tech and networked US-supplied Saudi Arabian Air Defence environment shocked the world. The attack was unique in many ways: for one it was innovative in its application; second, it was carried out by a relatively mid-technology machine which was commercially available; and third, it was not a mature and tested warfighting machine for which countermeasures had been developed. It is to note that the Houthi's have been aggressively developing and employing this capability in the area of Drone Warfare for the larger part of the last two years with huge success.[2]

Drones have seen rapid development in the past decade as a disruptive technology in the field of modern warfare. They have developed from pure unmanned aerial surveillance objects to unmanned armed fighting machines. A loitering munition which is an offshoot of a drone is a type of unmanned aerial vehicle designed to engage beyond-line-of-sight ground targets with an explosive warhead. Such munitions are often portable and many are meant to provide ground units with guided precision. They are equipped with high resolution electro-optical and infrared cameras that enable the targeter to locate, surveil, and guide the vehicle to the target. A defining characteristic of loitering munitions is the ability to "loiter" in the air for an extended period before striking, giving the targeter flexibility to decide when and what to strike.[3] While the Artillery has in its inventory Precision Guided Munitions (PGM), which are artillery shells fired from 155 mm guns, they cannot still take on hidden/moving targets which provide only fleeting opportunities for engagement. In war or the preparation for it, most HVTs would fall under this category. The ability of the loitering munitions to substantially reduce the time differential between target acquisition and precision engagement can provide an

asymmetric force multiplication effect to the Artillery. Carefully chosen decisive precision long-range engagements beyond 40 km and up to 200 km can successfully take out adversaries' critical elements massing and moving to join the battle. It is within this battlespace that a variety of medium to long-range loitering munitions having ranges varying from 40 km to 200 km can form part of the arsenal of the Artillery. Such loitering munitions have already been developed in the world today and must be procured as part of the overall plan to strengthen the capability of the Artillery.

World over there has been a trend of optimising ISR assets by putting them under a single command and control structure for a better flow of information and resourceful employment of different types of ISR assets. This concept is being put to test in the Indian Army by transfer of RPAS assets to the Aviation Corps—the aim being to be able to smoothen the resource management of airfields and airspace.[4] While the move is in the best interest of the organisation, the large number of trained RPAS crew held on strength of the Regiment of Artillery is likely to be wasted in due course of time. Mediumisation of the Artillery which is well on track is going to enhance the ranges at which it can deliver its fire by up to 50 percent. This enhancement of ranges will require it to be capable of acquisition of targets well above its internal capability once RPAS are transferred. While targets may still be made available to it from the ISR resources held centrally, it is prudent for a force having a capability to fire in depth areas to have eyes which look in that distance.

Capability enhancement through procurement of Loitering Munitions having ranges varying from 40 km to 200 km cannot only augment the existing ISR resources (Certain types of Loitering Munitions which can be recovered or called back) but also allow precision targeting of time-critical targets. Loitering Munitions by design are smaller than MALE or HALE RPAS, therefore have greater survivability in contested airspace. These munitions will be able to fill the gaps in surveillance left by MALE/HALE

RPAS operating in greater depth and also would be capable of taking on targets under surveillance at critical junctures with greater precision. R&D in the field of electric motors and enhancement in energy storage of batteries in the near future will allow for use of electric motors on such munitions. Electric motors being 90 per cent more quieter than a gasoline engine will allow the loitering munition to become stealthier while attacking its target, thus exploiting the element of surprise. Loitering munitions in the inventory of the Artillery will help the Theatre Commander to influence the battle in the operational depth without having to look over his shoulder for assistance from strategic forces and the Air Force, thus freeing up these forces to carry out their strategic tasks.

While massed artillery fires will certainly not lose relevance in the future wars, ability to strike with precision in the enemies depth areas with minimum time constraints will add to the lethal punch of formations at the operational and tactical level. Such weapon system will afford a great deal of flexibility in the delivery of firepower on to the target due to its minimalist launch platforms (canister/rail launched), long-range, ability to guide the system with man-in-the-loop technology, precision engagement and non-effect of meteorological and terrain conditions (reverse slope engagements in mountainous terrain). These type of systems can also be employed as indirect support to the hunter-killer teams deployed for seeking out enemy Mobile Missile Launchers, which normally remain hidden and are only deployed for a short duration of time to launch missiles thus becoming time critical HVTs.

Specialised autonomous loitering munitions with radiation seeker heads can be employed for seeking out and destroying enemy Air Defence and Weapon Locating Radars thus hugely degrading his capability of defending his airspace and countering own artillery fires with Counter Bombardment (CB). Launch Canisters mounted on High Mobility Vehicles/Light High Mobility Vehicles would allow for deployment flexibility in any terrain, in a short duration of time, dispersed from enemy

air and ground attacks and exploit range to the maximum. As operations progress, there would be a greater requirement of impromptu degradation to seek and destroy mobile enemy columns/enemy targets which provide fleeting opportunities. In such cases also loitering munitions will play a key role due to its ability to attack in minimum time.

Thus, while massed artillery fires can be utilised effectively to degrade static enemy area targets like logistics dumps, HQs, Communication Nodes and Gun Areas, loitering munitions can be used to target moving convoys, hidden Missile/Rocket launchers and other time-sensitive targets. Degradation operations planned and executed utilising a delicately balanced combination of these two types of artillery engagements will create havoc in the enemies depth areas and will ensure that his combat power is sufficiently degraded by the time he bears it upon own forces, thus allowing for his piecemeal destruction.

The Utilisation of Loitering Munitions: Current and Future Security Paradigm

India has harsh mountainous terrain which it shares as disputed territories with its adversaries, namely China and Pakistan. While Artillery duels with Pakistan are common due to its continuous use of Cease Fire Violations (CFV) to assist in the infiltration of state-sponsored terrorists into India, the current standoff in Eastern Ladakh is also a potential flashpoint for artillery duels with China. The High Altitude region, harsh mountainous terrain and inclement weather conditions as obtained in such regions have a huge negative impact on the accuracy of conventional artillery munitions. Thus, in an artillery duel, the requirement of conventional munitions to effectively engage a target with a punitive effect requires more than four to five times the numbers than what is required in plains. In such stand-off duels, it is the effect on an intended target that puts pressure on the adversary to pull back its fire and therefore addressing his pressure points is the actual aim. While on the Western boundary

with Pakistan, years of conflict have ensured that both sides have built up highly fortified defences, on the Chinese side, the fortification is lacking, as the last shot ever fired in the region after the 1962 War was at Nathu La in 1967.[5] Since the need for conventional munitions to defeat such fortifications on the Pakistani side is thus quite huge, therefore, it is only precision munitions which can achieve the desired degree of effect with lower overall costs in the long run.

The present stand-off with China is a grim reminder to India, that the Chinese cannot be believed on their face value. While the present situation is tense, no clashes utilising weapon systems have taken place till date in the area. However, the fact that such stand-offs may lead to non-contact warfare with artillery duels like those that are common on the Pakistani side cannot be completely ruled out. It is such a scenario that, on the Chinese side, precision munitions like Loitering Munitions can give an asymmetric advantage as China has a stronger Missile and Rocket force, which will need to be sought out and destroyed in event of a future clash/artillery duel. With greater ranges, these missile and rocket forces would normally be out of range of own artillery, and hence would be an ideal target for precision systems like Loitering Munitions which not only can recce and acquire a mobile or hidden target but also can immediately engage it at long ranges. In addition to this, the fact remains that the terrain on the Indian side is much harsher, therefore the building of roads for move of heavy artillery is not only time consuming but also very expensive. In such cases also, the much lighter and mobile canister launched or runway independent rail launched loitering munition can overcome the issues associated with move of heavy artillery while providing the necessary edge without expending heavily on building of infrastructure. Precision targeting of specifically chosen targets can be of greater help in escalation control in a standoff like situation than conventional massed artillery fire which has higher potential to cause collateral damage and thus up the ante.

Suggested Organisation and Future Developments

While it is understood that such systems would not come cheap, the benefits far outweigh the costs. In addition to the tangible benefits of the induction of the system into the artillery, the intangibles would include the full utilisation of skill sets gained by a large number of officers and men presently trained to fly RPAS as part of SATA Regiments of the Regiment of Artillery. These men could be retained in the SATA Regiments at Corps level as part of a "Hunter-Killer" Troops (A SATA Regiment is presently holding two RPAS troops for surveillance duties) which can operate such systems on a '*Sensor cum Shooter*' concept. Being a canister/rail launched system and in some cases Para-recoverable, the systems are easier to operate as compared to MALE/HALE RPAS systems which require complex human motor skills. Thus, in due course of time, suitable JCOs/NCOs could be easily trained to operate such munitions and spare officers for other important tasks. This will also take care of cadre management issues while inducting better weaponry into the arm. The system which is planned to be inducted must be of two types of range capabilities, i.e. 40-60 km and 150-200 km. These two variants would allow for options for application with/without massed artillery fire. The system should also be capable of interchangeable warheads or varying weights/types (High Explosives, EFP, Fuel Air Explosives, etc.) up to a maximum designed capacity thereby affording the user the flexibility to target specific targets with the desired effect.

The initiative by the present government towards "Make in India" and self-reliance in the field of Defence Technology and Defence Manufacturing is likely to give a boost to indigenous R&D and manufacturing of the defence industry. Absorption of disruptive technologies especially in the field of drones is a necessity for building up asymmetric capabilities in modern warfare. The Indian private defence industry has rightly identified this field as an important area of focus. Even state governments are now giving impetus to the development of R&D and manufacturing in this

field.[6] The wide-scale proliferation of drone usage in civilian applications is promoting several motivated start-ups in India to enter into this field. This will certainly promote an environment conducive for the growth of both infra and research in drone technology in India. Indian companies have already formed joint ventures with foreign companies which are into the development and production of loitering munitions.[7] Seemingly, joint ventures are a starting point for technology absorption.

Such technologies will be disrupters in future warfare, simply because they can be developed along the entire spectrum of financial costs, i.e. from low-end systems to high-end ones. Low-end systems would be man-portable, short-range and low endurance munitions which would allow the Infantry to have the ability to converge its area of interest and area of influence in both defensive and offensive operations in all types of terrain. Low-end systems would find applications in the sub-conventional domain during anti-terrorist operations in an urban environment as it has the potential to reduce the risk of collateral damage manifold. Specially developed warheads with lethal/non-lethal compositions could be used with precise application to achieve permanent/ temporary neutralisation of terrorist in an encounter. Loitering munitions can also find applications in crowd monitoring and control. Precision application of non-lethal warheads on loitering munitions can also be a boon for crowd control measures by the CAPFs to take out leaders instigating a crowd without harming other individual forming parts of the crowd, thus preventing outcry amongst the local population against the use of current types of Non-Lethal Weapons. High-end long-range systems with longer endurance as brought out can form part of the arsenal of the Artillery to strike deep into the enemy territory with precision and speed both during conventional wars. Such systems could also find use in stand-off precision targeting of terror camps and non-state actors propagating terror from the shores of inimical neighbours. Non-Lethal loitering munitions may also find use in standoffs of the kind in which India and China are

currently engaged in at the moment. Not only will such munitions provide surveillance and intelligence but will also be able to deter intrusions by the Chinese by precision delivery of non-lethal warheads while keeping the escalation matrix well within the desired control of own forces. Lethal precision engagement capability is also a boon for future situations like the Ladakh standoff as it allows for a calibrated and decisive response to aggressive actions on part of belligerent adversaries by targeting specific targets which can keep escalation firmly in control.

Indian companies must adopt this technology and take it forward towards the development of swarming autonomous loitering munitions. A swarm of autonomous loitering munitions which can interact with each other through IoT technology will be a lethal force in the future. The LOCUST (Low-Cost UAV Swarming Technology) programme of the US Navy is an apt example of such a system. This program is developing systems that enable tube-launched drones to fly in large coordinated swarms. The research effort, which is currently based on the Raytheon Coyote platform, seeks to create swarms of drones that can autonomously conduct a range of missions, including attack operations. The US Army is also in the process of development of a "cluster payload" consisting of smart quadcopters that can place Explosively Formed Penetrators (EFP) on targets, including tanks, fuel storage barrels, vehicles, and ammunition depots. Our R&D and academic institutions are capable of development of such systems given the right support in terms of infra and capital. Premier academic institutions like IIT-Kanpur which is well known for its Aerospace Engineering Branch is already carrying out a huge amount of research in the field of drone technology.[8] The Armed Forces must extend full support to such projects by taking ownership of consultancy through dedicated Project Development Teams. Such teams can be supported by volunteer officers who have a background of understanding military technology and are seconded to the researching institution as research associates on similar lines as study leave. Thus, there will be a

system of embedded military research associates in such developmental programs who can continuously provide valuable inputs from the tactical and operational employment point of view to the research team. This model of research inputs and the association may help R&D institutions to better understand the requirements of the Armed Forces, a grievance that most institutions and industries have about military projects.
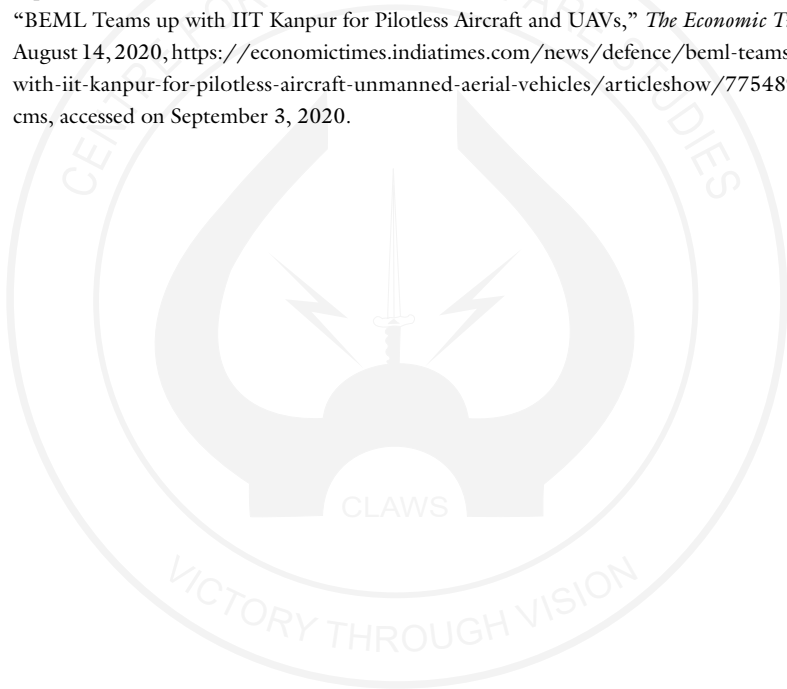
Conclusion

Utilisation and employment of disruptive technologies give a clear asymmetrical edge to the armed forces of any nation against its adversaries. India is surrounded by inimical neighbours like Pakistan and China both of whom continue to challenge the territorial integrity of the nation. Preparing to face a two-front conflict is an extremely costly proposition because huge amounts of finances and logistics support are required to maintain a standing military capable of guarding the territory on both sides. India can ill afford such huge drain on resources, especially, at a time when it needs to focus its attention on economic restructuring and growth. Investments in disruptive technologies which provide an asymmetric advantage are, therefore, necessary to offset the military imbalances being faced by the nation due to conflicts on two fronts.

Notes

1. As stated by Dr. Jack Watling, Research Fellow at the Royal United Services Institute (RUSI)- UK, in his presentation at the *Pragyan Conclave* 2020 "Changing Characteristics of Land Warfare and its Impact on the Military," Indian Army International Seminar, held on March 4-5, 2020. Available online at https://www.claws.in/event/pragyan-conclave-2020-indian-army-international-seminar/, accessed on August 18, 2020.

2. Dion Nissenbaum and Warren P. Strobel (2019), "Mideast Insurgents Enter the Age of Drone Warfare," *The Wall Street Journal*, May 2, 2019. Available online at https://www.wsj.com/articles/mideast-insurgents-enter-the-age-of-drone-warfare-11556814441?shareToken=stb4d012f88e2d444f8a056823ae80ffca, accessed on August 13, 2020.

3. Dan Gettinger and Arthur Holland (2017), "Loitering Munitions," Center for the Study of the Drone, Bard College. Available online at https://dronecenter.bard.edu/files/2017/02/CSD-Loitering-Munitions.pdf , accessed on September 2, 2020.

4. Amrita Nayak Dutta (2019) , "Army plans to buy 350 helicopters over 10 years to modernise its Aviation Corps," *The Print*, October 7, 2019. Available online at https://theprint.in/defence/army-plans-buy-350-helicopters-10-years-modernise-aviation-corps/302506, accessed on September 3, 2020.

5. To note, in October 1975, a firing incident took place at Tulung La (Arunachal Pradesh).

6. "Chennai soon to become Drone Manufacturing Hub," Geospatial World, June 12, 2020, https://www.geospatialworld.net/news/chennai-in-india-soon-to-become-a-drone-manufacturing-hub/, accessed on September 4, 2020.

7. Alexandre Rocchi (2020), "India: Creation of a Joint Venture for Loitering Munition," Air & Cosmos- International, February 20, 2020, https://aircosmosinternational.com/article/india-creation-of-a-joint-venture-for-loitering-munitions-2820, accessed on September 3, 2020.

8. "BEML Teams up with IIT Kanpur for Pilotless Aircraft and UAVs," *The Economic Times*, August 14, 2020, https://economictimes.indiatimes.com/news/defence/beml-teams-up-with-iit-kanpur-for-pilotless-aircraft-unmanned-aerial-vehicles/articleshow/77548921.cms, accessed on September 3, 2020.

Crisis Culture in India's National Security*

Deepak Kapoor

Two major aspects bedevil our approach to national security. In fact, they are not only relevant to national security but almost to all other spheres of our functioning as a nation.

Of which, first, is the aspect of being reactive to emerging situations. A peep into history would show that from time to time, series of raiders and marauding hordes have descended on our land, plundered it, occupied it and ruled over it. Starting from Alexander to Mohammad Ghazani, the Portuguese, the Mughals, the British and even the Chinese have occupied different parts of India. However, during the same period, we do not find many instances of our indigenous rulers going outwards to capture or rule over distant lands. In fact, even while trying to defend our land against incoming adversaries, India's actions have been reactive in nature rather than proactive or offensive.

Such a characteristic of India may be ascribed to its peaceful and non-aggressive nature. Wherein, the belief is pledged on peaceful co-existence rather than covet others' territory or possessions. However, it does place India at the receiving end most of the time when dealing with aggressors. More importantly, it does not bode well for India's national security in a global environment; wherein, territorial integrity remains sacrosanct.

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Even post-independence, the culture of being reactive has stayed with India, leaving it in a relatively disadvantageous situation of trying to restore status-quo-ante at great cost and effort. In 1948, 1965 and 1999, Pakistan initiated aggression against India. To which, India reacted with aggression and fought back to regain its lost territories. In 1971, Pakistan carried out pre-emptive air strikes on India in the morning of December 3, despite the expectation worldwide that India would initiate an action to set right the wrongs committed on the hapless population of Bangladesh, by attacking Pakistan.

In 1962, China's aggression found India totally surprised and unprepared, resulting in a defeat for India. Having achieved its objectives, the Chinese retreated. Since April/May 2020, India has been exposed to Chinese expansionism in Eastern Ladakh and is still trying to convince them to restore status-quo-ante and go back.

In most of the above cases against Pakistan, it was the grit and determination of the Indian soldier that saved the day and gave India 'victory' despite following a reactive philosophy. In 1962, while Indian soldiers fought valiantly against the Chinese, the odds were too heavily stacked against them to change the outcome decisively. In contrast, the encounter at Galwan on 15 June 2020, has amply highlighted what Indian soldiers are capable of achieving, if they are provided with the requisite wherewithal.

The second worrisome aspect, partially related to the first one, is India's tendency to react only when there is a crisis. In fact, this habit seems to be embedded in every sphere of its functioning. How else can one explain the massive traffic woes in India's urban conglomerates while the infrastructure is always trying to catch up or the hazardous pollution caused all over North India by burning of wheat crop stumps annually with a solution still not in sight?

In the realm of national security, why must only a strike by Pakistan-trained terrorists at Uri or Pulwama galvanise India into action, when terrorist attacks on security forces are taking place on a daily basis. To

stop proxy war in J&K by Pakistan, it is just not enough to launch an odd trans-border strike like Balakot every couple of years. There has to be a continuous pro-active approach for the adversary to realise the costs of supporting a proxy war, thus deter it from doing so.

Coming to Eastern Ladakh, India's intelligence agencies should have picked up aggressive Chinese movements and massing of additional formations well in time—given nothing can happen overnight in Ladakh, with the necessity to go through acclimatisation lasting weeks. The other possibility that India ignored was timely warnings of Chinese build up, which is more worrisome! The need to reinforce weakly held positions in Eastern Ladakh knowing well the Chinese propensity to indulge in salami-slicing was overwhelming, the moment their movements were discovered.

The problem with decisions taken during crises is that they are taken in a hurry with the specific aim of getting over the crisis. They tend to ignore the long-term perspective besides being expensive. In matters of national security, it is important to foresee emerging situations and have plans ready to tackle them. As noted, in 2008-09, India envisaged a two-front threat and sought approval for raising four divisions, which the government agreed to. Of these, two were raised in 2010 and the rest came later in the form of Mountain Strike Corps, which is now proving to be of great relevance.

The global reality is that the rise of a nation will always be opposed by the others. For instance, Germany rose twice only to be defeated during the two world wars. While during the rise of China in the 1980s and 1990s, Deng Xiaoping's advice 'hide your capabilities, bide your time' held China in good stead. Having become powerful, it now feels strong enough to indulge in expansionism not only towards its western borders but also in the South China Sea and the Pacific Ocean.

It is important to note that a developing nation needs to be economically strong before it can allocate adequate resources to become

militarily capable. A fine balance has to be ensured between national security and economic progress while moving forward. COVID-19 has definitely put brakes on the economic progress and it would take time to recover from it fully. However, in view of the emerging situation along the India-China border, there is no choice but to rush for emergent imports. This was avoidable if India had allocated a larger percentage of GDP to 'Defence' in the past.

While initiatives such as *Atmanirbhar Bharat* and "Vocal for Local" are indeed excellent for developing a strong India, however, in defence production and induction of the weaponry into the services, a gestation period of at least 10-15 years is required. Besides, "Make in India" initiative, which commenced in 2014 has not been able to show much progress until now. To note, self-sufficiency in defence production is achievable only if the private sector is brought in to this field, in addition to the existing public sector undertakings (PSU). The private sector would also require deep pockets to incur heavy expenditure over a prolonged period before expecting any returns to flow in.

Current record of accomplishments of our Defence Research and Development Organisation (DRDO) and PSUs, including Ordnance Factory Board (OFB) does not enthuse much confidence. India's thriving private sector needs to be incorporated not only in the field of defence production but also in futuristic areas like artificial intelligence, cyber, space, and information technology. Frequent changes in Defence Production Policy (DPP), almost on an annual basis, have acted as a major dampener. The new policy, in its new avatar as the Defence Acquisition Policy (DAP) 2020, is expected shortly and would hopefully address all major concerns. The DRDO has to play an important positive role in encouraging and guiding aspiring entrants from the private sector by imparting technical knowhow until such joint projects become commercially viable.

The Chinese expansionism is now forcing India to rapidly develop its border infrastructure, which is in a comparatively poor state to that

of the Chinese on their side in Tibet. Strategic roads that India started working on in the beginning of the millennium are yet to be completed. Road construction in border regions is expensive and a time-consuming process. Thereby, to hasten it, the Border Roads Organisation (BRO) needs to be allocated additional funds as well as state-of-the-art road construction equipment.

Furthermore, in some forward areas, road construction activity is delayed due to lack of environmental clearances. For instance, in Sikkim, the state government's action of designating Pangolakha Wild Life Sanctuary and Kanchanjunga National Park in the forward areas has resulted into a ban on any road construction without environmental clearances, which at times takes years to be granted. In addition, India's judicial system too needs to be responsive to national security requirements, which are focused primarily to serve the national interest.

And finally, the necessity of increasing the defence budget to at least 3 per cent of the GDP has been highlighted to successive governments by various committees and the military from time to time. Even after project *Atmanirbhar Bharat* is fully implemented, this level of expenditure would be needed to maintain a military relevant to growing national aspirations. The Chinese 'official' expenditure on military has been approximately four times that of India for the last two decades, while the Pakistan military, of course, takes as much as it requires from the national reserve.

In the current geo-political environment, the territorial integrity of the nation is of paramount importance. The onus of defending it falls squarely on the military. The Indian soldier has repeatedly demonstrated his fighting capabilities successfully in snatching victory from the jaws of defeat at tremendous personal cost. Nevertheless, the nation needs to provide him with the necessary wherewithal in order to perform to his potential.

The 21ˢᵗ Century Cold War in "Cyberia"

Rajesh Pant

"Gutenberg's achievement created a new and wonderful earth, but at the same time also a new hell."

—*Mark Twain*

What Mark Twain said about the invention of the Printing Press by Gutenberg in the 19ᵗʰ century, may well apply today to the evolution of the Internet. In order to combat this, in 1998, the Russian Federation had first introduced a resolution in the United Nations (UN) First Committee on the threats posed by information and communication technologies (ICT) to international peace and security. Since then the UN has set up six Group of Governmental Experts (GGE) to study the nature of threats in cyberspace-mainly implications of ICT on national security and military affairs, and how to deal with them.[1] Subsequently, in December 2018, the UN General Assembly approved the establishment of two distinct groups, in order to further explore issues related to advancing 'responsible' state behaviour in cyberspace, namely: an Open-Ended Working Group (OEWG) and a new 6ᵗʰ UNGGE.

The virtual meeting of the 6ᵗʰ UNGGE on ICT security has somewhat widened the already existing fault lines in resolving the issue of acceptable

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norms for good internet behaviour by nations across the world. This UNGGE was convened for a period of two years and it comprises 25 countries,[2] including India. The previous 5th UNGGE had failed to achieve a consensus and had ended in a deadlock. In fact, all that the previous meetings have been able to achieve is a list of eleven non-binding norms. These norms, though desirable, were always considered too idealistic, such as the norm that nation states will cooperate to exchange information, prosecute terrorists, and address threats. And that in case of ICT incidents, states should consider all information for attribution, or that states will intentionally not damage critical infrastructure. It is only wishful thinking that all nations would adopt these norms. However, the harsh reality is different. For one has to only witness the annual reports, as issued by the global internet security companies to realise the blatant disregard for these norms in the interconnected cyber world, called herein, as 'Cyberia'.

Why is this happening? Well, one of the main reasons is the lack of a coordinated international investigation and prosecution mechanism against the cyber criminals. While the UN Charter and law on use of force (*Jus Ad Bellum*) applies to activities conducted in cyber space, the International Humanitarian Law (*Jus In Bello*) applies to the conduct of cyber activities occurring within an international armed conflict. Since the attacks in Cyberia are taking place during 'peace' conditions, there is an ongoing debate on the applicability of the International Humanitarian Law. Furthermore, the Eastern and the Western lobbies are already at loggerheads over the perceived skewed governance of the internet as most of the 'root' servers, which control the last part of the Internet Protocol address, are located in the United States (US).

In such a turbulent atmosphere, the only happy entity is the cyber-criminal for he has no fear of attribution and any legal prosecution since the path of cybercrime spans across several national boundaries. To make matters easier for him, there is the 'Dark and Deep Web'—a vast network

of anonymised users and untraceable communication nodes. This is the dirty underbelly hosting dream markets that sell drugs, credit cards, firearms, pornography and state secrets to name a few. Payment is usually in cryptocurrencies supported again by untraceable blockchain technology. Besides, the international legal processes like the Mutual Legal Assistance Treaty and Letter of Rogatory are woefully time consuming and just not able to deliver justice.

In addition to the activities at the UN, there is also a rising tide for the 'Balkanisation of the Internet'. In order to overcome the American dominance of the internet root servers, the Chinese have now proposed a new internet protocol to the International Telecommunication Union (ITU). This appears to be a part of their strategy to create a new internet based on a new set of standards—to ensure that technical control is dominantly exercised by the Chinese in the future. This will lead to the establishment of two internets and it is likely that its usage by nations will be dictated by geopolitical affiliations. This will further exacerbate the original aim of creating a globally safe and secure interconnected network and will adversely affect social media as well as global business functions.

Cyberspace is heavily infected with a variety of computer viruses and bots and the recent spate in ransomware attacks and financial frauds, are an indicator of the increasing incidents of cybercrime. These fraudsters and criminal gangs have no morals and they exploit any and every opportunity to make money. In the ongoing COVID-19 crisis too there are reports of over 4,000 websites that have sprung up under the pretext of the coronavirus to carry out phishing attacks—leading to an exponential increase in cybercrime. In such a scenario, India ranks amongst the top three cyber-attacked nations in the world and lost 1.25 lakh crores of rupees to cybercrime in 2019.

There are many viruses already rampant in Cyberia, and what is required is a coordinated response by the international community such as that we are currently witnessing in the physical world against

the COVID-19 pandemic. Indian Prime Minister Narendra Modi too highlighted this issue in his address at the 75th UN General Assembly. India, with its non-aligned past and current strategic partnerships, has a great opportunity to lead the way in ensuring that the internet does not split. To which, India has already initiated certain measures in this direction in both regional and international forums. *Let us all resolve to strive towards a peaceful Cyberia!*

Notes

1. In 2004, the UN General Assembly established the GGE. Since then six GGEs have been convened – in 2004/2005 (A/RES/58/32), 2009/2010 (A/RES/60/45), 2012/2013 (A/RES/66/24), 2014/2015 (A/RES/68/243), 2016/2017 (A/RES/70/237), and 2019/2021 (A/RES/73/266). For details see, United Nations, "Group of Governmental Experts." Available online at https://www.un.org/disarmament/group-of-governmental-experts/, accessed on September 30, 2020.

2. UNGGE Members (2019-2021) include: Australia, Brazil, China, Estonia, France, Germany, India, Indonesia, Japan, Jordan, Kazakhstan, Kenya, Mauritius, Mexico, Morocco, Netherlands, Norway, Romania, Russian Federation, Singapore, South Africa, Switzerland, United Kingdom, United States and Uruguay.

The Choice: India, America and the Future of Human Freedom

Jonathan D. T. Ward

Rarely in history are the choices put before one nation and one people so consequential, and not simply to that country's own future, but to the course of humanity. Rarely does such a momentous time emerge that will decide the fate of many nations. Rarer still do the forces in such a world come together in a way that *one* nation's choices and actions may reverberate for good or for ill across the decades to come. *Such a time is upon us now.*

The decisions that India makes in this decade will decide the fate of the 21st century. India's choices will decide whether the future of the international system remains in the hands of free nations. Or whether this world system weakens, fragments, and is overwhelmed by forces that could destroy its most important virtues and possibilities and leave them in ruins for generations to come.

The question before the world today is this: Will India stand amongst the world's free nations as a leader in our cause? Will India do this and do it wholeheartedly? Can India become the linchpin in a coalition of democracies, a binding force, the essential piece, without which the democracies cannot prevail against the expansionary forces that gather against us now?

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Or, will India embrace a dangerous temptation: the temptation called "the multipolar world?"

The "multipolar world". For many, this idea represents an opportunity. A world in which power is held by different major states: acting in their own interests; standing on their own, recognised, powerful and significant. Significant, yes, but loosely held together, working together mainly when necessary or convenient. *Such a world carries with it the risk of self-destruction. Not only the destruction of one, but eventually of all.*

The "multipolar world" is a world which China can overwhelm and dismantle, divide and conquer, devouring or subordinating each different "pole" over time. What free nations must remember that 'united we stand, but divided we fall.'

The world understands what China's true ambitions are. They are on display from the Himalayas to the West Pacific. The character of its regime is evident from Xinjiang to Hong Kong to Tibet. Its thirst for overwhelming power is explicit: "Backed by an invincible force of 1.4 billion people, we have an infinitely vast stage for our era," its leaders say. But this "invincible force" must not be allowed to realise its dreams of unending power.

What is needed is a coalition of democracies. It is not the cause of one or two of us, or some of us, or just a few. It is the cause of *all of us* that must be brought together and unified. And we cannot do this without India's vital role.

The conditions in the world today are far different from those in which India achieved its independence and its freedom. They are different from the Cold War world, in which India worked for autonomy and led the non-aligned. India arrives just in time to play its part to pull the world back from a perilous course, and set it back upon a path towards ever-growing freedom. Only with India can the coalition of democracies be built. Only with India's essential contributions can the cause of human freedom continue. *But will India choose the democracies? Will India be a leader in this cause? Or will India choose "the multipolar world?"*

In the 20ᵗʰ century, India achieved independence, and with this independence, India achieved great importance on the international stage. Sought after by both the United States and the Soviet Union, feared and attacked by the People's Republic of China, looked up to for leadership by many emerging Asian and African nations, India's "tryst with destiny" was met with the attention of nations large and small. India's journey as a nation essential to the progress of the world began in the aftermath of its newfound freedom.

In the 21ˢᵗ Century, India's time of power will arise, and this has already begun. India's economy is now among the largest in the world, and it will grow further. India's military forces enjoy a warm welcome and coordination on leading-edge technologies with the United States, Japan, and other major democracies. India's diplomatic importance spans the planet, drawing many nations to its door in their desire to be part of India's future. And this is just the beginning of the good that is in store for India, as it rises.

India, better than many nations, understands what it is to suffer through years of darkness, to know the pain of foreign conquest, and to rise past these evils to secure its place in the full possibilities of human freedom. And now, what kind of place the world will be, not only for us, but for the generations to come, will once again be decided by those who have such resilience. Today, the choices laid in front of us will decide not only our own destiny, but that of many other nations. Let us make no mistake about it: whether or not the future shall be one in which free nations may secure their own path and realise their full potential, or whether we shall be subsumed by a ruthless reigning force—this will be decided by those free nations who stand upon the world stage today. *The destiny of all hang on just one question: will we stand together?*

The question of whether or not hard-earned freedom, earned by each free nation in our individual way, will it be squandered, lost, and left to

ruin, or will we band together and in joining one another, ensure that our victories can now endure as one, that question is before us today.

Our adversaries beckon. They hope to divide us. They hope to pull India away from deep commitments to the free and democratic world and to keep India from tipping the balance of history towards the arc of human freedom. And India must choose. For the sake of all, let India choose the world's democracies. India's choices will decide the path of our century, and the destiny of us all.
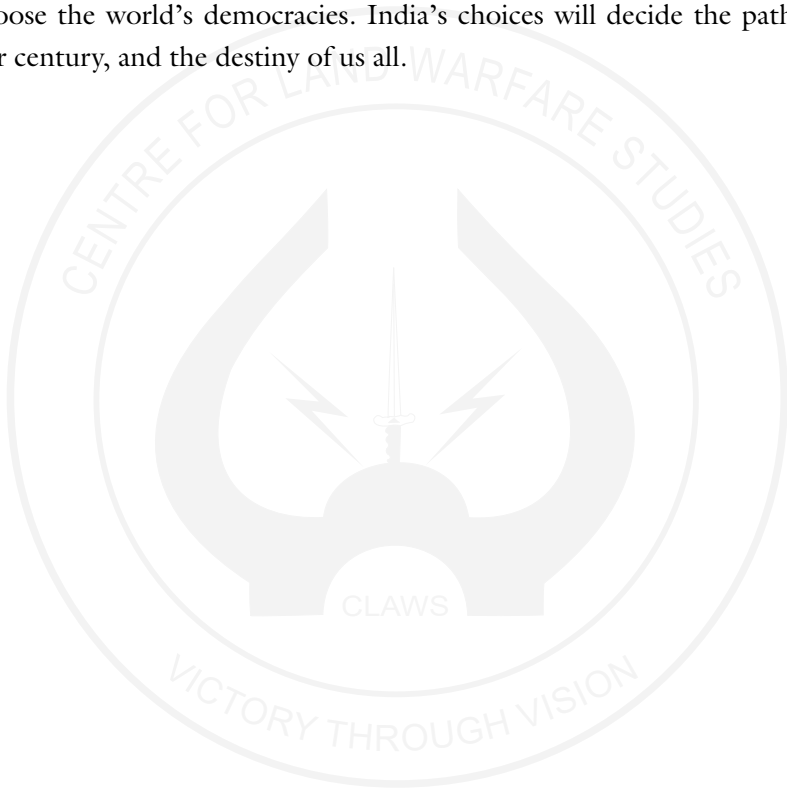
Chinese Intransigence:
Catalyst for Change in Indian Policies

Rakesh Sharma

Since April 2020, a myriad of 'whys and wherefores' on China's premeditated aggression around its periphery and against India in Eastern Ladakh, have been analysed *ad infinitum*. Inconclusive debates on China's belligerence against its neighbouring countries have called it a pursuit of its geo-political ambitions by adopting expansionist designs. Wherein, mainly against India, China's adventurism is argued on the grounds of abrogation of Article 370; infrastructure construction along the Line of Actual Control (LAC); New Delhi's stringent opposition to the China-led Belt and Road Initiative (BRI) and Regional Comprehensive Economic Partnership (RCEP); growing linkages with the United States (US), and more specifically, the Indo-Pacific activism under Quadrilateral Security Dialogue (QUAD). Suffice it to say, having deemed to have 'risen,' China is stirring tense geopolitical confrontations that, undeniably, demonstrates Beijing's hegemonic aspirations.

What calls for such a Chinese attitude? It can be rightly argued that China is seeking a global leadership, with an aim to set 'right' the perceived 'wrongs' of its own history—as exemplified by its 'national rejuvenation' campaign under the policy of 'Chinese Dream.' Besides, Beijing's growing

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power index is manifested in its rising profiles as the second largest world economy with a nominal GDP (largest in PPP terms) and the world's largest military[1] with a burgeoning Military-Industrial Complex. China's military might is complimented by the rapid modernisation of the People's Liberation Army in terms of weapons, equipment, technologies and massive structural and doctrinal orientation. This is justified by China's increased defence budget, which is second only to the US.

China's BRI has boosted its global presence by means of infrastructural projects in over 70 countries. Being the world's largest exporting nation, BRI aims to connect China's extensive manufacturing hubs, to be better served by global value chains in endeavouring to alter the way world does business. Through BRI, China plans to guarantee higher economic prosperity and increasing per capita income to lower internal anxieties, thus strengthening control and legitimacy of the Communist Party of China (CPC).

But all is indeed not hunky dory! Despite the economies of scale, China is overwhelmed by its geography with grave limitations of the first Island Chain and is attempting to open land corridors through Myanmar, Pakistan and Central Asia. The serious global economic downturn and the COVID-19 pandemic will cause a rethink in BRI partner nations on reprioritising health infrastructure. Notwithstanding the benefits of infrastructural development under BRI, the recipient nations also exhibit anxiety over debt burden as well as limited employment avenues, as much of the workforce is Chinese.

What adds further is that despite deep pockets and apparent infrastructure growth, China has not succeeded in building its soft power influence. As noted, in 2014, Chinese President Xi Jinping stated that, "We should increase China's soft power, give a good Chinese narrative and better communicate China's messages to the world."[2] Chinese attempted to enhance its soft power by promoting 'ancient wisdom' through Confucius Institutes, and now through BRI. However, on the contrary, China's authoritarian system mainly in exercising control

over Xinjiang, Tibet and Hong Kong negates its 'soft image.' More notably, in the South China Sea, where having promised earlier of no design to militarise it, China rescinded it and went ahead to do exactly that. In due process, China has not been able to universalise its culture at a popular level, or sell a lifestyle to the world, or commence engagement with other cultures. By all measures, China has failed to retain a more palatable image in the popular global culture as soft power is emblematic of culture, political values, and foreign policies with moral authority. Besides, China's increasing 'wolf warrior diplomacy' against the global resentment towards Beijing on COVID-19 has further deteriorated China's 'image'.

The other aspect to note is the People's Liberation Army (PLA), which despite its rapid modernisation is yet experimenting. What adds to this is the fact that while the PLA is conducting a large number of military exercises, both bilaterally and trilaterally, it cannot compensate for realistic experience in actual combat. This calls for serious shortcomings in both war fighting as well as in PLA's command. Inevitably, this will cast a shadow on the PLA's ability to take on a modern peer competitor, and hence the reliance upon surreptitious operations short of war. As stated that despite the technological advances and growing military might, PLA is "infected by the peace disease (*héping bìng*), peacetime habits (*héping jixí)* and peace problems (*héping jibì*), as it has not participated in any war since 1979."[3] Besides, corruption is also endemic to the PLA adding to the 'peace infection'. Apart from the PLA, China's stability is plagued by its internal tensions in Xinjiang, Tibet and Hong Kong; increasing corporate debt that amounts to an exorbitant 300 per cent of GDP, heavy dependence on fuel imports and others. To add, COVID-19's disruption of the global supply chains have raised the Chinese anxiety given foreign firms plan to shift production outside of China, which will result into weakening of the Chinese economy.

In view of this, pragmatism is imperative in analysing China of the future, which indicates a bipolar world, accompanied by concerns over

globalisation and most importantly, the equation between China and the US in the post-pandemic world. While China is deemed to become a superpower, likely with the highest nominal GDP, and tying down a large number of countries to its coattails under BRI. It is to note that there are less chances that China will ever abandon BRI for more than economy, it shoulders the geopolitical ambitions of Pax Sinica—the plan for global domination and leadership. In Xi's view, it is a "once-in-a-century change" sweeping China and the world, wherein Pax Sinica simply does not hold an inclusive view of the world.

In this case, China's belligerence against its neighbours with inimical and adverse posturing may become a norm. As noted, in May 2020, at the 13th National People's Congress, Xi emphasised on the pandemic's "profound impact on the global landscape and on China's security and development as well" calling on the PLA to "think about worst-case scenarios," to improve its combat-preparedness, and be equipped to "deal with various complex situations in a timely and effective manner."[4] With such intentions, China will certainly opt for hard power to coerce its neighbours, especially to better harness and cement its own position. And in doing so, often China might overreach, and will be forced to eat a humble pie!

This then brings into perspective the need to analyse the tensed India-China relations in 2020, especially against stand-off in Eastern Ladakh. Over the past few decades, India had attempted to explore, and create huge interest in relationship building and engagement building on economic interdependence and negating the likelihood of a conflict. For instance, given the burgeoning trade at a threshold of US$ 100 billion and a significant politico-diplomatic engagement, India's China policy was that of conciliation and restraint. However, China disallowed any forward movement on reconciliation of the borders. This further clarifies the fact that despite the growing economic interdependence, the boundary question between India and China continues to remain 'exceptional and

overpowering.' To which, India's emergence as a geopolitical competitor, further adds to Beijing's political antagonism towards New Delhi.

The belligerence and aggression shown by China in 2020 has effectively clarified that the basis of its relationship with India will continue to remain anarchic. Apparently, China has no inhibitions about exercising hard power when dealing with India, to secure its desired nationalistic goals. In contemplating its future relationship with China, India needs to take account that there are no compunctions in jettisoning norms of poise, decency and responsibility—which the superpower status ought to bring with it. In this regard, four directional pointers need mentioning.

First, the past agreements, and politico-diplomatic relationship-building are no barometer for future rapprochement. Rather on the contrary, these might lead to misconceptions and complacency that may cause an impairment, economically or security-wise. As shared space of growth is not acceptable to China, strategic fundamental overhaul of policies is imperative. Soft-pedalling the 'China threat,' by adhering to a cautious and restraint approach will only be counter-productive. There ought to be clarity and transparency in approach to benefit all.

Second, India's larger concept of strategic autonomy, in the light of an inimical neighbourly superpower, needs reconsideration. It may be felt that in phraseology, strategic autonomy can be redefined or broad based; however, the terminology with its historical linkages may be conversely comprehended both globally and internally, cannot be ignored. Strategies need to be varied circumstantially; wherein, the amended paradigm calls for a conceptual transformation in both foreign policy decision-making and in protection of strategic interests. In view of this, forging of strategic partnerships, deep strategic cooperation, economic and technological ties, both bilaterally and multilaterally are hence imperative. For there exists a powerful motivation for coordination to balance the inimical adversary.

Third, India's national security is at crossroads with tough and conflicting strategic choices, which lay down contradictory pathways towards differing outcomes. It has been often repeated that India's tensions with China is for the long haul. While, past examples and events and their handling or outcomes thereof, have limited correlation with that of the 2020 stand-off, but the current tensions have accelerated the need to devise strategic choices for the long haul. The requisite lies in adopting a methodology to reach end state or outcomes in timelines, and effective planning to handle the interregnum. What further adds to this necessity is the fact that warfare itself is in a mode of transition. This makes it an optimal necessity to examine prosecution of warfare in all its manifestations.

Fourth, more importantly, there is severe stress on India's national economy, largely due to the pandemic. While this is a separate issue, but an all important one, for without a buoyant economy, there will be harder decisions to be made. This makes credible multilateral coordination and the desire to better integrate with like-minded economies and supply chains, is the call of the day.

Arguably, China's intransigence and aggression of 2020 is a timely wake-up call, and an opportunity for India, one that mandates national consensus. It is a proverbial paradigm shift, for a nation with centuries of cultural moorings, and which has handled many a serious crisis. Hence, it is time for India to proceed single-mindedly to address the imperative transformation—thus, change is the need of the hour.

Notes

1. As per the 2020 Global Firepower Nations ranking, Chinese military is listed third in the order of ranking.
2. Quoted in Asit K.Biswas and Cecilia Tortajada (2018), "China's soft power is on the rise," *China Daily*, March 2, 2018. Available online at http://www.chinadaily.com.cn/a/201802/23/WS5a8f59a9a3106e7dcc13d7b8.html, accessed on October 3, 2020.

3. Suyash Desai (2020), "The People's Liberation Army is strong. But it has four weaknesses," *Hindustan Times*, July 31, 2020. Available online at https://www.hindustantimes.com/analysis/the-people-s-liberation-army-is-strong-but-it-has-four-weaknesses/story-4BAJhVDLbfKhq2XEczg2JK.html, accessed on October 4, 2020.
4. Quoted in Kamo Tomoki (2020), "China's Leadership Girds Up for the Post-COVID Era," Nippon.com, August 24, 2020. Available online at https://www.nippon.com/en/in-depth/d00600/, accessed on October 3, 2020.

Futuristic Technologies and Weapon Systems of the 21ˢᵗ Century

P. K. Chakravorty

"Technology has forever changed the world we live in. We're online, in one way or another, all day long. Our phones and computers have become reflections of our personalities, our interests and identities. They hold much that is important to us."

— *James Comey[1]*

Technology is the application of scientific knowledge for practical purposes that involves development, processing and management. Technology is dynamic and keeps on improving at a high speed. Currently, we are in the Information Age and a variety of advanced technologies are being used in our day-to-day life. For instance, in communications technology, today the phone can prepare a PowerPoint presentation, construction material are being fabricated on 3D computers, blood can be tested without samples, a guitar can be played using an application and learning can be done by Artificial Intelligence[2]—exemplifying the advancement under the use of technology.

In terms of nation building, technological empowerment leads to building of comprehensive national power. A nation's standing in the world is directly related to its technological empowerment. For instance,

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the country that wins the highest number of Gold Medals in the Olympics is also technologically the most empowered nation in the world. More importantly, technology and doctrine are the important ingredients of military strategy, as exemplified by the use of atom bomb during the Second World War, and use of airpower and precision strikes during the Guld Wars.

Notably, network-centric warfare is the order of the day and all countries are structuring their forces to fight on this concept. To which, the Indian Army is also leaving no stone unturned to be digitised and fight a network-centric warfare. India has taken measured steps towards empowerment of technology. However, there is a need to examine the current state and the measures needed to optimise the technological usage in India.

It remains undisputed that technology and modern weapons are force multipliers for enhancing combat potential. The process of modernisation primarily results in infusion of technology to doctrine. An example of this would be the Chinese developing the DF-21 D Anti-Ship Ballistic Missile, which has a range of 1,800 km and is capable of accurately targeting warships on a Carrier Battle Group. Improvement of capabilities by this method would also enhance deterrence which is a mind game to avoid conflicts. The future battlefield as discussed will have the following features: (a) practically no warning with periods of high tempo and density; Transparency of Battlefield will be enhanced; Non-linearity of operations. Operations linked to Artificial Intelligence could commence with destruction of Satellites on Outer Space, Cyber Warfare, Operations by Special Forces, covert actions in depth areas followed by multiple intrusions and an offensive in one of the weaker spots of the enemy. Combat Zones for land warfare would be deeper and wider. The entire combat zone would be network-centric and would be to a large extent fed by autonomous systems. Future Warfare would be asymmetric in nature and to a large extent depend on flexibility of mind and equipment to deal with these conditions. Operations in the Indian subcontinent would be against a nuclear backdrop.

It would be interesting to note the critical technologies that would be important for the Indian Army. Development of these would lead to enhanced capabilities of the Indian Army. Critical technologies for futuristic requirement of the land forces which would be needed are that of: Nano Technology, Big Data, Quantum Technology, Bio Technology, Artificial Intelligence and Robotics, Micro-Optronics, Information Security, Radar and Microwave. Satellites, Rockets and Missiles, Material Science, Manufacturing, and Nuclear—all these technologies would lead to development of weapons which would be state of the art and capable of ensure soldiers are capable of attaining success.

Military combat has always led to exponential advances in technology. This is exemplified by the futuristic weapons, such as:[3] BAE systems ADAPTIV Camouflage, that masks an object's Infra-Red signature and prevents detection by giving an appearance that it forms a part of the surroundings. This makes thermal imaging systems ineffective and ensures own equipment are offered some protection from quick detection. Applying this technology, CV90120-T Ghost (the Swedish T Ghost) is a camouflaged tank that makes it invisible to enemy thermal imaging systems and allows to strike without detection.

The other weapon systems like Magneto Hydrodynamic Explosive Munition (MAHEM) uses a magnetic flux generator to fire a projectile without the use of chemical explosives creating a more efficient and precise launch system; TASER Shockwave is a large-scale area denial system designed to assist with controlling mobs or stone pelters in a counter insurgency situation; and Modular Advanced Armed Robotic System (MAARS) is a robot that can be armed with a 400 rounds M 240B machine gun, a grenade launcher and possibly drag injured soldiers out of danger.[4]

The other advanced weapons include the Northop Grumman MQ-8C Fire Scout, an Unmanned Aerial Vehicle (UAV) designed to provide reconnaissance, aerial fire support and targeting for ground troops-

capable of carrying out all designated functions.[5] Similarly, the Black Knight Unmanned Combat Vehicle is designed for high risk situations to avoid unnecessary danger to human troops and Extreme Accuracy Tasked Ordnance (EXACTO), a weapon essentially for snipers with the ability to home in on targets and even change course in midair to compensate for target movement or changes in wind speed. To add, the Obrum PL-01 Stealth Tank with its stealth technology is the first armoured vehicle that is practically invisible to both infrared and radar detection systems.[6]

The new-age weapons also include: Precision guided Fire Arms, used for target tracking, advanced fire control and heads up display technologies to guide a bullet to the target; Laser Weapon System (LaWS) that enables pin point engagement of targets by using laser; and Laser Avenger, an air defence weapon system that can be mounted on a vehicle and used to shoot down enemy Unmanned Aerial Vehicles.[7]

While in 'guns,' the new weapons include Personnel Halting and Stimulation Response (PHASR) rifle, a non-lethal incapacitation device designed to temporarily blind and disorient targets; electromagnetic rail gun with a capability to fire projectiles at over 7,200 km per hour and smashing through concrete structures 160 km away. [8] The US, Russia, China and India are developing these weapons.

With such significant advancement made in weapons and weapon systems, the Indian Army is modernising and doing its utmost to induct future technologies applicable more than a decade from now to ensure that its troops become high-tech combatants and weapons with longer range and lethality are inducted.[9] While India is the second largest importer of weapons in the world; however, the *Atmanirbhar* policy has given full impetus to indigenisation of defence products. The Indian Army must work out a pragmatic plan to induct state-of-the-art weaponry to undertake a two front war. This would be best done by the Army Design Bureau which should work closely with the DRDO, the private sector and the Academia, adopting a holistic approach.

The moot point here is 'Know Why'. In this process, the MSEMEs, duly funded in collaboration with companies abroad can get India the technology needed for building such futuristic weapons and weapon systems, thus offering a way forward for the Indian Army to modernise and improve its capabilities.

Notes

1. James Comey, "Quote on technology," Brainy Quotes. Available online at www.brainyquote.com, accessed on October 8, 2020.
2. Karekha Ramney (2013), "What is Technology-Meaning of Technology and its use," useoftechnology.com. Available online at https://www.useoftechnology.com/what-is-technology/, accessed on October 8, 2020.
3. Adrian Willings (2019), "28 incredibly futuristic weapons and modern fighting vehicles," Pocket-Lint, June 17, 2019. Available online at https://www.pocket-lint.com/gadgets/news/142272-28-incredible-futuristic-weapons-showing-modern-military-might, accessed on October 9, 2020.
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid.
8. Ibid.
9. Shaurya Karanbir Gurung (2018), "Army looking at future technologies," *The Economic Times*, July 14, 2018. Available online at https://economictimes.indiatimes.com/news/defence/army-looking-at-future-technologies-for-better-combat-soldiers-aviation-assets-and-more-lethal-weapons/articleshow/56522747.cms?from=mdr, accessed on October 9, 2020.
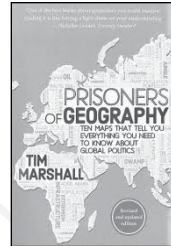
Book Reviews

Prisoners of Geography
Tim Marshall

(UK: Elliott & Thomson Ltd, 2019)
ISBN 9781783962433, 306 pp. £9.99

'*Ten Maps That Tell You Everything You Need to Know About Global Politics"* claims the cover of the book. Tim Marshall, working on big geopolitical themes or concepts, has based his work on the premise that first, the land on which we live has always shaped us; it has shaped the wars; the power, the politics and social development of the peoples that now inhabit nearly every part of the earth; and second, the choices and decisions of leaders across the world will to some degree always be shaped by rivers, mountains, deserts, lakes and seas that constrain us all—as they always have. Owing to this perspective, the book explains the geographic realities that underline and often dictate the way states behave and interact with each other. That is, it gives a rationale or lack thereof in the conduct of nations in security and strategic terms with their neighbourhood and their relations with the world community in general.

Tim Marshal is a journalist, author and a broadcaster by profession and a leading authority on foreign affairs. With an experience of more than 25 years of reporting from the field on diplomacy and world affairs, having covered events in the Balkans and the MENA region, his understanding and in-depth knowledge of politics, both of regional and global security

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dynamics reflect in his writings. His other notable works are *Shadowplay: The Overthrow of Slobodan Miloševi* and *Worth Dying for The Power and Politics of Flags.*

The watchword in the book is 'geography.' Taking it as the cue, Tim Marshall narrates the world history in a very simple manner, by logically arguing: why conflicts persist in some parts of the world, the reason behind the prosperity of a few nations and the twist of nature by which certain regions even though blessed with natural resources continue to be underdeveloped.

The underlying factor is that geography is relevant in geopolitics today as much as it was a thousand years ago. The ambitions of nation states driven and dictated by geography, or the lack of it, have influenced the conduct of politics and diplomacy impacting the lives of communities and whole races for all times to come—the resolutions to which though in sight may not be acceptable to the powers that carved out geography where there was none!

The book is divided into 10 chapters. A chapter each, is devoted to illustrate in great detail the evolution of major global players, namely— Russia, China and the United States; while Western Europe, Africa, the Middle East and Latin America have been covered regionally. In addition, the sensitivity of India-Pakistan and Korea-Japan relations have been discussed in separate chapters. While, the Arctic, probably the last frontier, and the rush to control its resources and the resulting dynamics forms the last chapter.

Marshal notes that Russia, since 1812, has been repeatedly invaded from the Northern European Plain on an average of once in every 33 years—explanatory of the Russian expansionist policy to the west. However, despite its size and vast coastline, Russia's lack of a warm water port has inhibited it from realising its global ambitions; but at the same time its geography has protected its Far East. Furthermore, the author has also taken into account the post-Soviet arrangement of interstate relations,

highlighting the legacy issues in relation to the impractical borders and ethnicity. To cite an example, in case of Russia, the annexation of Crimea is a classic example where the actions have been dictated by geography.

On China, the book suggests that its insecurities and vulnerabilities have been historical. Today, despite being secure along its land borders, China continues to push in the Himalayas and the South China Sea. The possibility of an Indian occupation of Tibet and domination of the Chinese mainland as also the resultant threat to China's water sources by India drives its actions in Tibet. While the ambition to have a blue water navy to protect its growing economic empire across the world dictates its actions in South China Sea. Besides, the Belt and Road Initiative is a means to an end to access the world trade routes circumventing the limitations imposed by geography. While the proposed canal in Nicaragua is a competition to the Panama Canal, the larger aim is to have freedom of navigation beyond the control of the United States.

Geographically, the United States is blessed with an extension from ocean to ocean, has two friendly neighbours and huge reserves of natural resources. While today it owes its prosperity and status to 'homeland' peace and security, it was the shrewd diplomacy of the 1800s which saw an unparalleled purchase of real estate and expansion by settlers towards the west coast enabling the US to subsume the geographic vulnerabilities into a larger entity to form the present-day America, resulting into the rise of the US to its superpower status with an expansive global presence. In view of this, Marshal has also emphasised on the way the US has leveraged its military and economic weight to create alliances to meet its economic and political objectives.

Undoubtedly, Europe has immensely contributed to the modern world. Its influence is still prevalent across large parts of the world, culturally, politically and economically. Western Europe benefited heavily from good weather, inland navigable rivers, knowledge transfer across the Eurasia peninsula and access to warm water ports. This environment

supported the agriculture and trade, leading to its industrialisation wherein the prosperity nurtured colonial ambitions which in turn connected it to the world. However, divided by geography, north and south Europe developed differently. Portugal, Spain and Greece are prime examples of how terrain limited their exchange with mainland Europe; these divisions persist and are the reason why Europe has not been able to truly unite despite the EU—the mutual fears keep the EU and other alliances together. To explain the impact of geography and the role of ethnicity, culture and language in the formation of states/nations, Marshal cites the examples of unification of Germany and the breakup of Yugoslavia. The advantage the UK enjoys by being an island allows it to engage and disengage ensuring that no power greater than itself rises in Europe and the strategic position it enjoys viz. North Atlantic adds to the boon.

Africa is where it supposedly all began. The author argues that the world views Africa through a prism and its vastness is not truly comprehended, given only the Sahara desert is almost as big as the United States. Africa has been blessed with abundant natural resources yet geography has hindered the exploitation of these resources to better the lives of its inhabitants. The rivers are mostly not commercially navigable, the forests and deserts impede free travel and establishment of trade routes has been difficult. The lack of deep water ports limits international trade. The mixing of the tribes socially or economically has been very restricted, even traditional tribal conflicts have been very limited in scope and purpose. The origin of slave trade dating back to salt trade with the Middle East finds a mention. The problem of politics and tribalism, poor leadership and the legacy of colonialism, the creation of nations and states where none existed, adds to Africa's woes. The colonial powers extracted what they could and the same continues even today. Africa still awaits to overcome the hand history and geography have dealt with it.

The Middle East, coined by Europeans, as per the author is a phrase that misrepresents the region. Where ethnicity and religion broadly

defined the extent of the area governed by various tribes and empires from time to time, the European powers carved out nations where none existed. The term 'Sykes-Picot' defines the various decisions which explain the unrest and extremism in the region. The rise of the Islamic state has its origins in the creation of the unviable entities. To substantiate, the chapter delves into the impact of Islam on the dynamics of the region and the conflicts which have defined the region for most of the past 75 years. Furthermore, the author also opines that there may be changes to the maps of the region with old states giving way to new, which may be more aligned to the ethnic, religious and cultural aspirations of the people, or driven by outside powers; however, either way it may be a long and bloody affair.

While discussing India and Pakistan, Tim Marshal has considered the sub-continent in its entirety, explaining the geographical constraints of each nation. The ethnic, cultural and linguistic diversity of the region due to geography have been highlighted. Like Africa and Middle East, the subcontinent continues to suffer the impractical borders drawn by the British. The trauma of partition, the conflicts post-independence, the centrifugal forces, growing terrorism and fundamental Islamic groups have been discussed at length. The author states that lack of strategic depth for Pakistan has dictated its policy of domination towards Afghanistan in addition to the role of Russia and the United States in Afghanistan. The chapter also discusses the growing influence of China in the subcontinent and its impact on the security and geopolitical dynamics.

The problem of Korea is best managed because a resolution cannot be seen on the horizon. A conflict between two states will drag the neighbours: Russia, China, Japan and United States directly into the quagmire while it will affect the region in general. It is best defined as a long strategic game played by both sides and their supporters or allies. Tim Marshal argues that North Korea is an enigma and attempts to unravel it

may further complicate the situation. The 38ᵗʰ parallel is another example of a border drawn arbitrarily and the people suffering the consequences. In arguing so, Marshal hypothetically gives some details of the consequences of a war between the two Koreas. Besides, the chapter also reflects on the history and sensitivity of the relation between Japan and South Korea as well as the Japanese military expansionist past and their rise from the ashes of World War II. Notwithstanding the differences in view of Marshal, what keeps the peace in the region is mutual fear of the adversaries despite the distrust for the allies.

In the chapter on Latin America the author has included all nations—Mexico and southward's including South America. Here, Marshal is of the view that Latin America has been dealt a hand by geography which has limited its growth. He argues that geography, coupled with colonialism and prejudices of the foreign powers with no attempts to better the lives of the original inhabitants has withheld Latin America from achieving its potential. The lack of hinterland connectivity, despite the wealth of natural resources, is the major reason why the region has not developed. As a result of which, the legacy of border disputes continues to tire down regimes and economies embedded in influence of the drug cartels and the US on the politics and trade of the region.

Lastly, the Arctic is perceived as one with a very hostile environment but with a huge potential of natural resources and thawing ice resulting into shortened trade routes, that has brought the major powers to stake claim to this remote region. For instance, Russia, Canada, United States, China and the Scandinavian countries have pushed in to explore and exploit the natural resources; however, as compared to all, Russia's presence remains unmatched. The race has just begun and there have been competing claims, while the coastlines have receded, requiring relocation of inhabitants. In the future, accidents and incidents will be difficult to manage and their impact will be felt by communities not even remotely connected to the Arctic.

The book also covers in some detail the fears and apprehensions of smaller nations and the dilemmas they face in pursuing independent foreign policy versus making alliances. Marshal also suggests that given the limited resources, unless the world learns to share and use technology to cooperate including space and the Arctic, conflict is imminent. To which, he posits that 'water' may be a major source of conflict in the years to come. As evident from the rising disputes over utilisation of two major river systems in Africa and the Middle East; wherein, Ethiopia, Sudan and Egypt contest the utilisation of waters of the Nile; Turkey, Syria and Iraq contest the water rights of the Tigris and the Euphrates.

Tim Marshall is forthcoming in his articulation; however, he also admits that there is no certainty to the outcomes in the future. As Marshal argues that while technology helps in 'bending the bars of the geographical prison' it cannot bring it 'out of the equation,' as evident from the example of the Himalayas in the India-China context and the China Pakistan Economic Corridor.

The book is indeed very educative and explains the world as it exists today. It helps the reader to place into perspective the 'why' and 'what if' of the current geo-political happenings around the world. As to why India and China are engaged in the high Himalayas or why Putin's Russia is engaged in Ukraine, and that while China is obsessed with the South China Sea, it is also interested in the Arctic. To rightly argue, it is not what nations will or should do, but what they 'can do' determines how the world prepares and practices foreign policy.

It is a must-read for anyone practising or studying national security and strategy, geo-politics, international relations and diplomacy. Even an occasional reader will find the narrative insightful and a good read.

China & The World
David Shambaugh (Ed.)

(New York: Oxford University Press, 2020)
ISBN 978-0-19-006231, 394 pp. $99

Year 2020 will be significant in the annals of history—first, because of the global pandemic and second because of China's behaviour in the international sphere. This year has seen some very notable shifts in international politics that could possibly bring about a change in the existing global order. China has been a key player in impacting the world and international relations in multiple ways. In this backdrop, the book *China & The World* edited by David Shambaugh is a timely and comprehensive volume.

David Shambaugh is Gaston Sigur Professor of Asian Studies, Political Science & International Affairs and Director of the China Policy Program at the Elliott School of International Affairs, George Washington University. He is an eminent scholar with an authority in the field of Chinese studies.

At the foremost, the book explores all the factors that impact China's foreign policy, both internally and externally. It examines the source of China's Grand Strategy and explains how the past shapes the present. Furthermore, it brings forth China's interaction with major powers and institutions in the international arena. Most importantly, the book successfully attempts to understand China's calculations and behaviour as well as the number of challenges that China is going to face in the future. The book is divided into six sections with sixteen individual chapters, authored by renowned experts in the field of Chinese Studies from across the world—making the book both distinct in outlook and comprehensive in nature.

Raghunandan M. C. is Web Manager cum Researcher at the Centre for Land Warfare Studies, New Delhi.

David Shambaugh in his introductory chapter on "China's Long March to Global Power," explains the 'intentional' usage of the term China's foreign relations. The author emphasised the need to analyse the factors from within a nation-society, in order to understand the behaviour of a country in the international arena. The chapter describes China's evolution over the past seven decades and tries to explain China's actions—the beginning of which can be traced during the period 1950s-1990s. During this period, China remained isolated internationally without much external diplomacy. During the 1990s many important developments took place in China, like many sanctions imposed on PRC were listed, Hong Kong was returned to Chinese sovereignty and participation of China in many multilateral institutions. The author goes on giving various examples of how China normalised its diplomatic relations with most of the nations in the world and broaden its international footprint. The Chapter explains how Xi Jinping's ascension to power in 2012, led China to exhibit increased confidence and proactiveness in the international arena.

The second section of the book focuses on the 'historical sources'—whereby, the authors Odd Arne Westad and Chas W. Freeman Jr, in their respective chapters, explain how history of a nation determines its present. For China, two aspects matter the most—one, legacy of the empire and second, is authoritarianism. In his chapter on "Legacies of the Past," Westad points out how the Communist Party of China (CPC) today has created its own version of history to justify its economic success. This chapter posits that China's historical legacies, authoritarianism, now mixed with nationalism, may create problem for China, and predicts that due to the tremendous change China has undergone, a different China might emerge. While Freeman Jr in his chapter on "China's National Experience and the evolution of PRC Grand Strategy" argues that China as a civilisational state has different strategies to rule. China in the past has been governed, conquered, humiliated by the West; however, PRC has

established a Chinese state that today embraces the Westphalian Order. To which, PRCs grand strategy has changed with the changing global scenario, specifically with unsettled frontiers and further explains as to how the changes in the international system, led China to fully integrate itself into the American-sponsored globalised order. More importantly, with US retreating from that order, China has started to expand and reshape the world affairs which uphold Chinese interests.

Social influence matters in shaping of the Chinese foreign policies— as explained in the third section on "Domestic Sources" that dwells into this assumption. Peter Hays Gries examines the Chinese attitude towards different parts of the world and certain major policy initiatives in his chapter, like Belt and Road Initiative (BRI) by drawing from Chinese views on platforms such as *Zhihu* (Chinese version of Quora). However, the query remains—Do these voices matter? While Suisheng Zhao in his chapter on China's foreign policy making process, highlights the fact that the highest decision making and foreign policy making is concentrated in the hands of the CPC—the important role is played by the 'leader'. As evident from President Xi Jinping's commitment to fundamentally change from low-profile diplomacy to 'big power diplomacy'.

Section four of the book deals with the "Domains of China's Global Interactions." The authors Barry Naughton, Shaun Breslin, Kathrine Morton, Phillip C. Saunders in their respective chapters explore China's global interaction such as economic, cultural, governance, military and security interactions. In "China's Global Economic Relations," Barry Naughton explains the new policy initiatives and structural changes in China and how the interactions with the world have changed from time to time. He brings out the expectations of China and how China has evolved in its interactions globally. As the author argues that China's initiative to offer financial access to countries through the Asian Infrastructure Investment Bank and Belt and Road Initiative has shown the world, that China is capable of running world class institutions. However, China's

policy adoption is incomplete and not yet successful. While Shaun Breslin in his chapter "China's Global Cultural Interactions" traces the history behind the contemporary promotion of Chinese culture through Confucius Institutes, education, and sports which has resulted in greater awareness of Chinese programmes and 'what it is and what it wants.' Besides, the CPC tries to influence by using state media, although it is not a new phenomenon—recent programs aired by CGTN is seen as China's aggressive use of soft power. However, Breslin remarks that there have been few lukewarm responses to such actions of China as there exists a disconnect between what China as a State promotes and what it does on a daily basis.

Katherine Morton in her chapter on "China's Global Governance Interactions" reflects on China's ambition of global leadership by playing a major role in the global governance system. The author presents an argument, that a shift is taking place concerning China's interaction with the global governance system as evident from China's position in the United Nations, policy making related to issues of climate change, setting up of regional and multilateral institutions like SCO, AIIB, BRI, and others. Morton also discusses major dilemmas confronting China in its transition towards global leadership. While Phillip C. Saunders in the chapter on "China's Global Military-Security Interactions" reviews China's overseas security interests, the military missions of the People's Liberation Army, its organisational structure, and the capabilities of the PLA. Saunders argues that China's foreign policy objectives are supported by its military diplomacy as the PLA supports China's economic and security interests.

Section five of the book deals with "China's Bilateral and Regional Relationships." The section focuses on China's interactions with major countries across the world, mainly the United States, Russia, Europe, Asia, Africa, Latin America, and Middle East and also provides an understanding of the way China practices regional multilateralism.

Chinese interactions with each of these countries as cited above, has a history and a new trajectory has been evolving based on the interests and contemporary developments; however, interaction with each country is distinct as explained by Robert Sutter (United States), Alexei D. Voskressenski (Russia), Francois Godement (Europe), Michael Yahuda (Asia), and Joshua Eisenman and Eric Heinbotham (Africa, Latin America and Middle East). Each author in their respective chapters analyses the dynamics of China's relations and what it means for the future, and also ponders on the key challenges faced by China. Specific to China-led multilateralism, Srikanth Kondapalli in his chapter on "Regional Multilateralism with Chinese Characteristics," argues that multilateralism is predominant in China's diplomatic practice as evident from China's membership to most of the international organisations except a few. Besides, China has also created a wide range of new organisations and regional groupings across the world—a move towards gaining China's regional and global dominance.

Finally, in section six, David Shambaugh in the concluding Chapter on "Patterns and Prospects" highlights China's future and the challenges that China will face in the decade ahead. As noted, the book ends with mentioning that it will be a recurring series of books once in every half a decade or a decade and the existing literature will be updated accordingly.

On the whole, the book is an excellent read and gives an in-depth analysis on various aspects of China and its policy-making process, interactions with different actors across the world and finally analyses and understands why China behaves the way it always does. The book is a must-read for all the analysts, policy makers, International Relations students and people who wish to understand China.

Notes for Contributors

General

The CLAWS Journal welcomes professional articles on warfare and conflict, national security and strategic issues, especially those related to the art and science of land warfare including sub-conventional conflict in the Indian context. Articles may be submitted by serving and retired members of the armed forces as well as civilians in India and abroad. Articles on aerospace and maritime issues and those on foreign policy and international relations having a bearing on land warfare are also welcome. The Journal particularly encourages articles from younger members of the armed forces.

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   Samina Yasmeen, "Pakistan's Kashmir Policy: Voices of Moderation?," *Contemporary South Asia*, Vol. 12, No. 2, June 2003, pp. 187-202. In case of two journals having a similar title, the place of publication must be mentioned, e.g., International Affairs (London) and International Affairs (Moscow).

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(e) Articles in Newsmagazines: Gurmeet Kanwal, "Pakistan: On the Brink," *The Week*, November 4, 2007, p. 45.

(f) Articles from Newspapers: M. K. Bhadrakumar, "New Regionalism in Central Asia," *The Hindu*, July 14, 2004.

(g) References to Websites: United Nations Development Programme, "Arab Human Development Report 2003", http://www.undp.org/rbas/ ahdr/english2003.html, accessed on October 27, 2007.

(h) Reports and Documents:
- United Nations, UNCED, The Global Partnership for Environment and Development (New York: United Nations, 1992).
- Canberra Commission, Report on the Elimination of Nuclear Weapons (Canberra: Commonwealth of Australia, 1996). Available on the Internet at <http://www.dfat.gov.au/cc/cchome.html>

(i) Conference Papers:
Michael Williams, "The Discursive Power of Community: Consideration on the European 'Security Community'", Draft Paper presented at the conference on Power, Security and Community: IR Theory and the Politics of EU Enlargement, Copenhagen October 9-12, 1997.

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