
Hybrid Warfare Challenges to the Armed Forces: Realities and the Way Ahead

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In all fighting, the direct method may be used for joining the battle, but indirect methods will be needed in order to secure victory.

—Sun Tzu

Introduction

With the recent landmark changes in the political landscape of Jammu and Kashmir (J&K), a whole new era has been ushered in. A state which was unfortunately the test-bed of Pakistan's nefarious agendas for decades, has now been subjected to a bold, exigent and logical step. The dissonance in decision-making has finally given way, laying fresh ground for renewed endeavours. With "Hybrid Warfare Challenges to the Armed Forces: Realities and Way Ahead" being the subject of scrutiny, a certain degree of factual clarity needs to be brought in right away. Three fundamental queries need to be answered at the outset.

First, is the term hybrid war a relatively recent construct? The answer is a definite no. The phenomenon is actually as old as the history of warfare itself. Chanakya,¹ around 300 BC, propagated the use of *sama* (conciliation), *dama* (economic gratification), *danda* (use of force)

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and *bheda* (dissension) i.e., all resources at the disposal of the king (in today's context—comprehensive national power) to achieve the intended outcome. Second, are we adequately equipped to deal with the current and upcoming challenges posed by this warfare? The answer is yes. However, we certainly seem to be ill prepared at the moment and the same will be discussed later in the paper. Last, how true is the notion that hybrid warfare is a tool of the lesser opponent? At best, this can be considered partially true. Today, the greater opponents use hybrid tools with similar primacy. A case in point being the Russians in the Russo-Georgian War² of 2008. So, with these pointers as the backdrop, we move on to assess the reality of hybrid war in today's context, the challenges it poses to our armed forces and the counter strategy desired. However, before we get to know the reality and the context in which the hybrid philosophy thrives, it seems logical to understand the basic anatomy and the paradigm which drives this philosophy.

Understanding the Anatomy

The Indian Army Land Warfare Doctrine 2018³ puts across the hybrid warfare sentiment as:

Future conflicts will be characterized by operating in a zone of ambiguity where nations are neither at peace, nor at war, a “Grey Zone” which makes our task more complex. Wars will be hybrid in nature, a blend of conventional and unconventional, with the focus increasingly shifting to multi-domain warfare, varying from non-contact to contact warfare.

So, what is hybrid warfare? In the language of the learned, it is warfare which combines the lethality of conventional war with the fanatical fervour of irregular warfare⁴. Whereas, in simple military terms, it is a full spectrum warfare comprising the conventional, sub-conventional, unconventional and non-conventional means. It can, however, be stated without

exaggeration that, of late, this brutal brand has defied all sorts of definitions and is practised and professed by different names in different parts of the world. The major constituents of the definition of, and congruence with, similar contemporary strategies have been amplified below.

Conventional:⁵ In short, this type of warfare involves state actors and resources also including the Chemical, Biological, Radiological and Nuclear (CBRN) dimensions. Most activities in such type of warfare lie in the open/overt domain.

Sub-Conventional:⁶ Activities in the sub-conventional sphere can be executed in the scenarios of both No War No Peace (NWNP) and peace proper. While aspects such as proxy war, terrorism, insurgency, cyber, civil war and public disorder fall under the ambit of NWNP, peace-time issues include criminal disorder and unlawful activities.

Unconventional:⁷ The majority of endeavours under this warfare lie in the covert domain to include subversion, sabotage, resistance, revolution, intelligence operations, etc.

Non-Conventional:⁸ The peculiarities of this subset are the most distinct, and which are conducted overtly/covertly by the state itself as part of its political agenda. Activities under this category are separate domains within themselves for the purpose of study and execution. Major strategies under this warfare include political, diplomatic, economic and demographic wars.

Apart from the means of warfare, countries use different terminologies which have a semblance with hybrid warfare. Every nation in the world today follows a unique trend line. It has its own goals and ambitions, in both the short and long terms. Comprehensive national power is accordingly orchestrated to achieve the desired end state. A number of terms are being contemporarily used by nations which correspond to the hybrid philosophy. Thus, there is a congruence of hybrid warfare with the contemporary

strategies used by some nations. The underlying spirit guiding these terms, however, can be understood as being the same. Some of these terms are:

Grey Zone Warfare:⁹ The term was originally part of the US lexicon. It denotes an environment between war and peace where hybrid tools of coercive influence, ranging from conventional forces to criminal activities, are utilised. As far as the US goes, it does not seek inclusion of conventional forces in the understanding of ‘grey zone’ conflicts, however, experts elsewhere are of the belief that such exclusion is not practicable as there is always the possibility of the use of conventional force in the grey zone.

Unrestricted Warfare:¹⁰ This warfare comprises the Chinese comprehension of hybrid/grey zone tactics. This sort of warfare has no restrictions placed on any kind of boundaries/means/methods to achieve what the nation thinks is justified. To the extent that even culture and religion are not exempted from its ambit.

Non-Linear Warfare:¹¹ Such a phrase is very easily understood by a common military mind. For the uninitiated, the term was conceptualised by General Valery Gerasimov of the Russian Army in the year 2013. According to the concept, conflict does not have any clear front lines or distinct friendly/enemy areas. He even went on to mention that warfare transcends into the political, diplomatic, economic and informational domains of statecraft, making it more holistic and all inclusive.

Having glanced through these terms used interchangeably these days, the congruence is very well established. One should also not miss two significant aspects that have ubiquitously/unilaterally been endorsed by modern states in relation to hybrid war. These being the optimum exploitation of technology and use of information as frontline tools of war execution. The more meticulous and innovative the use, the better are the results.

Means, Ways and Ends Paradigm: In order to obtain a simplistic and in-depth understanding of the hybrid construct, it may be prudent to glance at it through the *means*, *ways* and *ends* phenomenon. This paradigm brings out the mechanics of manifestation of this warfare in simple terms. If the *ends* denote the desired end state/outcome of a strategy, then the *means* signify the resources available at the disposal of the executor and the *ways* are the methods (courses of action) used to attain the desired end state through existing means. In the hybrid context, this could be understood as:

Table 1

Means	Ways	Ends
Hard	Kinetic	Political instability Social unrest Religious disharmony Weak economy Capturing value territory and taking prisoners of war
Military	Conventional war	
Nuclear/biological/chemical	nuclear/chemical/biological strike	
Terrorists	Blasts by terrorists	
Criminals	Sabotage attacks	
Foreign mercenaries	Suicide/fidayeen	
Fifth columnists	attacks by mercenaries	
Anti-national elements		
Soft	Agitational dynamics	
Political linkages	Demonstrations	
Diplomacy (mainstream)	Short range missile strike	
Economic (trade dependency)	Non-kinetic	
Ethnic linkages	Diplomacy	
Religious linkages	Collusion with unfriendly	
Media (visual and print)	nations	
Cyber experts	Information operations	
Smart	Smuggling/fake	
Social media	currency	
Diplomacy (Track Two)	Exploiting social/religious and ethnic faultlines	
	Cyber attack	
	Electronic warfare attack	

Source: Prepared by the Author.

Let us understand the above table by two contrasting examples. The military is one of the hard *means* available to a nation. These *means* use the *way* of conventional war to achieve the desired *end* state of capturing maximum value territory and taking prisoners of war, thereby causing national shame to the enemy. Taking the second example, the media is a soft *means* which uses the *way* of information operations to achieve a variety of *ends* such as lowering the morale of the enemy military or nation as a whole or causing social, ethnic or religious unrest in the target country. The list tabulated above, however, is neither definite nor exhaustive. This will keep evolving as newer/innovative means and ways are adopted by states to achieve more compelling ends.

It also becomes genuinely pertinent at this juncture to clear a major misgiving. Hybrid warfare is majorly seen by some as the tool of the weak. This understanding to an extent is supported by history. During the Sino-Vietnamese War of 1979,¹² China was a stronger opponent and still its victory is disputed to a large extent. Vietnam was militarily weak. It could pitch just about 70,000 troops as opposed to the 600,000 Chinese troops. However, with the combination of various means such as the military, irregulars, spies and mobilising world opinion (which may be termed as hybrid in one word), the Vietnamese not only countered the Chinese conventional effort but also tilted the outcome of the war in their favour. Victory was, hence, claimed to be achieved. The thought is the same for Pakistan in our context. Since it cannot imagine outperforming India in a purely conventional war (majorly due to force and resource constraints), it resorts to hybrid warfare (proxy war in J&K;¹³ keeping the military extremely occupied by firing, infiltration and an aggressive stance on the international border; efforts to revive the Khalistan movement¹⁴ in Punjab; disruptive activities in the hinterland, and so on). Thus, an indirect approach of *bleeding India through a thousand cuts*.

The above acts of Pakistan in the current scenario, however, need to be viewed from a different perspective altogether. Today, nations indulge

in hybrid war not just because they are weak or strong, but due to the flexibility and enormous gains it offers. The smaller nations employ these means because they have nothing to lose in a conflict with larger nations; it only increases their chances of victory. Whereas the larger nations in the same conflict use them because they want to win with the least efforts/implications or, to say, *winning without fighting*, as Sun Tzu recommends. Therefore, while smaller nations like Pakistan and North Korea¹⁵ use such means (against India and the United States respectively), at one end of the conflict spectrum, countries like China¹⁶ and Russia¹⁷ also use them with conviction at the other end. The difference only lies in the type of means wherein one (say China) relies mainly on non-kinetic means, the other (say Pakistan) banks primarily on the kinetic. Having seen the preference for hybrid wars across nations, it is now time to get a contextual comprehension of the hybrid phenomenon as it relates to India.

Contextual Comprehension

As highlighted earlier, hybrid war is definitely not a tool adopted due to the size or stature of a country. Every opponent has his own design of the battle and concept of application of means (both military and non-military). Hence, it becomes extremely necessary to get the contextual comprehension right with respect to hybrid wars, as being executed by our adversaries. Such an understanding will certainly facilitate a better informed strategy based on pragmatic assumptions.

Western Adversary: The desire for operational parity, irrespective of the established capability mismatch, defines as well as justifies the use of sub-conventional means by Pakistan.¹⁸ All the wars fought with India, from the 1947 War till the Kargil conflict stand as testimony to the use of irregulars¹⁹ towards achieving war aims. In 1948, a force led by tribesmen and duly supported by serving and retired Army officers formed the tool of Pakistan's conventional designs in Kashmir. This, of course, was coupled with the subversion of the troops of the state forces

of the Maharaja (an aspect of hybrid warfare). Similar was the story in 1965 when internal disturbance in Kashmir over the missing hair of the Prophet emboldened Pakistan to induct a large number of irregular forces in conjunction with the regular Army to gain control over territory from multiple ingress points. The story in 1999 was the reverse. This time around, Pakistan wanted to prove that the act of intruders occupying high altitude heights overseeing the national highway to Leh was totally a Mujahideen endeavour, however, it was again proved wrong. Therefore, the presence of the hybrid content in all these instances is well established.

Use of hybrid warfare as a war execution strategy not only suits Pakistan, but comprises its domestic and strategic compulsion. Domestically, it needs to keep the Kashmir issue alive (either by internal disruption in Kashmir or seeking international intervention) for various reasons for which hybrid warfare is the best option as per cost benefit analysis. This would prove the worth of its military as well as polity to the anti-Indian elements in the country. It would also divert the Pakistani common man's attention from core domestic issues such as slow growth, widespread corruption, and so on.

Strategically, the geographic location of Pakistan affords it certain advantages. The country is located at the crossroads of South Asia, the Middle East and Central Asia. Time and again, its location has been a source of leverage, both for itself and the United States, towards meeting their Western agendas. Afghanistan is a case in point²⁰. Pakistan has been practising hybrid war in Afghanistan since 1980s, initially through the Mujahideen and now the Taliban. In both cases, this has benefited Pakistan strategically as well as economically. The strategic benefit has three aspects attached to it. First, it provides Pakistan a place of relevance in the Global War on Terror against the Taliban in Afghanistan, courtesy the United States. Second, it also gives a spot of prominence in various international conflict resolution forums for Afghanistan, enhancing its brand value in a way. Thirdly, its internal leverages over the Taliban help

Pakistan to retain a sort of latent control over Afghanistan. This, in turn, placates its notion of strategic depth against India and also helps extend its influence towards Central Asia. The economic benefits²¹ accruing by helping the United States against the Taliban are known worldwide. All this, in a way, can be attributed to Pakistan's knack for executing hybrid warfare by using non-state actors.

Northern Adversary: The context is entirely different when we speak of China. The country is treading the road to superpower status. Armed with top-notch technology and world class weaponry, it is way ahead of India in terms of capability, both military and otherwise. Since any overt use of purely conventional means towards conflict resolution is likely to discredit its reputation in the comity of nations, it is more inclined towards the use of non-kinetic/non-contact grey zone tactics.²² This has been amply demonstrated through its endeavours in the maritime domain (South and East China Seas and the Indian Ocean Region) and also the recent Doklam crisis.²³ The point here being that India must expect an equal share of hybrid warfare application against it by China in both standalone and collusive modes.

Therefore, as evident from the above, every nation has its own justified reasons to indulge in the so-called hybridism. The greater danger being that hybrid means will see an ever greater adoption by nations in the times to come. Some reasons which naturally make this the warfare of choice²⁴ are:

- No formal declaration of war is required. The majority of tools can be used during such war.
- Peace/no war-no peace.
- Low cost option, with high payoffs.
- Attributability is always doubtful.
- Deniability factor.
- Avoids abrupt international attention as in the case of conventional war.

- Survivability ratio of means applied is comparatively higher.

Challenges Posed to Indian Defence Forces

A concerted effort is being made by our adversaries to shrink the space for conventional war through the prosecution of unconventional operations at the lower end of the spectrum and threats of early and irrational use of conventional weapons at the other.

—The Indian Army Land Warfare Doctrine 2018²⁵

The armed forces of any nation are a lucrative target for an adversary indulging in hybrid warfare activities. Despite their reach, precision and lethality, the forces are extremely vulnerable due to their large logistic and administrative entities. Cumulatively, they pose a viable signature, sometimes greater than the mass of combat forces themselves. Any dent or discredit caused is likely to catch headlines and impact the overall morale of the Army and the state. At the same time, such activities keep the forces engaged below the conventional threshold, hampering their overall conventional preparedness. The challenges, thus, posed by hybrid warfare to the armed forces are myriad; however, for the sake of comprehension and analysis, these have primarily been divided into the physical and virtual domains, as elucidated below.

Physical Domain Challenges: In order to facilitate assimilation, predicaments in the physical domain can further be sliced into Pakistan- and China-centric.

- **Pakistan-Centric:**²⁶ If one was to characterise the nature of activities originating from the western borders, these can be stated as crude, unscientific and uncoordinated to a large extent. Conventionally, involvement of regular forces in support of hybrid war is majorly limited to a full scale war under a nuclear umbrella, a short swift limited war, Border Action Team (BAT) action, Ceasefire Violations (CFVs) and logistics support to infiltrating columns. The majority of the

efforts are being diverted towards sub-conventional, unconventional and non-conventional endeavours by way of infiltration by militants across the Line of Control/International Border (LoC/IB) and also through the maritime medium, agitational dynamics, sleeper cells, sabotage activities, smuggling, piracy, and malignant endeavours on the religious, social and ethnic fronts.

- ***China-Centric:***²⁷ Our northern neighbour follows a totally different class of physical activities in the hybrid domain. These being the likes of standoffs on the IB, transgressions, intrusions, increasing assertiveness on the political and military fronts, forays into the Indian Ocean Region (IOR), economic colonisation, debt trap, active pursuance of the equity for debt model, posing threats to island territories, collusion with like-minded adversaries and an overall attitude of the so-called coercive gradualism.²⁸ It can be stated with conviction that these activities, ranging from the tactical to the strategic level, are well articulated, with control at the highest levels.

Virtual Domain Challenges: As far as the virtual domain is concerned, the Chinese have an upper hand, however, of late, Pakistan has also shown promising competitiveness, especially in the information domain. Its special liking for subverting the Indian armed forces personnel through a well designed network of intelligence operatives and, of late, through a deft use of social media, has been an ongoing concern for the Indian forces.²⁹ The propaganda war launched by Pakistan in the international media in response to the Indian abrogation of Article 370 from J&K is worth noting.³⁰ While the physical activities are seemingly overt in nature, those in the virtual sphere are mostly covert in design, with very few open signatures. This is where the characteristics of attributability/deniability come into play more often. The activities in this domain are generally of a strategic nature, with severe and sometimes

crippling consequences for nation-states. China specifically has made great strides in the use of non-contact warfare to achieve its national aims. These include cyber warfare, Electronic Warfare (EW), Integrated Network Electronic Warfare (INEW), information operations (“Three Warfare Strategy”³¹ including psychological warfare, media warfare, and legal warfare), political and diplomatic parlaying, economic warfare and irredentism/demographic warfare.³²

Counter-Strategy

Hence, given the nuances, any strategy aimed at countering the manifestations of hybrid war in any form/name has to factor in the emerging security environment, technological advancements and multi-spectrum conflict challenges facing the nation today. It is evident that the current and future wars will be more hybrid in content and equally collusive or collaborative in context. The counter means, thus, employed or intended to be employed, must remain present-relevant and future, ready. It is also prudent to believe that hybrid wars are ever on, and different approaches/strategies are required to tackle them during peace/No War-No Peace (NWNP) and during active hostilities. The common sense motto of ‘Be Prepared’ will, however, apply equally across all approaches. Two scenarios to be taken into consideration with regard to counter-strategies are discussed briefly below.

Peace/NWNP Scenario: Whole of the Government Approach:³³

This aspect has to be understood with all the coherence it merits. All elements of national power should come into play in tackling such a threat. The military is just one of them but the military as the first responder always should not be the norm.³⁴ A state which always and every time looks upon its military to either counter an existing issue or as a tool of retribution, will be typecast and seen as one having limited options. The government has shown a definite resolve towards countering various aspects of hybrid warfare, the major steps being the intent to

dislodge terrorist infrastructure across the LoC through surgical strikes and the recently conducted Balakot strikes; a big jolt to the economic terrorism propagated by Pakistan by demonetisation in the year 2016; and the recent move to abrogate Article 370 and downgrade the status of J&K to a Union Territory (UT) status. These measures, falling under the military, economic and political domains, form part of the government's approach towards countering various facets of hybrid warfare to different extents. Such measures, demonstrating the will of the government, are needed every time the adversary attempts any misadventure in the hybrid domain, to unhinge and push him onto the back foot, irrespective of the political set-up of the time.

Military Capability Enhancement: The military, which primarily forms the conventional component of hybrid warfare, has to be further empowered, building the requisite capabilities in both the physical and virtual domains, with strong linkages to national level abilities. A long-term integrated perspective plan for capability development of the forces is already in place and needs to be pursued with priority, with assured budgetary support.³⁵ Talking of specifics, any counter-strategy, whether military or otherwise, will fundamentally rest on our capability to acquire actionable intelligence. Though considerable progress has been made with respect to Intelligence, Surveillance and Reconnaissance (ISR) capabilities³⁶ through the space and aerial dimensions (remote sensing satellite series, electronic intelligence satellites, unmanned aerial vehicles, long range maritime patrol aircraft), a lot is still desired. These capabilities need to be built to the requisite numbers, with their products percolating seamlessly down to the tactical level. The role of precise image intelligence acquired through cartosat satellites for successfully executing the surgical strikes in 2015 is no secret.

Focus on Non-Contact Warfare Capability:³⁷ Battles will now have a prolonged non-contact phase and a serious blend of the hybrid dimension. This cannot be neglected or downplayed any more. Our

capabilities in this domain have to emerge as the best and top-notch. We have no choice in this whatsoever. Our endeavours such as renewed importance to information warfare (including psychological operations, electronic warfare and cyber warfare) at all levels in the armed forces, establishment of the Defence Cyber and Space Agency (to be upgraded to the force level of command)³⁸ and the recently conducted Anti-Satellite (ASAT) tests need to be built on further in all earnest.

Embrace Technology: Technology has redefined the way wars are, and will be, fought in future. It has become a major enabler of both kinetic and non-kinetic dimensions of war-fighting. Our slow pace of technology adoption can be attributed to heavy import reliance. A country relying majorly on trade for meeting its security needs will always be in the process of catching up. There is, hence, a dire need to promote Make In India and indigenous products rather than look abroad at all times. The Technology Perspective and Capability Roadmap 2018 (TPCR)³⁹ provides the industry an overview of the equipment that is envisaged to be inducted into the forces up to the late 2020s. It aims at driving the technology development process in right earnest. The point to be understood here being that only laying down what is desired by the forces may not be adequate at this stage: it has to be backed up by proper government support and eager willingness by the military to accept indigenous products.⁴⁰ The Akash surface-to-air missile system, Arjun tank, Dhruv utility helicopter, Tejas multi-role fighter aircraft, Pinaka multi-barrel rocket launcher and Nag anti-tank missile are some of the indigenous weapon systems doing exceedingly well for the Services. The only need is to keep pushing this forward. Nations much smaller in size like Singapore and Israel should be looked upon as role models with regard to optimising technology. There is no choice but to endorse technology in every affair of the nation and military. It is a simple pursue or perish situation.

Active Hostilities

Coherence of Action: All the abilities/capabilities that we as a nation have built upon need to be harnessed in entirety during hostilities. The linear, standalone methodology of war-fighting, with cooperation and coordination dependent on personalities, will have to give way to jointness, not only at the level of the Services but at the national level. The recent announcement with regards to the creation of the post of Chief of Defence Staff (CDS)⁴¹ as a single point military adviser to the government is a long pending and welcome step. Its implementation has to be deliberate and meticulous.

Citizens' Role: The onus of fighting a hybrid enemy cannot rest solely on the defence, paramilitary or police forces—it has to be a national effort with every citizen playing his role by being security conscious during peace/no war-no peace/active hostilities. Some proposed measures in this regard are listed below.

- **Rejuvenation of Home Guards:**⁴² The Home Guards is a voluntary citizens' force to act as an auxiliary element to the police for assistance during exigent/emergent situations. Border states have a Border Wing version of the Home Guards which serves as an auxiliary element to the Border Security Force (BSF), with clear-cut roles during hostilities such as counter-infiltration, protection of vulnerable areas and points and security of lines of communication. Presently, there is sub-optional utilisation of the Home Guards and especially the Border Wing. It is proposed that the Border Wing of the Home Guards be shifted under Ministry of Defence from the Ministry of Home Affairs. Thereafter, this force may be rejuvenated by enhanced training and, further, orbatted under static formations to strengthen the rear area security/counter hybrid war posture. This force, comprising locals of the area, will function on the lines of scouts and act as the eyes and ears of field formations in both forward and rear areas.

- ***Village Defence Committee:***⁴³ This was instituted in the state of J&K to make border areas self-sufficient in terms of security. It is an organisation of the villagers, by the villagers and for the villagers. The effective utilisation of these entities is dying down due to weak management. There is talk to even disband them. This may not be the correct approach. The role of village defence committees in the 1965 War is well known. They acted as force multipliers to the Army by reporting and countering the moves of the irregular forces who operated by merging with the population. It is proposed that these committees be further strengthened by proper training and equipping. A retired Serviceman in the village should be made responsible for their training. The instructor and members (8-10, depending on the size of the village) may even be given an honorarium to incentivise the matter.
- ***Role of National Cadet Corps:***⁴⁴ The role and charter of the National Cadet Corps (NCC) is well known to all. However, it is felt that the NCC can play a larger role towards building a strong and secure society. To this end, it may be prudent to make one year of NCC enrolment compulsory in colleges. During this year, the enrolled undergraduates may be exposed to one outdoor camp, including basic firing and field craft. By doing this, over a period of time, we can at least move towards a security conscious society which can, to an extent, look after its self-security aspects. During a war, such people will be better placed to look after themselves and may even serve as volunteers in the communication zone.

Disruptive Response: The armed forces are well aware that the time for set-piece conventional battles is long over. Today, the war may well be over before the military battle begins, or it may be half won/lost before the troops set foot on the ground as happened in Georgia and East Ukraine. Our armed forces have to be prepared to operate under such

eventualities, tailoring our doctrines, strategies, tactics, techniques and procedures accordingly. In other words, our response has to be disruptive in nature which poses a paradigm not planned for by the enemy. This can only be achieved by creating core competencies in new dimensions of warfare through the use of emerging means such as drones, artificial intelligence, robotics and social media.⁴⁵ Towards this end, flexibility and mental mobility will need to be the hallmarks of the military and political leadership at all levels.

Conclusion

The low liability and high payoff paradigm of hybrid warfare will ensure that this remains the preferred choice of war-waging for many nations, irrespective of their size and stature. As a peace-loving nation, we may not subscribe to this ideology, but will definitely have to be prepared to confront it and, at times, to preempt it suitably. Our capabilities, hence, have to match our intent. Towards this, ‘A Whole of the Nation Approach’ both towards coherent capability building and a coordinated response mechanism at the national level is a *sine-qua-non*.

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