

SYNERGY

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CONTENTS

Foreword	-	xi
Director's Remarks	-	xiii
1. Military Diplomacy Gen VP Malik, PVSM, AVSM (Retd)	-	01 - 06
2. Human Security for a Prosperous and Self Reliant India Maj Gen Umong Sethi, AVSM, VSM (Retd)	-	07 - 19
3. India's Quest for Strategic Autonomy Gp Capt GD Sharma, VSM (Retd)	-	20 - 33
4. Military Strategy: India Lt Gen Vinod Bhatia, PVSM, AVSM, SM (Retd)	-	34 - 45
5. Shaping a Positive and Favourable Maritime Environment for India Vice Adm HCS Bisht, PVSM, AVSM, NM (Retd)	-	46 - 59
6. Combating Terrorism and Internal Security (IS) Threats Lt Gen Syed Ata Hasnain, PVSM, UYSM, AVSM, SM, VSM (Retd)	-	60 - 74
7. Terrorism and Counter Terrorism in the Indian Context Lt Gen Mukesh Sabharwal, PVSM, AVSM (Retd)	-	75 - 88

8. **Integrated Theatre Commands for the Indian Armed Forces** - 89 - 104
Brig (Dr) Rajeev Kumar Bhutani (Retd)
9. **Tactical Nuclear Weapons** - 105 - 123
Lt Gen Amit Sharma, PVSM, AVSM, VSM (Retd) &
Dr SK Vasudeva (Retd), Chief Controller, Strategic System, DRDO
10. **Strategy to Fight Proxy War : Treat the Disease and Not the Symptoms** - 124 - 137
Lt Gen Rameshwar Yadav, PVSM, AVSM, VSM (Retd)
11. **India's Border Management Strategy** - 138 - 153
Lt Gen Vinod Bhatia, PVSM, AVSM, SM (Retd)
12. **Contribution of India to World Peace by Way of United Nations Peacekeeping and Related Issues** - 154 - 165
Lt Gen Chander Prakash, SM, VSM (Retd)
13. **Leveraging Economy for National Security** - 166 - 191
Brig (Dr) Navjot Singh Bedi
14. **Self Reliance in Defence Industry : A Never Ending Learning Curve** - 192 - 207
Air Mshl PP Khandekar, AVSM (Retd)
15. **Veterans and Nation Building** - 208 - 220
Mr R Chandrashekhar

FOREWORD

A National Security Strategy is considered as a guiding and driving force for unified, synchronised and synergised approach to the security of the nation and its populace. It plays a directional role at higher level and sends out a clear signal to all stake holders for conducting the state craft in a cohesive manner.

Several efforts have been made by many authors to present a written, non-confidential form of the national security strategy in the past. Non-existence of such a formal document in the open domain has attracted a lot of criticism from various scholars well versed with the national security issues.

There are several elements which form the backbone of a good national security strategy. They pertain to different shades of diplomacy, intelligence, military, economics, etc.

Recently a Defence Planning Committee (DPC) has been set up by the Govt to address all higher defence management issues. It will study all aspect of the national security and formulate a national security strategy, besides coordinating between all stakeholders.

The August 2018 issue of the Synergy Journal deals with the vital theme of Essential Element of National Security Strategy. Views of a balanced mix of domain specialists presented in the articles are likely to contribute for formulation of the strategy.

A handwritten signature in black ink, appearing to read 'Satish', with a horizontal line underneath.

(Satish Dua)
Lt Gen
CISC & Chairman CENJOWS

DIRECTOR's REMARKS

The national aim of our country is to “Transform India to a Modern, Prosperous and Secure Nation”. As security is a precursor to long term peace, stability and development, securing India is a national imperative. National security strategy simply stated is the strategy to protect and project our national interest.

Ever changing geo-political, geo-strategic and geo-economic global, regional and neighbourhood landscape presents a plethora of security challenges to India. India has embarked upon a journey to build capabilities to look after its interest wading through all the developments. A comprehensive national approach or strategy encompassing all arenas is essential for maintaining a strategic autonomy for the country.

India's size, strategic location, trade interests in a security environment that extends from Arabian Sea, Persian Gulf in the West, to the straits of Malacca in the East and from the Central Asian Republic (CAR) in the North to the IOR in the South, underpins India's security response. In view of the vast strategic spread, it is essential to maintain a credible land, air and maritime force to safeguard India's security interests.

Over a period of time India has established ministerial level relationship with 186 countries and is planning to reach out to the remaining seven UN member nations in the near future. India's

relationship with major countries such USA, Japan, China, Russia and regional groupings such as European Union, West Asia, Africa, Latin America and the ASEAN is of special importance for safeguarding our national interest.

There are several elements requiring deep understanding while formulating the national security strategy and suggesting measures for building capabilities and capacities. This issue of the Synergy Journal elaborates the essential elements such as India's Quest for Strategic Autonomy, Defence Diplomacy, Military strategy, Evolving Joint Structures for Integrated Theatre Operations, Shaping a favourable and Positive Maritime Environment for India, Defence Industrial Base and Self Reliance Strategy, Tactical Nuclear Weapons, India's Proxy War Fighting Strategy, Veterans and Nation Building, India's Border Management Strategy, Combating Terrorism and Internal Security Threats, Role and Contribution of Indian Military to World Peace (UN), Steering National Initiatives for a Prosperous and self Reliant India, Terrorism and Counter Terrorism in the Indian Context and Leveraging Economy for National Security. Happy reading.



(Vinod Bhatia)
Lt Gen (Retd)
Director CENJOWS

MILITARY DIPLOMACY

Gen VP Malik, PVSM, AVSM (Retd)*

Introduction

On the face of it, military and diplomacy belong to different realms. Yet, they are considered two sides of the same coin. If diplomacy is the first line of engagement between states, military is seen as the last which *could* involve use of force. Diplomacy and use of military force, however, should not be seen as two ends of a spectrum. Since a long time, nations have used demonstration of military capabilities and threats of use of force as instruments to boost negotiating leverage with other states. Once upon a time, 'Gunboat diplomacy' was a well-established tradition in statecraft. George Kennan, well-known diplomat and political realist, once said, 'you have no idea how much it contributes to the general politeness and pleasantries in diplomacy when you have a little, quiet force in the background. '

Paradigm Shift

Ever since the end of the Cold War, there has been a paradigm shift in the approach to defence and military cooperation. Currently, military diplomacy is utilized more often for constructive and peaceful purposes. Bilateral or multinational military visits, exercises, sports and teams/ weapons competitions create greater transparency in international relations. It is aimed at building greater confidence between nations and preventing conflicts.

With the prospect of conflicts among major powers getting reduced and the focus shifting to limited wars and sub conventional conflicts and civil wars, military diplomacy has emerged as a new international priority. Almost every country in the world has institutionalized it.

Defence and Military Diplomacy

The phrases military diplomacy and defence diplomacy are often used interchangeably. While the term 'military' denotes exchanges and interactions between uniformed services, 'defence diplomacy' is used to identify activities undertaken by the entire defence establishment of a country, including the civilian bureaucracy and other establishments associated with defence. A simple definition of military diplomacy would be the 'use of armed forces in operations other than war, building on their trained expertise and discipline to achieve national and foreign objectives abroad'.

China, like the USA, uses military diplomacy extensively and calls it 'foreign affairs work performed by defence institutions and armed forces'. It has a large number of military officers embedded in their foreign ministry ensuring greater synergy and expedient decision making. Unfortunately, India does not make adequate use of it. One does not know whether this is deliberate, a result of bureaucratic and political inertia or turf protection so prevalent in the Government of India. From personal experience, I believe that with greater utilization of military diplomacy, we can enhance the pursuit of India's national interests. It must be clearly understood, however, that military diplomacy does not replace, but supplement, the overall foreign and security policy guidelines set by the political leadership.

Broadly speaking, military diplomacy aims at: first, strengthening of diplomatic ties with other countries, second, training of one's own military, third, improving knowledge and awareness of weapons and military

technologies, and very importantly, fourth, establishment of a sphere of influence. It enables direct interaction with foreign military organizations to learn about their weapons, tactics, doctrines and strategies. Military interactions are generally conducted through exchange of military attaches, visits by military delegations, military studies abroad and military assistance to friendly countries. The exchanges and cooperation would also include military to military consultations, military protocols, professional military education programmes and holding of bilateral and multilateral military exercises. These would help in conveying a nation's security interests to foreign countries. Cooperation in non-traditional security areas could also be included in the dialogue.

Utility in Sustaining Relations

Ever since the advent of coalition politics and regional politics acquiring greater influence within India, there have been several instances where the central government has had to sacrifice its diplomatic interests, even strategic cooperation and security interests, to appease the domestic constituencies. Two recent examples are India's relations with Bangladesh and Sri Lanka getting affected due to domestic political pressure from West Bengal and Tamil Nadu respectively. We have issue based problems with neighboring countries which in India's national interests cannot be allowed to escalate and damage relationship permanently.

Under such circumstances, military diplomacy can play a very useful role. It is sustainable, less visible, and can be kept under wraps more easily.

Progress in India

India started poorly in making use of military diplomacy as a national security and foreign policy instrument. There were several reasons for

this, the foremost being a steep erosion of every aspect of India's military capabilities: civil-military relations, military capabilities, leadership and morale.

Nehruvian India was distrustful of the armed forces and kept them out of the Ministry of Defence and important decision-making. It also had inordinate faith in the power of diplomacy and negotiations conducted by the officials of the Ministry of External Affairs. The prevalent practice of 'bureaucratic control' instead of 'political control' in South Block ensured that policymaking was crafted by bureaucrats and strategy by diplomats. Both lacked military expertise or perspective. There were a few exceptions however. One of them was when India during the prime ministership of Nehru chaired the UN Neutral Nations Repatriation Commission (NNRC) in 1953, sending a contingent and field ambulance to Korea, and the subsequent UN peacekeeping missions. Military diplomacy also became a component of India's early engagement with Nepal and Bhutan. Elsewhere, it was limited to exchange of visits by the Chiefs of the armed forces, sending or receiving officers to military institutions and visits necessary for the acquisition of weapons and equipment.

The scale and scope of India's defence and military diplomacy expanded steadily in the post-Cold War era. After the collapse of the Soviet Union, India went in for military engagement with the US. The basis for the interaction between the Indian and US armed forces was provided by the Kickleigher proposals in the early 1990s. Since then, despite some hiccups, Indo-US military engagement and cooperation has increased substantially. India now has bilateral defence cooperation agreements with a large number of countries.

Indian Navy has been on the forefront of lending a military dimension to India's 'Look East' policy unveiled in the 1990s. It has

developed regular military exchanges with all the Indian Ocean littoral countries. In 1995, the Navy unveiled the multinational cooperation exercises under the codename 'Milan' in its outreach amongst nations in the Bay of Bengal. This has now been institutionalized as a biennial event and draws a number of naval contingents from Southeast Asian nations. India joined the security related Asian Regional Forum of the Association of Southeast Asian Nations (ASEAN) in 1996.

These developments notwithstanding, political and organizational factors continue to constrain the involvement and effectiveness of military diplomacy. First, few democracies have the kind of overwhelming civilian bureaucratic control over the military as India does. The civilian bureaucracy is never enthusiastic about giving the military services any opportunity for international engagements. Second, the Ministries of External Affairs and Defence do not see eye to eye on the objectives of India's military diplomacy. While the foreign office has realized the value of military diplomacy, the Defence Ministry remains deeply conservative, even suspicious, in its exploitation. As political and financial approvals for military officers and delegations to go abroad are controlled and processed by civilian officials, such visits are usually kept to a minimum. The same attitude is adopted when foreign military delegations are invited to India. More importantly, unlike other countries, our military officers are seldom involved in security policy dialogues at senior levels.

Conclusion

Globalization has affected defence as much as any other activity and there is a need to continually find avenues for exchanging points of view with colleagues overseas, as well as learning from successful innovations being implemented elsewhere. Defence and military to military cooperation can play a key role in regional and global security.

In recent years, India has often diluted its diplomatic stances, and thus come across as a weak regional power leader, on account of domestic ethnic pressures. Political pusillanimity at home has its consequences abroad. Playing fast and loose with long-term security interests due to domestic politics has made it easier for China and Pakistan to expand their influence in the region at our cost. Military diplomacy, conducted as part of India's overall diplomacy, will act as a significant catalyst in strengthening its ties with friendly countries. It is time that our External and Defence Ministries got over their inhibitions and vested interests, and exploit the full potential of military diplomacy.

***General V P Malik, PVSM, AVSM (Retd)** is a former COAS

HUMAN SECURITY FOR A PROSPEROUS AND SELF RELIANT INDIA

Maj Gen Umong Sethi, AVSM, VSM (Retd)*

“Human security, in its broadest sense, embraces far more than the absence of violent conflict. It encompasses human rights, good governance, access to education and health care and ensuring that each individual has opportunities and choices to fulfil his or her potential. Every step in this direction is also a step towards reducing poverty, achieving economic growth and preventing conflict. Freedom from want, freedom from fear, and the freedom of future generations to inherit a healthy natural environment -- these are the interrelated building blocks of human – and therefore national – security.” -Kofi Anan¹

Introduction

The dominant notion of national security is maintaining territorial integrity, guarding sovereignty, national interests and independence in face of external and internal threats. There is a growing debate to expand the traditional notions of security and include the non-traditional threats to develop a more comprehensive approach to security². Some scholars

1. Kofi Annan. “Secretary-General Salutes International Workshop on Human Security in Mongolia.” Ulaanbaatar, May 8-10, 2000. Press Release SG/SM/7382. <<http://www.un.org/News/Press/docs/2000/20000508.sgsm7382.doc.html>> 08/27/01.

2. The Copenhagen school has advocated this for long. See Barry Buzan, People States and Fear: An Agenda for International security in the post cold war era (New York: Harvester _ Wheatsheaf, 1991) quoted by Ruchita Beri Research Officer, IDSA New Delhi, India in paper titled Traditional and Non-Traditional threats in a changing global order: An Indian perspective.

argue that under playing the non-traditional threats could lead to future traditional threats. Rapid depletion of natural resources, economic and gender disparities, low human development indices and the like pose serious challenges to a nation's survival illustrates the point³.

Human Development Report 1994 expounded a people-centred concept of security based on the premise that "the world can never be at peace unless people have security in their daily lives." The Report defined human security as people's 'safety from chronic threats and protection from sudden hurtful disruptions in the patterns of daily life.' Seven types of security were listed as components of human security, 'economic, food, health, environmental, personal (physical), community security and political. 'It postulates, "Human security is a universal concern; its components are interdependent; it is easier to ensure through early prevention than later intervention and it is people-centred"⁴.

The human security approach does not undermine the agenda of state security. In fact, according to the Commission on Human Security-2003, it compliments state security in multiple ways. There is evidence to suggest that spending disproportionately high resources on military while undermining welfare of people could endanger national security. Iraq, Afghanistan, Pakistan and many States in Africa bear a testimony to that⁵.

A Perspective

Many challenges accentuated by years of colonial rule confronted the leadership as India embarked on building a 'Nation State' after

3 Farhan Navid Yousaf, Human (In)Security in South Asia, South Asian Studies, *A Research Journal of South Asian Studies* Vol. 32, No. 2, July – December 2017

4 Pp 22-23 of Annual Human Development Report produced by the United Nations Development Programme (UNDP)-1994

5 Farhan Navid Yousaf, Human (In)Security in South Asia, South Asian Studies, *A Research Journal of South Asian Studies* Vol. 32, No. 2, July – December 2017

Independence. Some of the major challenges included unresolved borders leading to inter-state conflicts that lasted for quarter of a century, political integration, developing social cohesion, distrust of the central authority by the tribes inhabiting the country's Eastern periphery, low levels of all human development indices just to name a few. Over the years the designs of global powers to spread their influence in the region, contributed to State-centric security mind-set rather than adopting a predominantly human centric approach. Colonial rule had nurtured a class of subservient workforce that prospered by perpetuating a complex system of governance beyond the comprehension of the common people. The mass of people had wholeheartedly, plunged into the freedom struggle and were driven by idealism. This combination of ruling establishment adept at exploiting system to its advantage and idealist mass of humanity, perpetuated a corrupt system and inefficiency.

Though the human development was always a key focus area of the State yet it fell behind due to lack of resources. While other countries of the Region were plagued by internal political and economic instability; rampant corruption; abject poverty and extremism, nurturing of democracy by India kept the country stable despite facing similar challenges. Democracy ensured considerable attention was paid to well-being of people despite economic constraints. Opening of Indian economy unleashed energies, generated resources and allowed the leadership to focus more on human well-being besides devoting resources for conventional security requirements.

In the past few years, a reform driven approach has boosted economic progress. India's rise is being driven by strong institutional infrastructure, favourable demographic profile, skilled workforce, an emerging middle class, a dynamic entrepreneurial culture, rising productivity, a resilient private sector, rapid technological advancement

and the like. Measures have been initiated to ensure that development caters to the growing aspirations of its people. Digital India is ensuring greater transparency and impact for governance.⁶ Efforts are afoot to financially include the unbanked and fund the unfunded, improve healthcare, education, increase emphasis on empowering women and enlarged use of technology in service to mankind are measures to usher a secure future for India.

Financial Inclusion

The Committee on Financial Inclusion, headed by Dr. C. Rangarajan defined it, 'as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost. ' Committee on Financial Sector Reforms, chaired by Dr. Raghuram G. Rajan enlarged the scope of the financial inclusion by enunciating, 'It refers to universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity products.' India has recognised it as a key building block which will form the foundation for achieving several of UN's Sustainable Development Goals.

To make financial inclusion a reality two major measures have been put in place. First was to bank the unbanked through the Jan Dhan Yojana under which over 30 crore accounts were opened. Almost 60 per cent of those were in rural areas.⁷ The second measure was to create an infrastructure which could handle all aspects of servicing such a large segment of the population. A multitude of solutions, be it

6 [https://www. ibef. org/India-Pushing-the-right-levers/index. html](https://www.ibef.org/India-Pushing-the-right-levers/index.html) accessed on 30 may 2018, at 1728 hrs

7 **Financial Inclusion the road ahead** by Rashesh Shah [https://www. thehindubusinessline. com/opinion/columns/financial-inclusion-the-road-ahead/article23426996. ece](https://www.thehindubusinessline.com/opinion/columns/financial-inclusion-the-road-ahead/article23426996.ece)

UPI, BHIM, NeSL and BBPS amongst others have been created. The popularity of measures is supported by statistics; by December 2017 the financial transactions through UPI touched 145 million transactions per month. Google Tez, launched in September of 2017 in only four months accounted for 65 percent of that transaction volume. PayTM, a privately owned payments service launched in December and accounted for 25 percent of volume in its launch month. These players offer different solutions, but what they have in common is that transaction fees are not the primary drivers of the service — data and integration of consumers into the primary platform are. Both Tez and PayTM provide a free service and cash incentives to drive usage because their primary objective is to capture customers, not necessarily just transactions⁸.

A new paradigm for lenders is being put in place with proliferation of unique credit models backed by increased data availability which has become possible because of linking accounts with Aadhaar. Another feature of lending is large part of the credit is now going to individuals rather than corporate houses thus ushering in democratisation of credit. However, there is still huge need for enhancing financial literacy across society across all age groups, through special programmes⁹.

The Digital India initiative, payments banks and small finance banks have all helped improve the reach of formal financial services to economically disadvantaged sections of the populace and geographically remote regions. But despite the strong growth, the credit penetration index of CRISIL Inclusix remained low at 56. 0 compared with 78. 3 for deposit penetration¹⁰.

8 **CGAP Advancing financial inclusion to improve the lives of the poor** Blog> Financial Inclusion in 2018: BigTech Hits Its Stride <http://www.cgap.org/blog/financial-inclusion-2018-bigtech-hits-its-stride> 09 January 2018 Greta Bul

9 **Financial Inclusion the road ahead** by Rashesh Shah <https://www.thehindubusinessline.com/opinion/columns/financial-inclusion-the-road-ahead/article23426996.ece>

10

Microfinance is another effective way of offering funds to the economically underprivileged sections of the society. This mode of financing has helped in achieving financial inclusion in a cost-effective manner. It includes the provision of loans, savings instruments, and other financial instruments for multiple purposes. Private companies planned and implemented projects to engage the low-income groups in developmental projects. Some of these programmes include Haryali Kisan Bazaar by DCM, E Choupal or E- Sagar by ITC, Project Shakti by Hindustan Unilever, and many more.¹¹

India has witnessed huge improvement in access to financial services over the past three years. However, this greater access to financial services has not translated into commensurate use of financial services. India's share of inactive accounts, at 48%, is the highest in the world as per a World Bank report.¹²

State has initiated scheme to fund the unfunded under the Pradhan Mantri Mudra Yojana. Under the scheme a loan ranging from Rs. 50, 000 to Rs 10. 0 Lakhs aimed at funding the first generation entrepreneurs. Under this scheme 48, 130, 593 loans amounting to Rs 253677. 10 Crore has been sanctioned and out of that Rs 246437. 40 Crore has been disbursed.¹³ Another scheme for Scheduled Caste/ Scheduled Tribe and women borrowers under 'Stand Up India' caters to fund greenfield enterprises with amounts ranging between Rs. 10 lakh and Rs. 1 crore is also in place.¹⁴

11 <https://www.bankbazaar.com/personal-loan/financial-inclusion.html?ck=Y%2BziX71X-nZjIM9ZwEfIsyEiJK5%2B6Ye0ekdtKVC1ElgeZC0TqFEkhF6ljN6nbC1ZXXBwImS-faF7%2BS%0AmJOG7qYyyg%3D%3D&rc=1>

12 **Why India's financial inclusion drive may be running out of steam** Last Published: Wed, Apr 25 2018, 02 10 PM IST

DiptiJain<https://www.livemint.com/Industry/8FeZRB9jbVWGVIF7aMHf0I/Is-the-financial-inclusion-drive-in-India-losing-steam.html>

13 <http://www.mudra.org.in/>

14 <http://financialservices.gov.in/new-initiatives/schemes>

Women Empowerment

India is a strange mix of large number of highly empowered and emancipated women heading multinational, professionals doing extremely well in every walk of life including the Armed forces and deprived and exploited ones in even greater numbers. Some major challenges that lesser fortunate Indian women face are poverty, a lack of education, healthcare and safety. Statistics pertaining to crimes against women have been comprehensively recorded and collated by the National Crimes Records Bureau under trafficking, dowry deaths and rapes and are alarming.¹⁵ The safety of women is a major concern across the urban-rural divide.

The Indian constitution grants constitutional and legal privileges to women pertaining to equality and fundamental rights, some special provisions were also introduced to strengthen the process of providing equal status to women.¹⁶ India is committed to the Millennium Development Goals to reduce gender disparity. The vision of Department of Women and Child Development is, 'Empowered women living with dignity and contributing as equal partners in development in an environment free from violence and discrimination'¹⁷.

A glimpse into the state of women in India National Family Health Survey shows, one fifth of women who are working decide on their own where to spend their earnings. This situation is unchanged over the past decade. On the other hand, the survey finds that roughly two-thirds of women now participate in major household decisions. Women's participation in decision making has seen a marked improvement over

¹⁵ Anagha Poojari, **A Social Perspective on Empowering Women in India 360° Analysis** https://www.fairobserver.com/region/central_south_asia/social-perspective-empowering-women-india-12804/

¹⁶ *ibid*

¹⁷ <http://www.wcd.nic.in/about-us/about-ministry>

the past decade. The survey finds that the percentage of working women who earn almost as much as their husbands has doubled from 20 per cent in 2005-06 to 42 per cent in 2015-16¹⁸.

Education is a major enabler for empowerment. The education gap between boys and girls has been virtually eliminated at the primary and secondary school levels and has been narrowing at other educational levels. Girls' enrolment in secondary education increased from 35 percent in 2005 to 62 percent in 2014, and that of boys from 44 percent to 62 percent over the same period, indicating no gender gap but need to raise enrolment levels for both girls and boys. In tertiary education, female enrolment rose from 6.7 percent in 2002 to 19.8 percent in 2012, while that for men rose from 9.3 percent to 22.3 percent.

The State has initiated schemes to support training and employment of women to facilitate equal employment opportunities for women. Initiatives such as "Beti Bacho, Beti Padhao Yojana" (Save girl child, educate girl child) strive toward generating awareness and improving welfare services. Nongovernmental organizations (NGOs) and private firms (under CSR) are running women empowerment programs in rural and urban areas. A gradual change is now visible in modern-day India especially in large cities. The rural India is still to catch up. To that end financial-inclusion programmes could be given a strong gender thrust¹⁹.

Women are currently particularly under-represented in India's economy compared with their potential. India's economy can add up to \$28 trillion, or 26 percent, to annual global GDP in 2025 if its women

18 **Know why women empowerment in India could still be a distant dream** BS Reporter **Last Updated at January 16, 2018 12:47 IST** https://www.business-standard.com/article/current-affairs/know-why-women-empowerment-in-india-could-still-be-a-distant-dream-118011600398_1.html

19 McKinsey Global Institute **The Power of Parity: Advancing Women's Equality in India**

participated in paid work in the market economy on a similar basis to men, erasing the current gaps in labour-force participation rates, hours worked and representation within each sector²⁰.

Healthcare

India is committed to achieve Universal Health Coverage as part of sustainable development goals. However, its total healthcare expenditure is less than 5% of its GDP, which has resulted in sub optimal outcomes. There is a general consensus that unless some form of universal health coverage care is available, the growth of the most robust economies can be derailed. Paradigm shift in Indian healthcare has been the launch of 'Ayushman Bharat', which addresses two basic columns of universal healthcare coverage i. e. provision of quality medical care and financial access.

In developed countries, State spends between 70 to 85% of the total expenditure while out of pocket plus prepaid spending as percentage of total healthcare spends is between 30-15%. The current Indian model is financed predominantly by out of pocket and pre-paid spending that accounts for 69 % and share of government spending is only 31%²¹.

The Indian healthcare industry has been experiencing high growth rates over the past decade owing to factors that include rising income levels, ageing population, growing health awareness, and changing attitude towards preventive healthcare. The industry is projected to post a CAGR of 16% during 2015-20 to reach US\$ 280 billion by 2020

20 The power of parity: How advancing women's equality can add \$12 trillion to global growth, McKinsey Global Institute, September 2015.

21 Future and potential spending on health 2015-40: Development assistance for health, and government, prepaid private and out of pocket health spending in 184 countries. Lancet 2017; 389:2005-30. quoted in PwC report on *Financing and Funding Indian Healthcare: Navigating the Turbulent Tide*.

(FICCI-KPMG report).²²

The new eco-system of health care is designed to shift from sickness to wellness. Operational efficiency and better quality at lower cost is being ushered in through integrating healthcare with technology on the one hand and on the other through shift to generic medicines and alternative systems of treatment. Focus on key deliverables like increased insurance penetration, quality outcomes and decrease in frauds is likely to contribute towards efficient and affordable care.

NHPS is World's largest non-contributory government-sponsored health insurance scheme. It assures 0.5 billion beneficiaries cashless health insurance of 5,00,000 INR with family floater cap. Premium is to be borne in the ratio of 60:40 by Centre and State governments. New institutional structures have been proposed for governance of the scheme. Both public and private hospitals are to be empanelled. With this scheme, Government shifts from being a provider to a payer.

Focus on quality and clinical outcomes at a low cost coupled with credibility in alternative medicine, have resulted in growing medical tourism in the country. Focus is on six specialties for MVT in India i.e. Cardiac sciences, Orthopaedics, Organ transplants, Neurosciences, Oncology and Bariatrics. Over half a million medical visas were issued in 2016. The number has increased at a CAGR of ~52% from 2014 to 2016.²³

According to a PwC study, there is a requirement for increasing transparency, improving hospital and patient connect and dispelling the negative perception of the industry. Technology advancements can play a big role in delivering quality and affordable healthcare. The State needs

²² India Now Business and economy Report of IBEF Dec 16- Jan17

²³ Ministry of Tourism, Government of India as quoted in PwC report on *Financing and Funding Indian Healthcare: Navigating the Turbulent Tide*.

to create a robust regulatory framework keeping in mind the interest of all stakeholders. Effective implementation of NHPS and UHC could result in lower out of pocket expenditure.²⁴

Technology for Development

India has made considerable progress towards its goal of bringing millions of people out of extreme poverty. Yet, an estimated 56 % or thereabout of the population still lacks the basics acceptable standard of living.²⁵ In order to provide all its citizens decent standard of living, access to health care, education and other vital services a new technology driven paradigm will have to be given a shape.

McKinsey Global Institute suggests ‘Twelve technologies can empower India in the next decade.’ They have clubbed them in three groups i. e. ‘Digitising life and Work, ‘Smart physical systems’ and ‘Rethinking Energy.’ According to the report, these “empowering” technologies have the potential to add economic value of \$550 billion to \$1 trillion per year in 2025, create millions of well-paying productive jobs (including ones for people with moderate levels of formal education), and help bring a decent standard of living to millions of Indians. A few other technologies—advanced robotics, autonomous vehicles, 3D printing, and advanced materials are also potentially important for India.

Broadband internet highways are providing the foundation for economic inclusion, remote health care, adaptive learning, e-governance, crime tracking, mobile agricultural extension services and other services. Availability of power is increasing by harnessing renewable sources of energy. Use of GIS, genomics and intelligent transportation, and distribution systems is being used to increase stable energy availability,

²⁴ PwC report on *Financing and Funding Indian Healthcare: Navigating the Turbulent Tide*.

²⁵ McKinsey Global Institute, Report entitled India’s technology opportunity: Transforming work, empowering people.

raise productivity in farming, efficient transportation of goods as well as services and improve availability of clean drinking water.

Use of technology-based applications in combination with each other results in transformative effects. For example, using 'Internet of Things technology', broadband internet and the cloud computing for e-medicines can improve quality of health care by the physician in rural areas. These empowering technologies will result in time savings, lower costs, greater convenience, and improved quality of services. These will boost transparency, curb corruption, and make government programmes more effective.

However, technologies can have a disruptive impact on businesses, government, and society. As per estimates up to eight percent of rural workforce can be affected and would need new employment opportunities and skills training. Among the urban workforce most affected would be those employed in manufacturing, customer services, clerical jobs, trade, transport, and construction activities. These numbers could be up to 21 million according to McKinsey study. To cater for such shift India will need a radical overhaul of education and vocational training systems as well as big investments in continuous learning.

New opportunities are likely to be created for workers and entrepreneurs in the areas of digital business tools, cloud computing, real-time market operations, precision farming community health care, education, banking and agriculture. A new force of e-literates could improve delivery of services in rural areas. A new genre of micro-entrepreneurs providing services, caregivers, facility and domestic services providers, financial planners, accountants and other freelance professionals is likely to emerge on the scene. These innovators could match real-time demand with underutilised capacity and provide the

same at cheap costs.²⁶

End Note

Focus of India is on inclusive growth that is propelled by use of modern technologies, and connectivity. It aims at unleashing the latent potential of the people to innovate and create opportunities for prosperity and well-being. The social dimension is addressed by increasing the scale, speed and the power of mass movements to realise the objective of social well-being. It impels good governance and adoption of international best practices. There is a perceptible increase in people's aspirations and desire to seek increasing share of the economic pie.²⁷

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26 McKinsey Global Institute, Report entitled India's technology opportunity: Transforming work, empowering people.

27 http://www.pmindia.gov.in/en/news_updates/highlights-of-pms-inaugural-address-at-economic-times-global-business-summit/?comment=disable

INDIA's QUEST FOR STRATEGIC AUTONOMY

Gp Capt GD Sharma, VSM (Retd)*

Strategic autonomy refers to a foreign policy posture, whereby a nation maintains an independent outlook and orientation in its foreign affairs with respect to the issues defining its core strategic interests. Yet in another explanation, it is defined as the ability of a state to pursue its preferred foreign policy without being constrained in any manner by the states. The first definition is broad based and does not cover noncore areas of interaction between states as no country big or small powerful or otherwise can claim to be insulated from the external pressure. In fact, all countries to some extent are dependent on other states for material or psychological reasons. Even a super power will feel pressure in bipolar or multi-polar scenario. The concerns of other states will have to cater for in the foreign policy matters hence, in absolute terms the strategic autonomy is not practical but, one could have more autonomy in a relative term.

History is replete with examples with countries having strategic autonomy as a key to its foreign policy. Military power, economic condition and ideology pursued by the nation are vital to have strategic autonomy. Military Power is most important constituent of the Strategic autonomy. A weak nation cannot stand to pursue its ideology unless it has the power to enforce its views. Similarly, poor nations will always remain economically dependent. It will have to bow to the military and economic might of a rich nation.

The current debate in India on its strategic autonomy has its origin to our closeness with United States during last two decades, is seen by many a strategists has given a knock to our strategic autonomy status. They however, tend to forget that we are not US allies in pattern of Japan and South Korea and some European countries. India and US have commonalities of views on some issues and thus cooperate with each other selectively on issues. In 2016 India reached an agreement with United States and signed Logistic Exchange Memorandum Agreement. This agreement was reached after nearly 10 years of negotiations between them. As a consequent of this agreement the navies of two countries can use each other's Land, air and naval bases for supply, resupply, repair and rest. The agreement does not entail stationing of US troops on the Indian soil neither does it require Indian support for US military action or mandate joint military patrols or vice a versa. While the move of the Indian government is bold move yet, many left leaning parties have termed it as abandoning of our strategic autonomy stance. US is also perusing talks to conclude two other foundational agreements viz; Communication and Information Security Agreement (CISMOA) and Basic Exchange and Cooperation Agreement (BECA). CISMOA will help to get encrypts for communication equipment and systems allowing military commanders to communicate with aircraft and ships through secure net work. The BECA will provide India with topographical and aeronautical data which will aid in navigation and targeting. Indian military leaders earlier however, have expressed reservations on CISMOA as it could provide access to United States to our classified communications and operations. This provision may stand amended with it being applicable only on US supplied defence equipment. It is no secret that US is perusing its policies to contain Chinese growing assertiveness in the region. It has identified India as a lynchpin to contain china in the region and see India as a "Net Security Provider".

This finds mention even in US National Security Strategy and US Policy in Asia where India is seen as a counterweight to China. India refutes critic's opinion that Indian strategic autonomy has been compromised with recent closeness in Indo-US relations. We realize the importance of maintaining of strategic ties with China. This was the reason that despite Doklam stands off incident, PM Modi and President Jinping met at an informal summit at Wuhan in April this year. This was followed with similar summit with President Putin of Russia at Sochi. Hence, Indian leaderships is pursuing a policy of similar engagements with big powers. During the Shangri-La Conference at Singapore, PM Modi reaffirmed that India pursues a policy of "Strategic Autonomy". He talked of equivalence of India's current ties with big powers and cautioned the big powers against returning to the great power rivalries of cold war period. He made it clear that India does not stand behind one power or other. He said that India's global strategic partnership has overcome the hesitation of history and we have deepened our engagements with all big powers¹. To put it simply in the multi polar world, the great powers play the field. No one gives up the beneficial co-operation with the one for the fear of offending another. The motto is to engage all and co-operate with one to improve the bargaining power with the other. This realism is seen by Russia and China. While both are avowed friends but, that does not bar them from engaging with America². Recent meeting between President Trump and Putin is one such example of this engagement in midst of US launched trade war and sanction regime. In our sub-continent, the Chinese rising power has constricted our foreign policy options. Beijing had tried to block our civil nuclear deal with the United States. China is the only permanent member of UNSC who is unwilling to support India's membership to this

exclusive club It is obstructing proscription of Pakistani Massod Azar in

1 Hindu 1st June 2018

2 Strategic Autonomy by C Raja Mohan. The Indian Express 15 Nov 2013.

the United Nations and blocking our entry to the Nuclear supplier group but, that does not mean that we should not engage China.³ This is being propagated by PM Modi through his informal meetings with Chinese and Russian leaders this year while simultaneously maintaining closer ties with their rival, United States of America.

Nonalignment and Strategic Autonomy

India's Nonalignment policy of yesteryears was not rooted in the strategic autonomy. It did not favour wars or partnered with a super power. The term itself was conceived during the cold war period in the bipolar world with an aim to avoid joining any camp. However, the cold war system of alliances was rendered meaningless by the collapse of Soviet Union and emergence of unipolar world. Nonalignment during these days helped India to achieve its main strategic objective of non dependence on external powers. With rising china, resurgence of Russia and emerging economies including India, a multi-polar world is emerging with several power centers. India policy of nonalignment of yester years does not indicate that it was a success of the India's foreign policy. In fact, India, India failed to get support from any country when China attacked us in 1962. In contrast to the concept of non alignment, the current position calls for partnerships. We are pursuing a policy of promoting engagements with all with exclusion of none. Accordingly, India has signed strategic partnership agreements with United States, Russia, France, Australia and other countries but, these agreements do not seek that India will provide support them during their wars or vice a versa, unless these are initiated by the United Nations Security Council resolution.

3 Ibid

Some Criticism

India never signed a military alliance with any country as it strikes at the root of the concept of strategic autonomy. Paradoxically, India always sought hegemonic powers to support it on matters for example on matters pertaining to the Pakistani supported terrorism.

India is an emerging power. It is because of this China backed off from the Doklam. China respects power. After the Doklam crisis with China, PM Modi rightly took initiative to rest ties with China but, India does not have the capacity to confront China. If we want to be respected and seen by china as equal partner we need to build or military power or organize ourselves with like minded powers to deter our adversaries. QUAD or French proposal for Paris-Delhi –Canberra axis by French President Emmanuel Macron during his Sydney visit can be the key to the Indian dilemma. The French proposal comes even as powerful US congressional Committee, the house armed services committee has also renamed US pacific command to the Indo-Pacific command, is an acceptance of growing India's status as military power and proof of India strategic autonomy in working out strategic partnerships and not alliances with other major powers. America, France or Australia alone do not have the responsibility to preserve order in the India Ocean region, They are merely responding to emergence of India as a vital element in the region. It is India whose territory spans on both sides of the Indian Ocean region and would want to check Chinese assertiveness. American strategist Ashley Tellis advises, that, "India instead of avoiding coalitions should enter in to preferential strategic partnerships taking the form of high quality ties, robust defence cooperation and strong diplomatic collaboration" As far non alignment, he says is an impossible dream even perilous for states with big aspiration.⁴

4 <http://yaleglobal.yale.edu/content/ca>

It seems that India is moving away from the earlier form of nonalignment. In the last alignment meet at Tehran, India was represented by our vice president on 17-18 Sep 2016. India after independence had opted for nonalignment to balance the cold war adversaries. While this helped India to stay away from the cold war rivalries, this resulted in an inward looking foreign policy that gave real credence only to Pakistan as a threat. India is now at crossroads with china's rise. The Chinese assertiveness is a challenge particularly in the Indian Ocean and also due continuing collaboration with Pakistan. Likewise India has to balance defense relationship with Russia against co-operation with America.⁵

Constituents of Strategic Autonomy

Indispensable military capabilities. A capability driven strategic autonomy is indispensable to allow a strategic actor to engage in autonomous actions. In other words, militarily weak nations will always have to seek support of a strong nation and enter into alliances if it has to protect itself from external threats. It then compromises its strategic autonomy. In specific terms the concept depends on the nation's political thought (Strategy), operational (military capabilities) and industrial status of a nation.⁶ Absence of any of these constituent will affect nation's capacity to pursue an independent path compatible with its national interest. First and foremost is the level of economy. A poor or a developing nations does not have the economic clout to pursue an independent path for itself. It will always be under the influence of its donor country while conducting its international transactions. Why would donor assist it if it is working at cross purposes with it in the international interactions? The economy growth depends on sound industrial base. In particular a strong technological and defence Industrial base will help

5 Gradually burying non-alignment www.livemint.com

6 www.realinstitutoelcano.org

to maintain an independent military stance. After independence, India though lacked in its economic clout it made up by pursuing the strategy of non alignment which however lost its relevance after emergence of unipolar world in nineties and emergence of multi-polar world of twenty first century. In times of crises, during 1971, India did compromise on its theme of strategic autonomy after it signed Indo- Soviet Friendship treaty 1971 which had clauses for mild military alliance with Soviet Union. But, this relationship has not been renewed.

We have the examples of Japan and South Korea which are economic power houses but, these do possess adequate military capabilities to face security challenges emanating from their neighbourhood and are so guided by their national political strategy and American security assurance in the form of a nuclear umbrella. Of late, some changes are visible in Japan which recently changed its constitution to include offensive element in its armed forces from hitherto earlier defensive stance. India is an emerging economy. We however, lack strong industrial base particularly in the defence sector. Government of India has been working on strategies to seek foreign investment and give impetus to our industrial sector. Businesses can obtain better economies of scale in India due relatively cheap work force. Our focus should be to build workers technical skills so that they are eminently employable. India is already ahead of major economies at the fifth position and poised to move ahead to the third position by 2050. Therefore, we must prepare to position ourselves in the world and occupy the centre table matching our size and strength.

Towards the goal of strategic autonomy, an unequivocal articulation of the strategic aspirations in the National Security Strategy is desirable to remove any ambiguity in this regard. As per media report National Security strategy is under formulation of MoD and which would fill in this gap.

At the political level the strategic autonomy must be supported by the strong strategic culture. It is no good to claim a high level of political ambition if there is insufficient will to execute it. The strategic culture should not shift with each change in the government or coalition, placing at risk the realization of the strategic autonomy. The only way to insulate this is by creating expert institutions. National Security Advisor in our context befits this role. He should be assisted by advisors from different streams including military for developing a sound action. The second factor is the budgetary support. Strategic autonomy will require additional budgetary effort so that plans are meticulously pursued.

Threats to the Strategic Autonomy of India

While India is a rising power, it necessarily will have to grow under the shadow China. China's influence will certainly grow in time which has already upset Asia's geostrategic balance.

Challenges Posed by China

- (a) China is a direct military threat in the light of the lingering border dispute. Though India has considerable military power, China has the capacity to outspend in military hardware.
- (b) China exerts considerable influence on the established International organizations like United Nations and other multilateral forums which enables China to hamper India's interests in these bodies especially when it related to reforming the institutions and giving India greater voice in the global affairs.
- (c) China's alignment with Pakistan and other south Asian countries represent a significant challenge to India. Beijing capacity to provide large financial help has given it a clout with them. We have several recent examples of this nature in our

neighbourhood who has turned against the Indian interests. The case in point is that of Maldives, Similar Chinese efforts are visible in Nepal, Bhutan, Bangladesh and Sri Lanka.

India's Policy Responses

In this environment India must secure its interests. It has six strategic options, namely staying nonaligned, hedging, building indigenous military power, forming regional partnerships, aligning with China, aligning with America and extra regional partnerships like QUAD or similar arrangement

With large disparity in military strength between India and China and lingering boundary dispute, pursuing a policy of Non-alignment will only embolden China which may try to solve the border dispute militarily, if it does not get favorable results from the boundary negotiations. Pursuing non-alignment at this time can actually might hurt India's pursuit of the strategic autonomy. When states face serious threats, alignments can actually enhance strategic autonomy.

The strategy of alignment with China, would not serve India's interests. China's recent aggressive assertion on their territorial claims in the south china sea and in the Arunachal Pradesh does not suggests that any type of understanding is feasible with china and it is not expected that China will change its stance. In fact, experience shows that China respects power. Crumbling to china's power will make the matter worse. As regards to trade with china is concerned, it will continue to increase as the advantage lies with china with huge trade deficit in its favour. It has not allowed investment by India in our niche areas of IT and Pharmaceutical sectors. It is now it has partially opened up the farm and Pharma sectors to Indian businesses. Finally, alignment with China will turn India as a junior partner.

Hedging is variant of nonalignment. This as policy option will not help, as hedging is applicable only when we face threat from equal powers. China may be a rising military power but, there is a great deal of disparity in military strength between United States and china. United States spends more than three times than China in defence and has global commitments. Hence, hedging as a policy be best avoided. Moreover, it is absurd to think that we face any threat from the United States.

As India and the United States have common interest in balancing China, the closer alignment with United States and developing common understanding with extra regional grouping like QUAD, ASEAN present best options to deal with the Chinese challenge. . Simultaneously, efforts to develop military power and forge regional partnerships such as with ASEAN is necessary and complementary means to counter the Chinese challenge. Such relationship can be informal in nature but, demand for deep strategic co-operation targeted against the common threats. One of the greatest fears is that India would get dragged in the American wars. Firstly, this type of alignment may not necessarily be the military alignment. Being a strategic partner without any military commitment is considered adequate. Secondly, in recent India China border standoff at Doklam, we did not get more than moral support from America but, our partnership has the potential of deterring war. Such an advantage could naturally accrue without any firm commitment in this regard as it will always create ambiguity in adversary's mind.

The third option is engaging in multilateral diplomacy to counter the Chinese challenge. India should use multilateral forums such as United Nations to question and in consequence undermine the legitimacy of and constraints of the Chinese behavior in the international arena. Admittedly China could veto but, this would be at the diplomatic cost

to china. The best example of this is seen with Chinese Belt and road initiative (BRI) which India refused to join for lack of its transparency and likely effect of undermining the sovereignty concerns of participating nations. French President Emmanuel Macron who during his visit of China cautioned China that BRI cannot be meant for one way traffic as now it appears.⁷ The Chinese are wooing India to join BRI to achieve economic viability and give legitimacy to the BRI projects.

It is clear that with disparity in military strength, India cannot hope to stand alone against china despite our forces are psychologically prepared to tackle the dual and collaborative threat from China and Pakistan. The disparity will remain for long time to come especially as China's official expenditure is more than three times of India's defense expenditure of \$ 60 billion. It would be foolhardy not prepare for such an eventuality. Regional balancing also by itself will not help as planned defence expenditure of all regional powers (Australia, India, Singapore, Vietnam, Philippines and Japan comes to nearly equal to Chinese official opaque figure of defense expenditure of \$140 billion in 2018.

Similar, economic disparity/relationship is visible in future GDP projections. In that case, Strategic partnership with America and regional cooperation with ASEAN, QUAD will help match the Chinese strategic challenge. In the impending period, India could engage in the capacity building.

Conclusion

India a former non-aligned state now maintains strategic autonomy in its foreign affairs. Non-alignment and strategic autonomy are not the same

⁷ <https://carnegieindia.org/2017/09/14/india-s-strategic-choices-china-and-balance-of-power-in-asia-pub-73108>

or interchangeable terms. While the former was a tool to balance the ties with other powers. India navigated during the cold war with the policy of non alignment, by balancing ties and trade with United States and the erstwhile Soviet Union. The idea became redundant after the end of the cold war and with emergence of the unipolar world with America as the unquestioned leader. Now, there are several players in the multi polar world which may necessitate alliances or partnerships to face the strategic challenges. Though India is not a part of any major military alliance, it has close strategic and military relationship with most of the fellow major powers. Countries considered India's closest include the Russian Federation, Israel, Afghanistan, France, Bhutan, Bangladesh, ASEAN states and the United States. At first glance, nonalignment presents an attractive option for a rising India. It promises freedom from entangling alliances. But, in light of India's growing strategic vulnerabilities, a return to nonalignment is misguided and potentially dangerous. India does not have the internal capacity to handle the growing Chinese challenge in the Indo-Pacific region. While, US has the internal capacity to counter the Chinese challenge in the Indo-Pacific region, still it has sought help of the littoral states in the Indo-Pacific region particularly, of India to checkmate the Chinese assertiveness in the Indian Ocean region to reduce its burden. It is win-win situation for India and America. Making such partnership choices too is exercising strategic autonomy by India.

The criticism by some on partnership with America is mainly on the ground that America cannot be trusted and it may change the stance any time later. If so, then why should it worry us? Strategic partnership will remain in force as long it suits both nations. It will only assist us in building our military capacity by sale of modern weapons, transfer of defence technology and countering Chinese challenge. In future, if the

Chinese challenge wanes then, we may not need strategic partnership with America either. However, the Chinese challenge is not likely to subside any time soon with growing Chinese aggressiveness in the Indo-Pacific region and is engaged in forging alliances, building ports in the Indian ocean region with frenzied development of the capacity of its armed forces.

PM Modi has clearly enunciated our policy in Shangri-La dialogue in June 2018 at Singapore on being close to America does not mean that it is against any other country. He talked of cooperative collaboration with all. "India's armed forces, especially our navy, are building partnerships in the Indo-Pacific region for peace and security." He emphasized that, "Competition is normal, but contests must not turn into conflicts; differences must not be allowed to become disputes".⁸

Our close friendship with Russia has its initiation on the fact of our holding of predominantly Russian origin weapons but, even otherwise it is a time tested friendship and is not pitted against any other nation or either a zero sum game as it stands at its own strength.

Of late, skepticism has been raised on passing of law on, "Countering American Adversaries through the Sanction Act" by the US congress which will subject to sanction all entities/nations which carry out trade /transactions with Iran and Russia. India imports nearly 10% of the energy need from Iran and buys spares for 65% of defence equipment as well as planning a major purchase of five regiments S-400 Triumf missile systems from Russia. It is hoped that being a strategic partner and appreciating India's dependence on Iran and Russia, India would get waivers from the US congress. As per the media report US

8 Shangri-La dialogue 2018

Congress is expected to move a bill to grant exemption India, Japan and Vietnam. The imposition of sanctions/waiver will help India to assess the relationship with America and would be test case for America and proof of India strategic autonomy.

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MILITARY STRATEGY - INDIA

Lt Gen Vinod Bhatia, PVSM, AVSM, SM (Retd)*

National security is that ambience, in which a nation is able to protect and promote the national values, pursue national interests and aspirations, in spite of, or, in the absence of, external or internal threats, real or perceived. Threats to India's national security may impact on any aspect of a nation's life ranging from territorial integrity and internal cohesion to economy, political structures and democratic institutions, diplomacy, national character, morale and so on. India's national interests simply stated are to ensure National sovereignty, unity and territorial integrity. A democratic and secular polity, social and economic justice, preservation and promotion of our core values and inclusive economic development leading to stable, peaceful and favourable neighbourhood, regional environment and world order. In essence national security strategy is the strategy to "PROTECT and PROJECT INDIA's NATIONAL INTERESTS. The Military strategy hence has to not only align but is to be derived from the national security strategy.

The national aim is to "**TRANSFORM INDIA TO A MODERN, PROSPEROUS AND SECURE NATION**". As security is a precursor to long term peace, stability and development, securing India is a national imperative.

India's size, strategic location, trade interests in a security environment that extends from Arabian Sea, Persian Gulf in the West, to the straits of Malacca in the East and from the Central Asian Republic

(CAR) in the North to the IOR in the South, underpins India's security response. In view of the vast strategic spread, it is essential to maintain a credible land, air and maritime force to safeguard own security interests. Our security concerns are impacted by a dynamic global and regional security environment. As we transform from an emerging and rising power to a risen, responsible power, a global player and a net security provider in the region, we will need credible military capabilities to meet emerging security challenges, ensure peace, project military power to safeguard national interests and assets including the domination of Indian Ocean Region (IOR), assist friendly foreign countries in times of crisis from unconventional threats and Humanitarian Assistance and Disaster Relief (HADR).

The primary strategic priority and goal remain the rapid socio-economic development of the people, thus national goals are:

- (a) To develop as a fully secular, multicultural state, in which freedom of speech, thought and equal opportunity are available to all.
- (b) To ensure a secure and stable environment conducive to unhindered sustained economic growth and sustainable progress.
- (c) To preserve and ensure the sovereignty, unity and territorial integrity of India.
- (d) To contribute to International efforts consistent with our policies, including peace making, and if need be peace enforcing missions under the mandate of the United Nations.

The derived National Security Objectives thus are:

- (a) Defending the country's borders from external aggression as defined in law and enshrined in the constitution.

- (b) Protecting the lives of its citizens against wars, terrorism, insurgency, nuclear threats and militant activities.
- (c) Protecting the country from instability, extremism and all other forms of threats emanating from neighbouring countries, development of material, equipment and technologies that directly impact India's security, particular its defence preparedness through indigenous research, development and protection.
- (d) Promoting cooperation with neighbouring countries, implementing mutually agreed confidence building measures, and pursuing strategic and security dialogues and initiatives with major powers and key partners.
- (e) Net security provider in the IOR.
- (f) Defend national interests and assets including own nationals in our areas of interest.

India's National Military Objectives are:-

- (a) Prevent war through strategic and conventional deterrence across the full spectrum of the conflict continuum, to ensure the defence of India, her national interests and sovereignty.
- (b) Prosecute military operations to defend territorial integrity and ensure end state during war to achieve stated / implied political objective(s).
- (c) Ensure Internal Security and Stability when called upon to do so.
- (d) Be prepared for contingencies at home and abroad to provide Humanitarian Assistance & Disaster Relief (HADR), Aid

to Civil Authority and International Peacekeeping, and defence cooperation when called upon to do so.

(e) Enable required degree of self-sufficiency in defence equipment and technology through indigenization (MAKE IN INDIA), to achieve desired degree of technological and strategic independence by 2025.

(f) Ensure capability for robust military diplomacy.

External Military Threats

China. India -China relations are both cooperative and competitive. A strategic partner India shares a 3488 km long unsettled border with China laying claim to a little over 1, 10, 000 sq km of our territory, some of which is occupied by China. Already in possession of about 5180 sq km of Indian territory in Saksham valley ceded by Pakistan in 1963, China has further increased its presence and interests in Pakistan occupied Kashmir (POK) through its multi-billion dollar China-Pakistan Economic Corridor (CPEC) project, linking western Chinese city of Kashgar to Pakistan's port of Gwadar as part of its ambitious BRI. Likely drivers for conflict China are:-

(a) A flare up along the Line of Actual (LAC) (DOKLAM STAND OFF), with the potential to spiral into a skirmish or a conflict.

(b) A perceived threat by China to China-Pakistan economic corridor (CPEC)/ Karakoram highway (KKH) would lead to a collaborative threat from China and Pakistan. The plausibility of this collaborative threat to the disputed Siachen glacier and Aksai Chin is much more as it provides strategic depth to the CPEC. (Pakistan has been the major benefactor from this corridor as it

achieves strategic domination of Afghanistan, balances India and gives a much needed boost to a failing Pakistan economy.

(c) China's one belt, one road has major political, economic, strategic and security implications for India. As it further strengthens Beijing's 'string of pearls' strategy

(d) China's exploitation of non-contact warfare capability in the cyberspace, information, psychological, space and electronic warfare domain.

(e) China's covert and overt support to Indian insurgent groups in the NE, though not a driver for conflict but could manifest into a collusive support to Pakistan.

Pakistan. Right from the formation of the separate state of Pakistan, its leaders and the Army in particular has adopted religious animosity and hatred towards India as a goal of its existence. Laying claims on Kashmir and repeated attempts to grab the same is the manifestation of same existential aspect, which they want to keep it alive. After having suffered a humiliating defeat in 1971, they have adopted terrorism as an instrument of state, propagating the dictum, "*to bleed India by a thousand cuts*". Post-1998, combination of terrorism and nuclear blackmail have become the basis of their security doctrine. Pakistan continues to support terrorist organisation which perpetuate terrorist attacks in India. A number of high profile, high visibility terrorist attacks like March 1993 Mumbai Serial Bomb Blast, 26/11 Mumbai attack, October 2005 – Delhi Serial Bomb Blast, attack on parliament and other such terrorist attacks. India has suffered these attacks, but the public sentiment will need to be assuaged and a proportional and equitable response given to Pakistan. Though India will like to control the escalatory ladder, but there will always be a high probability of an action reaction situation spiralling into

a conflict. Pakistan's nuclear rhetoric of employing a nuclear strike if threatened is well known. In response to India's "cold start" doctrine, Pakistan claimed to have developed Tactical Nuclear Weapons (TNWs) in 2013 and Pakistani Military believes that it has achieved "full spectrum deterrence" against India, thus allowing it to continue with its proxy war, without fear of reprisal. However, India demonstrated its politico-military will by launching "surgical strikes" in the early hours of 29 September 2016 across the LC to destroy terrorists' launch pads as a punitive strike for the Uri terrorist attack, challenging the myth of a nuclear overhang.

Pakistan is a perfidious adversary with mischievous intentions, which continues to wage a '*low cost, high effect war*' against India through various proxies. India should build capabilities to raise the costs to Pakistan to 'high cost, low effect'. Indian Military must continue to hone its skills to perfect its 'Proactive Strategy' to neutralize Pakistan's designs. It will be of interest to understand the drivers for conflict with the adversaries to mitigate the chances of conflict. With Pakistan the likely drivers for conflict are:-

- (a) India's response to a major terrorist strike orchestrated by Pakistan based terror organisations, and the counter thereof, surgical and/or precision strikes.
- (b) Pakistan based terrorist organisation gaining covert control of nuclear weapons.
- (c) An imploding Pakistan, makes a last ditch effort at unification by playing the anti India card.
- (d) With the US drawdown from Afghanistan, India should be prepared for a shift in Pakistani controlled terrorist organizations

from Afghanistan to J&K, thus upping the ante. A more vigorous proxy war by Pakistan in Kashmir will be unacceptable to India.

Collaborative/ Collusive Threat. The history of the military collusion between China and Pakistan goes back over fifty years. During the 1965 and 1971 India-Pakistan wars, China's support to Pakistan was notional and not material. It is also noteworthy that during the Kargil conflict in 1999, Chinese support again did not meet the aspirations of Pakistan. However, given its internal instability, fissiparous tendencies and a weak economy, it would not be possible for Pakistan to wage a proxy war against India in Jammu and Kashmir and other parts of the country, but for China's military backing and support. In as much as that, it is also China's proxy war with Pakistan acting as China's proxy. While a semblance of stability prevails at the strategic level, in recent years China has exhibited marked political, diplomatic and military aggressiveness. However, China has not directly intervened or aided Pakistan during the four conflicts.

China's One Belt One Road (OBOR) has changed the strategic equation. The China - Pakistan Economic Corridor (CPEC) which passes through PoK is pivotal to OBOR and the China Dream. The CPEC project implies that the Chinese presence and strategic interests in Pakistan and specially in PoK will become quasi permanent. The CPEC has direct strategic and security implications for India. Though China's stated position is that 'Kashmir' is a bilateral issue between India and Pakistan, however, now with the CPEC, Chinese economic and strategic interests make it a direct stakeholder in a hitherto bilateral issue. While the Sino-Pakistan axis is not new, the sheer magnitude of the CPEC makes it clear that it is not only dictated by economic considerations but more to exploit strategic payoffs. CPEC enhances the collaborative and collusive threat China and Pakistan

pose to India. Another major concern for India will be the deployment of PLA troops in POK to safeguard Chinese interests and assets. Any perceived threat to these interests may elicit a military response and has the potential to spiral into a conflict duly aided or manipulated and orchestrated by Pakistan. Hence the CPEC has changed the strategic equation prevalent in the region.

Gen V P Malik former COAS of the Indian Army while delivering the thirtieth USI National Security Lecture on the Grand Design between China and Pakistan stated *“The possibility of a concerted twin strike in a grand design by China and Pakistan has very serious implications for India: nuclear, aerospace and maritime dimensions. It may also involve Bhutan, Nepal and Bangladesh. As India would be the main sufferer, it could legitimately hurt maritime interests of China and Pakistan in the Indian Ocean and even rescind its No First Use (NFU) of the nuclear doctrine to send warning signals to both countries.”* A collaborative threat by Pakistan and China though may seem far fetched to some, but is plausible especially so if there is a perceived Indian threat to the China - Pakistan Economic Corridor (CPEC), as it passes through disputed territories close to the borders.

The security challenges for the nation can no longer be defined and definite, as these are likely to be hybrid, conducted in many battle spaces by multiple means driven by a collective ideology, plausibly without any direct attribution and without any overt physical military application of combat power ab-initio. A collusive or collaborative threat from both China and Pakistan is a probability which India should consider seriously. However, China mindful of its national and economic interests is not likely to overtly either support or collaborate with Pakistan. In the event of a China threat, Pakistan will only be too willing to support it's all weather friend China and a collaborative threat from Pakistan would

be imminent, as it takes on a mightier India preoccupied with China along the Northern Borders. Hence, it would be prudent to conclude that during a future Indian military conflict with China, Pakistan will come to China's military aid but reverse may be likely but not a serious threat.

Military Strategy Options : India

A two front war is not an option for India and hence it is an imperative that India has a credible war prevention strategy with China and a war waging strategy / proactive strategy against Pakistan, mitigating a collaborative threat or a two front war. The nation has to prepare for a war in all its dimensions and intensity from small wars to space wars, hybrid in content and possibly collusive and collaborative in context. India's security concerns must match with the apparent dichotomy in the Chinese policy pronouncements. It should also be based on its own core-interests. Chinese declared military strategy does not rule out 'Local Wars Under Information Conditions' and such local wars, as many analysts believe, can happen in China's periphery. India should not fail to see that in South China Sea and East China Sea, China is resorting to a show of force to assert its territorial claims. India should anticipate China's indulging in similar show of force to assert its border claims against it, at an opportune time, Doklam is an indicator. China's intention seems to be towards resolving the 'Boundary Question' with India, on the premise that a status quo would be in India's favour. The early resolution of the 'Boundary Question' as enunciated by President Xi is a shift from the earlier Chinese position. India will have to resist pressure from China on settling the 'Boundary Question' on unfavourable terms. On the whole, India will be compelled to increase its own economic and military strengths while improving governance in the areas bordering with China. Both the countries have taken precautions to declare that they are in favour of developing a cooperative relationship. However, China's recent assertiveness in border areas like Doklam are indicative

of the heretofore peace and tranquility being under severe stress. It is a strategic imperative to ensure equilibrium, peace and tranquility along the Northern borders with China and further economic interdependencies. The strategic partnership with China should be strengthened and taken to the next level. Early resolution of the 'Boundary Question' is a must, as this is possibly the only driver for conflict between the two Asian giants.

The recommended strategy against China will continue to remain that of 'Deterrence', translated to military strategy it will imply a 'War Prevention Strategy' failing which the military should prepare for a 'War Fighting Strategy' based on proactive defence. Proactive defence strategy dictates defensive deployment ab initio well forward, with adequate reserves at all levels retaining a viable Quid Pro Quo option. With regard border management, China has constructed state of the art multi modal multidimensional infrastructure, focussing on the three "Rs" Roads, Reserves and Radars, for manning the borders. It is a concept which we could well replicate and practice.

The Indian Air Force will be major contributor to the war prevention strategy as it has a slight qualitative edge over PLAAF. The Indian Navy with its blue water capability and ability to control and dominate the sea lanes of communication (SLOCs) is pivotal to the war prevention strategy. The domination and ability to block the SLOCs is a credible deterrence. As China respects strength it is imperative to have a balanced and optimal deployment of well synergised combat power. China respects STRENGTH, and hence it is an imperative that India and the armed forces build the requisite capabilities and enhance capacities.

Pakistan continues to wage a proxy war supporting terrorist organisation perpetuating terrorist attacks in India as a state policy of 'A low cost high effect war'. India should include Punitive and Pre-emptive strikes akin to surgical strikes across the Line of Control as an essential ingredient of the counter terrorism strategy. Pakistan indulges in nuclear

rhetoric while waging the proxy war as a counter to India's conventional military superiority. Pakistan's growing nuclear arsenal including tactical nuclear weapons (TNW) on its inventory is well documented. With Pakistan India needs superiority in the conventional domain, and refine the so called cold start doctrine or the proactive strategy, as also need to build capabilities and practice an effective response in terms of a precision and/or a surgical strike.

For the military might to be sustained and grow at a pace and in a manner that ensures it can effectively combat present and future threats, there is requirement for adequate funding of its security apparatus. As the funds available to meet development and security requirements flow from the same corpus, there are and will be competing national priorities. Therefor after security capabilities and modernisation plans are determined, an assured budgetary allocation should be made through the period of their procurement and induction.

To summarise the recommended strategy against China will continue to remain that of '**Deterrence**', translated to military strategy it will imply a '**War Prevention Strategy**' failing which the military should prepare for a '**War Fighting Strategy**' based on proactive defence. Proactive defence strategy dictates defensive deployment ab initio well forward, with adequate reserves at all levels retaining a viable QPQ option. There has to be a shift from "**Balance of Power**" to "**Balance of Interest**", hence it is a strategic imperative to ensure equilibrium, peace and tranquillity along the Northern borders with China and further economic interdependencies. The strategic partnership with China should be strengthened and taken to the next level. Early resolution of the '**Boundary Question**' is a must, as this is possibly the only driver for conflict between the two Asian giants.

Pakistan's growing nuclear arsenal has tactical nuclear weapons (TNW) on its inventory. The threat of a conflict escalating to nuclear

war will compel India to remain within Pakistan nuclear threshold. India will also need to build capabilities and practice an effective response in terms of a precision and/or a surgical strike with Pakistan we need superiority in the conventional domain, and refine the so called cold start doctrine or the proactive strategy.

Internal Security and low intensity threats should continue to be countered as hither-to -fore. The Rashtriya Rifles and the Assam Rifles should be the primary force to combat the J&K militancy and the NE insurgencies respectively. The CRPF should be designated as the CT force and be responsible for combating LWE.

Indian Naval power is an essential element of the war prevention strategy and deterrence. To deter China and Pakistan, India must build impressive maritime might, display the resolve to use that might under certain circumstances, and convince the adversaries that it will actually make good on its deterrent threat. Deterrent in other words, demands the ability to win, to foil an antagonist's ability to win at a cost acceptable to him, or to frustrate his ability to win altogether. The naval capabilities are central to war prevention strategy.

India's security concerns are impacted by a dynamic global and regional security environment. As India transforms from an emerging and rising power to a risen responsible power, it will need an effective military strategy in concert with the national security strategy.

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SHAPING A POSITIVE AND FAVOURABLE MARITIME ENVIRONMENT FOR INDIA

Vice Admiral HCS Bisht, PVSM, AVSM (Retd)*

To be secure on Land, we must be Supreme at Sea

- Pandit Jawaharlal Nehru, India's first PM

INDIA'S GEO STRATEGIC MARITIME CONTOURS

The Indian Ocean is one of the busiest and most critical maritime transportation links in the world. Almost a hundred and twenty thousand ships pass through these waters annually, carrying about half of the world's container shipments, one-third of the world's bulk cargo traffic and two-thirds of the oil shipments¹. Indian Ocean Region (IOR) covers an area of 28 mln sq miles washing shores of three continents, comprising 30 littoral states, and 1284 islands. This is also the most populous region in the world with one third of the world's population, quarter of the land mass and 75% of Oil reserves². The economies of many of the littoral countries depend heavily on the ports, the shipping and most importantly, the vast natural resources that enrich these waters with an abundance of marine life.

1 Indian Maritime Doctrine, p 57

2 India's Coastal Security Challenges, Concerns & Way Ahead, by Brig. Hemant Mahajan, YSM, p 2

For India, the Indian Ocean is of vital importance. We have an extensive coastline of approx. 7, 500 km with more than 1200 islands, between Lakshadweep and Minicoy (L&M) in the west and the Andaman and Nicobar (A&N) islands in the east. Our southernmost tip in the A&N Islands, the Indira Point is just 150 km from Aceh province of Indonesia and the northernmost tip of the A&N Islands, the Landfall Islands is only 40 km from Coco Islands of Myanmar³. The Indian peninsula, juts almost a 1000 nm into the Indian Ocean, giving it a commanding geo strategic location whilst at the same time, sitting astride the major International Sea Lanes (ISLs) passing through the Indian Ocean. 90 % of our trade by volume and 70% by value passes through our waters⁴. Our 1200 odd island territories and a huge Exclusive Economic Zone (EEZ) of 2. 4 million sq km underpins the economic significance of the oceans for us. Clearly, it is only natural that India's role as the key pivot in the Indian Ocean Region is a given, not only geographically but by virtue of a shared historical and cultural heritage, that binds us all across these waters.

The IOR also contains a great degree of wealth in the form of abundance of oil, natural gas and mineral reserves. Our geostrategic imperatives therefore, outline a maritime future and destiny for us. India is the only country in the world which has an ocean named after it. The Indian peninsula is surrounded to the east and west by a no of strategic choke points. To the east, the Straits of Malacca, Sunda, Lombok and Ombai Wetar connect Indian Ocean to the Pacific and the much talked about South China Sea. To the West, the Straits of Hormuz is a strategic waterway, which connects the Indian Ocean to the oil rich Persian Gulf,

3 Strategic Vision-2030, Security and Development of Andaman & Nicobar Islands, Air Mshl PK Roy (Retd) and Cmde Aspi Cawasji (Retd), p-41

4 Ibid, p 33

which alone houses 60% of world's oil resources. The Straits of Hormuz is by far the world's most important choke point, with around 17 billion barrels transiting the Straits every day⁵.

THE MARITIME ENVIRONMENT

The term Maritime environment takes into consideration the coastal areas, the numerous islands, ports and associated infrastructure, ships, marine craft and boats of all kinds operating at sea, as also seamless connectivity in the maritime domain, wherein while there would be free flow of trade, energy, goods etc. on the one hand, there would also be influences, including instability and insecurity across different maritime areas, on the other. In recent years, there has been an increase in the movement and spread of terrorism, piracy, arms/ drugs/ human trafficking and smuggling by the sea. India's maritime environment is, accordingly affected by security threats and challenges, spread across its maritime neighbourhood and adjacent areas. Hence, it is important to shape favourable and positive conditions across the broader maritime environment, towards enhancing our own maritime security and for supporting our national interests⁶.

India's National Maritime Interests

Our core maritime interests can be listed as follows:-

- (a) Protect India's sovereignty and territorial integrity against threats in the maritime environment.

5 India's Coastal Security, Challenges, Concerns & Way Ahead, by Brig Hemant Mahajan, YSM, p 56

6 Ensuring Secure Seas, India's Maritime security Strategy, p 78

- (b) Promote safety and security of Indian citizens, shipping, fishing, trade, energy supply, assets and resources in the maritime domain.
- (c) Pursue peace, stability and security in India's maritime zones, maritime neighbourhood and other areas of maritime interest.
- (d) Preserve and project other national interests in the maritime dimension⁷.

However, on a geographical canvas, our interests can be categorized as primary and secondary, based on the seamless nature of the oceans, our global trade as also global nature of Naval operations. India's primary areas of maritime interest, based on our geostrategic construct are as follows:-

- (a) India's coastal areas and maritime zones including coastline, islands, internal waters, territorial waters, contiguous zone, EEZ and continental shelf.
- (b) The IOR, the Arabian Sea, the Persian Gulf, Bay of Bengal, Andaman Sea, Gulf of Oman, Gulf of Aden and Red Sea,.
- (c) The choke points leading to/ from and across the Indian Ocean, including the Six degree Channel, Eight/ Nine-Degree Channels, Straits of Hormuz, Bab-el-Mandeb, Malacca and Singapore Straits, Sunda and Lombok, the Mozambique Channel, Cape of Good Hope and their littoral regions.

India's secondary areas of maritime interest include the following:-

⁷ Ensuring Secure seas, India's Maritime security Strategy, p 8

- (a) South and East China Seas, Western Pacific Ocean and their littoral regions.
- (b) Southern Indian Ocean Region including Antarctica, West Coast of Africa and their littoral regions.
- (c) Other areas of national interest based on considerations of Indian Diaspora, overseas investments and political relations⁸.

MARITIME ECONOMY

India's Maritime economy covers a large range of economic/commercial activities related to the maritime environment, which includes ports, associated infrastructure, shipping, fishing, seaborne trade, offshore energy assets, undersea pipelines and cables and seabed resources. Maintenance of a secure maritime environment, which enables unhindered pursuit of these economic activities, is essential for growth of Indian economy. India's energy security has a vital role in national development and is hugely dependent on the seas. Nearly 80% of the country's crude oil requirement is imported by the sea route, using the ISLs across the Indian Ocean. Another 11% of national crude oil requirement is met from offshore energy sources within the Indian EEZ. Offshore gas fields also contribute up to 80% of India's domestic natural gas production. In addition, India has built up substantial refining capacity and exports refined petroleum products to many other countries by sea. Our petroleum industry accounts for about 15% of our GDP⁹. Our domestic oil and gas production is grossly inadequate and presently caters for approx 15. 4% of our total demand and out of that nearly 60% is met by our offshore platforms¹⁰. Considering the volatility in the world oil market, we need to enhance domestic oil production considerably.

8 Ibid p 32

9 India's Maritime Security Strategy, p 24

10 Ibid p 187

India's Mercantile Marine

The total size of the Indian shipping industry has been growing over the years, even as the relative share of Indian flagged shipping in the country's external trade has declined, from about 40% in the 1980s to approximately 8.5% by 2014. This is largely because the growth of our seaborne trade, post economic liberalization, has been relatively higher and faster than the growth of our shipping industry¹¹. While the Indian shipping industry is set to grow, the pace and needs of national development indicate that our dependence on foreign shipping would continue over the coming years. As on 01 January 2013, India was ranked 17th in the world in terms of Dead Weight Tonnage (DWT), with a global share of only one percent. This aspect needs tremendous focus and improvement. As on 31 December 2014, India had a fleet strength of 1,204 ships with Gross Registered Tonnage (GRT) of 10.31million. Of this, 358 ships with 9.09 million GRT were deployed for overseas trade and 846 ships with 1.22 million GRT for coastal trade¹².

Modernisation of Ports /Shipbuilding Industry

The Government of India has in the last few years launched a number of major initiatives in the maritime sector. It has projected the vision of SAGAR – 'Security And Growth for All in the Region', in 2015, as part of India's endeavours to strengthen economic relations and development in the IOR, in a mutually supportive and cooperative manner. Project 'Sagarmala', (String of Ports), is another initiative, which encompasses modernization of ports, Inland Waterways and development of Coastal Shipping. This initiative is based on the Public-Private Partnership (PPP) model and adds to the prosperity of this sector. Under this project, the

¹¹ Ibid, p 26

¹² Source: Basic Port Statistics of India, 2013 – 2014, Ministry of Road Transport and Highways, Transport Research Wing/GoI, March 2015

government plans to develop 12 Coastal Economic Regions, with an estimated investment of approx. Rs 12 Lakh Crores. These resulting projects would see the development of manufacturing hubs, supported by port modernization projects. It is predicted to create employment opportunities, estimated at four million direct and six million indirect jobs, as also empower coastal communities through skilling programmes¹³.

While these policy initiatives indicate the government's seriousness on the maritime sector, the need of the hour is to improve the aspect of implementation on the ground and co-ordination between various ministries and agencies, dealing with issues maritime. Today we have more than 6 different Ministries and 15 different agencies involved in maritime affairs, not taking into account various coastal states, who have co-ordination issues, coming in the way of development and productivity. There is a need to have a National Maritime Authority or National Maritime Commission, which should provide an oversight mechanism on all issues maritime. An important component of our maritime environment is ensuring synergy amongst all the stakeholders who form the maritime community. Our maritime where withal, comprising ports, ships, ship building industry etc lack modern facilities and infrastructure. Apart from the infrastructure being rudimentary, ports need to maintain cleanliness, ensure faster turn around of cargo and ensure mechanized handling of cargo like iron ore, coal, sulphur etc so as to reduce pollution. Further, aspects like hinterland connectivity, access roads, availability of ship husbanding devices, tugs, boats, overhead cranes etc all need drastic improvement to be world class. One factor which needs monumental change is the mindset of the staff, who need to display pride in the job that they are doing.

13 <http://www.forbesindia.com/blog/life/India-maritime-sector-on-the-cusp-of-revolution>, by Kishore Jayaraman, President Rolls Royce, India & South Asia

The Indian shipbuilding sector needs to be constantly on the lookout for technologies and advancements that help save cost and deliver more for less. A major way ahead could be through partnerships and collaborations with successful maritime clusters with countries like Japan and Korea, especially in areas of ship design and shipbuilding. Such collaborations can improve efficiency and enhance competitiveness. We also need to focus on increasing our sea borne traffic and merchant fleet. Our seaborne traffic with a coastline of 7500 km is only about 950 mln tonnes, whereas China with a coastline of 15000 kms, i. e. double of India's is almost 10 times bigger with approx. 9 bln tonnes¹⁴. We could also look at emulating the Singapore model for ship repair and bunkering facility, wherein because of low costs and efficient repair facilities, most ship owners prefer Singapore as a port of call. Similarly China has tremendously enhanced port infrastructure, with single window operations for all activities and is now a favourite destination with ship owners and operators across the world.

Fishing Industry

India has the second largest fishing industry in the world, with nearly 2 lakh registered fishing boats and nearly 1 lakh country boats operating. India also has approx 3800 fishing villages and about 1900 traditional fish landing centres¹⁵. However statistics shows that Indian waters are the only ones in which fish die of old age, when compared to rest of the world. We have adequate technological expertise in the country to figure out the various fishing related aspects like breeding periods and no fishing periods, concentration of fish shoals etc, on which the fishing community needs to be educated and fish production bolstered. For these,

14 India's Coastal security Challenges, Concerns & Way Ahead by Brig. Hemant Mahajan, YSM, p 253

15 Ibid, p 25

expertise of institutes like Indian National Centre for Ocean Information Systems (INCOIS) and National Institute of Ocean Technology (NIOT) etc should be made use of. The large no of fishermen can also be used by the Navy, the Coast Guard and the marine police as eyes and ears for providing inputs for ensuring effective coastal security.

INDIA'S MARITIME/COASTAL SECURITY CHALLENGES

The main instruments of ensuring effective maritime/coastal security are the Indian Navy (IN) and the Indian Coast Guard (ICG) at the national level and the Marine and State Police at the level of the states. However, only aspects related to the role of the IN and ICG are being discussed below, given their role at the national and international level.

The Indian Navy

India's maritime security challenges have shown increasing complexity in recent years, covering both traditional and non-traditional threats, across the regional maritime security environment. Because of volatility in our neighbourhood, and the over arching presence of PLA Navy in the IOR, threat levels are high on the traditional front. In order to counter the threat both from Pakistan and China, the Indian Navy is adequately prepared, however greater capability enhancement is required to deal with the threat levels suitably, notwithstanding the fact that the Indian Navy has evolved as a balanced, multi-dimensional, multi-spectrum force, with a mix of ships, submarines, and aircraft (manned and unmanned), with dedicated satellite and information systems. As regards, non-traditional threats, there has been a sharp increase in threat-levels, necessitating higher focus and attention. Maritime terrorism has expanded in recent years, and poses a serious and continuing threat, along with potential for asymmetric and hybrid warfare. The '26/11' terrorist attacks in Mumbai, in

2008, led to a change in mandate of the Indian Navy, which was given the responsibility for overall maritime security, including coastal and offshore security. Other non-traditional threats have also been rising in recent years. Piracy and armed robbery at sea, have flared up in new regions over the past decade and remain a significant threat to international shipping and seafarers. There has also been higher incidence of natural disasters and regional instabilities over the past decade, wherein the Indian Navy has played an increasing role for Humanitarian Assistance and Disaster Relief (HADR) operations and Non-combatant Evacuation Operations (NEO). The IOR and its hinterland form the locus of about 70% of the world's natural disasters, resulting from earthquakes, tsunamis, cyclones and floods¹⁶. The ways and means to address the wide range of increased threat levels, specially non traditional, require revised focus and suitable augmentation of capabilities and resources, along with further pursuit of a broader, cooperative approach across the region.

Critical Requirements for shaping a positive Maritime Security Environment. Two very important constituents of a positive maritime security environment are development of a comprehensive, all encompassing Maritime Domain Awareness (MDA) and of Networked Operations. Development of these in a cogent manner should remain one of the strong pillars of shaping a favourable maritime security environment for India.

- (a) **Maritime Domain Awareness (MDA).** The IN is the central agency, co-ordinating generation/ development of comprehensive MDA in a continuous manner and this involves collation/fusing of information obtained from various sources, to generate a comprehensive picture and aid planning of operations.

¹⁶ India's Maritime security Strategy, p98

It entails co-operation between various maritime and Intelligence agencies. These include gathering of intelligence, conduct of surveillance and reconnaissance in all dimensions (space, air, surface, underwater and electronic) and their analytical review so as to derive actionable information. MDA can be used for obtaining a Comprehensive Operational Picture (COP) as also generation of battle-space dominance. This is a unique requirement for maritime warfare, governed by international law, to cater for safety of neutrals and non disruption of global trade. MDA development is a process that includes information sharing, navigational warnings, technical means and tactical procedures.

(b) **Networked Operations.** Networking is one of the important ingredients of IN operations and is an essential requirement for generating effective MDA and for attaining synergy in operations. The wide range of operational activities, spread across all dimensions and vast areas, need to be controlled and coordinated through secure and efficient communication channels. This is based on employing space-based capabilities, with application and integration of satellites for communication and networking. In addition, integration of these networks with weapon systems is a pre requisite for effective weapon delivery.

Maritime Diplomacy

Maritime diplomacy is one of the cornerstones for creating a favorable maritime environment. Maritime relations with the nations in our maritime neighborhood are an important aspect of our foreign policy, in which the Indian Navy plays a significant role. The IN has been a front runner in this initiative, with numerous activities taken to build bridges of friendships across the oceans. These include expansion in maritime operational engagements, with increased number and complexity of

exercises with foreign navies, coordinated mechanisms for maritime security operations, training, technical and hydrographic cooperation with friendly Navies. Continued development of regional cooperative approaches for enhancing maritime security in the IOR, including growth of the operational interactions like 'MILAN', evolution of the Indian Ocean Naval Symposium (IONS) and enhancing maritime security cooperation as a priority area for the Indian Ocean Regional Association (IORA) are other important aspects of our maritime diplomacy. The IONS, in particular, has gained tremendous traction since inception, with a steady growth in activities that address a wide range of maritime security challenges.

The Indian Navy has also been at the driving end of maintaining interoperability with almost all major Navies in the world, by conducting bilateral and multilateral exercises of varied scope and complexities. Some of the important ones are the Malabar series with the US, the Konkan with UK, Varuna with France, SIMBEX with Singapore, Aus INDEX with Australia and a host of other countries. In 2016, the Indian Navy conducted the International Fleet Review (IFR) 2016, off Vishakhapatnam, which was the biggest ever Fleet Review conducted, by any country in recent history. In addition, once every two years, a 'MILAN' exercise is conducted at Port Blair by the IN, wherein all littoral Navies participate. These also serve to shape maritime policy in a cooperative, balanced and mutually beneficial manner and also send a subtle message to any potential adversary. The ICG has also been a great contributor to India's maritime diplomatic effort by interacting with many Coast Guards around the world, to enhance interoperability against common security challenges as also for joint efforts in Search and Rescue (SAR) and Humanitarian Assistance and Disaster Response (HADR).

The Indian Coast Guard

The other maritime service which works hand in hand with the IN and on a national level is the Indian Coast Guard (ICG). The ICG today is a very potent force, the fourth largest in the world, larger than some of the IOR littoral Navies. It is growing at a rapid pace in a balanced manner. The ICG today has some of the most modern platforms for undertaking the tasks that they are mandated with. The ICG is responsible for Search and Rescue (SAR) in the Indian Search and Rescue Region (ISRR), which covers an area of 4. 6 Million Sq Kms¹⁷. Apart from the usual tasks that the ICG is mandated with, it also is responsible for marine pollution response and coastal security within the territorial waters of India.

CONCLUSION

The importance of the Indian Ocean in the world can be gauged by the fact that the Trump administration has renamed its largest geographical Theatre Command, the Pacific Command (PACOM) to Indo Pacific Command (INDPACOM). Though the official position of the US Military is that the renaming has been done 'in recognition of the increasing connectivity of the Indian and Pacific Oceans', it is felt that apart from the US strategic interests in the Indian Ocean, which include increasing presence of the PLA Navy in the IOR, this may also be due to the strong relationship between the two Navies, which operate together on many occasions, with the common aim of ensuring maritime security in the IOR. It is pertinent to mention that apart from Malabar series of exercises, which have been going on since 1995, the Indian Navy undertook escort operations for US high value units through the Straits of Malacca (SOM) in

¹⁷ www.indiancoastguard.nic.in/indiancoastguard/sar/sar_index/sarindex3.jpg

2002 successfully, over almost six months duration, in the US global war on terror. Indian Navy has also been regularly participating in the Rim of the Pacific (RIMPAC) exercise off Hawaii, the biggest maritime exercise in the world, since 2015 and has won accolades for its professionalism from all quarters. There is a need to enhance interactions with like minded Navies, specially the US, so as to ensure information exchange and dissemination to our advantage, share best practices and undertake logistics requirements if necessary.

Whilst India is acknowledged as a maritime nation, yet the continental outlook of its policy makers, over the past several decades, has inhibited its full potential being realized. Today most developed nations are looking at 'Blue Economy' as the future of their survival since, various resources like energy, minerals, water etc are becoming increasingly scarce commodities on land. We also need to be conscious of this reality and formulate an actionable roadmap towards this aspect. As far as maritime security is concerned, the Indian Navy had published the Indian Maritime Doctrine (IMD) in 2009, updated in 2016 and also published India's Maritime Security Strategy (IMSS) in 2016. The IMSS is a very comprehensive document bringing out all facets of India's maritime security vision. It is pertinent to mention that the various aspects brought out in the document, if implemented holistically, will cater to India's maritime security interests suitably, in the coming years and also be an instrument in shaping a favourable and positive maritime environment for India in the IOR.

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COMBATING TERRORISM AND INTERNAL SECURITY (IS) THREATS

Lt Gen Syed Ata Hasnain, PVSM, UYSM, AVSM, SM, VSM (Retd)*

It is for long that nations have retained conventional war fighting capability essential for deterrence. That deterrence is against nations of equal or near equal stature in terms of power. However, much weaker nations can resort to other means to target a stronger adversary through what the world calls the 'hybrid' route. This is a mix and match of the various ingredients of the conflict spectrum in such a way as to limit it below a threshold and thus exasperate and continue to cause pin pricks which prevent the adversary from achieving his legitimate aspirations. One of those ingredients of the conflict spectrum is terrorism which along with the doctrine of hybrid conflict can be intelligently used as a sponsored proxy effort or an internally driven one; both are significant for a nation such as India which exists in the vortex of cross currents which drive many of the factors which facilitate terrorism and other internal security threats.

Identifying threats from terrorism and other IS domains as applicable to India is never a difficult exercise since we have suffered the travails of these for long. Yet, in the murky world that terror is involved with innovation is rife and geopolitical trends give rise to unpredictable phenomena. It's well known that in a densely populated multi faith, multi-cultural, multi ethnic and multi linguistic country like India there are numerous such sub-nationalities or demographic entities with their

own aspirations, vying for the limited resources and space. In the face of non-realization of their aspirations sub conventional ways of violence are an easy alternative in the demonstration of frustration. Proxy support, social media, financial and narcotics networks, arms running and easy availability of unemployed youth as recruits makes the resort to sub conventional violence much easier. However, the effect of international trends is also immense. That is why it is important at the outset to have a measure of understanding what these trends are.

International Trends in Terrorism

New Terrorism in the transnational environment, which is a euphemism for modern trends, can be discussed with reference to the current radical ideologies which drive violent extremism. Regional hot spots such as the Middle East, dynamic enabling technologies and the actual methodologies for executing acts of extremist violence in use are all relevant to the study applicable to India. We can then assess how much of these currently affect India and what will be the future impact.

The cutoff date for the transition to New Terrorism is usually taken as 9/11 although this is debatable because several innovative terrorist actions precede this. 9/11 is a date of convenience. The basic nature has not altered – concept & intent of terrorism remains the same i. e. maximum impact with minimum resources and no qualms about type of targets as in the attainment of the aim the sacrifice of lives of ‘friendlies’ is a given. What have changed are the drivers and the means. The drivers are now mainly radical ideology, sub conventional identity, perceived deprivation, strive for economic and social space and political demagoguery. All these have become much more virulent. The means include all the currently adopted methods. Suicide bombings continue to be one of the main means of violence but the improvised explosive device (IED)

has got more sophisticated while trucks and buses being rammed into crowds is bringing novelty and making it easier to carry out such acts before potential detection. On the horizon are drones but lone wolves and mass knife attacks have taken place aplenty in different parts of the world. With network technology it is far easier to move terror funds, carry out virtual training, conferencing, coordination and most important of all ideological brain washing. Where earlier a few highly motivated people driven by a cause could resort to violence, the persuasion and attraction has become slicker through social media, chat rooms and voice on internet protocol (VOIP). The Islamic State or Daesh demonstrated to the world how it could fight like a conventional force for the cities of Raqqa and Mosul while yet retaining the capability of governing territory and organizing terror actions a few thousand miles away in Europe or the US. One aspect which needs to be kept in mind is that in today's world the enablers of terrorist capability have wings. International borders, expanses of the ocean, technology infused wire fences and the likes are no obstacles; they remain just partial filters. States have to strengthen internal cohesion and social order to ensure that the travails of terror do not visit them through created opportunities.

The Prime International Non State Actors

The non-state actor continues to be a serious threat. Al Qaida once in decline after the killing of Osama bin Laden in 2011 and the rise of Daesh in 2014 is again on the rise. Its wing in South Asia – Al Qaida in South Asia (AQISA) is looking towards a surge but yet without success. Daesh reported to be in retrograde mode after the loss of its territories once Mosul and Raqqa were liberated, is attempting to morph into different identities. It is doing so by riding on lesser known but yet dangerous regional organizations like Al Shabab in Somalia and Abu Sayyaf in Philippines where it tried establishing itself in the Marawi region before

being finally evicted. Daesh has attempted an entry in South Asia. Its manifestation has been partially in Bangladesh but some effective counter terror operations and good intelligence support has neutralized that. Daesh is fighting in North West Afghanistan attempting to dominate and wrest areas from the Taliban. Its entry to Pakistan has been marginal at best and the footprint in India extremely limited although sleeper cells could yet be functional in parts of Maharashtra, Hyderabad and some other southern states. The almost complete eviction of Daesh from Iraq and most of Syria has led to it being in survival mode, short on finances and more focused on self-preservation rather than any offensive action. However, it is probing for weaknesses to sense where it needs to focus for its next endeavor at territorial acquisition before it settles to resorting to acts of violent extremism. India is very much on its horizon as also evident from the recent Indian Express report which outlined how it had hired the services of an Afghan national to execute a suicide terror act at a crowded Delhi mall, metro or market.

Pakistan is the haven for terrorist presence closest to India. As the originator of violent jihadism in the Eighties it today is the home to two varieties of terrorists. The first are the ones who have battled the Pakistan government for the last 11 years; much of these have been marginalized under the two yearlong Operation Radd-ul-Fassadas part of the National Action Plan. The second variety is the ‘friendly terrorist’; groups like Lashkar e Toiba (LeT) or Jaish e Mohammad (JeM) which also have political moorings. These have been used by Pakistan as strategic assets against India in fighting a low cost strategic proxy war. Harbored in safe havens in Pakistan and receiving state support from the Pakistan intelligence agency Inter-Services Intelligence (ISI) wing and the Inter Service Public Relations (ISPR) wing the Pakistan based and India focused terror groups have the advantage of escaping the

wrath of international attention. However, intelligence cooperation and sharing by some countries about them has lately been on the positive side, especially the US. The growth of radical elements rather than the control over them is being increasingly witnessed in Pakistan where political trends appear to be showcasing greater dependence on them in the quest for power.

Persistent Threats to India from Terrorism and Other IS Domains

India's geographic location creates opportunities for transnational and quasi transnational threats from terror groups based upon the promotion of Radical Islam. With approximate 200 million strong Muslim presences each in Pakistan, India and Bangladesh the region is in secondary focus after the Middle East and Europe where smaller Muslim presence exists but the psychological impact of terrorist efforts is far more. Yet, the grounds are being prepared for a surge in efforts in the South Asian region as it is a huge swathe of territory with all the elements required for the creation of turbulence. Among these factors are low grade and socially weak demographic segments, political infirmities, poor education back up among a young and teeming population, and unemployment. Afghanistan too forms a part of this region and is closely linked with trends here. Even as attention of international terror organizations remain only peripherally focused on the region, events such as the Jul 2016 terror attack at the Dacca bakery and the reported abortive effort to bring suicide bombing to India through an Afghan youth in 2017 (reported by The Indian Express on 11 Jul 2018), continue to prove that South Asia remains important as the land bridge to South East Asia where a large Muslim population also exists. Yet, till classical international terrorist (AQ and Daesh variety) interest remains peripheral the Pakistan based groups find it easier to continue their efforts to target India. There are no indicators yet of any major forms of classical transnational terrorist cooperation against India

(outside just the Pakistan based groups) although terror groups are known to do each other favors at a redeemable cost. Not the least of the reasons for the threats against India is its core geographic location existing between the Golden Triangle and the Golden Crescent regions which thrive on the vast drugs and narcotics networks and are one of the primary sources of terror funding.

The IS domain also comprises the existing insurgencies within India. Without attempting to classify these under any definition oriented characteristics the two primary areas which cause concern are the movements in the North East (NE) and left wing extremism (LWE) across South Central India. The political ideologies of most of the NE based militants are weak or non-existent but they offer opportunity to India's adversaries to play proxy games in a sensitive region. The rise of the BJP as a political entity in many parts of the North East may strengthen the nationalist hold and create conditions for better integration but equally could be a trigger for more strident efforts by insurgent groups. The political ideology of the Assam based insurgencies may be stronger as they are based on relative deprivation and pressure from demographic threats. Many of the insurgent groups across Manipur are only extortion elements. With portents of greater infrastructure development there are more chances for them to extend their trade against contractors as India seeks ways of better connectivity with ASEAN.

The Red Corridor variety of insurgency causing internal security problems has the potential of being the greatest of challenges. Its basis is more rural, land issues based, tribal and caused by exploitation and political opportunism which the governments have not been able to eradicate. The political ideology is extreme leftist and in keeping with leftist movements the aims are long term with full understanding that there will be temporary jolts and humps. These manifest as more virulent threats

because of the vastness of the affected zone cutting across political and thus police boundaries. The terrain and relative underdevelopment across the zone only helps them fester. There are no military solutions here, only, social, economic and political but the security forces (SF) will be forced to battle the symptoms as long as efforts at socio-economic engineering are not transformative. Transactional efforts make little difference.

The third major threat now increasingly being spoken and written about is the negative youth dividend. The average age of India's citizens is soon to be 29 with varying figures of the percentage being 60-70 percent. While India must continue to believe that this is a positive trend in terms of human resources we also need to be wary of the fact that unless the youth is gainfully employed and contributing towards nations building its can also be an extremely negative force. Uneducated and unskilled youth with limited scope for gainful employment opportunities becomes the restive element which creates major law and order problems in the expression of frustration. The agitation in Haryana in 2015 is a case in point where over the reservations issue approximately Rs30,000 crores worth of public and private property was burnt to cinders in two days. The same variety of youth is susceptible to other exploitation such as instigation by internal and external interest groups through fake news, a rising phenomenon, communal polarization for local electoral gains and vigilantism. The latter is a result of inadequate policing and inability to message national interests to the restive youth.

The fake news phenomenon merits a special focus being the latest among threats. In this, interest groups attempt to cause mayhem in society through posting of fake videos and messages on various social media sites. Active vigilantes out to score an advantage or brow beat segments of society cause sufficient turbulence in society. The

cumulative effect is on national reputation, tourism and investments besides the trauma effect on segments of the population and loss of confidence in structured law and order machinery.

The IS domain is always vulnerable to socio economic pressures. The rural march on cities, the drug menace in some states, income mismatch and communal tension are all indirectly linked to the potential of violence. In a society such as India aspirations will rarely match achievement and the battle between conservatism and modern outlook will remain in existence. Thus issues such as Triple Talaq, Article 377 or the migrant's issue of the North East will remain persistent threats to become triggers for instigation of violence.

Counter Measures

Much has been written about the concept and means of countering terrorism and IS situations in India. The complexities are many in a country of this size and population with as much diversity. The intent here is to spell out the conceptual aspects of securing India internally and not involve in the detail of that. Some issues for focus are given in brief in the succeeding paragraphs.

Comprehensive Security and Strategic Culture. It must start with the notion of comprehensive security. Countering terror and potential IS threats in isolation from external security are counterproductive. There are many ministries involved in this and the coordination lies with the National Security Adviser (NSA). Since India does not have a National Security Strategy document for guidance and across the board understanding it would do good that as a preliminary measure a basic document is prepared outlining existing and potential threats, responsibilities of different departments and the concept of both handling current threats and preventing future ones. It cannot be denied that in

India a lack of strategic culture exists which prevents the facilitation of understanding and appreciation of the issues involved in these threats. For example very few from the Ministry of Human Resources Development (MHRD) will understand the role of education in countering IS threats. There is a need to bring out more such documents and conduct awareness events for better understanding of comprehensive security (beyond just border security and role of Armed Forces) and promotion of strategic culture, especially in the urban environment of India.

Beyond Borders. Terrorism and IS issues generate because conditions within the nation give impetus to them. However, many times the influence and promotion generally lie outside the borders. This is not to discount the necessity of taking strong proactive measures within the country to prevent proliferation of threats but equally to focus on the external environment. Identifying the source of such threats and undertaking proactive diplomacy, formal or informal, to offset the networks which run such threats is essential. This steps into the domain of intelligence but tends to go beyond and it is here that strategic communication makes a difference. The cooperative mechanism set up with a neighbor such as Bangladesh has been of great mutual benefit to both India and Bangladesh.

Intelligence. India needs to compliment its intelligence agencies which have prevented any catastrophic event after the 26/11 Mumbai terror attack; Pathankot was yet a border terror attack. However, intelligence is a wily game and a single mistake will bring severe criticism against the same agencies. With proliferation of technology the same is available equally to the terrorists, militants, rioters or any elements which do not have the good of the country at heart, as much as it's availability to the intelligence agencies. Remaining ahead in the technology loop is essential. This comes through international cooperation and intelligence

sharing. There are legal firewalls and information blocks which have to be overcome but Indian intelligence agencies have not been found wanting; it's a question of keeping the momentum going. The case of neutralizing the financial networks which fuel proxy efforts at terror and IS situations is an interesting one. While the NIA has done some excellent work in attempting to dismantle the parallel economy in some parts of India this effort has admittedly begun too late. The networks have multiplied to such an extent that going after them is proving far more challenging than could have been imagined. The necessity of timely action before a threat proliferates to unmanageable levels cannot be more emphasized. Jammu & Kashmir (J&K) as a border state with a persistent public order problem has had financial conduits of such refined nature (hawala et al) that it's a wonder why these were never earlier neutralized.

Respect for Rule of Law. A survey of social media messages in India concerning the security domain will reveal the domination of a stream of thinking that violence can achieve the ends that some societies seek. Discussions always come back to eliminating people or targeting them physically. If there is disagreement in thinking there is seldom a notion that different human beings can think differently and that there is no need for violence to resolve an issue. While radical extremism is usually associated with ideology and faith which promote violence, it is also an element which exists in the thinking of many common people. Vigilantism and response to fake news is now becoming an IS problem and it is not necessarily related to faith or ideology but even issues such as child lifting or kidnapping. Respect for rule of law requires a greater implementation even if it has to be through the judicial route.

Counter Radicalism and De-radicalization. Radical belief in today's world is related mostly to ideology and faith. The justification for the use of violence against people for a belief other than one's own is

the essence of radicalism. It emerges from extreme intolerance in belief and lack of exposure to diversity. Countering radicalization trends has to have a generic approach addressing society at large and some specifics related to known elements which are vulnerable. The assistance of the clergy is imperative to spell a positive narrative. The model adopted by Singapore to counter any radical trends especially among the younger and socially vulnerable population, is worthy of note. Briefly it encompasses focus on centres of vulnerable population such as labor camps, prisons and universities; many more can be identified in India. Well educated and moderate members of the clergy frequently speak and also encourage the spread of positive communication targeting the ills of radical beliefs and promote tolerance, multi faith dialogue and pluralism. This model cannot be done in any unstructured way and will need government support with incorporation of intellectuals from the strategic community, academics, security experts and members of the clergy. The employment of psychologists will go far in giving positive effect to such an effort.

De-radicalization is a greater challenge and needs focused identification and then engagement again with a structured and professionally managed platform. State governments have to be involved with both programs.

Stabilizing Existing Areas of Unrest. Existing and emerging areas of turbulence have to be handled with a mixed approach involving security related operations to weed out or neutralize anti-national elements while adopting a balancing set of actions involving outreach, community support, social programs, skill development for better employment and constant engagement to create positive thinking, especially among restive youth. A pragmatic surrender policy with a constantly monitored progress of delivery of promises will help in diluting

angst. Such policies are known to flounder and can become the cause of multiplication of angst rather dilution. Political activity at the grass roots helps and this must be facilitated by the security forces. It will lead to greater political credibility and hence more acceptability of potential solutions during negotiations.

The Role of Media. As the chief medium of communication the media plays a dominant role in determining attitude, altering thought process and offering options. While the media must maintain its watchdog status it must not allow itself to be used for anti-national purposes. In a democracy there will be different points of view and opinion which must be equitably placed before the public while ensuring there is no instigation. This is difficult because media is often sponsored and owned by business houses which have political leanings making it difficult to maintain neutrality. A self-regulatory approach for media needs to be encouraged with media related institutions offering advice from time to time. Scoops and ‘breaking news’ for commercial gain which in any way militates against national interest must be firmly dealt with by the media institutions themselves.

Social Media. With greater internet penetration and mobile connectivity the role of social media in security situations will continue to proliferate. The empowerment of the security forces, people and law breakers is almost equal on social media. It’s a question of better and more imaginative exploitation of the medium. Narrative change or themes to counter terror and other anti-national activities are best facilitated through social media but need handling by trained experts. The problem of fake news now creating ripples in India must be handled legally with stringent punishment. A vitiated political environment will only help with greater proliferation of fake news. The law and order machinery must itself reach out to educate people on the unrealized

dangers of forwarding messages. The exodus of people from the North East based upon fake news rumors in Bangalore is a case in point. Eventually deep data mining technology will be necessary with an army of cyber warriors which will be tasked to maintain tabs on messages of potential mischief.

Robust Security. This aspect which usually appears as the first bullet in law and order or terror related analyses has deliberately been kept towards the end of this essay. Internal security situations are best handled by the local police who know the pulse of the local environment. If necessary they need to be bolstered by Central Armed Police Forces (CAPFs) and only as a last resort by the Army. Maintaining the exclusivity of the Army is essential. Many have argued for the deployment of the Army in the Red Corridor but the government needs to be complimented for not adhering to this advice. It has led to a bolstered confidence in the CRPF which is the designated force for counter insurgency in the country.

Usually decision making is tardy about deployment of the most suitable force at the most appropriate time. An overkill may help control and stabilize while it is equally true that the creeping approach leads to strengthening of the anti-national elements which may then require hard operations leading to alienation of the population. Decision making regarding the choice of force and timing is thus crucial and must be done in consultation with all stake holders.

Unified/Joint Approach by Security Forces. Once multiple forces have been deployed a unified/joint approach through a concept such as Unified Command (as in J&K and the North East), is an effective way to optimize the capabilities of each force. An overall commander is desirable but status differential disallows any such attempts and

its best left to individual commanders and their maturity to handle the environment. In India we are well past efforts as creating single command structures due to challenges involving civil military relations. Yet, respecting core competence in different fields is the best way of overcoming these issues. Limited joint training should be attempted to bring about common understanding of the prevailing environment.

Use of Soft Power. As earlier mentioned each time the security forces are deployed for hard operations commensurate soft power operations must be conceived and resources must not be constrained by budgetary constraints. This helps in cooling and calming the environment and preventing the anti-national elements gaining in stature and support. One of the earliest issues to tackle is the prevention of loss of self-esteem and dignity by the people who are otherwise innocent. Training of troops in the handling of people at check points and entry gates goes far in retaining respect of the population.

Whole of Government Approach. It is a tendency among governments, elected or otherwise, to pend governance issues awaiting improvement in the security situation. In security situations of this kind every department has to contribute towards better governance. All actions need to be simultaneous as these mutually support each other. Where necessary some aspects of development and social empowerment can even be delegated to the security forces to implement pending improvement of the situation. Operation Sadbhavana in J&K is a prime example and it has inspired much confidence in the capabilities of the Army.

Turbulence in society within India is unlikely to reduce in the near future even as it makes giant strides in the field of development. Frequent application of mind to potentially turbulent situations must be

done to anticipate and counter such situations before they proliferate to levels of becoming serious challenges. While our social, political and economic environment will always remain unique the solutions to such challenges would have been experimented the world over. This greater international cooperation will help evolving better and more implementable techniques of tackling these issues.

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TERRORISM AND COUNTER TERRORISM IN THE INDIAN CONTEXT

Lt Gen Mukesh Sabharwal, PVSM, AVSM (Retd)*

*“Fighting terrorism is like being a goalkeeper. You can make a hundred brilliant saves but the only shot that people remember is the one that gets past you”¹ - **Paul Wilkinson.***

Nature of Conflict in the South Asian Region

The end of the 20th Century and the beginning of the 21st Century have witnessed what can justifiably be termed as paradigm shift in the nature of conflict. In an increasingly globalised world, the new security challenges are products, not of conventional inter-state rivalries, but of economic, demographic and societal tensions that are trans-national in nature. Incidents of conflict are on the rise due to a multiplicity of factors ranging from weak and illegitimate state institutions, marginalisation of people in border areas that also generate sanctuaries for insurgent groups, large-scale population displacements and ineffective regional security arrangements.

South Asia is a diverse region flaunting a multitude of religions, ethnic groupings, languages, and dialects. Home to one and a half billion people, the region still remains impoverished as compared to the rest of the world with a very low per capita income. It has clearly emerged that the region is not only politically unstable, it has a range of security issues to contend with, especially terrorism. A number of separatist movements

have held centre stage in South Asia making it one of the longest conflict ridden areas of the world.

The geo-political structure of South Asia emphasizes its Indo-centricity. India is several times larger in population and size than any other country in South Asia. Its predominance not only in geographic characteristics but its economic prowess makes its neighbours apprehensive. India's security relationship with its neighbouring countries therefore, is often characterized by a lack of trust. In the seven decades since Independence, its internal security situation has undergone a change. It is affected not only by several insurgencies in North East and Central India, but is equally if not more, impacted by terrorism sponsored, guided and supported from across its borders in Jammu and Kashmir (J&K).

External Support to Terrorism

India has been engaged in fighting insurgencies, which extensively practice terrorism. In her North-East, particularly in Nagaland and Manipur, the armed militants numbered 5, 000 or more at various stages of insurgency. According to a former director general of the Punjab police, there were about 10, 000 at the peak period in the 1980s and 90s. ²The main focus of conflict in the last two decades has been in Jammu and Kashmir. The insurgency has been actively supported by Pakistan since 1989 and carried out by Islamic groups. The number of armed militants has ranged from 2000 to 6000 at the peak.

In J&K violence levels were the highest in the 1990s, peaked around the Kargil conflict, reduced after the ceasefire along the Line of Control (LC) in November 2003 but there was resurgence after the Mumbai terror attacks in 2008. The highlight is that external support,

be it in the form of funding, training, arming or safe sanctuaries has significantly added to the terrorist movements. The insurgencies in the North Eastern states continue to linger at lower levels with the insurgents safe in their sanctuaries in Myanmar and Bangladesh. Consequently, the Indian Government has had to raise more security forces to counter these threats. Undoubtedly the sponsorship of terrorism by states and non-state actors has sustained these insurgencies and even expanded their scope.

Border management is one of the important aspects in India's internal as well as external security. The country has 15106 km of land border running through 92 districts in 17 states and a coastline of 7516 km touching 13 states and union territories. India's total number of islands is 1197, which accounts for a stretch of 2094 km additional coastline. India faces perpetual risks as its borders are porous and its neighbourhood is unstable. The borders with Nepal, Bhutan and Bangladesh are so porous that quite often anyone can just walk through without being challenged. Co-operation between India and its neighbours to promote border security is below par. Weapons, resources and terrorists are injected through these routes.

Pakistan a State Sponsor of Terrorism

Pakistan has been accused by India, Afghanistan, United States and United Kingdom amongst other nations, of its involvement in the terrorism in Kashmir and Afghanistan. Pakistan has denied any involvement in the terrorist activities in Kashmir, arguing that it only provides political and moral support to the secessionist groups. Many terrorist groups also maintain their headquarters in Pakistan Occupied Kashmir (POK), which is cited as further proof by the Indian Government. Many of the terrorist organizations are banned by the United Nations, but continue to operate under different names. The UN has also publicly increased

pressure on Pakistan with regards to its alleged terrorist sponsoring activities. According to an expert, Daniel Byman, “Pakistan is probably today’s most active sponsor of terrorism. ” ³ Writing in an article published by The Australian, he stated, “Following the terror massacres in Mumbai, Pakistan may now be the single biggest state sponsor of terrorism, beyond even Iran, yet it has never been listed by the US State Department as a state sponsor of terrorism”. ⁴

Pakistan’s continued support for terrorist organizations such as Lashkar-e-Taibya (LeT) serves a number of strategic objectives. First, it has proved to be an inexpensive and a relatively low-risk method to tie down a disproportionate number of Indian troops and make sure that the Kashmir issue remains in the spotlight. Second, Pakistan and its proxies have tried to convey to the world its claims that Kashmir is a purely indigenous insurgency, without herself getting involved in direct confrontation. The continued instability has not only prevented India from deploying troops into other troubled areas, but also communicates to New Delhi that, even if embroiled in a domestic crisis, Pakistan is still a force to be reckoned with. By continuous support to cross border terrorism in J&K, Pakistan has also managed to divert a sizeable number of its forces from its eastern theatre to its western frontier region to concentrate on its fight against internal terrorism Waziristan, Federally Administered Tribal Areas (FATA) and Balochistan.

Pakistan has been waging a proxy war in Jammu and Kashmir since 1989. Its aims in this regard are apparently to continue to wage a low-cost war against India, using terrorists rather than military forces; to bleed the Indian Army through attrition; to project insurgency as home-grown but finding it difficult to sustain the terrorism in the hinterland without infusing leadership from across the LC. Pakistan continues to deny its involvement, while it continues to fan the flames of terrorism

in J&K, besides spreading fundamentalism in the rest of India as well. For example, the Student Islamic Movement of India (SIMI), which was suspected of involvement in the July 2006 Mumbai train bombings, is alleged to have worked alongside of Pakistan-based LeT operatives and assisted them in illegally entering India. Zakiur Rahman Lakhvi and other LeT commanders prodded their Indian counterparts to set up a self-sustaining network in India and the group finally named itself the Indian Mujahideen.

Through the years, the Pakistani objective has remained unchanged. It has resulted in a low-intensity conflict with a vicious mix of insurgency, terrorism, and proxy war⁵. Madeleine Albright, the erstwhile US Secretary of State had said, "Pakistan is where all headaches of the twenty first century come together"⁶. The peace initiatives with India notwithstanding, Pakistan has not taken any action to prevent its territory being used for cross border terrorism, even as it continues to seek conventional and strategic parity with India. Pakistan it must be conceded has cleverly leveraged the situation in Afghanistan to its advantage.⁷ Pakistan is so certain of its utility value to the US that it has manipulated to stay in prominence in American thought and planning. However, as long as the Pakistani state remains in the throes of a crisis of legitimacy, stability in the neighbourhood towards India's west will continue to be elusive.

Internal Security Challenges

A study of the demographic imbalances and the magnitude of the Naxal movement is necessary to fully comprehend the impact it has on India's internal security. Weaknesses lie in susceptibility of the population falling prey to ethnic divides and conflagrations, engineered by external as well as internal fundamentalist religious elements. The

linkage between terrorism and its manifestation in both urban and rural areas is clearly evident. The gravest concern is the exploitation of these infirmities by external agencies operating out of Pakistan, Bangladesh, and Nepal amongst others, on a prolonged basis and the ineffectiveness of efforts to neutralize it. Her regional neighbours lag behind in economic progress and are similarly unstable in polity. Violent upheavals in the neighbourhood have a propensity to flow into India's border regions where similarities in ethnicity and culture exist. There are also threats from demographic inversion. Non-state actors assume greater threat potential in an increasingly networked world with enhanced technology.

In the context of India, conventional wisdom suggests that external security threats stem from hostile countries and internal security threats are all totally indigenous. Since Independence, the internal security situation has undergone a sea change. Many internal security threats are now externally sponsored, guided, inspired or supported. That does not imply that there is a "foreign hand" in every militant activity that occurs inside India. Internal security is often construed or misconstrued, depending on one's perception and it is not surprising that India's internal security is always a contentious subject, as distinctions between external and internal security are getting increasingly blurred.

Economic disparities have created social tensions, urban unrest, rural upsurge and youth disenchantment. Problems of deprivation, unemployment, poverty, food shortage, lack of housing, and degradation of basic amenities have given rise to anger and crime. The problem is getting worse as rise in population adds to the pressure on demand without corresponding increase in supply.

Terrorism has both a direct and an indirect impact on the economy. B. ain. Border management is another area that has to be budgeted not

only from the security point of view but from a social responsibility as well.

The social impact is also a burden on the cost of development as well as an intangible effect on the well being of the people of the country. Migration from across the border or from within one region of the country to another causes grave difficulties for the people and mental trauma. A natural fallout is the impact on the bilateral relations between India and its neighbours that have suffered in a variety of ways due to the on-going terror and violence in South Asia.

Counter Terrorism - Political, Diplomatic and Economic Initiatives

The government's ability to deal with the magnitude of terrorist incidents is debatable, not only because of the lack of political will or deficiency in the state's security apparatus, but also because of the transnational nexus of terrorist attacks. The targeting of Indians outside India became visible in the attack on the Indian embassy in Kabul, Afghanistan, on 07 Jul 2008 in which 58 people were killed and 141 injured.

State sponsors of terrorism will demand a different strategy appropriate to its intransigence or prospects it offers. Although military action could be an important element in dealing with some of these states, it will invariably be inadequate to address the complexities of state sponsorship of terrorism. A winning strategy will involve the employment of all instruments of power in concert. Economic pressure and, in some cases, limited forms of engagement may be a judicious alternative.

Current domestic and international agreements are targeted at peripheral elements of state sponsored terrorist groups. They fail to attack the centre of gravity of the terrorist groups i.e. the states that sponsor such groups. The policy should target the entity (state sponsors)

which funds, trains, directs and provides safe haven to these groups. As Netanyahu B states, “What is required is a commitment to a continuous campaign against its sponsors, not just erratic responses to individual terrorist acts”⁸ India’s long-standing experience of contending with internal and external terrorism highlights issues that have not yet been fully realized in the international discourse on terrorism. India is in a good position to spearhead agenda setting in the realm of counter-terrorism by distinguishing between ‘rogue elements’ within states in contrast to the broad concept of state sponsorship itself⁹.

That Pakistan is a state sponsor of terrorism is a well-established fact and has been acknowledged by most of the world powers that matter. Diplomatic pressure by leveraging this international sentiment against Pakistan must be pursued aggressively at the United Nations and multiple forums across the world. Use of every possible platform must be explored to declare the terrorist organisations and their leaders taking shelter and being supported by Pakistan as illegal, banning them and imposing sanctions if no concrete action is taken by it. The Prime Minister’s meeting with international leaders and influencing them in this regard is a step in the right direction. Although China has used its veto in the Security Council to prevent Maulana Masood Azhar being declared as a wanted terrorist, the world opinion that India has been able to generate is commendable.

At the bilateral level, the Indus Water Treaty and sharing of water from the rivers could be reviewed and optimized. Another look should be given to the continuation of the Most Favoured Nation status to Pakistan. In fact the balance of trade should be reviewed and any economic pressure points available should be exploited. The Confidence Building Measures should be addressed to see if any fruitful advantages have accrued or these should be suitably modified. Trade and transit across the LC is another area that could be revisited.

The inflow of funds for terrorist organisations does not only use the hawala channels as widely perceived. Regular banking channels and wire transfers are increasingly being used for terror financing, mostly in small tranches to avoid detection. Traditional methods of financing terror like smuggling, drug trafficking, fake currency and gunrunning also continue to flourish. Whereas the Home Ministry has taken steps towards tightening the loopholes in money laundering and blacklisting several NGOs, there is a need to revisit laws regulating money transactions and sprucing up the mechanism to check printing and smuggling of fake currency.

One of the methods of disseminating the effects of a terror attack has always been the media. Unfortunately, these channels of awareness and information also become carriers of panic. As experienced with the 9/11 and the 26/11 attacks, terrorism entails a prolonged urban confrontation that exposes the inability of security forces to cope with the volatility of the terrorist due to the completely unexpected nature of the attack. Even though they are eventually successful in eliminating the terrorists, initially the security forces have to deal with combating them. The violence is covered extensively by news channels, reaching audiences across the world and indirectly multiplies the number of targets. The bigger menace these days is the exploitation of the social media by the terrorist organisations. Mobile phone and laptop savvy youth are easily influenced and the reach is wider and quicker. The veracity of information being authentic is doubtful but perceptions can be altered irrespective of its credibility. A comprehensive and judicious media policy covering print, electronic and social media is absolutely mandatory. Its implicit implementation and enforcement is the greater need of the hour.

Operational Challenges in Counter Terrorism

As regards the military role is concerned, the Army in particular has a major stake in facilitating an improvement in the situation in Kashmir. Strategically the biggest challenge by far is “maintaining the sanctity of the LC”. Loss of territory is just not acceptable. The other important challenge dictated by policy is that of “No Hot Pursuit”. This implies that any group of terrorists fleeing back to Pakistan or POK on interception cannot be pursued across the LC. The atmosphere that prevails along the LC is termed as “No War No Peace”. The contradiction in deployment templates is that counter infiltration requirements are different and hence tactically unsound positions may have to be physically held at times. The LC fence for instance is useful against infiltration but is also likely to induce a defensive mind set in certain situations.

To a large extent, the cross LC strike by the Indian Army (popularly known as the *surgical strike*), has indeed been a paradigm shift. The uniqueness of the military operation was that the LC was physically crossed; terrorist camps were struck across the LC in POK; pre-empted the launch of terrorists based on reliable intelligence inputs; total surprise and no collateral damage. The other salient features that emerged were the clear emergence of national will and transparency of intention with the DGMO informing his counterpart in Pakistan about the operation. For the Pakistan Army the belief that the Indian Army will never venture across the LC was shattered. Another significant fallout is the confidence gained by our Defence Forces that the Government is likely to support its plans for proactive operations when the situation so demands.

Retaliation was a norm with a clearly defined escalatory ladder. Pre-emptive and pro-active actions were never encouraged, but there was never a restriction placed on a calibrated retaliatory swift response.

Perhaps, a bit of over centralization in order to exercise tight control did creep in at successive levels. Decentralization and trust in commanders at the cutting edge is mandatory for dominating the LC. Retribution at the tactical level is vital for morale and assuring moral ascendancy. It is a function of the local situation, terrain dynamics, character of troops and commanders in an area. Historically, militaries are the best judges on how to tackle such issues and it would be prudent for diplomats, journalists and the like to respect the military ethos.

Infiltration and ceasefire violations on the LC are bound to continue with the Pakistani attitude of being in denial of supporting cross border terrorism. With the trust deficit not likely to improve any time soon, a conciliatory approach to serious violations on the LC will only send a weak signal across and is likely to lead to more casualties to own forces and civilians living near the border. Application of technology should continue to be taken up expeditiously for providing cost effective options.

Besides maintaining the sanctity of the LC, the Army has to continue with its task of counter infiltration and in conjunction with the Rashtriya Rifles (RR), to deny space in the hinterland to the terrorists, failing which they will exploit the opportunity to regroup and rebuild their capability. Moves like the suspension of operations, probably at the behest of the state government and against the operational advice of the security forces, may provide the terrorists who are on the back-foot, time and space to reorganize. It also slows down the momentum of the security forces. Needless to emphasise that the time is not ripe to even consider repealing the AFSPA partially or otherwise, especially with the distrust quotient with Pakistan still so high and the situation in J&K nowhere near stabilizing.

The RR is essentially filling the gap created by the capability inadequacy of the state police and Central Armed Police Forces (CAPF) to deal with the externally sponsored terrorism with an integral military content. There is an urgent need to carry out capacity and capability building of the CAPF deployed in J&K. This will prepare them to carry out their mandated task of conduct of counter terrorist operations in synergy with the State police and intelligence agencies. Although they carry out joint operations with the RR many a time, their direct involvement in proactive actions is limited. Confidence and good leadership has to be inculcated in the CRPF to eventually undertake independent counter terrorist operations.

A very important facet that is in fact a force multiplier is intelligence. Its coordination at all levels though stressed by one and all, leaves much to be desired. Data management and sharing amongst all intelligence agencies has to be a constant process so as to avoid gaps to support operations in real time. The experiment of the national grid needs to be revived as also other efforts in intelligence coordination. Judicial and legal shortfalls must also be addressed on priority especially in expediting terrorist convictions.

Conclusion

Once the security situation has been brought under control as has been done several times before, the political machinery has to step in with purpose and ensure consolidation. This has to be done with efficient governance and taking the people of the State into confidence. Just being able to conduct peaceful elections and electing a government is not even half the battle won. This has been achieved in the past two elections but amelioration of the pent up discontent of the populace is

still a far cry. The actual work of fulfilling promises and administrative implementation is the critical part.

India has had its share of wars and conflict since Independence, but terror and violence as has been observed in its neighbourhood in recent years is a matter of serious concern. Terrorism is no longer confined to its external borders to be tackled only by her armed forces deployed primarily for that purpose; or removed far away from the general public as not to get affected by it. With the advent of the terrorist, be it imported or indigenous, the effects of violence confront the common citizen sitting well inside the hinterland be it urban or rural. It is a more realistic kind of fear and the uncertainty is chilling.

(Endnotes)

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- 7 Pakistan understands the compulsions of the United States of America to use it as a land base for its operations in Afghanistan. Operating off aircraft carriers or Diego Garcia from the Indian Ocean is both logistically and cost prohibitive for the US. The other suitable base for operations is from Iran, but its poor relations with the country preclude that option. The only other alternative is from the northern route through Central Asia and Uzbekistan, which is long, laborious, unpredictable and simply cost ineffective.
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INTEGRATED THEATRE COMMANDS FOR THE INDIAN ARMED FORCES

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Presiding over the Combined Commanders' Conference in 2015, Prime Minister Narendra Modi had shown his concern about the lack of jointness among the three Services of the Indian Armed Forces and said, *"We have been slow to reform the structures of our armed forces... We should promote jointness across every level of our armed forces. We wear different colours, but we serve the same cause and bear the same flags. Jointness at the top is a need that is long overdue."*¹ In the subsequent Combined Commanders' Conference held at the Indian Military Academy in Dehradun on 21 January 2017, the Prime Minister was given a detailed presentation by the Chairman of the Chiefs of Staffs Committee and Navy's Chief Admiral Sunil Lanba, on the creation of theatre commands in the country to bring in better coordination among the armed forces. Reportedly, the Prime Minister had directed the military brass to focus on jointness among the three defence services. ² immediately thereafter, in April 2017, the chiefs of the three defence services appeared together to issue the Joint Doctrine but the three forces disagreed on the proposal to create integrated theatre commands. Reportedly, the Army is in favour of the proposal, while the Air Force is strongly opposed to it and the Navy's view is more nuanced - it too is not in favour of implementing the proposal currently ³. Soon after defence minister Nirmala Sitharaman said the government wanted the military

to move towards creating theatre commands, a serving naval officer viz. , Rear Admiral Monty Khanna stirred the hornet's nest by blaming the Indian Air Force as the stumbling block in the creation of theatre commands ⁴.

With the above as a backdrop, it is intended to study and analyse the necessity of forming integrated theatre commands for the Indian Armed Forces as under:-

- (a) Relevance of Theatre Commands for future war fighting.
- (b) An Appraisal of Higher Defence Organisations of Major Powers.
- (c) Fault lines in India's Higher Defence Structure.
- (d) Recommended Theatre Commands Structure and the Associated Command & Control for Indian Armed Forces.
- (e) Inter-Services Rivalry and Need for Resolution.

Relevance of Theatre Commands for Future War Fighting

Prime Minister Narendra Modi's clarion call for India to assume "*a 'leading role', rather than [as] just a balancing force, globally*"⁵ in fact signifies his larger vision of envisaging India to become a traditional great power. India will only acquire this status when its economic foundations, its state institutions, and its military capabilities are truly robust ⁶. The organisational strength of its national security structure should be able to leverage the comprehensive national power of the country in a manner that its military force should be able to operate effectively and emerge victorious in the futuristic battlefield.

Modern war requires jointness, inter-operability and close integration between the three services not only for planning at the

national level but also for execution at the theatre level. Necessity of close integration was established during the Second World War itself when Field Marshal Montgomery had moved the supporting Air Force Headquarters from Alexandria and located it adjacent to Eighth Army Headquarters at El Alamein. In Korea, General Walton Walker and General Matthew Ridgeway, commanders of the Eighth Army, met almost daily with General Earle Partridge, who commanded the Fifth Air Force. Similarly in Italy during World War II, the Fifth US Army and the XIIth Air Support Command enjoyed co-located command posts. But these lessons seemed to have been forgotten during Operation 'Desert Storm' and it was felt that the command relations between the USAF and the US Army could have been better.⁷In India, the command headquarters of services are not co-located e. g. the Army's Eastern Command is located at Kolkata and its supporting Eastern Air Command is at Shillong. Western and Northern Commands of the Army are at Chandimandir and Udhampur respectively, whereas their supporting Western Air Command is at Delhi. Army's Southern Command is at Pune while the Air Force South Western Command is at Jodhpur. Same way the Navy's operational commands and their supporting Air Force commands are geographically segregated. A semblance of coordination is being achieved by co-locating Advanced Headquarters of Air Force Commands alongside Army and Navy Commands, they are supporting. That is not good enough. To achieve true integration and synergy, we need to create integrated theatre commands, which are strategically oriented and unified to meet the emerging threats; obviously with a necessitated change in the present Command & Control System to exercise timely political and military control.

An Appraisal of Higher Defence Organisations of Major Powers

It is imperative that contemporary organisations of major powers be studied to derive useful lessons for enabling us to modify or evolve our own organisation.

Higher Defence Organisation in the United States. The President of the United States is according to the Constitution, the Commander-in-Chief of the US Armed Forces. The Secretary of Defence is the “Principal Assistant to the President in all matters relating to the Department of Defence”, and is vested with statutory authority to lead the Department and all of its component agencies, including military command authority second only to the President. On behalf of the President, the Secretary of Defence is responsible for formulating policies related to the Armed Forces.⁸ The elements of the United States Higher Defence Organisation are (see Annexure 1).

National Security Council (NSC). Located in the office of the President, the NSC is under the chairmanship of the President; its statutory members include the Secretaries of State, Defence and the Treasury, the Vice-President, the Assistant to the President for National Security Affairs (also known as the National Security Adviser), the Chairman of the Joint Chiefs of Staff (CJCS), the Director of Central Intelligence Agency (CIA) and Director National Intelligence (DNI). The Secretary of State has primary responsibility for foreign policy and the Secretary of Defence oversees decision-making in relation to US defence policy; the CJCS acts as military adviser to the Council, while the Director CIA is its intelligence advisor. NSC seeks to ensure that the President has adequate information on which to make his decisions, although it does not have an implementation role.⁹

Department of Defence (DoD). Beside the Office of the Secretary of Defence and various agencies, the Department of Defence has the following important elements:-

- (a) **Joint Chiefs of Staff (JCS).** It consists of CJCS as its head; Vice Chairman, always from a different service; the Military

Service Chiefs from the Army, Marine Corps, Navy and Air Force, in addition to the Chief of National Guard Bureau.

(b) **Combatant Commands (Unified/Specified).** The United States currently has nine Combatant Commands, organised either on a geographical basis or on a global, functional basis. Troops from the various departments (i. e. Army, Navy, Air Force, Marines) are placed under the operational command of unified/ specified commanders.

(c) **Military Departments.** The Military Departments are each headed by their own secretary (i. e. Army, Navy and Air Force). The Secretaries of the Military Departments, in turn, normally exercise authority over their forces by delegation through their respective Service Chiefs.¹⁰

Consequent to the Goldwater-Nichols Act (GNA) of 1986, the US Military has adopted a command and control (C2) structure in which the authority flows from the President and Secretary of Defence to the commanders of the regional Unified Combatant Commands, who lead joint forces within their respective theatres. Service Chiefs do not possess operational command authority over US troops but they are tasked solely with “the training, provision of equipment and administration of troops”.¹¹

Higher Defence Organisation of the People’s Republic of China (For Organisational structure see Annexure 2). As part of the on-going reforms in the PLA, which began in September 2015, previous seven Military Regions have been replaced by five new “theatre commands”. The theatres are aligned against land and, where applicable, maritime security challenges in their respective geographic areas; for instance Eastern Theatre Command covers the Taiwan Strait and East China Sea while the Southern Theatre Command covers the South China

Sea. These are integrated commands as they draw units from individual services. The Central Military Commission (CMC) has been reorganised with a New Joint Staff Department (JSD) performing the command & control (C2) functions. The PLA has adopted a distinct operational chain of command from CMC to theatre commands and administrative chain of control from CMC to services, akin to the US C2 structure. Accordingly, the service chiefs have only the responsibility to 'organize, train and equip' the troops. However, the PLA still retains its soviet orientation, with Political Commissars and Party Committees playing a role in all key decisions. Therefore, the western analysts describe the new PLA C2 structure as "Goldwater Nichols with Chinese characteristics." ¹²

Faultlines in India's Higher Defence Structure

Faultlines in our organisational structure need to be identified and seen in the context of contemporary organisations of other countries so that useful lessons are imbibed while restructuring and strengthening our own system. These faultlines are:

- (a) **Lack of a True Joint Warfighting Capability.** A full spectrum high intensity war covering land, sea, air, space, information and cyber domain is likely to be the future battlefield milieu over the coming decades. To achieve victory in this milieu, integrated theatre operations would be imperative. Presently a semblance of tri-service integration is being achieved through the Chief of Staff Committee (COSC), a British legacy, having been established in India in the early Thirties. Beside the functional inefficiency, the extant inter-service rivalry in the system is highly counter-productive. On the other hand, having been inspired by the US military's successful joint operations during the first Gulf War, China had closely followed the command & control

structures adopted by the US military and have set up Theatre commands supported by their own command & control structure. In fact in 2013, China's President Xi Jinping himself noted, ***"establishing a CMC and theatre command joint command & control system requires urgency and should not be delayed."***¹³ In our case, no urgency has been shown for the restructuring of higher defence organisation- a prerequisite for achieving "Jointness" and "Integrated Approach" towards war fighting.

(b) **Lack of Integrated Functioning.** Unlike the British system, from which it has evolved, India's Ministry of Defence is an entirely separate entity from the Service Headquarters and is staffed exclusively by civil servants. In 1961, three services ceased to be a part of the Ministry of Defence and became attached offices. Further, there is Ministry of Finance (Defence), yet another separate entity. All are examining issues in isolation of each other, resulting in triplication of efforts and causing waste in terms of finance, talent and time. Subordination of the military to the civil power should be in political and not bureaucratic terms.¹⁴

(c) **Lack of a Single Point Military Advice.** The true jointness and integration among the three services can only be achieved through the military advice offered by a single leader irrespective of whether he is called Chief of the Defence Staff (CDS), CJCS or the Permanent Chairman COSC. The need has been established by various committees and accepted by the government also but it has yet to see the light of the day.

Recommended Theatre Commands Structure and the Associated Command & Control for Indian Armed Forces

Having identified the faultlines in India's higher defence organisation,

the edifice of the organisation needs to be restructured and reformed, essentially involving: Creation of Integrated Theatre Commands and Specified Commands; Redefining the chain of command and control; creation of a Single point Military Adviser (See Annexure 3).

Integrated Theatre Commands and Specified Commands.

Integrated Theatre Commands can be either geographically oriented or to handle a common threat or even a mix of both; all have their advantages and disadvantages. One of the suggested options is to have six integrated theatre commands as under:-

- (a) **Integrated Western Theatre Command (4/3 Star).** facing Pakistan from the plains of Punjab, through Thar Desert of Rajasthan to Rann of Kachchh in Gujarat. Has under its command all Army & Air force formations covering the Area of responsibility (AOR) of existing Western, South-Western and Southern Commands.
- (b) **Integrated Northern Theatre Command (4/3 Star).** facing Pakistan and China in the mountainous regions of J&K and Ladakh. Has under its command all Army & Air Force formations covering the AOR of existing Northern Command.
- (c) **Integrated Eastern Theatre Command (4/3 Star).** facing China in the Northeast. Has under its command all Army & Air Force formations covering the AOR of existing Eastern Command.
- (d) **Integrated Southern Theatre Command (4/3 Star).** Has under command the maritime fleets and air assets deployed for defence of Western, Eastern and

Southern seaboard. Andaman and Nicobar Command shall also come under it.

(e) **Integrated Aerospace Command (4/3 Star).** Responsible for Air defence of the country including Ballistic Missile Defence and strategic air offensive.

(f) **Integrated Logistics Command (4/3 Star).** Responsible for organising and coordinating movement of men and material from one theatre to another within the country as also to overseas theatre of operations using air, land and sea transportation.

(g) Beside the existing **Strategic Forces Command (SFC)**, the emerging threats necessitate raising of two more specified commands: **Special Operations Command**, on the lines of the US structure to counter the asymmetric threats as proposed by Naresh Chandra Committee in 2011; and **Cyber Command**, for defending national interests against attacks that may occur in cyberspace, the so-called 'Fifth Domain' of warfare.

Redefine the Chain of Command and Control. The present concept of chiefs of staff being the overall commander of all forces of his service cannot meet the futuristic requirements. There has to be two distinct chains of command and control: Chiefs of Staff being the heads of their respective services should be responsible for organising, training and equipping their forces; Formulating operational plans and conduct of operations by Integrated Theatre Commands/specified commands should be the responsibility of the Single Point Military Adviser.

Creation of a Single Point Military Adviser. It is high time that a single point Military Adviser responsible for drawing up operational plans of Integrated Theatre and specified commands, akin to the CJCS of the US, be created. Name of the post is immaterial - whether it is CDS, Permanent Chairman COSC or any other synonym, but his role and responsibility must be categorically defined. The necessity had already been identified by Kargil Review Committee headed by Shri K Subrahmanyam and accepted by Group of Ministers (GoM) led by the then Deputy Prime Minister L K Advani. Subsequently, in 2012, another high level committee headed by former Cabinet Secretary Naresh Chandra also accepted the necessity but changing the name of appointment to Permanent Chairman COSC.¹⁵

Inter-Services Rivalry and Need for Resolution

The self-created arguments propounded by the Air Force to oppose adoption of the Integrated Theatre Commands can be clubbed in to two:

- (a) Distribution of Air assets in Penny packets to the Theatre Commands will result in frittering away a premium resource.¹⁶ Indian Air Force opines that given the reach and endurance of modern day aircraft, centralized control by the Air Force enable them to be applied in different theatres in the event of a multi-front war, which will be problematic in a theaterised structure. On the contrary, in Integrated Theatre Command, only the headquarters of support services with their C4 I structure are required to be co-located. Long-range weapons like aircraft, missiles, rockets and medium artillery being the scarce resources are not permanently distributed but are allocated, prioritized and rehearsed for different contingencies. Greater the range of a weapon, more is the flexibility in its application and that is achieved without moving

them in all the cases because of exercise of command & control through better communications. Air Force commander will always be available to the Theatre Commander to render the best advice regarding utilization of air assets. It will be the responsibility of the Chief of the Air Staff to ensure training and operational readiness of Air resources at all times.

(b) Integrated Theatre Commands are required Primarily for Expeditionary Capability. ¹⁷ According to this argument, as India has live borders with homeland defence as a key task and it does not profess any territorial ambitions or global aspirations, hence there is no requirement to follow this path. In the past, India had faced only single front war and the integration and jointness among the three services was achieved through cordial relations between commanders at the helm and officers having worked together at tri-services institutes and organisations. In future, it will be a network-centric multi-domain war, may be on two or more fronts, requiring quick decisions at theatre level, which will be possible only, if there is a separate theatre commander enabling 'unity of command', so essential for achieving victory in a modern day battlefield environment. As regards, India's global aspirations, it is emerging as a leading power, a global balancer and 'net security provider', therefore its military power should be competent to protect not only the territorial assets against external and internal threats but also the energy routes, sea lanes of communication and economic assets located abroad.

At present, Indian Armed Forces have a total of 14 operational commands, each commanded by a C-in-C rank officer: the Army has six, the Air Force has five and the Navy has three. On the atermisation, these 14 may probably be subsumed in to four. The underlying inhibition in moving forward this proposal is that all the three Services Chiefs

are concerned about shrinking of their domain, wherein the Indian Air Force considers itself to be the biggest loser. However, the promotional prospects and rank structure can easily be resolved between the three services through mutual coordination and cadre review and thereafter sending a combined proposal to the government.

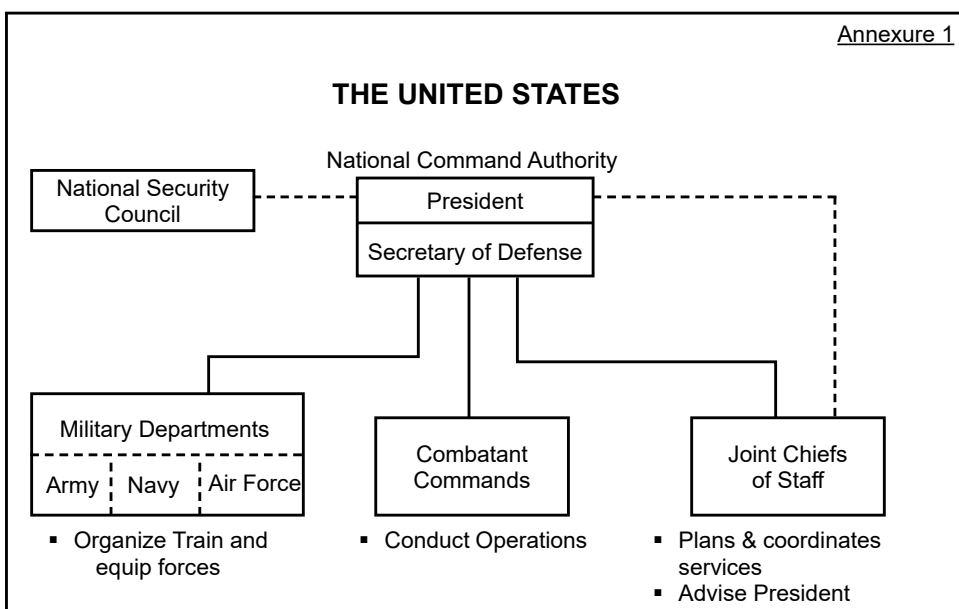
Conclusion

Since time immemorial, human tendency has been not to lose its power, be it political, economic or military. Inter-service rivalry is a natural corollary of the same and there cannot be a better example than the United States. The inter-service rivalry prevailed even during the World War II and continued in the later years also. The Chiefs liked the current setup since they were co-equals with the CJCS and they did not want to see the CJCS increase in power over the Service Chiefs. In the aftermath of the failed 1980 multi-service mission to rescue US hostages in Iran and the 1983 invasion of Grenada which featured numerous instances of poor inter-service planning and cooperation, there was renewed emphasis on “jointness” both in Congress and at the Pentagon. Goldwater-Nichols sought to “rebalance the relative power of the geographic commands versus the services.”¹⁸ Even after the enactment of the Goldwater-Nichols Defense Reorganization Act (GNA) of 1986, it took a couple of years to enforce the authority of CJCS and the new chain of command & control over the unified regional combatant commands. China had closely followed the command & control structure and concept of theatre commands being employed by the US military consequent to the “Goldwater-Nichols Act of 1986” and adopted it after thirty years.

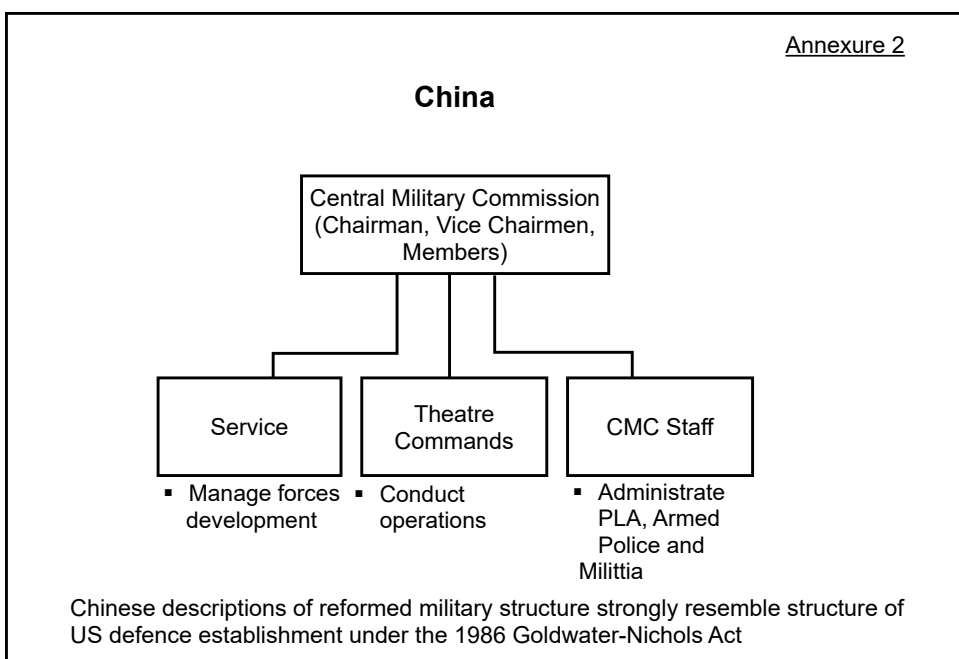
If the “New India” has to claim its position under the Sun, then Leadership has to decide and act fast to restructure its military in

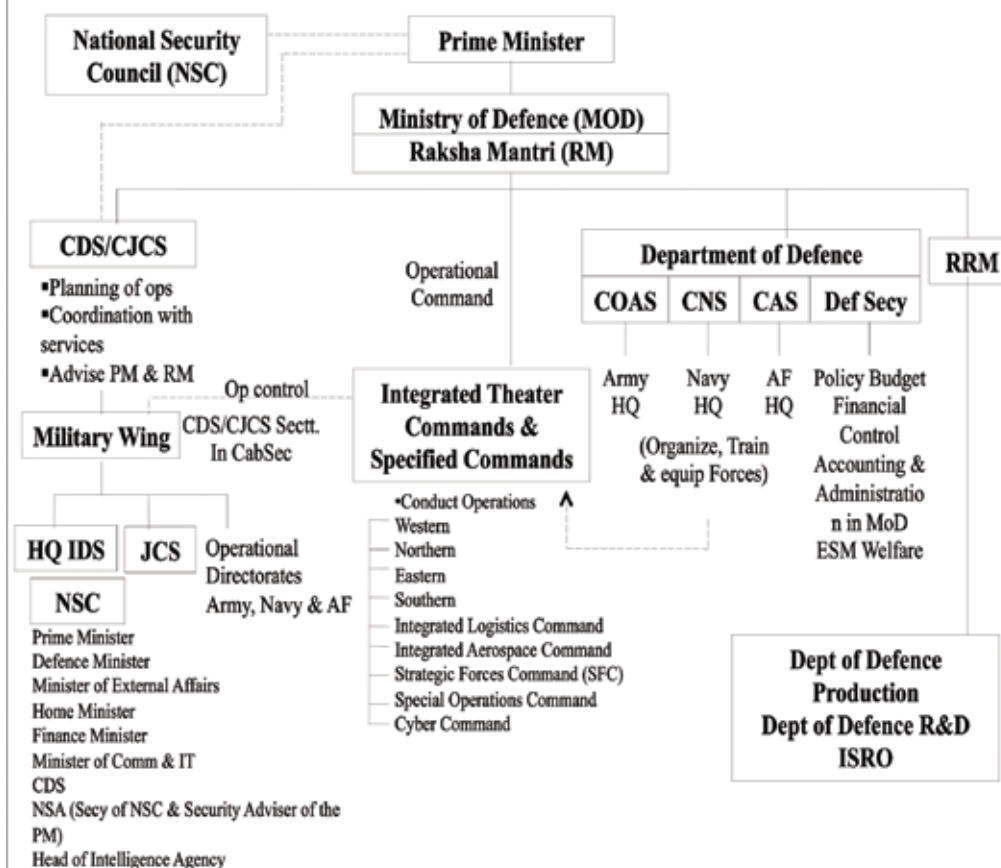
consonance with other powers. In a democracy, military leaders are selected by the political leaders and given the responsibility to achieve national goals and it cannot be a bottom up approach.

Annexure 1



Annexure 2



PROPOSED HIGHER DEFENCE ORGANIZATION FOR INDIAAnnexure**References:**

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TACTICAL NUCLEAR WEAPONS

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Introduction

Tactical Nuclear Weapons, less powerful than strategic nuclear weapons are intended to devastate enemy targets in a specific area without causing widespread destruction. The United States began developing lightweight nuclear warheads in the 1950s, one of the first such devices being the W-54 warhead, whose explosive force, or yield, varied from 0.1 to 1 kiloton. The W-54 was the main warhead used on the Davy Crockett nuclear recoilless gun, a portable warhead launcher that was crewed by a single soldier. The Davy Crockett could deliver a warhead to a target up to 2.5 miles away.

During the 1960s, the US Navy and Marines collaborated on development of a tactical nuclear device called the Special Atomic Demolition Munition. The project called for a two-man crew to parachute from an aircraft carrying a portable warhead similar to the W-54. The crew would place the weapon in a harbor or another target reachable by sea. They would then swim to a small craft waiting offshore to pick them up. The nuclear device was set to explode after the crew was safely out of the blast area. These are no longer in use.

Concept of Tactical Nuclear Weapons

Tactical Nuclear Weapons, also called Non-Strategic Nuclear Weapons, are conceptually designed to be used in the battle field in order to influence the conduct of operations in the 'Tactical Battle Area'. As opposed to the larger, strategic nuclear weapons, these are not meant for use against civilian population centres. Repercussions however, could be strategic in nature. NATO officially approved them for employment in the battlefield in 1954. However even now, no nation has been able to formulate a comprehensive operational doctrine for the employment of these weapons and these remain among the least transparent elements of the nuclear arsenals of the major powers.

The classification of nuclear weapons into strategic and tactical has traditionally been linked with the range criterion. As a result, long-range missiles are generally categorized as strategic and tactical nuclear weapons have become synonymous with shorter-range missiles. However, this is pertinent only in the case of US and Russia as neither UK, France nor China conform to this classification and refer to all their weapons as strategic. Incidentally, many years back, the ideal tactical nuclear weapon was considered to be the neutron bomb. This enhanced radiation weapon was touted to kill troops on ground and inside battle tanks with minimal damage to equipment. Later on, tanks with thicker and composite armour shielding were built against which this bomb would not be effective and it therefore gradually lost its importance.

The delivery of Tactical Nuclear Weapon payloads is through not just gravity bombs and short range missiles, but could also be through artillery shells, land mines, depth charges and torpedoes. In some literature, the yields of TNWs are even mentioned as going up to tens of kilotons and more. Some TNWs have also been designed for variable

yields, which could enhance their flexibility for employment over varied situations.

TNWs were deployed extensively in Europe during the Cold War as a defence against the conventionally superior Soviet forces. Packing a smaller yield than strategic weapons, it was felt that they were large enough to offset NATO's disadvantage of conventional forces, yet small enough to contain the war to a specific theatre in Europe. On Europe's insistence, a simulated two-sided war game named *Carte Blanche* was held to see what a nuclear exchange using TNWs in Europe would look like. Eleven countries participated conducting over 12,000 aerial sorties deploying more than 300 fictional nuclear weapons. The casualties in this simulated war game, in a matter of hours, in Germany, worked out to about 1.7 million killed and about 3.5 million wounded. This devastating effect led to the situation that, today as per open reports, from about 7000 TNWs deployed in Europe during the Cold War, the US Nuclear Weapons posture in Europe now consists of only about 150 weapons of the B61 type, deployed over five countries. Russian figures are ambiguous.

Arms Control Regime

TNWs are the least-regulated category of nuclear weapons in arms control agreements. They are only subject to an informal regime created by unilateral, parallel declarations made by George Bush and Mikhail Gorbachev in the fall of 1991. Prompted by mounting concern about the security of nuclear weapons in the Soviet Union, George Bush announced on September 17, 1991 that the United States would eliminate its entire worldwide inventory of ground-launched TNWs and would remove all nuclear weapons from surface ships and attack submarines. While the Soviet government would have preferred a formal, negotiated action, it

accepted the US approach as an opportunity to achieve its long-standing objective of getting the US to reduce the number of its TNWs in Europe.

In the absence of a formal a treaty, the United States and Russia do not exchange information about stockpiles and cannot verify the process of implementation. The informal nature of the 1991 regime has resulted in uncertainty with regard to implementation, as well as considerable disparity in numbers. Only broad estimates can be made as the major nuclear powers continue to modernise their nuclear forces. Advances in technology are making tactical nuclear weapons more precise and sophisticated. By some estimates Russia maintains the largest inventory of tactical nuclear weapons in the world. Concrete information regarding the status of Moscow's tactical nuclear capabilities and warhead numbers is, however, elusive. A recent estimate puts Moscow's tactical nuclear warheads that are assigned for delivery at just below 2000. The United States officially, designates only one type of weapon in its nuclear arsenal as tactical: the B61 nuclear gravity bomb. The United States has 500, B61 bombs in its arsenal, with 180 of these forward deployed in five European countries and Turkey with reported yields of 0.3–170 kilotons. The proposed modernisation plans for the B61 will see a drop in the number of officially designated tactical nuclear weapons held by the United States. But, it will also result in a more capable and potent weapon with tunable (dial a yield) yields.

China to date, has shown relatively little interest in deploying tactical nuclear weapons or changing its nuclear doctrine to one based on nuclear war fighting. This is consistent with Beijing's long-standing minimum deterrence posture that relies on a relatively small number of intercontinental and medium-range ballistic missiles. Minimum deterrence has been paired with a pledge of no first use, which has been upheld by successive Chinese leaders and looks unlikely to change in the

near term. While there is no evidence that China has produced tactical nuclear warheads, Beijing, over the years, has significantly improved the capabilities, necessary to field them. Pakistan also professes to have the capability of fielding TNWs against a conventional Indian offensive.

Are TNWs Tactical or Strategic?

Though TNWs are of smaller yield, the impact is actually strategic. Late Air Commodore Jasjit Singh has stated that, “Any nuclear weapon of any quality, mode of delivery or yield, used against any type of target, will result in a strategic impact to which the logical response would be the use of nuclear weapons, more often than not, on an overwhelming scale”. Therefore even if TNWs are used against a purely military target in a conflict in future, the effect would be strategic.

At this juncture, it is pertinent to quote from the US Nuclear Posture Review 2018, on the stated comments on even limited nuclear first use by adversaries namely Russia and China against the US or its allies. To quote “Our goal is to convince adversaries they have nothing to gain and everything to lose from the use of nuclear weapons. In no way does this approach lower the nuclear threshold. Rather, by convincing adversaries that even limited use of nuclear weapons will be more costly than they can tolerate, in fact, raises that threshold. Moscow could threaten and exercise limited nuclear first use, suggesting a mistaken expectation that coercive nuclear threats or limited first use could paralyze the United States and NATO and thereby end a conflict on terms favorable to Russia. Some in the United States refer to this as Russia’s “escalate to de-escalate” doctrine. Effective US deterrence now requires ensuring that the Russian leadership does not miscalculate regarding the consequences of limited nuclear first use, either regionally or against the United States itself. Russia must instead

understand that nuclear first-use, however limited, will fail to achieve its objectives, fundamentally alter the nature of a conflict, and trigger incalculable and intolerable costs for Moscow. Our strategy will ensure Russia understands that any use of nuclear weapons, however limited, is unacceptable. Our tailored strategy for China is designed to prevent Beijing from mistakenly concluding that it could secure an advantage through the limited use of its theater nuclear capabilities or that any use of nuclear weapons, however limited, is acceptable. The United States will maintain the capability to credibly threaten intolerable damage as Chinese leaders calculate costs and benefits, such that the costs incurred as a result of Chinese nuclear employment, at any level of escalation, would vastly outweigh any benefit”.

There definitely are no measures that can accurately distinguish between Tactical and Strategic Nuclear weapons in the world. The label used on any nuclear weapon whether strategic or tactical, is irrelevant. Any nuclear exchange, once initiated, would swiftly and inexorably escalate to the strategic level.

Pakistan : Concept

Pakistan has adopted a page from the earlier US concept of countering a stronger conventional force by the employment of TNWs as also from the Russian ‘escalate to de-escalate’ doctrine. Pakistan’s nuclear strategy is aimed at deterring a conventional conflict by maintaining a link between conventional escalation and nuclear weapons. As a counter to India’s so-called ‘Cold Start’ Strategy, the Strategic Planning Division (SPD) devised the concept of ‘Full Spectrum Deterrence. Pakistan earlier had Nuclear Weapons for strategic use. TNWs they felt, was the magical answer to the superior Indian conventional forces being employed in consonance with the new ‘Cold Start’ Doctrine. The aim of using TNWs

was not wide-scale destruction of field forces but to warn India and the rest of the world that India was crossing the 'red lines' of Pakistan's nuclear threshold and intended to bring an immediate end to the conflict. As per Pakistan's perception, it was perhaps felt that :-

- (a) Use of a few TNWs would not be considered provocative enough by India (and the rest of the world) to merit massive retaliation, although this is what the Indian Nuclear Doctrine says. It would put Indian decision-makers in a dilemma as the loss would not be substantial enough to risk an all-out nuclear exchange.
- (b) The international community would put pressure on India against continuing the conventional campaign or taking the nuclear option, and accept the damage caused by the TNWs.
- (c) The Indian polity being mature, would choose war termination to nuclear escalation.

In other words, Pakistan feels that they could continue sponsoring terrorism against India with impunity. If India did launch conventional operations in response to extreme provocation, Pakistan would threaten to launch or even launch TNWs against Indian forces, confident of bringing the offensive to a halt, on terms favourable to them.

Incidentally, India does not differentiate between strategic or tactical nuclear weapons. Tactical nuclear weapons in Pakistan's nuclear arsenal are to be seen not just as battle field weapons but as low yield strategic weapons. For India, it has been clearly articulated that all nuclear weapons, irrespective of yield or range, are strategic in nature, meant to deter any aggressor from using nuclear weapons against India.

As part of Full Spectrum Deterrence, available inputs suggest that Pakistan is working on certain weapon systems which can be used as TNWs. These are :-

- (a) Nasr – Range 60 km. Details are given in succeeding paras
- (b) Muhafiz – Remotely detonated Atomic Detonation Mines which could be deployed in any sector, the most likely being in Cholistan.
- (c) Shams – Artillery Fired Atomic Queller (AFAQ) of 203mm diameter, bought as semi knocked down kits from NORINCO, China.
- (d) The Abdali (Range 60-180km) and Gaznavi (90-290 km) though in the category of ‘Strategic Systems’ can also be used as Tactical Weapons because of their limited minimum ranges.
- (e) The others (Shaheen, Ghauri, Babur and RAAD) fall in the strategic category.

Inputs suggest that Pakistan, in the near future, only has the Nasr Weapon System for use as a TNW. Analysis of this system is given in the subsequent paras.

Nasr Weapon System

The Inter Services

The **Hatf IX** (“**Vengeance IX**”) or **Nasr** (Arabic: victory), is a solid fueled tactical ballistic missile system developed by National Development Complex (NDC) of Pakistan.



Public Relation (ISPR) describes this as a “Multi-tube Ballistic Missile System” because the launch vehicle carries multiple missiles. Its existence was revealed after a test in 2011. The last reported test conducted on 26th September 2014 to validate multi tube salvo launch has reportedly not been successful.

The Hatf IX or *Nasr* is a ballistic missile which carries a low yield nuclear warhead with a range of 60 km (37.3 mi). It is believed to be derived from the WS-2 Weishi Rockets system developed by China's Sichuan Aerospace Corporation. Four missiles are carried on the Chinese-origin 8x8 transporter erector launcher (TEL). This is the same as the Pakistan Army's A-100E 300mm Multiple Launch Rocket System (MLRS), a Chinese version of the BM-30 Smerch. Each Nasr unit is reported to hold eight launchers.

The actual figures of the circular error of probability, (CEP) have not been disclosed but certain inputs place the CEP as 0.2% of the range, the maximum being 120 meters. This is not confirmed. The warhead is likely to be in the sub kiloton range, the maximum being 3 kilotons. Pakistan does have this capability as it had announced in May 1998 that it had tested three sub-kiloton devices. Mansoor Ahmed, of Quaid-e-Azam University's Department of Defence and Strategic Studies has claimed that “Its in-flight manoeuvrability is being improved to defeat potential Indian missile defences against artillery rockets and short-range ballistic missiles, such as the Israeli Iron Dome system.” He has further said that the system is “fully integrated into the centralised command-and-control structure through round the clock situational awareness in a digitised network centric environment, to the decision makers at National Command Center. Nasr is obviously India-specific and the claim of salvo launch capability (supposedly) is for stopping Indian thrusts into Pakistani territory.

Studies carried out, estimate the diameter of the Nasr as 36 cm and the length as 94 cm with the conical portion being about 66 cms. The warhead would have to fit into these dimensions. Although serious doubts exist about Pakistan's capability to operationalize the Nasr, the possibility of technology and capability transfer from China, which has been helping it in the nuclear field all along, has also to be factored in. Planning for a worst case scenario, we must therefore assume that Pakistan has the capability of fielding Nasr as a Tactical Nuclear Weapon against India in the near future.

Problems / Perceptions : Employment of TNWs

A number of analysts have brought out their perceptions of the problems that are likely to arise in the operational deployment and employment of the Nasr Weapon System. These include :-

- (a) Difficulty in transportation, storage and maintenance under field conditions more so if the missiles have to be kept mated for employment at short notice.
- (b) Decentralization of command and control to local field commanders making them susceptible to unauthorized / premature use, by what Henry Kissinger called the 'Mad Major Syndrome'.
- (c) Security of missiles, warheads and launch systems in operational conditions against attacks by air, specialforces and terrorist strikes as these would have to be deployed well forward due to their short range.

Although these concerns are genuine, it is felt that a professional army can well overcome these problems. This is reinforced by the statements of Mansoor Ahmed mentioned earlier and of Mr Shahid K Abassi, the former Prime Minister of Pakistan, made in September 2017

in New York. He stated that “We have developed short range nuclear weapons as a counter to Indias cold start doctrine. These are in the same command and control authority that controls other strategic weapons”.

It is therefore felt that Pakistan will be able to employ the Nasr system in a planned and a coordinated manner, commanded by the NCA, if they decide to do so. However, Pakistan needs to address two issues. These are : -

- (a) The repeated threat of use of TNWs could force Pakistan into a commitment trap where it is forced to follow through purely because of its past assertions, leading to catastrophic consequences for itself.
- (b) It will have to figure in the effects of nuclear blast/s on its own territory, if it choses to target Indian forces which have ingressed into Pakistan.

Damage Parameters for Low Yield Tactical Nuclear Weapons

Energy Distribution. Energy released from a typical nuclear weapon can be divided into five basic categories. These are : -

- (a) Blast : 40-50% of total energy
- (b) Thermal Radiation : 30-40%
- (c) Ionizing Radiation : 5%
- (d) Residual Radiation : 5-10%
- (e) Additional effects being Electro Magnetic Pulse (EMP) and Psychological.

Planning Parameters. Broad parameters by which assessment of damage by low yield nuclear weapons can be done, are given below:-

(a) **Radius of Damage.** As a yardstick, a yield of 16kt would result in a radius of damage of approximately 1km. This radius varies approximately according to the cube root of the yield. To double this radius to 2km, the yield of the weapon would increase by eight times (i. e. $16\text{kt} \times 8$) to 128kt. Conversely, a yield of 2kt would reduce the damage radius to 0. 5km and for a 0. 25kt device it would be 0. 25km.

(b) **Height of Burst.** The height of burst too, has an effect on the damage area. For optimum effect, this height varies with the yield :-

$$\text{Height of Burst}(H) = 55 \times \text{Yield}(W)^{0.4}$$

(c) **Scaling Laws.** The scaling laws for radii of damage from blast, heat and radiation from a nuclear weapon as a function of yield are :-

Blast radius-----proportional to cube root of yield

Heat-----directly proportional to yield

Radiation-----proportional ~ 0.6 power of yield

Blast Damage

Very broadly, a medium battle tank would suffer extensive damage within about 50 to 100 meters of a sub kiloton blast and about 200 meters for a 10kt blast. Similar distances would apply to troops in protected field defences. For troops in the open, these distances would go down

TACTICAL NUCLEAR WEAPONS

to about 500 meters and about 1. 5kms. Various tables and programs like Nuke Map are available through open sources to work out damage templates.

“A Nuclear Weapon Effects Template”, is given below :

	0. 1 kt	0. 2 kt	0. 5 kt	1 kt	3 kt	10 kt
Overpressure						
300 PSI Radius	19 meters	24 meters	32 meters	40 meters	58 meters	87 meters
100 PSI Radius	41 meters	51 meters	69 meters	87 meters	125 meters	187 meters
20 PSI Radius	126 meters	158 meters	214 meters	269 meters	387 meters	576 meters
10 PSI Radius	205 meters	257 meters	348 meters	438 meters	629 meters	936 meters
5 PSI Radius	333 meters	418 meters	566 meters	711 meters	1 kilometers	1. 5 kilomeers
3 PSI Radius	476 meters	598 meters	809 meters	1 kilometers	1. 5 kilometers	2. 2 kilometers
1 PSI Radius	1 kilometers	1. 3 kilometers	1. 7 kilometers	2. 2 kilometers	3. 2 kilometers	4. 7 kilometers
Ionizing Radiation						
5, 000 Rad						
1, 000 Rad	452 meters	516 meters	614 meters	700 meters	862 meters	1. 1 kilometers
100 Rad	752 meters	830 meters	949 meters	1. 1 kilometers	1. 2 kilometers	1. 5 kilometers
10 Rad	1. 1 kilometers	1. 1 kilometers	1. 3 kilometers	1. 4 kilometers	1. 6 kilometers	1. 9 kilometers
1 Rad	1. 4 kilometers	1. 5 kilometers	1. 6 kilometers	1. 8 kilometers	2 kilometers	2. 3 kilometers
Thermal Radiation						
1 st Deg Burn (3 cal/cm ²)	500 meters	651 meters	922 meters	1. 2 kilometers	1. 8 kilometers	2. 9 kilometers
2 nd Deg Burn (5 cal/cm ²)	346 meters	457 meters	659 meters	870 meters	1. 4 kilometers	2. 2. kilometers
3 rd Deg Burn (8 cal/cm ²)	261 meters	346 meters	504 meters	670 meters	1. 1 kilometers	1. 7 kilometers
(25 cal/cm ²)	148 meters	197 meters	287 meters	382 meters	599 meters	981 meters
(50 cal/cm ²)	108 meters	143 meters	209 meters	277 meters	435 meters	713 meters

Blast

Effect on Specific Targets

Target	Damages		
	Light	Moderate	Heavy
Industrial Buildings	3psi	5psi	15psi
Roads and Bridges	5psi	8psi	12psi
Light armor	1psi	4psi	7psi
Heavy armor	10psi	100psi	200psi
Troops in open field	1psi	3psi	5psi
Troops in bunkers	5psi	30psi	100psi
Parked aircraft	0. 7psi	1. 5psi	3psi
Ships	2psi	5psi	7psi

Effect of Over pressure on Humans

Bursting of ear drums	5 psi
Lung damage	12
Haemorrhage	25
Direct lethal	40

Environmental Effects. Besides direct causalities, radioactive fallout could have significant impacts on the ecosystem. Many long lived isotopes are water soluble and are known to accumulate in the food chain like grains and dairy products. Thus, any nation should be wary of detonating a nuclear weapon on its own territory or near its borders as in case of a battle situation, it cannot wait for favourable wind direction to develop away from its territory. The area around ground zero will

become unusable for years and will have to be systematically reclaimed.

India's Response to Nasr

At the outset, it must be reiterated that India had tested three sub kiloton (0. 2kt, 0. 3kt and 0. 5 kt) devices in May 1998. Also, a low yield weapon may not necessarily be smaller in size as compared to one of a higher yield and could be launched through existing platforms. It can be thus stated that India has the capability to operationalise a sub kiloton weapon.

It may be tempting to match Pakistan and pursue a 'flexible response' strategy by attaining parity in the domain of TNWs. However, this is unlikely to provide any significant benefit to India for the following reasons :-

- (a) TNWs would not add any advantage to India against Pakistan because of its existing conventional edge over Pakistan.
- (b) If India deploys TNWs, it would send a signal of doctrinal change from nuclear deterrence to nuclear war fighting, which may not be wise.
- (c) It would give Pakistan reason to justify its use of TNW. Therefore, instead of deterring Pakistan from using TNW with the fear of massive retaliation, it would actually help Pakistan in its employment in a crisis situation. Pakistan wants to pull India into the TNW spectrum so that India's strategic response as per the nuclear doctrine is neutralized and strategic instability in the South Asian region increases which helps to further attract world attention in this area.

(d) Possession of TNWs would send very confused signals to China as both are declared 'No First use powers' and TNWs are meant for war fighting and not for deterrence. Most importantly, use of TNWs by India in response to stabilise an adverse situation in a conventional war could invite massive nuclear retaliation from China which cannot be risked.

India therefore, does not need to develop TNWs. The Indian Nuclear Doctrine is very specific and with clarity states that response to a nuclear strike will be massive to inflict unacceptable damage. The credibility of this doctrine has been further reinforced by similar US thoughts stated in its NPR-2018 as also by the statement of US Secretary of Defence, Jim Mattis, to the US Congress where he said that "There is no such thing as a tactical nuclear weapon. Any nuclear weapon used at any time is a strategic game changer".

TNWs and Cold Start

Pakistan's nuclear strategy aims at deterrence of conventional conflict by maintaining a linkage between conventional conflict and nuclear escalation. 'Cold Start', Pakistan analysts felt, was a method by India, of proliferating a short, intense, limited war, calibrated to stay below Pakistan's perceived nuclear threshold, in a manner that strategic nuclear weapons would not be used. TNWs are designed to plug this space and thereby prevent India from launching a conventional offensive.

A number of Indian defence analysts, we feel erroneously, agree with the Pakistani thought that even if India was forced to launch a conventional operation, it would be limited in time, space and troops, keeping below Pakistan 'Nuclear Red Lines', to prevent use of TNWs by Pakistan.

This assumption belies the fact that India is a nuclear weapon power with a stated doctrine of 'No First Use' and 'Massive Retaliation' if attacked by any kind of nuclear weapon irrespective of its yield.

It must be clearly understood that if forced to launch conventional operations, plans will not be governed by Pakistan's nuclear weapons be it tactical, or strategic. Prevention of the use of nuclear weapons by Pakistan, has to be ensured by our own nuclear weapons, which is the stated aim of our nuclear weapons programme.

Operational plans be it 'Cold Start' or any other, will be governed by political aims translated into military objectives and not by the nuclear overhang. This has to be clearly understood by our civil and military leaders and clearly conveyed to Pakistan and other nuclear powers by proper signaling, in times of peace.

Conclusion

TNWs came into existence in the 1950s and today, three out of the nine nuclear weapon powers i. e. USA, Russia and Pakistan profess to have this class of nuclear weapon. Yields of US and Russian weapons including modern, tunable, precision ones go up to hundreds of kilotons. Pakistan's TNWs are India centric with assessed yields of sub kiloton, going up to about three kilotons. Technological changes are being accompanied by rethinking of doctrines.

Russia demonstrates its perception of the operational advantage of these weapon systems which could lead to strategic instability. USA on the other hand, feels that a flexible nuclear arsenal will help raise nuclear threshold levels as even limited employment by an adversary would invite incalculable and intolerable costs.

Pakistan endeavors to continue its state sponsored terrorism against India in the shadow of 'full spectrum deterrence', propagating the belief that a strong conventional offensive in response to terrorist attacks, would force Pakistan to use TNWs for its own security. Their mistaken belief is that the threat of use or even limited use, would at best be a deterrent for war and at worst, a war termination weapon, on terms favourable to Pakistan.

Pakistan, along with world powers which can influence Pakistan, must be made to understand that a nuclear strike, irrespective of yield or numbers will leave India with no option but to carry out massive retaliation to inflict unacceptable damage. This is enshrined in the Indian Nuclear Doctrine.

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STRATEGY TO FIGHT PROXY WAR: TREAT THE DISEASE AND NOT THE SYMPTOMS

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India has been grappling with the menace of proxy war waged by the external forces ever since she gained independence in 1947 in some form or other. It has impacted the internal security in a big way which has forced the governments in succession to divert national resources in dealing with the inimical afflictions so as to ensure conducive environment for economic progress, a much needed factor in a welfare state. Over period of time the foot prints of the externally sponsored negative political synergies have spread across the entire geographical spread of the country with terrorist strains. This obviously speaks of some mismatches in our security mechanism and warrants a dispassionate review.

Since the problem happens to be externally perpetuated, the remedy also lies in treating the malignancy by addressing the source of its genesis and not only through predominantly internal preventive interventions which seems to be the case as of now. The repetitive set pattern policies to deal with the proxy war need a change of the goal posts to achieve the politico- military ascendancy over the inimical forces. While continuing the existing tactical level mechanism to fight the insurgency, the efforts need to graduate to strategic domain exploiting the political leverages enjoyed by India with her positive synergies in the web of geo-political equations as on date.

Pakistan has been the main actor in meddling with Indian political space with impunity all these years despite overwhelming political strategic stature and military deterrence of India. Within Pakistan, it is the army, known as deep state, which is the mastermind of anti India charade being unfolded on the Line of Control (LC), Kashmir and in Indian hinterland on regular basis. Pakistan sponsored terrorist attacks have been seen all over the Indian state including the Indian parliament in the heart of the national capital.

Therefore, the problem of proxy war waged by Pakistan is utmost serious and sensitive matter which requires treatment of the disease and not the symptoms. In consequence, neutralizing the predominance of Pakistan army in the matter of governance in Pakistan should be the objective of the any policy discussion. To start with we need to analyze the reasons as to why Pakistan army is acting the way it does fully knowing that they are not going to succeed in their mission. To do that, a back ground check is warranted as it would be the edifice of our approach to reach out to the environment to correct their perceptions.

Post partition of India, the Pakistan prefers to be different to anything Indian and to prove this differential they have pushed themselves to the wall, wherein the extra regional forces are exploiting their self created politico-economic vulnerabilities. They have gone to the extent of putting even their sovereignty at stake in their anti Indian obsession. Pakistan, surely, is desperate and in a bind of her own doings, who suffers from self destructive political paralysis beyond repair.

India, on other hand, has gone to the extent of returning 93000 prisoners of war after 1971 war without any humiliating pre conditions which she could have easily imposed. It is seen that no sooner the Pakistani leaders cross the Red Cliff line, they go back on their promises

and indulge in back stabbing nullifying the peace overtures by India. The history speaks for itself wherein 1948 was followed by 1965, which in turn was followed by 1971 and later Kargil happened in 1999 soon after Lahore declaration.

The genesis of the anti India narrative lies in desire of Pakistan army establishment to retain primacy in the matter of governance in that country. In fact, the political initiative was wrested by the army in 1947 itself when the manipulative yet naïve Pakistani polity let loose Pakistan army to grab the lands of Baluchistan and Jammu and Kashmir in an illegal manner in violation of laid down norms of British Indian government as regards to merger of the princely states.

The initial successes against almost no opposition by the state forces prompted the notion of superiority of Pakistan army and their lead role in shaping of Pakistan as a newly emerged nation state. Moreover, in the absence of consolidation of other national institutions of governance in the newly formed nation, the well organized army became the sole benefactor, and a saviour.

In consequence, the Pakistan army assumed the role of a mentor deviating from the mandate of an army in a democratic set up from the very beginning.

Moreover, the national humiliation of surrender by military in their Eastern wing in 1971 war reflects adversely on professional reputation of the Pakistan army and its leadership. Hence, it is a compulsion beyond any compromise for Pakistan army to continue the hype of Indian hegemony bent upon obliterating Pakistan as a nation state simply to maintain their bluff lest the civil society rebels against their narrative.

Apropos, Pakistan, despite starting with a forward looking positive Indian cultural moorings, have chosen to push their youth back into

dark medieval ways on the pretext of jihad, an agenda of rich Islamic nations, instead of empowering them through modern education. In that, Kashmir issue has been orchestrated as a media for perpetuating their Islamic cause with support of few self seeking Kashmiri local leaders and availability of poor unemployed youths to do their bidding for pittance of money. It obviously has been done to extract financial support from the rich Islamic countries in the name of such religious endowments, an unethical indulgence from all accounts.

Further to above, the human rights violations heaped upon the co religious population of J&K by India makes the situation acute enough for international pressure to rein in India. It is another matter that such emotional sensitivities of Pakistan, the self style benefactor of Islam, are confined to Kashmir and not elsewhere in the Muslim world afflicted with atrocities of horrendous dimensions. It obviously exposes Pakistani hypocrisy, deceit and duplicity.

Moreover, having lost all the wars against India, they may have to face the public humiliation and ridicule from their mentors and supporters. Hence, a deep sense of insecurity prevails in their psyche. Therefore, the negative narrative is a tried and tested mechanism by design by the Pakistan army to cover up their professional inadequacies and unethical anti India bluff.

In order to evade their accountability, Pakistan army has been using civil government and non state actors as dispensable commodities when the going gets rough for them. Going back on Kashmir issue is a not an option for them as it is the sole biggest political investment to keep the fratricidal tendencies of ever rebellious regional polity and civil society in check.

Apropos, changing the narrative of Pakistan army is the key to resolve the problem and it should be the main stay of our strategy to

manage the proxy war. This requires multi pronged approach to include creating a divide between the Pakistani civil society and the army, empowering democratic forces, and exploiting the political leverages as they exist in regional and global geo-political arena. These measures need to be accorded higher priority as what is happening in Kashmir has a direct linkage to Pakistan internal political dynamics. The answer lies in Islamabad and not in Sri Nagar, but how to do it?

A perception management campaign needs to be launched on social media targeting the civil society in Pakistan, especially the younger generation to see the reasons to mend fences with India. The tenets of the perception outreach may include presentation of correct historical picture of merger of the state of J & K with India, plus it was Pakistan who did not comply with the condition of withdrawal of troops from occupied areas to facilitate plebiscite by the UN. Duplicity, insecurities and false narratives of Pakistan army need to be highlighted to expose them in the eyes of the Pakistani civil society as part of the perception management campaign.

It may be emphasized that historical evidence suggests that India does not have ambitions to annex foreign lands in her neighbourhood. On the contrary, Pakistan army has initiated four unwarranted military misadventures resulting in economic mess that Pakistan is today. Therefore, the Pakistan army narrative of Indian hegemony bent to obliterate Pakistan as a nation state does not stand to logic and rationale. It is big lie and a bluff to cover up their own professional and leadership inadequacies and perpetuate their vested interests.

Besides this, India has never ever violated the Indus water treaty. In fact Pakistan is getting more water than what is mandated in the treaty. So there is no case as regards to the water which is also a whipping point in Pakistan. It is the management of water which is lacking and not Indian intentions.

The Pakistan army is indulging in a cowardly act of using the innocent unemployed youth as cannon fodder instead of taking on military challenges as a professional army. Instead of educating them as responsible citizen, they have been given gun and pushed them into jihad a primitive hollowed concept of medieval times. It has impacted the fabric of an ancient rich culture into a society with criminal strains which has brought disrepute and lowering national prestige.

The Pakistan, today, is known as the hub of terrorism and all Pakistanis are seen from an eye of suspicion. This can only change when Pakistan army moves away from using non state actors as strategic assets. It is doing more harm than helping the country as the menace of militancy is reflective in terrorist attacks within Pakistan by the people who enjoyed patronage of Pakistan army earlier.

Therefore, it is time for civil society to take initiative to regain lost political space from the army which is not their mandate. Pakistan army needs to be pushed back into the barracks where they ought to be in a democratic country. Infect the think tanks and TV debates on Pakistani channels are indeed talking on these lines. They have been comparing progress that India has attained, whereas the army has pushed them into a debt trap and an unending spiral of violence. The perception campaign need to further encourage such public discourse on their media by sponsoring few of their channels and embedded journalists. There would surely be takers of such offers as it is a sensible idea to usher in true democracy minus military intervention.

Looking at the international panorama, while India as on date is a frontline state in US strategic calculus, the US aid to Pakistan has been suspended due to their complicity in support to Taliban in Afghanistan. Pakistan has also been put on grey list by the FATF for terror funding

which is a political setback to them courtesy Pakistan army. There are reports of reluctance of IMF to give loans to Pakistan who is seen to be incapable of debt servicing. The pressure to repay the Chinese loans for infrastructure development is also looming large. Pakistan is in an economic mess and pursuing military adventurism under such circumstances is certainly not a sensible policy.

India may like to suggest to US and other friendly western countries not to arm Pakistan as they have used them against India instead of the purpose of neutralizing Taliban in Afghanistan. It may also be appropriate to link the economic aids to Pakistan to freedom of press and non indulgence of army in matters of governance so as to empower democratic institutions. This strategy is likely to find place in US inc policies as even they seem to be working on similar lines in response to Pakistani duplicity and deceit as of now. It is US and few other countries who give financial and arms aid to Pakistan and not China. Therefore, in order to retain their politico-military buoyancy, Pakistan is expected to listen to the US in this regards.

China is known to be the iron friend of Pakistan and has high political leverages with Pakistan which they cannot ignore especially as a consequence of US having reservations on Pakistani conduct as an ally. From Chinese perspective, the CPEC scheme the biggest politico-economic investment in recent times is not progressing well due to security situation in Af-Pak region. It has impacted on participation of 40 plus Eurasian countries, besides India due to sovereignty issue.

Add to above is the ongoing trade war with the US and their increasing military presence in Indo-Pacific region when hyphenated with Chinese BRI plans in international waters is a set back to intended Chinese economic inspirations. In that, India with her large markets

holds a promise of further increasing their trade with China in near future. Whatever be the Chinese stance on Sino- Indian border dispute, China needs India as of now for her energy security and cannot afford to push India beyond a point.

Somewhere in between China-India-Pakistan triangle there are signs of positive political cooperation in the spirit of SCO as suggested by the Chinese envoy in India recently. China is also getting wary of Pakistani foot prints in rebellious Xinxiang, the start point of CPEC. China with her eyes on economic expansion and under cloud as of now cannot afford to lose out on more than \$ 84 billion bilateral trade with India, whereas, Pakistan is simply a media for their economic expansion.

China desperately want security situation to improve as they are the most affected party with their aim to make CPEC a success story. Whereas, unless Pakistan stops her anti India obsession they cannot provide adequate security for Chinese projects. It is here that Indian politico- economic leverages may be exploited to motivate China to impress upon Pakistan to change their anti India narrative and de escalates their complicity in J &K in their mutual interests. While it sounds impractical and highly unlikely to expect China to recognize the status of geographical boundaries of state of J&K at the time of accession with India, but there is no harm in coining the idea, albeit under certain political conditions. After all the politics has strange ways and strange bed fellows at times.

Russia with her ambitions to access warm waters of Indian Ocean since Czarist era has been getting closer to Pakistan and has agreed to join the CPEC band wagon. Whereas she has long lasting relationship with India which is being further reinforced with the recent high value arms purchases and political synergies in the international

domain. Pakistan with reducing US foot prints has reached out to Russia which was not the case earlier. Therefore, Russia may also be prompted by India to impress upon Pakistan to mend the fences with India.

Pakistan all these years has been playing with the big boys, Russia, US and China and not with their regional peer group around them. In that, Pakistan has a history of indulging in politico-military complicity with terrorist strains as central concept of conduct of their state policy. As a result, Pakistan does not have good relations with India, Afghanistan and Iran and stands isolated due to her misplaced priorities. India along with Iran and Afghanistan has potential to pressurize Pakistan which may be one leverage which may well be utilized under certain political contingencies, if required.

While all the suggestions of involvement of big powers in making Pakistan see reason and move away from her political intransigence on J&K obsession should not lead to internationalization of the Kashmir issue which Pakistan is always looking at. Indian diplomacy has to work out a mechanism to circumvent such a possibility. The strength of Indian diplomacy lies in continue to be non aligned by being aligned to everyone.

Coming to strategic take within Indian Territory, it requires a review of our ways of dealing with the insurgency in J&K afresh. It is an indisputable deduction that it is a political problem and needs a political solution. Whereas, it has happened in the past that the army and the other security forces have created environment conducive for political process to commence, but it could not be exploited due to political differences and lack of commitment of the concerned dispensations.

Therefore, the first and foremost strategic requirement is to bring all the political parties on the same page when it comes to national

interests and not to score political points for vested interests. To do that, there is a need of inculcating a strategic culture amongst the law makers who may be good in their own fields, but do not have requisite inroads in the matters of national security. There is a case to train selected politicians in national security and strategic studies. It would be good idea to make them attend NDC course as is the practice in few countries.

Similarly, the officers especially the MEA and MOD need to be sensitized with the ground realities in operational areas including J&K and North East so that they can co relate the contentious issues in a better manner. For such a professional orientation the officers may be attached to the army field formations for appropriate periods and briefed on actual ground. Such attachments may be repeated periodically instead of dealing with the national security issues based purely on files which is the case as of now.

Coming to local political vibes in the Kashmir valley, the insurgency is being abetted by the separatist leadership under banner of Hurriyat conference. They are the visible in-house perpetrators of the proxy war and deserve no mercy for their anti national activities. The Hurriyat and its affiliates need to be weeded out from the political space of the valley as a precursor to political process. While the local political dispensation may be reluctant to take a strong action due to vote bank politics plus fear of reprisals, the central government may have to pitch in through appropriate processes and procedures.

The financial conduits of the separatists for terror funding needs to be blocked as a step to dissuade the youth to succumb to lure of easy money. The punitive actions against suspects should be decided with utmost urgency by setting up special courts. It is important that this mechanism should be seen to be effective so as to act as deterrence

to the potential offenders. NIA is already active in this regards and they need to be supported by according priority by the government to take their findings to logical conclusions at the earliest.

The insurgency operations are based on intelligence and it is the civil police which is best placed in this regards. Whereas, they are either compromised, or do not perform their duties leaving army and central police organizations (CPOs) to do their job. This equation needs to change and J&K police should be forced to be in lead and carry out their mandate. In Punjab, the insurgency could be controlled only when the Punjab police got into action with support of the army and CPOs. The recent killing of constable Saleem Shah by the militants is a sign of desperation and this should now prompt J&K police to go all out to weed out the militancy lest there are other policemen and their families become the targets. The Punjab model needs to be followed with full accountability of local police in lead to gather intelligence and operate alongside security forces where required.

Having neutralized Hurriyat, restrict financial inflow and force police to assume a leading role in close coordination of the CPOs for population control, the army foot prints may be gradually reduced without diluting the area grid initially. Subsequently, part of army may be side stepped to enhance the anti infiltration grid closer to the LC to keep an eye on infiltration routes, harbours and sanctuaries. There is also a need to further strengthen the external intelligence capabilities across the LC to forewarn any intrusion activities.

Upgrading of the border fence by smart technology should be a priority project to detect, identify, intervene and neutralize the intruders. Similarly, equipment for battle field transparency, situation awareness and force protection needs to be given priority for better operational

capabilities to the troops. There is a need to generate more heat by making difficult to cross the LC and dissuade the militants.

There is a need to create a new narrative in the Kashmir valley countering the nefarious designs of Pakistani bluff on one side, and promise of a bright future in joining in the main stream of the nation for their economic and social security. Empowering the education system through technology and Job oriented courses related to local industry and tourism would go a long way in providing employment to the youth. There is a need to expose the students for greater interaction and showcasing the development and concomitant opportunities in the country.

A well thought out psychological campaign needs to be launched to wean away the youth from the narratives of the militancy. To do that, a dedicated team of persons who have served in the valley and know the pulse of the population and familiar with the social environment may be constituted. The retired army, intelligence and civil services officers alongside team of mass communication professionals would be most suitable for such an organization. Social media would be a strong tool to reach out to the masses alongside spreading the message through suitably packaged main stream print and visual media.

There is also a need to encourage young educated persons in the J&K to get into political process as the few of the veterans are proving to be futile as there narratives have old baggage and needs reorientation in sync with the modern outlook. Political process needs to go on alongside the developmental activities as a continuum of effective good governance. The government should be seen to be in command of the situation so as to sanitize the population from falling into separatist propaganda. The central government may like to initiate lucrative

employment schemes for the youth and rehabilitation packages for the militants who want to shun the path of violence.

The internal security elsewhere in the hinterland also needs to be tightened up by the state governments to take care of terrorist attacks. Training of the internal security forces, disaster management teams and government agencies needs to be formalized in each of the states. There should be regular rehearsals of the drills and standard operating procedures. The citizens need to be sensitized to be vigilant and be part of the security mechanism through visual and print media. We need to inculcate a sense of security consciousness in the country to ward off any inimical contingencies arising out of proxy war. Dealing with the internal contingencies may be included as a compulsory subject in the school curriculum to spread the awareness and appropriate responses.

Politically, there is a scope of engaging with the new political dispensation in Pakistan provided they are forth coming to initiate a dialogue sincerely. Our experience so far prompts that, it would be better to deal with Pakistan on our terms instead of short term diplomatic euphoria. Political dispensation would look stronger if Pakistan is seen to be on the roll and not permitted to fire their political shots with impunity. To do that all the political parties need to be on the same page as it is the defining movement for India with her effective 'strategic pull' as on date to make Pakistan see reason.

There exists a political intransigence between two countries due to their claims over Kashmir and it is unlikely that either of them would come down from their stated positions. India with her legitimate claim stands to advantage and should speak from position of strength. Looking at their conduct so far, the Pakistan does not deserve to be handled with Gandhinian accommodation and traditional Indian strategic patience

any more. We need to generate adequate heat from all the possible quarters to dissuade Pakistan from continuing the proxy war against India.

Externally, proactive strategic outreach to pressurize Pakistani establishment through friends to restore the powers of democratic institutions and perception reorientation of Pakistani civil society may be appropriate approach. Internally, we need to target the youth through constructive engagement, greater interaction with the rest of the country and development of the region to erase the imprints of Pakistani religious bluff.

Reconciliation by Pakistan with her current politico-economic mess is the best option as of now to survive as a nation state lest extra regional entities usurp her autonomy for their vested interests. Pakistan, on a threshold of forming a new government, has fresh opportunities to charter a bright future alongside India in their best interests. Let's hope they move away from their self destructive old narratives.

Political dispensation would look stronger if Pakistan is seen to be on the roll and not permitted to fire their political shots with impunity. To do that all the political parties need to be on the same page as it is the defining movement for India with her effective 'strategic pull' as on date to make Pakistan see reason.

Although India has shown tremendous strategic patience and has been more than accommodating the Pakistani audacity, they refuse to mend their ways.

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INDIA'S BORDER MANAGEMENT STRATEGY

Lt Gen Vinod Bhatia, PVSM, AVSM, SM (Retd)*

“Neighbouring states are most relevant as far as foreign policies and national security is concerned” - Chanakya

The national aim is to “TRANSFORM INDIA TO A MODERN, PROSPEROUS AND SECURE NATION”. As security is a precursor to long term peace, stability and development, securing India's disputed and porous borders is a national imperative.

India's land borders extend 15106. 7 km with seven nations including 106 km border with Afghanistan, touching 17 states and 92 districts. India also shares the longest disputed borders in the world, the Sino-Indian border extends 3488 km with China laying claim to over a 1, 10, 000 sq km of Indian territory. The India Pakistan border extends 3, 323 km including 742. 1km of line of control (LC) and the Actual Ground Position Line (AGPL) along the Siachen glacier extends another 126. 2 km. With Bangladesh India shares the longest border at 4, 096. 7 km, the Nepal border extends 1751 km, Myanmar 1643 km, Bhutan share 699 km and with Afghanistan the border is 106 km.¹ India's coastline extends 7516. 6 km sharing the maritime boundaries with seven nations and includes 5, 422 km of coastline in the mainland and 2, 094 km of

¹ <https://mha.gov.in/documents/annual-reports>

coastline bordering the islands as also touches 13 states and union territories. There are 1197 islands of India accounting for 2094 km of additional coastline.² India's exclusive economic zone covers an area of 2, 305, 143 sq Km which includes 663, 629 sq Km of the Andaman and Nicobar Islands.³

Due to the proclivity of India's neighbours to exploit India's nation building efforts, the country's internal security challenges are inextricably linked with border management. Also, the challenge of coping with long-standing territorial and boundary disputes with China and Pakistan, combined with porous borders along some of the most difficult terrain in the world, has made extremely effective and efficient border management mandatory.⁴ There is thus a need to first understand the complexities and many challenges of the borders to arrive at an implementable and effective border management strategy.

The Line of actual Control (LAC)

The 3488 km long Sino-Indian border is a peculiar set of contradictions, being the longest disputed border in the world as also the most peaceful disputed border with the last shot in anger fired in October of 1975. A fragile peace exists ever since, with the disputed border being the ever present potential driver for conflict between the two nuclear armed neighbours - home to one third of humanity.⁵

The mandate of the army is to maintain peace and tranquility along the LAC. The task has its own challenges as there is no common

2 <https://www.neoias.com/neo-notes/281-security-gs-3-border-management>

3 https://en.wikipedia.org/wiki/Exclusive_economic_zone

4 Gurmeet Kanwal, IPCS Issue Brief No 55 2007, www.ipcs.org/issue_briefs/. . . /380296651IPCS-IssueBrief-No55-GurmeetKanwal.pdf

5 <http://www.dsalert.org/indian-army-sentinels-of-national-sovereignty/1338-managing-the-borders>

understanding of the LAC. The Sino-Indian border runs along some of the most inhospitable and hostile terrain in the world with altitudes averaging 15, 000 feet, and thus while temperatures are low at minus 20 to 30 degree Celsius, tempers run high, due the high altitude effects on troops. As the borders are disputed, intrusions are a common occurrence on account of differing perceptions of LAC. China's growing assertiveness is evident with the increase in frequency and depth of transgressions/ intrusions. These intrusions often lead to a 'face-off' between own Army troops and the PLA, which last from a few hours to a few weeks. Some 'face off' get prolonged, like the 73 day long Doklam crises, the Sept 2014 intrusion coinciding with the visit of President Xi Jinping at Chumar and at Depsang Plains in Apr / May 2013. Such high profile intrusions have the potential to spiral into a skirmish and can become a driver for conflict, however on account of the politico- military- diplomatic combine in concert with a firm stance, professionalism and commitment of the Indian Army, these sensitive incidents have been contained, resolved and status quo maintained. The army is likely to face more and more such situations, especially so, in view of a firm and fair stance being adopted by the present Indian Government in guarding our territories.

Effective manning of the LAC is one of the more challenging tasks of the army. The infrastructure on own side is poor and non existent. The single road axis to most of the sectors is vulnerable to disruption both during monsoons and winters. This not only impacts operational preparedness and readiness but also affects effective border management. On the other hand China has constructed state of the art multimodal multidimensional infrastructure, focussing on the three 'Rs' Roads, Reserves and Radars for manning the borders. A concept which India could well replicate and practice.⁶ It is to the credit of the Indian army and the ITBP, that given the many challenges and sensitivities they

⁶ Ibid

have maintained peace and tranquility and ensured equilibrium along the LAC, under the most trying and difficult of conditions.

The Line of Control (LC)

The Indian Army is mandated to ensure sanctity of the 772. 1 km long LC and the 126. 2 km long AGPL. A fragile agreed upon ceasefire exists along the LC, with frequent ceasefire violations initiated by Pakistan, mostly engineered to help terrorist infiltrate to the Indian side.

Pakistan's traditional hostility and single-minded aim of destabilizing India, is not focused just on Kashmir but on a search for parity. This arises out of the two-nation theory, coupled with a desire to exact revenge for the 1971 humiliation over the separation of Bangladesh. Pakistan has been waging a proxy war for the last quarter of a century. India faces multiple and varied security threats and challenges across the full spectrum of conflict from small wars to collusive and hybrid wars to conventional and nuclear wars. The internal security threats emanate from across the borders with active support to terrorist and insurgent groups. India's porous borders and lack of development in border areas are a major contributor to security concerns and challenges. The terrorist infrastructure and organisations across the LC are duly supported, funded and controlled by the ISI. The constant and continuous efforts by Pakistan army to push in infiltrators has forced the Indian Army to establish a robust and effective counter infiltration grid based on an anti infiltration obstacle system commonly known as the LC fence. This is backed by an equally effective counter terrorist (CT) grid in depth in J&K. The Counter infiltration and CT grid not only complement each other but are integrated, and this has contributed to ensuring that violence levels in Kashmir are controlled.

The Last Frontier- Siachen Glacier

Siachen sometimes called the “Third Pole” is the highest battlefield in the world. The 126. 2 km AGPL has over 150 isolated posts, located at altitudes in excess of 5400m, manned by the army round the clock. The glacier’s craggy landscape, paper-thin air, heavy snowfall and bone-chilling temperatures make it one of the most inhospitable places on earth. For soldiers, this is a place where mountaineering is more important than marksmanship. The harsh weather and high altitude terrain pose major challenges for troops to survive. Frostbite, chilblains, avalanches, snowstorms, crevices, lack of oxygen and appetite are a few of the many threats faced in addition to defending the borders. Survival alone is an achievement in itself.



Indo-Bhutan Border

Indo-Bhutan border is 699 km in length and is guarded by SSB. The states that share the border with Bhutan are Sikkim, Arunachal Pradesh, Assam, and West Bengal. The Indian Insurgent groups (IIGs) are known to have established camps in South Bhutan in the past. In a first ever demonstration of solidarity and will to counter terrorism Bhutan launched Operation All Clear in Dec 2003 destroying the IIGs, since then Bhutan continues to ensure that IIGs do not establish any bases in Bhutan.

Indo-Nepal

Indo-Nepal border is 1751 km long with Uttarakhand, Uttar Pradesh, Bihar, West Bengal and Sikkim sharing border with Nepal. The main challenges faced due to a porous border are of illegal immigration for economic reasons, smuggling and terrorism. Pakistan trained terrorists are known to have used this porous border to infiltrate into India as also use Nepal as safe havens and hideout.

Indo-Myanmar Border

India shares a 1643 km long border with Myanmar, of which 171 km is not demarcated. Till the 19th century, border was alien to the tribes. It was and still is irrelevant for them, posing a challenge for border management. Terrain along this border is semi mountainous with steep slopes covered with dense forest, perennial and seasonal rivers and nullahs with numerous waterfalls. The Indo-Myanmar border is presently guarded by 15 Assam Rifles battalions. There is a proposal to handover the border guarding duties to ITBP/ BSF. It will entail raising of 41 additional battalions, 12 sector HQs and four frontier HQs. There is also a proposal to construct a barbed wire fence along the border. Myanmar is important to India due to historical, ethnic and cultural ties.

Myanmar is of great strategic importance as it is a gateway to South East Asia and India's Act East Policy. The northeast region has been facing insurgency since independence. Many insurgent groups have their bases, headquarters and training camps in Myanmar. The Indo-Myanmar border is vulnerable due to narco-terrorism, smuggling of arms, and FICN making it imperative for the security of this border to be addressed in a holistic manner as compared to other Indian borders. Proximity of Indo-Myanmar Border with the "Golden Triangle" is one of the important aspects to be considered while deciding the doctrine of deployment. It will be prudent to let the present time tested responsibility continue with border and CI with one force ASSAM RIFLES.

Indo-Bangladesh Border

The 4096. 7 km Indo-Bangladesh border is characterised by varied terrain comprising of plains, low hills, forests and riverine segments. The entire area is heavily populated with cultivation right upto the IB. BSF is responsible for operations only within one km of the IB. Area beyond one km is secured by the local police. A barbed wire fence has been constructed along the border. The biggest challenge on Indo-Bangladesh border is illegal migration of people for economic reasons from Bangladesh to India. Due to ethnic and cultural similarities detection of illegal migrants is difficult. The problem is further compounded by local state politics which wants to integrate the immigrants for vote bank gains. Another challenge is rampant smuggling across the border. Indian insurgent groups are also known to have their training camps across though this issue is well taken care off by the present dispensation.

To summarise the ground situation varies at India's borders. There is almost war like situation along the LC, relatively tranquil borders along China except regular incursions, a humanitarian problem

on Bangladesh border due to illegal migration and Bhutan and Nepal borders are porous leading to smuggling and frequent crossover of inhabitants. The Myanmar border, due to thick vegetation cover and rugged terrain has been an easy conduit for drug smuggling as well as insurgent movement. Due to such large magnitude of concerns, border management remains the most complex operation during peacetime. The Management of Borders encompasses Border defence, Border security, Border infrastructure, economy i. e. trade and border trade, Border population and perception management. Every border is unique in respect of the challenges requiring unique solutions. Some of these are:

- (a) Ensuring territorial integrity.
- (b) Reinforcing Claims on our territories.
- (c) Ensuring sanctity of LC.
- (d) Counter Infiltration.
- (e) Illegal migration.
- (f) Illegal activities, like drug and arms trafficking and smuggling.
- (g) Fake Indian Currencies (FICN).
- (h) Activities of Indian Insurgent Groups (IIGs).
- (j) Varied terrain poses peculiar challenge to border management.
- (k) Lack of development and Infrastructure specially roads.
- (l) Ethnic and cultural similarities with people across the borders.

Maritime Security

It is often seen that when faced with a territorial dilemma people tend to equate far more with a land-centric dispute because it can be seen whereas any maritime dispute is generally invisible from the public eye and may be of lesser significance in public perception.⁷ The legal dimensions of territorial waters, contiguous zone and Exclusive Economic Zone (EEZ) are generally not well known. India's coastline is 7516.6km long which includes 13 major and 187 minor ports along with offshore infrastructure which has to be secured. India's maritime neighbourhood is characterised by close proximity to major sea lines of communication and energy lines, drug centres of Golden Crescent and Golden Triangle and two major hot-spots of piracy i. e. the Horn of Africa and Malacca. India's maritime security policy should factor the India's maritime concerns and Indian Navy is responsible for overall maritime security including coastal security, assisted by the Coast Guard and State Marine Police. Coast Guard is responsible for coastal security in territorial waters including areas to be patrolled by coastal police. It is also responsible for overall coordination between central and state agencies in all matters relating to coastal security. Marine Police is responsible for patrolling and surveillance of infrastructure of coastal areas.⁸

Challenges and Policy Options

"The term border management must be interpreted in its widest sense and should imply co-ordination and concerted action by political leadership

7 http://www.claws.in/images/events/pdf/1356231052_ChallengesToBorderManagement17JulyReport.pdf

8 http://www.claws.in/images/events/pdf/1356231052_ChallengesToBorderManagement17JulyReport.pdf

and administrative, diplomatic, security, intelligence, legal, regulatory and economic agencies of the country to secure our frontiers and serve the best interests of the country. Looked at from this perspective, the management of borders presents many challenging problems.”⁹

Border management does not just include guarding, defending and managing the borders but it also includes the local people, the trade, growth and development of the region. There is a subtle difference between border guarding and border defence and border management. While border guarding is a policing task, border defence as the name indicates is a security task and management is an all-encompassing task. The management policies should be laid down clearly and should be the responsibility of the MHA.

India does not have a border management policy or a national. The National Security Advisory Board (NSAB) has formulated the Draft National Security Policy, which is still under consideration. Though the Department of Border Management was created under the Ministry of Home Affairs in 2004, the critical issues of command and control have not been resolved even after ten years.¹⁰ India is the only country in South Asia which has not yet settled its boundary issues with any of its neighbours. With multiple ministries responsible for various domains of Border management there is conflict and competition on the ground among the different agencies.

The challenges along each border are distinct and varied, covering multiple threats from external, internal, havens/bases to Indian Insurgent Groups (IIGs), immigration, economic, smuggling, narcotics, FICN, and

9 <https://www.vifindia.org/sites/default/files/GoM%20Report%20on%20National%20Security.pdf>

10 Gurmeet Kanwal, IPCS Issue Brief No 55 2007, www.ipcs.org/issue_briefs/.../380296651IPCS-IssueBrief-No55-GurmeetKanwal.pdf

trafficking. The border guarding and defence forces need to be integrated and function seamlessly across all agencies from custom and excise, state police, state armed police, home guards and civil defence and more importantly the various intelligence agencies of various hues and cries mostly working at cross purposes.

The Kargil Review Committee (KRC) Report, brought to light many grave deficiencies in India's security management system particularly in the areas of Intelligence and Border and Defence Management. A Group of Ministers (GoM) was convened in April 2000, to review the national security system in its entirety and in particular, to consider the recommendations of the KRC and formulate specific proposals for implementation. The report of the Group of Ministers (GOM) on National Security identified the various problems of border management. Para 5. 1 of the report categorically states ***"Multiplicity of forces on the same borders has inevitably led to the lack of accountability as well as problems of command and control. "*** The major problem identified, the GOM vide para 5. 12 recommends ***"At present there are instances of more than one force working on the same border and questions of conflict in command and control have been raised frequently. Multiplicity of forces on the same border has also led to lack of accountability on the part of the forces. To enforce the accountability, the principle of 'one border one force' may be adopted while considering deployment of forces at the border. "*** Multiplicity of forces on the same border has led to lack of accountability on the part of the forces. To enforce accountability, the GoM decided that the principle of 'One Border One Force' be adopted while considering deployment of forces at the border. The unsettled borders with China (LAC) and Pakistan (LC) were mandated to be manned and defended by the army.¹¹ The LC and AGPL are manned

11 <https://www.vifindia.org/sites/default/files/GoM%20Report%20on%20National%20Security.pdf>

by the army and the few BSF battalions deployed on the LC are under command and operational control of the army. The recommendations of the GOM have been implemented along all our borders with neighbouring countries except the most sensitive and important border with China. The ITBP deployed alongside the army continues to function under the directions of Ministry of Home Affairs (MHA). As the ITBP is not under the operational control of the army there is a lack of coordination and accountability, defeating the very concept of the one force one border as enunciated by the GoM. This needs to be corrected and the ITBP placed under operational control of the army to ensure a more effective management of the sensitive LAC.

A major disconnect in challenges and policy options is the turf wars between the forces and agencies that are prevalent. The various issues along our borders are in the domain of the big four ministries and the states concerned. Ministry of Home with the border management division is the lead ministry as per the charter and exercises operational control of all CAPF less Assam Rifles. The other ministries are the MOD which is responsible for border defence, MEA for resolving border disputes and demarcating the borders, and the ministry of Finance for customs and Excise. More often than not directions and policies emanating from the various ministries are conflicting and contradictory leading to confusion. The various forces deployed along the borders too are competing with each other often leading to turf wars, with cooperation and coordination based on the personalities and the needs of the commanders deployed at various levels. In addition there is the Cabinet secretary whose charter is to ensure inter-ministry coordination. Over and above all is the National Security Advisor (NSA) who is again directly responsible to the PM on all issues concerning national security. To compound these complex and confusing structures is the presence of various intelligence

agencies each one with its own agenda and interpretation from State IB, RAAW, IB, CID, MI and DIA, BSF, ITBP and SSB among other int agencies.

At present, border management is manpower intensive and there is a need to supplement human surveillance and patrolling. A greater infusion of technology into border guarding is required in keeping with the peculiarities of terrain and threats. Some of the key technologies that can be 'force substitutors' and can be exploited are:-

- (a) Multi layered autonomous systems.
- (b) Smart Fences with sensors and surveillance systems.
- (c) Integrated C4ISR.
- (d) UAVs/ Drones including tethered drones.
- (e) Satellite Imagery.
- (f) GIS and digitised maps.
- (g) Communication systems.
- (h) Artificial Intelligence.

The maritime security policy needs to be implemented effectively. The sparsely populated and unattended vast coastal areas are most vulnerable to all kinds of security threats and smuggling. The terrorist threat from coastal areas as witnessed in 26/11 Mumbai attacks may become the preferred option as infiltration through the fenced and guarded land borders becomes more and more difficult. Regular training and checks must be carried out to ensure efficacy of marine police and state structures.

In the recent Land Border Agreement (LBA) with Bangladesh, pending since 1974, the assent of West Bengal and Assam was the key factor. Along various borders the role and responsibility of the states need to be factored as they are a very important stakeholder.

Certain Key recommendations are.¹²

- (a) An Apex body for Border Management and Inter Ministry Coordination under NSA.
- (b) Integrated Intelligence machinery with clearly defined role and charter.
- (c) Army for border defence and lead for disputed borders as per the GOM on National security i. e. LAC and LC. Any additional forces like BSF and ITBP to function under Operational control of army.
- (d) ASSAM Rifles for India- Myanmar Border including Tirap & Changlang districts of Arunachal Pradesh and Counter Insurgency in Nagaland, Manipur and Tripura.
- (e) CRPF as the nations Internal Security force including Assam but less J&K, ably supported by State armed police.
- (f) Rashtriya Rifles as Counter Insurgency force in J&K.
- (g) SSB responsible for India- Nepal and India - Bhutan borders.
- (h) ITBP to be deployed along the LAC under operational control of Army.

¹² http://www.claws.in/images/events/pdf/1356231052_ChallengesToBorderManagement17JulyReport.pdf

- (j) BSF continues to effectively manage the India-Pakistan and India- Bangladesh Border.
- (k) Indian Navy with Coast Guard integral to it for Maritime security.
- (l) There is also a need to recruit more personnel from within the areas of deployment of the various forces, sons of soil concept, as they would be able to withstand weather and difficult living conditions better as also contribute to intelligence gathering.
- (m) The development effort in border areas must be carried out to integrate and meet the aspirations of our people living along border areas.
- (n) State governments must be actively involved in the process of finding solutions to the concerns of the border population.

These could cover the systematic and structural changes required for a more effective securing of our borders in keeping with the envisaged threats. The proper management of borders is vitally important for national security. Different borders have a variety of problems specific to them, which have to be appropriately addressed. These problems have become aggravated in recent times with Pakistan's policy of cross border terrorism, along with its intense hostile anti-India propaganda designed to mislead and sway the loyalties of border population. The India China border needs a mature and disciplined handling at all levels as it has a potential to flare up.

There is an urgent and immediate imperative to propagate and practice an effective border management strategy including maritime security to safeguard our borders, mitigate threats and integrate our people ensuring the nation's security.

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CONTRIBUTION OF INDIA TO WORLD PEACE BY WAY OF UNITED NATIONS PEACEKEEPING AND RELATED ISSUES

Lt Gen Chander Prakash SM, VSM (Retd)*

Introduction

UN peacekeeping is the foremost symbol of international cooperation and collective global governance and collective contribution to world peace. The global order is experiencing significant turbulence as it shifts from a period of relative stability under a unipolar order to a new era of multipolar uncertainty. One of the characteristics of this new era is the emergence, or re-emergence in some cases, of a number of States that have gained sufficient economic and political power over the last decades to challenge the global governance. This article analyses India's contributions, motivations and policies related to UN peace operations at a time when the future direction of UN peace operations are under critical review. The High Level Independent Panel on Peace Operations (HIPPO) submitted its report in mid-2015, and the Secretary-General issued his own report on the HIPPO for the 2015 General Assembly session. Since then these reports have been considered in various UN bodies, and whilst some aspects are being implemented by the United Nation's Secretariat many others are still being debated.

In light of the ongoing initiatives, this article also analyses the stance India has taken on a number of important issues like conflict

prevention; the principles of peacekeeping, including the use of force, robust peacekeeping and enforcement operations; integration and the so-called full spectrum approach; peacekeeping capabilities; as well as sovereignty and national ownership.

Indian Military and Police Contributions to UN Peacekeeping

India's actions on international peace and security are guided by the principles on which the UN was founded. Even before India's independence in 1947, Ms Vijayalakshmi Pandit, then the leader of the Indian delegation to the United Nations General Assembly's first session in New York (October-December 1946) pledged commitment to the principles of peace and justice as enshrined in the UN Charter. As a founding member of the United Nations, India has been strongly supporting the purpose and principles of the United Nations. It has been her endeavour to make significant contributions towards implementing the goals of the UN Charter and to the UN's specialized programmes and agencies.

With the increased commitment to United Nations peacekeeping post- the Cold War era, India has continued to provide commanders, armed military contingents, military observers, and staff officers, as also Indian Air Force attack and utility helicopters, to many of the UN missions deployed to keep the peace in various parts of the world. India's contributions include Korea 1950-1954, Indo-China in 1954-1970, Middle East 1956-1967, Congo (ONUC) 1960-1964 with Brigade Group and Air Force, Iran and Iraq in 1988/90 after the bloody conflict in the region; on the Iraqi-Kuwait border after the Gulf War in 1991; Angola in 1989/91, and again in 1995/99; Central America in 1990/92; El Salvador in 1991; Cambodia 1992/93; Mozambique 1992/94, Liberia in 1993; Somalia (1993–94) (UNITAF & UNOSOM II) with a Brigade

Group composed of 5000 personnel from the Indian Army and four battleships from the Indian Navy; Rwanda in 1994/96; Sierra Leone in 1998/2001; Lebanon from 1998 to date; Ethiopia-Eritrea in 2001/2009; the Democratic Republic of the Congo (MONUSCO) from 1999 to date; Cote d'Ivoire from 2004/2017, Burundi in 2003/2006; Sudan/South Sudan from 2005 to date, and the Golan Heights from 2006 to date.

India has also provided police personnel to a number of United Nations missions such as in Namibia, Western Sahara, Cambodia, Haiti, Bosnia-Herzegovina, Kosovo, Sierra Leone, Congo, and in Liberia (where it has created history by providing all-women formed police units that has drawn acclaim locally as well as internationally)¹ and in Sudan/South Sudan.

India as on 30 June 2018 has contributed nearly 195, 000 troops, in more than 49 missions and has suffered 168 Indian peace keepers fatalities the largest number from any country, while serving in UN missions.² India currently contributes 6719 troops, military observers and staff officers and police personnel in 10 of the 14 current UN peace operations. India's major deployments are 2909 personnel with MONUSCO in the DR Congo, 2407 personnel with UNMISS in South Sudan, 900 military personnel with UNIFIL in Lebanon; and a contingent of 180 personnel with UNDOF in the Golan Heights. As the third largest contributor of troops and police personnel to the UN peacekeeping, India provides 7.3 per cent of the total contributions of all the T/PCCs.³

1 UN News Centre, (2016), Hailed as 'role models,' all-female Indian police unit departs UN mission in Liberia. Africa Renewal. Available at <https://www.un.org/africarenewal/news/hailed-%E2%80%98role-models%E2%80%99-all-female-indian-police-unit-departs-un-mission-liberia>. Accessed on 10 July 2018. Available at <https://www.pminewyork.org/pdf/menu/49151pkeeping.pdf>. Accessed on 12 July 2018.

2 India and United Nations Peacekeeping and Peacebuilding. Permanent Mission of India (2018). Available at

3 UN Peacekeeping Fact Sheet. Available at https://peacekeeping.un.org/sites/default/files/1_summary_of_contributions_4.pdf. Accessed on 18 July 2018.

Why India Does Actively Participates in UN Peacekeeping?

As an emerging power, India's participation in UN peacekeeping missions represents an ideal opportunity to project India as a responsible and conscientious nation with non-aligned credentials. Contribution to world peace by way of UN peacekeeping will also help in fulfilling its aspiration to be a great power that can influence the world stage and thereby also lay stake to become a permanent member of the UN Security Council. However, some have different views and misconceptions with regards to about India's participation in the UN peacekeeping. These are discussed in the following paragraphs.

(a) **Financial Motivation.** Compared to many other troop contributing countries from developing countries, India has a better economic status and comfortable levels of foreign exchange reserves. With vibrant and open economy, the financial remunerations in US dollars that come from participating in UN peacekeeping operations are not an attraction and motivation for participating in peacekeeping operations. To the contrary, India's Controller Audit General has found that the Indian exchequer incurs a net loss due to the UN deployments. The report tabled in the Indian parliament in February 2014 stated that the UN owes \$81. 15 million as reimbursements on account of the UN deployments.⁴ As on March 2017, the UN owed a total of USD 777 million to member states for peacekeeping operations. The UN had to pay a total of USD 55 million to India for its

4 News Item on Mail On Line India, " United Nations peacekeeping costs India Rs 504 crs, "by GautamDatt February 23, 2014, Available at <http://www.dailymail.co.uk/indiahome/indianews/article-2566168/United-Nations-peacekeeping-costs-India-Rs-504-crore>. Accessed on 08 July 2018.

contribution to the world body's peacekeeping operations, the second highest outstanding payment to any member country.⁵

(b) **Exposure to the Other Militaries of the World.** No doubt that the UN peacekeeping missions provide the Indian military and police personnel exposure to newer conflict situations and an opportunity to work with other armies/police personnel of the world and thus widen their perspective. While this is true, the Indian Defence Forces these days have other opportunities such as participation joint military exercises with other countries including developed countries both at home and abroad. Therefore this should be seen as a tool for military diplomacy. The Indian troops at many places have created goodwill with the local population and therefore can be utilized for furthering economic and strategic goals.

The resurgence of India's participation in peace operations since the 1990s is based not only an overall strategic conception of India's interests but more on the ideals for which the country stands. On the foreign policy side, it should be seen as a useful device to promote India's interests at the UN. On the military side, both for the Ministry of Defence and the Indian Defence Forces, peacekeeping has never been a major priority amidst the multiple challenges of internal security and territorial defence. The political leadership, which is more focused on the diplomatic value of peacekeeping, needs to publicly articulate the strategic rationale for India's international peacekeeping efforts in terms of a white paper or any published official document. Hence, India's approach has been mostly driven by the inherited traditions.

5 The Tribune (28 March 2018). India calls for timely reimbursement to nations for UN peacekeeping operations. Available at <https://www.tribuneindia.com/news/nation/india-calls-for-timely-reimbursement-to-nations-for-un-peacekeeping-operations/565129.html>. Accessed on 09 July 2018.

Nevertheless, a broad debate in India about peacekeeping amidst a broader global discussion on the future of peacekeeping is necessary too. A number of imperatives have changed. Indeed there is a need to urgently modify India's approach to peacekeeping. Future participation in UN peacekeeping operations should be based on the context of the changing nature of India's security interests. As an emerging trading nation — more than 40 per cent of India's current GDP is linked to imports and exports - India is dependent on import of natural resources and export markets for sustaining high economic growth rates and improving the living standards of its teeming millions.

Trend in Peacekeeping -Tackling Internal Conflicts

New trend of using peacekeepers to tackle internal political conflicts is an “unsustainable” approach for the maintenance of global peace and security. The trend of mixing mandates (conventional and interventionist) directly affects the operational effectiveness of the peacekeeping operations and exposes traditional mandate peacekeepers to unnecessary threats from armed internal conflicts. There is no denial of the fact that the protection of civilians by peacekeepers is a mandatory requirement that has to be undertaken for peacekeeping to be legitimate and credible. However, it must be noted that protection of civilians is first and foremost, a national responsibility and requires institutions and conditions in which these institutions can function. To do that, it is necessary to strengthen the capacities of the States and their national institutions to enable them to fulfil their responsibility to protect their populations. Therefore, greater strategic support and guidance is required for the peace operations to be effective.

Peacekeepers, in spite of their best efforts, cannot possibly “protect everyone from everything”. Protecting populations is a resource

intensive enterprise. It needs sufficient personnel, proper equipment and suitable capacities. Political will and support from the senior military leadership is necessary to provide adequate resources for fulfilling their protection mandates and projecting the right image of the Indian Defence Forces.

Issues Related to Mandates of UN Peacekeeping Operations

Many dimensions of the multi-dimensional UN peacekeeping operations being mandated by the Security Council fall in the basket of peace building which constitutes a political objective. Protection of civilians does not end with a military or police response. The civilians are protected best in an eco-system of peace where all its elements work and contribute in tandem. The Security Council supported by the efforts of Member States and large Troop Contributing Countries (TCCs) such as India should therefore address multiple dimensions of a conflict in a comprehensive and proportionate manner.

Civilians require humanitarian wherewithal for survival. In this process, the multiple stakeholders should be involved, not just the military. An engagement between warring factions in a conflict situation in a nationally owned and inclusive political process is of paramount importance. This inclusive approach to national reconciliation, anchored in state sovereignty, is the only way to move forward to ensure the protection of civilians in an effective, pragmatic, and enduring manner.

The views of the Troop/Police Contributing Countries (T/PCCs) should be taken into account while formulating peacekeeping mandates, as the troops from these countries know the situation on the ground better than most, as they are in touch daily with developments and can – on the basis of practical experience – advise on what needs to be done. Concerns about the mixing of the original and new

interventionist mandates in peacekeeping operations as these expose the peacekeepers in the same mission who have not signed up to intervention to higher risks. Unfortunately, this view mostly of the Asian TCCs gets misinterpreted by some in the international community.⁶

Maintenance of international peace and security will become more sustainable if there is a holistic and equitable approach to relations between Member States. Capacity building should be a key focus of UN efforts as affected countries emerge from armed conflict situations. If the international community wishes to see sustainable peace and stability, then State institutions, including in the area of security, rule of law and justice, need to be augmented and strengthened. States emerging from conflicts need to take ownership as they embark on the difficult process of rebuilding their societies and countries including consolidation of democratic ideals and practices, and undertake effective improvements in socio-economic conditions. It is important to recognize that the structural changes can take place only in the mid to long term. This is an opportunity in which India and the international community must step up and sustain their support to the affected States in these critical areas.

The Indian view that the sovereignty, independence and territorial integrity of all UN Member States is noble and merits acceptance by others in the international community. The international community must respect the States' right to control and manage their affairs, including natural resources. There must be no attempt to be prescriptive about control, management and use of natural resources by the States concerned. The role of the international community, including the relevant UN agencies, should be to enhance development partnerships

⁶ News Report at Rediff. com, "Inaction against attacks on UN peacekeepers dangerous: India", February 18, 2015. Available at <http://www.rediff.com/news/report/inaction-against-attacks-on-un-peacekeepers-dangerous-india/20150218.htm>. Accessed on 17 July 2018.

with countries that experience conflict. This should include higher allocations of financial, technical and human resources by donors and UN agencies and these must be aligned with national priorities of the countries concerned.

India has been particularly vocal in its opposition to “Peace Enforcement” mandates and in particular to the Force Intervention Brigade. It must be clarified that the Indian peacekeepers are not averse to robust peacekeeping for protection of civilians and humanitarian operations which they believe is a moral responsibility of a peacekeeper. However, the brigade’s deployment makes the UN a party to the conflict, which India as many Member States, fear taints the UN’s neutrality with future consequences for peacekeeping operations. It also underscores that the peacekeepers must not become a party to the conflict and must respect the principles of neutrality and impartiality on which peacekeeping was founded. Taking the case of MONUSCO (UN Peacekeeping mission in the Democratic Republic of Congo), lack of clarity in mandates directly affects the operational effectiveness of the peacekeeping operations, exposing traditional peacekeepers to unnecessary threats from armed internal conflicts which the United Nations has not itself instigated.

Regional arrangements can play an appropriate role in assisting the UN in maintaining peace; however, the primacy of the UN needs to be maintained. The UN cannot disengage with the regional alliances by contracting peacekeeping to regional arrangements. Impartiality of the UN forces must be maintained at all costs. With the regionalization and sub-regionalization of peacekeeping, there is a good possibility that the principle of impartiality may be violated. What is most necessary is that the UN and capable Member States provide support to the regional organisations in terms of in equipment, logistics and training so that

peace operations undertaken by the regional organisations such as the African Union (AU) become more viable and sustainable.

Participation of women in peace processes and post-conflict reconstruction efforts is necessary to lay the foundation for durable peace. While agreeing that the UNSCR 1325 and its successor Security Council resolutions have provided a framework for effective institutional arrangement and significant progress has been achieved but much more needs to be done.

On the financial aspects of the mandates, multidimensional mandates have created a situation wherein new mandates of UNPKOs given without providing for matching financial resources. The larger issue of financial imbalance must be taken into account when looking at the issue of the providing sustainable and predictable financial support to the peacekeeping operations.

Conclusion

India's commitment to UN Peacekeeping remains strong and will grow. Prime Minister Narendra Modi while speaking at the UN Summit in September 2015 had announced new intended contributions to UN Peacekeeping Operations. These include additional battalions of up to 850 troops in existing or new operations; an additional three Police units with higher representation of female peacekeepers; commitment to provide critical enablers; deployment of technical personnel in UN missions; and, additional training for peacekeepers.

The Indian Military has learned some valuable lessons in the peacekeeping operations both UN and non-UN such as Sri Lanka, Maldives and Afghanistan. These include the realisation that better

coordination is needed between political decision makers and the defence forces and other department of the government for such missions. It also emerged that better intelligence, training, equipment, and command and control are required to undertake peace operations especially interventionist operations.

This experience is probably embedded in the psyche of policy makers while defining the guidelines for the UN peacekeeping operations.

Finally, to conclude, India has strong democratic credentials and a fairly consistent foreign and security policy. India has developed a consensus-based foreign and security policy over decades. Changing domestic political alignments have not so far brought about significant changes in its foreign policy particularly with respect to UN peacekeeping and peace building. There is a balanced consideration of domestic defence priorities and global diplomatic aspirations. The Indian Government so far has not been openly questioned about its UN troop deployments and the related challenges. However, there are questions being raised the benefits accruing to India from its considerable investment of manpower and military resources. Some feel that continued participation is not commensurate to the results-either through obtaining a seat on the UNSC or in obtaining “great power status”. Moreover, observing that peacekeeping is mostly carried out by troops from developing countries, they argue that keeping such company means that India “cannot be taken seriously as a standalone great power at the UN. Not all these criticisms are valid; especially the notion of what defines a ‘great power’, however they provide an opportunity to debate the future of UN peacekeeping and especially India’s role in Africa. With an emerging educated and socially minded public and a very active media, the government’s decisions and

that of the Indian Military in this regard are likely to be put through public scrutiny. The possibility of domestic pressures affecting the foreign policy related to peacekeeping should not be ruled out.

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LEVERAGING ECONOMY FOR NATIONAL SECURITY

Brig (Dr) Navjot Singh Bedi*

Ensuring national security transcends strategic, military, diplomatic, economic, social and technological factors^[1].

- The Chanakya Code

The above stated quote are the thoughts on the subject, articulated by Chanakya, the great strategist and security thinker of ancient India had provided pragmatic solutions to protect the state.

PREAMBLE

In the present milieu in the nation, the internal security situation remains grim with insurgencies, terrorism and Maoists acquiring dangerous proportions. Growing threats may also manifest in the external security environment. Thus the pearls of wisdom articulated by Chanakya along back are still relevant today. National Security is all encompassing and covers all the national security aspects - not only politico-military but also non-military dimensions that contribute to the strengthening of national power. The status (or position) of a country in the international community is in essence associated with the rise and fall of its national power, the increase and decrease of its strategic resources^[2]. Weak economic growth in relative terms also reduces a nation's ability to persuade other nations to form common cause with it—or take more

forceful action when necessary. Leveraging economy as an instrument of national power, finds a place of prominence in all these factors.

The same is also true in the case of other nations. Economic strength and growth are *sine qua none* of US national security. Without a strong economy, the US will be less equipped to protect itself from threats and may find it difficult to muster the popular support needed for a foreign policy that actively promotes US interests globally.

This article dwells first upon the historical perspective, showing linkages between the economic prosperity and national security. The rationale for adequate funding to be provided for requisite security preparedness i. e. indirect leveraging of economy for National Security is discussed next. The feasibility and merits of directly leveraging the economic might of a nation for furthering national security i. e. a type of Economic Warfare is discussed in the end.

HISTORICAL PERSPECTIVE

History is replete with examples that nation states which have been militarily strong have ensured that the state prospers in all spheres – economically, social development, artistic pursuits and academic excellence. And converse is also the case.

The Golden Age of India

The Gupta Empire (320–600) was one of the largest political and military empires in world history. At the zenith of its power, the empire could effectively rule over the whole of India due to the presence of a strong military. The safety and security umbrella provided by the Gupta Empires' armed forces provided the opportunity and environment for progress and all-round development in all spheres of life to take place.

The period between the 4th century and 6th century AD is known as the Golden Age of India because of the large achievements Indians made in the fields of mathematics, astronomy, sculpting and painting during the Gupta Empire^[3, 4].

Pre Colonial Period

Before the colonial period, India was a major player in the global foreign trade. Pre-colonial India was well established on the world map and was blooming with opportunities^[5]. It was in fact this flourishing trade and commerce which was the trigger for explorers from all over the world to make a beeline to India. At that time India was called the Golden Bird (*Sone ki Chidiya*) and also known as the land of honey and milk.

Pre-colonial India enjoyed a worldwide market for its manufactured products. The excellent levels of craftsmanship were held in high regard and enjoyed a global reputation. Notable ones were handicrafts and textile industries. Shawls and carpets from Kashmir and Amritsar, silk sarees of Benaras and silk cloth of Nagpur are some examples. Artistic handicraft industry including jewellery, metal wares, marble work, carving works in ivory, wood, stone, artistic glassware etc and spices constituted a major proportion of exports from India. Effectively, India was exporting high quality manufactured goods to European countries and owned a respectable share in the world economy.

China and India were the largest economies in the world at the start of the eighteenth century. These two regions then provided almost half of the world's GDP and well over half of the world's industrial production; only in the 1980s and 1990s did Asia's share of world trade achieve the same level it had been in the 1720s. Containing so much of the globe's population, skills, riches, intellectual capital and business acumen, these two regions also played a major role in international trade and finance^[6].

However in the haste and eagerness to enhance trade, we perhaps forgot the old age idiom that the “*Richer the prize; Stronger the guard*”. The focus being only on furthering economic prosperity, as a nation, we did not pay adequate attention to safeguarding our sovereignty. Individual princely states started depending on the “so called protection” provided by the British East India Company.

“Those who would give up essential liberty to purchase a little temporary safety deserve neither liberty nor safety.”

— **Benjamin Franklin**

So it was only a matter of time that we were colonised by a host of European foreign powers. All these nations had initially come to our shores as traders, but on finding low hanging fruits and easy pickings, they decided to colonise us and the rest is history. Barring Punjab, the British colonised the rest of India.

Punjab under Maharaja Ranjit Singh

History bears testimony to the fact even when the British had colonised most of India, they were wary of crossing swords with Maharaja Ranjit Singh and had signed a treaty with Punjab. This was primarily due to the military might of Maharaja Ranjit Singh’s army and it is primarily due to this military deterrence that Punjab continued to prosper. Nearer to the present times, the wars of 1962 and 1971 highlight the stark comparison between the military preparedness and outcome of these two wars.

India under British Rule

It has been documented that under British rule, India experienced de-industrialization, which along with fast economic and population growth in the Western World resulted in India’s share of the world

economy declining from 24. 4% in 1700 to 4. 2% in 1950, and its share of global industrial output declining from 25% in 1750 to 2% in 1900^[3, 5].

The British aimed at diverting this large volume of trade for their benefits. In the light of British era, the foreign trade of India with rest of the world was cut off by the help of restrictive policies of commodity production, trade and tariff. As much as half of the foreign trade from India was restricted to Britain.

Thus the immense loss of national wealth, on account of organised loot and plunder for 200 years, reduced this nation of prosperity into a land of penury. The *Sone ki Chidiya* had flown and left behind a malnourished chick in a cage! Besides this immense financial loss, more importantly the nation lost its self-confidence and its belief in itself. As history is always written by victors so there are few documentary evidences to support the fact that the British systematically undermined all our traditional academic institutions and seats of learning, besides of course destroying the flourishing indigenous handicrafts/ textiles/ crafts industry.

All this was simply due to the fact that inadequate attention was paid to the upkeep and preparedness of the nation's armed forces.

ECONOMIC FUNDING AND SECURITY PREPAREDNESS

"In times of war and not before,

God and the soldier we adore.

But in times of peace and all things righted,

God is forgotten and the soldier slighted. "

-Rudyard Kipling" ("A Time for Prayer)

“Geo-economics, ” is a means of analysis in addition to the definition of economic statecraft which is the use of economic means in support of foreign policy goals [7].

Guns vs Butter

In a democracy, there is always an intellectual battle on between guns and butter. It is ironical that the more a nation prospers, the more its people are able to think freely and these same people then question the rationale for excessive defence spending. Defence preparedness is a commercially non-revenue generating activity and as such it is at times considered to be un-productive in the commercial sense. The contributing factor of defence preparedness to economic development is not understood by a vast majority and it is appreciated by even fewer people who wish to put a monetary figure to each activity. However the funding provided to a nations armed forces is subject to scrutiny by each citizen journalist and with the proliferation of social media, each individual is a citizen journalist.

While debating vociferously over the number of schools or hospitals that could be constructed against the cost of a combat aircraft, a tank or an aircraft carrier, we often loose sight of the fact that defence preparedness is not a toggle switch that can be switched on and off. It is a capability that has to be nurtured and built up assiduously over the years. It is akin to the premium that one pays for a life insurance policy – the larger the premium, the greater is the insurance assured. It must also be remembered and understood that like an insurance policy is never made out against an individual who has died, likewise making available the *funds required by the armed forces to ensure the for security of a nation cannot be done retrospectively*; instead it is a niche capability which has be built up assiduously over the years.

In the 2018-19 Union Budget, the amount of Rs 2. 95 lakh crore earmarked for the defence works out to around 1. 58% of India's GDP. The Estimates Committee headed by BJP MP Murli Manohar Joshi, in its report on "Preparedness of Armed Force - Defence Production and Procurement", said that the current defence budget as a percentage of GDP is lowest since the India-China war in 1962. The past decade has been rife with economic crises, austerity measures, and increased financial globalization. This economic climate has had large ramifications for the ability of states to earmark funds for the defence but it needs to be understood that these need to be provided.

The Three Pillars for Waging War

Chankya believed that 'wars are based on three pillars and there should be a harmonious balance amongst the three pillars for success in war. These three pillars are the military, the government and the people. the acceptance of people towards any type of war is very important and is the same as same as the acceptance of Military. If they are convinced of the legitimacy of waging war, the people will act as the bridge towards victory, as was seen during the 1971 campaign to liberate Bangladesh. However if the same is not ascertained, then the effect can be counterproductive, as was seen in the experiences of US war on Vietnam. This acceptance can either be natural (which is preferable) or acquired through an elaborate PR campaign cum propaganda blitz; both of which require finances and requisite budgetary support.

Taking a leaf from this concept, closer back at home, and the Indian Army undertakes Sadbhavna projects in order to win the support and beliefs of people for widespread counter-insurgencies operations in Kashmir valley and at some other places.

Peace: A Prerequisite for Development

Chanakya in his treatise Arthshashtra had stated that “If any two kings, who are hostile to each other and are in a stationary condition expect to acquire equal amount of wealth and power in equal time, they shall make peace with each other”.

There is no other alternative to this universal truth. It has been explained that it is “only by keeping the agreement of peace, can a nation undertake productive works of considerable importance or can destroy at the same time those of his enemies. Our northern neighbours have intelligently practised this philosophy; for a long period of time, they resolved their border disputes with most of their neighbours ‘signed treaties of peace and focused all energies towards development. So it can be seen that economic prosperity (and overall development) is only possible in an environment of safety and security. Thus requisite budgetary support for the modernisation and upkeep of nation’s armed forces may be considered to be an investment for the future.

Similarly Master SunTsu, has also made an incisive observation that an unhonored Army, an unpaid Army or an exhausted Army will fight if honored, paid and allowed to relax but an dishonored army will be subjected to easement that may widen the subject of internal stability. ’⁸ But are we really doing enough for our forces so that they ensure a climate of peace leading to prosperity?

Responsibility for Security of State

The basic quandary of any democratic country is that the political leadership and bureaucracy believe that responsibility of security of the state is the responsibility of security forces exclusively and armed forces are required to keep justifying their legitimate demands. A case in point

was the resignation tendered by the head of the armed forces of France, in July 2017, in protest at cuts to the defence budget.⁹ Announcing his resignation, the first by a Chief Of The Defence Staff of France in 60 years, Gen de Villiers said the government's plan to impose €850m of cuts this year meant he was "no longer able to guarantee the robust defence force I believe is necessary for the protection of France and the French people.

However once the political leadership and bureaucracy realise that the security of the state is not only the responsibility of the Armed Forces but also of such other organisations and primarily the responsibility of the political leadership and bureaucracy, then there would be no more delays and snags in our security preparedness. The Armed Forces are mere executors of the policy of the nation- they are the edge of the sword. The swathe and depth of the cut made by the sword will depend upon the thickness of the blade and upon the quality of the steel with which it has been forged- which is to be ensured by the political leadership and bureaucracy.

Kautilya's Arthashastra

Kautilya's Arthashastra was written in about 300 B. C. Arthāśāstra literally translates from Sanskrit as the science of wealth'. Artha corresponds to the work or wealth 'in Sanskrit, and sastra to science'. Kautilya recognized that the wealth of nations does not depend purely on narrow economic factors but on a broad array of factors, one of which was a stable political environment provided by the states armed forces. It is ironical that in the land where his great man had given his pearls of wisdom on statecraft, which is regarded very highly all over the world, we in India have not put it into practice in totality.

Economy to Support Defence Expenditure

The ability of a nation to advance its national interests is dependent on the effectiveness of the state in employing the instruments of national power to achieve national strategic objectives. We will only discuss the relevance of the economic aspect. As per the Military Expenditure Database available with Stockholm International Peace Research Institute (SIPRI) the 2018 Fact Sheet (for 2017), showing the expenditure on defence, as a percentage of World Share for the top 10 nations is tabulated below:-

Rank	Country	Spending (in \$Bn)	% of GDP	% of World Share
1	United States	610. 0	3. 1	35. 0
2	China	228. 0	1. 9	13. 0
3	European Union	200. 0	1. 4	11. 5
4	Saudi Arabia	69. 4	10	4. 0
5	Russia	66. 3	4. 3	3. 8
6	India	63. 9	2. 5	3. 7
7	France	57. 8	2. 3	3. 3
8	United Kingdom	47. 2	1. 8	2. 7
9	Japan	45. 4	0. 9	2. 6
10	Germany	44. 3	1. 2	2. 5

Table 1. Expenditure on Defence, as a Percentage of World Share

It can be seen that our percentage of world share is though relatively high but is low in absolute terms, especially when seen in the light of China's expenditure. The Estimates Committee headed by BJP MP Murli Manohar Joshi, in its report on "Preparedness of Armed Force - Defence Production and Procurement", has said that the current defence budget as a percentage of GDP is lowest since the India-China war in 1962. Possibly, the same merits a review.

An impetus has been given to defence procurements but it's still considered to be the baby of the armed forces. All stakeholders should in fact take collective responsibility for the same and find solutions for the armed forces instead of placing impediments. That is the only way to take the nation forward.

DIRECTLY LEVERAGING ECONOMY FOR NATIONAL SECURITY

A nation that is boycotted is a nation that is in sight of surrender. Apply this economic, peaceful, silent, deadly remedy and there will be no need for force. It does not cost a life outside the nation boycotted, but it brings a pressure upon the nation, which, in my judgment, no modern nation can resist.

—President Woodrow Wilson, 1919

It's a universally acknowledged fact that a nation may employ various tools to influence other countries or international organizations or even non-state actors; these tools may be clubbed under the phrase *Instruments of National Power*.

In line with what had been espoused by Chanakya and by Sun Tzu, another scholar Ashley Tellis^[12] defines national power as a product of the interaction of two components, that is, the capability of a country to command its economic innovation cycle at a given time, and use such command power to form effective military capabilities. This in turn is used to create a stable political environment, intensify the existing economic advantages and provide basic conditions for maintaining its strategic advantages and seek gains in the international system.

National power can thus be defined as the sum of all resources available to a nation in the pursuit of national objectives. ^[13, 14] National power stems from various elements, also called instruments or attributes;

these may be put into two groups based on their applicability and origin – “national” and “social“. National includes geography, resources, and population. Social includes economic, political, military, psychological and informational. In this section we will examine how economy can be directly leveraged for furthering national security.

Legacy International Economic Institutions

Leveraging economy to enforce the will of one nation on another, is not a new concept. At the end of World War II, an international economic system, also known as the Bretton Woods system was set up. This was the beginning of covert Economic Warfare. Bretton Woods system had several components: the International Monetary Fund (IMF), which instituted a system of fixed exchange rates tied to the dollar (and ultimately to gold); the World Bank (originally the International Bank for Reconstruction and Development), which has focused on developmental lending and aid to poorer countries; and the General Agreement on Trade and Tariffs (now the WTO), which has provided the forum for successive rounds of multilateral negotiations that have resulted in a substantial reduction in global trade barriers. Though these institutions have evolved, yet they still define the international economic regime. It is through these institutions that a nation can at times be coerced into adopting policies, which in the long run *may not prove to be beneficial* to the nation. Bretton Woods’ rules based international economic order and the governance structure of its institutions facilitated US in being able to exercise leverage internationally.

Subsequently the fixed exchange rate system broke down in 1971 as a result of the US no longer holding enough gold to back foreign-owned dollars. This eventually ushered in an era of floating rates (for the most part) and led the IMF to shift its focus to assisting members on macroeconomic matters.

There was then a shift in the geopolitical environment and certain hitherto less developed countries (like Russia, China, Brazil and India), with enhanced importance asserted their right to play a more active role in setting the rules of global economic interaction. The Bretton Woods institutions risked becoming superfluous if the rules governing the same are not changed. The G-7 system was thus expanded to the G-8 in 1997 (with the inclusion of Russia) and more importantly to the G-20 in 2008. This represented a positive adaptation to new global realities. The U. S., which till recently indirectly controlled these institutions has indicated an openness to change and IMF quota revision is under consideration.

The New Turks: Emerging Economic Institutions

With China in the lead, other nations have been creating new institutions that may undermine the Bretton Woods system. For example, in July 2014 “BRICS”— Brazil, Russia, India, China, and South Africa—announced the creation of the BRICS New Development Bank (NDB) to fund infrastructure and development programs. Simultaneously, the BRICS announced the signing of a treaty to establish a BRICS Contingent Reserve Arrangement (CRA), which would exercise IMF-like functions. The CRA entered into force in July 2015, with capital of \$100 billion. The CRA is generally seen as a competitor to the International Monetary Fund (IMF) and along with the NDB is viewed as an example of increasing South-South cooperation.^[15]

The maximum access states can request from the ACR is half of capital contributed (for China) to twice the amount of capital contributed, in case of others. China’s voting share in the CRA consequently is thus 39.95 %, as compared to 18.10 % in case of Brazil, Russia, India and 5.75 % in case of South Africa.

In October 2014 the Asian Infrastructure Investment Bank (AIIB)^[16] was launched. As on date with the approval of Papua New Guinea and Kenya as prospective members, the AIIB's total approved membership is 86. China, which first proposed the AIIB, has the largest voting share, potentially around 26.6 %, as against India's voting share of 7.6%. Though the stated purpose of both the NDB and AIIB is complementary to that of existing multinational development banks, yet they represent a challenge to US leadership on the international stage.

Another major recent Chinese-led initiative is the Eurasia-focused One Belt, One Road (OBOR) Initiative. Its key components are the land-based Silk Road Economic Belt and the sea-based Maritime Silk Road. The former is aimed at regional infrastructure development and has already been funded to the tune of \$40 billion via the Silk Road Fund, a special reserve established by the Chinese government.

All these institutions individually and collectively represent a potential challenge to the existing multilateral system that the US has led for seven decades. Thus in order to maximize its influence over the institutions and rules that govern the international economic order, a nation can provide capitalisation to these institutions and ensure proportional voting rights. This is a soft way to ensure decisions in various nation states would be taken in consonance / conformity with the nation wielding maximum influence.

Policy Adopted in Various Nations

Model Prevalent in US

In the American perspective, the instruments of national power are: Diplomacy, Information, Military, and Economic (DIME)^[17]. According to Joint Publication 1, the ability of the US to advance its national interests

is dependent on the effectiveness of the United States Government (USG) in employing the instruments of national power to achieve national strategic objectives. The appropriate governmental officials, often with NSC direction, normally coordinate the employment of instruments of national power.

In practice economic statecraft was a key element of post war US diplomacy. From the NSC's inception, specially earmarked staff handled international economic issues and they were supported by the President's Council of Economic Advisors.^[18] Over time, however, presidents experimented with other means of addressing international economic issues. President Bill Clinton's established the National Economic Council (NEC) in January 1993, with some staffers being dual-hatted to both the NEC and the NSC. This structure remains in place, with a Deputy Assistant to the President for International Economics/ Deputy National Security Advisor reporting to both the NSA and to the NEC Director.

The centrality of economic issues to US national security is reflected in President Obama's first Presidential Policy Directive, which directed the NSC to "advise and assist me (the President) in integrating all aspects of national security policy as it affects the United States – domestic, foreign, intelligence, and economic (in conjunction with the National Economic Council)."^[19]

As per Steil and Litan "foreign or international economic policy" "encompasses means which may or may not be economic in the service of economic ends" and economic statecraft "applies economic means to ends which may or may not be economic."^[20] The latter is of greatest relevance in the context of national security.

Chinese Policy

China has coined a phrase known as Comprehensive National Power (CNP) which alludes to the general power of a nation-state ^[14]. CNP generally means the sum total of the powers or strengths of a country in economy, military affairs, science and technology, education and resources, and its influence. ^[14]The military factors are known as hard power and economic and other cultural factors are known as soft power. It will thus be in the fitness of things to articulate that CNP refers to the combination of all the powers possessed by a sovereign state not only for its survival and development but also for exerting international influence as well.

It is thus pertinent here to note that in the definition of CNP stated above, economy has been mentioned before military affairs. Whether this is by design or default, is subject to individual interpretation but the importance of economy as an instrument to impose the will of a nation on another cannot be wished away. It will not be wrong to state that economy and military to be the two main components of a nations power.

Economic Might as Soft Power

Though it is universally understood that hard power is the power to coerce, largely through military might, yet soft power was very nebulous. Joseph S Nye Jr, ^[21] the proponent of soft power has defined it as the power to coop through such “*intangible*” factors as culture, values and institutions (the media, churches, schools and so forth). It will be in the fitness of things to add economic might of a nation as a major instrument of soft power. Soft power is the ability to get what you want by attracting and persuading others to adapt to your goals. Applied consistently over a long term, it is designed to encourage cooperation and accommodation. It had been said that *Nations where people line up*

outside McDonald stores rarely go to war with each other. In an era of internet worked economies, it does not make business sense to wage war. In a globalised information scenario, the power to persuade has become almost as important, if not more important than the power to compel. In wielding soft power, economy has a major role to play.

The Chinese refer to the attribute of soft power as “soft strength”. To the Chinese, “soft strength” results from CNP strength. It reflects deep potential and international influence. This “soft strength” is not all “soft”; it is the reflection of “hard strength”. Though without hard power there’s no such thing like soft power, yet the rise in soft power will contribute to and promote the development of hard power.

Role of Economy in the Overall Power of a Nation

A nation’s strength lies in its harnessing a wide spectrum of its resources; its natural resources, human resources, economic potential and military might. CNP is a realistic broad based assessment of a nation’s power and its ability to influence global issues as a significant ‘player’. Consolidation of CNP would result in generation of soft power and the nation would be in a position to immunise itself from any adverse impact of globalisation. Soft power remains an adjunct of hard power. Hard power can however also be employed in soft power operations. An example of this is the soft power potential of military aircraft, helicopters and relief and hospital ships in humanitarian aid as well as the military might in assisting in rescue and rehabilitation in HADR operations necessitated by natural disasters and calamities; all these give a humane face to the fierce image inevitably projected by hard power.

Trade Wars and Tariff Barriers and Sanctions

It is universally recognized economic interests, are an integral component of national security. Economic strength and growth are *sine qua nons* for national security and the projection of power and values of any nation. This is true in both absolute and relative terms. Without a strong economy, India will be less equipped to protect itself from threats, let alone muster the popular support needed for a foreign policy that actively promotes our national interests regionally in South East Asia or projects them at the global forum. Weak economic growth in relative terms will reduce a nation's ability to persuade other nations to form common cause with it or support it when necessary.

Globalization, economic inter-dependence and geopolitical shifts have dramatically altered the international landscape. Vast amounts of capital flow across the world, as interconnected markets make waging war not an exactly preferred option to settle disputes. The increasing prominence of state capitalism poses a challenge to national security. State capitalism manifests itself in corporate, financial, investment, and digital form. Countries with state-directed economies and higher levels of state participation in markets have become more important in international affairs and are able to leverage more in the international sphere. China is a striking example in this regard.

While economic statecraft, ^[22] or geo-economics, ^[23] is not a new concept, highly targeted financial sanctions (an element of so-called financial statecraft) have gained prominence in the American diplomacy since the 9/11 attacks, ^[24] The same can be seen in the implementation of the Countering America's Adversaries Through Sanctions Act (CAATSA) legislation by the US, whereby India is required to take a considered decision in the procurement of The S-400 Triumf Air Defence systems

from Russia as also on the import of crude oil by India from Iran. Though both these are economically beneficial to India and required for the national security, yet the associated aspects of sanctions and their effects need to be balanced out to see what is overall beneficial to the nation. India has also used this to its advantage by giving the go ahead for acquiring the National Advanced Surface to Air Missile System (NASAMS) from the US^[25] but holding out against the helicopter deal.

However it needs to be noted that such an approach needs to take into account the fact that it is more likely other countries and global actors may institute countermeasures and use similar tools against the nation indulging in these policies. A case in point are the series of trade tariffs imposed by US on import of Chinese goods and the retaliatory tariffs imposed by China on US imports.

Leveraging the Trump National Security Strategy (NSS) by India

The Trump administration released its first National Security Strategy (NSS) to the public. The document dubbed China and Russia as “revisionist powers” ^[26] and are seen as threats to the United States and its security goals. There are however many opportunities to be found in the document for India, the fourth great power, to enhance its relations with the United States. In this manner India can leverage the Trump NSS and its booming economy to its advantage.

While India has its own national interests, the current U. S administration’s NSS represents a good opportunity for India to enhance its influence and security. This is more so as India’s traditional security partner, Russia, is not at all averse to growing Indian power and as US and Indian security goals seem to align. India maintains good relations with a variety of Asian and Middle Eastern states, including Japan, Vietnam, Iran, Saudi Arabia, and Israel. With the US wishing to facilitate

India taking on a greater role in the Indo-Pacific, then India should capitalize on the attitudes of the American government.

Aligning India's economic strategy with the changes unfolding in America is the key to an enduring and productive bilateral partnership. India now receives more foreign direct investment (FDI) than China. India should capitalize on this as US investment is needed for its military modernization and manufacturing goals. The Indian & US governments, should work together to insure that the "Make in India" initiative is carried out in a manner that incentivizes American investment in India. In particular, barriers to trade and entering Indian markets could be removed, subsidies slashed, and concessions expedited.

Conclusion

In today's operational environment the true power of a nation state is economic in nature. In the absence of a threat to the survival or of vital interest of a nation state, the multilateral employment of the economic instrument of power (i. e. targeted sanctions) is the instrument of choice that will enable the attainment of a states national interests^[20, 22, 23]

Due to the interdependence of world economies, consumption in one nation drives demand and increased production in another. The development and production of a good or service is no longer controlled by only one country. The production of goods in one country coupled with global access has enabled the individual consumer of another country to acquire goods and services that otherwise would be unattainable under closed market conditions. Due to the globalization of world economies and nations becoming risk adverse to the use of military power to restore the balance of power or to protect their national interest, the true power of a nation lies in its economy.

It has taken India 70 long years to come out of the shadows and shrug off the demons of the past to find its rightful place in the world order. It's moving in the right direction but it's still far away from its goal. Thinking holistically about these threats will help policymakers makers better understand their different aspects (offensive, defensive, etc.), increasing the chance that US policy is well thought out and effective. Though many of these issues are likely to be resolved only through international practice and consensus, yet a policy paper on the economic challenges to India's national security would define the limits that should guide execution of this instrument of national power.

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SELF RELIANCE IN DEFENCE INDUSTRY- A NEVER ENDING LEARNING CURVE

Air Mshl PP Khandekar, AVSM (Retd)*

“We dream of a day when India is completely self reliant in defence production and exports defence equipment worldwide. ”

- PM Narendra Modi

India is a regional power and a world player because of geostrategic location, democratic principles, economic reforms with a strong Government, belief in peaceful co-existence and human resources to name a few. India also, has a long coastline, littoral countries, land frontiers, island territories, airspace, and crucial offshore installations to defend against various potential security threats. What causes national security threat must be first understood and understood well. All in one definition may not give the right answer. It is said *“from a position of strength one can talk of peace”*. This implies that the nation needs to be strong in many securities such as political, economic, human, homeland, cyber, environmental and natural resources, energy, water, physical, IPR, etc. Sun Tsu has said, *“Invincibility lies in the Defence, the possibility of victory in Attack.”* India being a peaceful country needs to be invincible thus having a robust defence. Defence remains an important instrument of National Power. It needs self-sufficiency and self-reliance as a continuum. The fact that defence technology needs long term

investment, its obsolescence is high and economies of scale are difficult to attain unlike in other areas of civilian technology are well known. Ever changing world scenario, flexible realignment of Nations on issues of National and International importance are posing the challenges of conflicting ideals and as is quoted, *“Conflicting ideals are a virtue; they keep us on our toes, in a constant vigil”*. Instruments of power exist along a spectrum, from using force on one end to diplomatic means of persuasion on the other. Such instruments include the armed forces, law enforcement and intelligence agencies, various governmental agencies dedicated to bilateral and public diplomacy, foreign aid, and international financial controls. Variables of power include military strength, economic capacity, the will of the government and people to use power, and the degree to which legitimacy—either in the eyes of the people or in the eyes of other nations or international organizations—affects how power is wielded. The measure of power depends not only on hard facts, but also on perceptions of will and reputation.

On 25 July 2017, a report has been published on “Future of the India Defence Industry - Market Attractiveness, Competitive Landscape and Forecasts to 2022” by Strategic Defence Intelligence and offers detailed analysis of Indian defence industry with market size and forecasts covering the next five years. This report also analyses factors that influence demand for the industry, key market trends, and challenges faced by industry participants. It provides an in-depth analysis of Indian defence industry market size and drivers, Budget allocation and key challenges, Porter’s Five Force analysis of Indian defence industry, Import and Export Dynamics, Market opportunities, Competitive landscape and strategic insights. Major foreign investors are Lockheed Martin Corporation, BAE Systems Plc. , Thales, Boeing, Pilatus, Airbus (France), Raytheon, IAI of Israel, apart from Indian companies such as

Mazagon Docks Limited, Hindustan Aeronautics Limited (HAL), Bharat Electronics Limited (BEL), Bharat Dynamics Limited (BDL), Ordnance Factory Board, Bharat Earth Movers Limited (BEML), Mishra Dhatu Nigam and Goa Shipyard Limited (GSL) amongst others.

Kim R. Holmes in his researched article “What is National Security?” describes at length, what National Security is NOT for USA and then goes on to define the Security. He also speaks about Hard power and Soft Power justifying that a world security provider like USA simply cannot depend upon the soft power. The concept of *power* can best be defined as a nation’s possession of control of its sovereignty and destiny. It implies some degree of control of the extent to which outside forces can harm the country. “*Hard*”, or largely military, power is about control, while “*soft*” power is mainly about influence—trying to persuade others, using methods short of war, to do something.

Indian Defence Industry through Ages

“Self reliance is the best defence against the pressure of the moment.”- Carl Clausevitz

In our old epics such as Ramayana and Mahabharata, there has been a vivid description of a plethora of weapons and associated systems for offence and defence, many of which are real today and the march to innovate using the vehicle of technology to bring in more effectiveness is on. There is a theory that man perhaps is not able to imagine anything, unless there is some base for it to be visible to him. By this logic, our epics were the outcome or extrapolation of some technologies available those days, anyway. According to JR Bright of Harvard Business School, technology and innovation is aimed at nine important aspects viz. Mechanisation of intellectual and physical activities, growth of knowledge and its application, increased ability to alter the characteristics

of the materials, extension of sensor and sensing capabilities, increased mastery of energy and transportation capability and extension and control of life. These manifest in all facets including Defence industries. It is said that *all technologies are fated to be replaced- eventually*. However, most attempts to replace them will fail. This technology paradox brings in more challenges than solutions to Defence industry in particular as it has embarked the path to self-reliance in a big way under Make in India initiative and many steps taken by the Government to encourage MSME towards becoming Defence supplier.

In 1947, India inherited the Ordnance Factories (OF) Organisation, now consisting of 41 OFs, nine Defence Public Sector Undertakings (DPSU) and 50 or so defence R&D laboratories under the Defence Research and Development Organisation (DRDO). There are CSIR agencies as well that are engaged in Scientific and Industrial Research. The model followed was “production of technologies conceptualised by the DRDO; projects nominated by MoD [Ministry of Defence] after consulting the Services; and assembly and production of platforms under licence from foreign OEMs (Original Equipment Manufacturers).” Currently, the OFs and DPSUs have a modest turnover to the tune of about \$7.6 billion. Defence industrial policy in the initial years after independence was guided by the simple phrase called ‘self-sufficiency’. This was subsequently modified to ‘self-reliance’ in defence production and has become a matter of varied interpretation. While for some it means the ultimate objective of complete non-dependence on imports for defence hardware, for others it means selective self-sufficiency in certain critical technologies. And for some others it is a simple reduction in the ratio of imports to indigenous sources of supply to the armed forces. India’s defence industrial policy broadly consists of three components:

- (a) maximisation of indigenous manufacturing and production
- (b) License production of what could be obtained from abroad and
- (c) direct purchase of those equipment not covered by the other two categories but considered essential for ensuring security. The goals of self-reliance and self-sufficiency remain distant, with almost 70 per cent of defence equipment still being imported.

A self-reliance review committee set up in 1992, under Dr. Abdul Kalam's chairmanship developed a self-reliance index (SRI), defined as the percentage share of indigenous content in total procurement expenditure, and set a target of 70 per cent self-reliance by 2005, now pushed to 2020. A task force set up in 1998 concluded that the public sector alone could not deliver; licensed production had fostered neither indigenisation nor innovation and frequent blame games between the Services, the DRDO and the DPSUs were leading to delays in acquisition. Modernization of the Armed Forces became a top priority for the Central Government after the establishment of the Vijay Kelkar Committee which focussed on the Defence Production and Acquisition of arms & ammunition from various foreign defence industries. As an aftermath to this committee, the Government also set up the Dhirendra Singh Committee for Defence Modernization which included recommendations like transfer of technology to ensure indigenous development and production of defence arms locally. In June 2017, the government appreciating the inherent problems related to procurement of defence equipment evolved the "Strategic Partnership Model" based on the suggestions of the 2015 report submitted by the Dhirendra Singh Committee. By this method, a few private sector firms would

be declared as systems integrators based on their proven capability and they would tie up with foreign OEMs with the aim of laying down a strong defence industrial foundation. The firms would make long term investments to develop a base for R&D and production facilities. The Committee set up under the Chairmanship of Naresh Chandra gave its recommendations on the ways and means to ensure effective Defence Management which called for a better collaboration between the various Armed Forces.

Reliance is dependence and self-reliance is dependence on own power and resources. No country in the global village of today is fully self-reliant. Hence the dream of 100% self-reliance is extremely difficult. All the associations such as NATO, ASEAN, G-7, et al indicate the interdependence of nations on one another in many areas. Our National Self Reliance Mission can be summarised in the diagram along with Manufacturing Eco-system as shown below:-

In case of Atomic Energy, Missiles and Space applications, it was known that no country will help us due to various technology control regimes coupled with intrinsic economic sense and control on us. Visionaries like Satish Dhawan and Homi Bhabha supported by Nehru and others carved the phenomenal path in these areas. Self-reliance in these areas was the order of the day and Govt machinery fine-tuned itself to the requirement and the result is there for all of us to see, appreciate and be proud of. It has facilitated mushrooming of indigenous industries to some extent. Similarly, the break-up of erstwhile USSR posed technological challenges to Indian Air Force and solutions were found within and today more than 50000 items have been indigenised with the help of around 700 industries and the process is on for high value low quantity items.

A summary of the compendium Aerospace Directory made by Society of Defence Technologies (SODET) is given below. Though some industries may assist in more than one area, it gives a general idea of the industrial base for aerospace -where the future lies- in the country.

S No	AREA	INDUSTRIES
1.	Aviation institutions	27
2.	Aircraft Design & Manufacturing	79
3.	Helicopter design & manufacturing	68
4.	UAV design & manufacturing	70
5.	Aircraft engines	71
6.	Spacecraft/ rocket engines	47
7.	Gas Turbine engines	60
8.	Engine related technologies & research	63
9.	Aircraft Equipment	131
10.	Aircraft interiors & accessories	68
11.	Aircraft parts & accessories	166
12.	Aircraft outfits, personal armoured eqpt/ parachutes	82
13.	Materials & Components	216
14.	Machines & tools	173
15.	Airport Eqpt	67
16.	Security Systems	63
17.	Communication Systems	101
18.	MRO	130
19.	Software suppliers/ solutions providers	92
20.	Flight training schools & aircraft landing services	18
21.	Engineering services	197
22.	R & D & testing Labs	117
23.	Simulators & simulator based training institutes	46
24.	Quality Assurance Approvals Firms & Agencies	33
25.	Military Equipment	132

**SELF RELIANCE IN DEFENCE INDUSTRY- A NEVER
ENDING LEARNING CURVE**

26.	Military Weapons	50
27.	Armoured Vehicle manufacturing	42
28.	Satellites/ Launch Vehicles	63
29.	Aircraft Weaponry	29
30.	Aircraft models	22

Similarly, there are a substantial number of around 3000 MSME and big houses supporting and meeting requirements either partially or completely for Indian Army, Indian Navy and paramilitary forces. It may be appreciated that Indian Army and Indian Navy with Naval Design Bureau followed the path to indigenous systems manufacturing comparatively early due to the availability of Ordnance Factories, Base workshops and Ship Yards and Docks. The Indian Army has now a formal establishment of the Army Design Bureau. Within a year of its inception, the private sector has responded with 26 solutions to the problems raised by the Army to include development of palm sized drones, drones carrying 50 kg loads and light weight bullet proof jackets. Therefore, the capability exists in abundance but has to be matched with the will and risk-taking ability. Six agencies responsible for Defence Industries are Ministry of Defence, Government of India, Department of Defence Production, Ministry of Defence, Department of Industrial Policy and Promotion, Ministry of Commerce & Industry, Government of India, Department of Commerce, Ministry of Commerce & Industry, Government of India and Defence and Strategic Industries Association of India. Around 10000 entrepreneurs though capable are not seriously scouting Defence contracts due to many reasons.

Defence sector opened in 2001, to the domestic private sector to produce defence items with FDI up to 26 per cent, subject to industrial licensing and security clearances, followed by Defence Procurement Procedure in 2002, a Defence Offsets Policy in 2006, a LTIPP in 2009, a

Defence Production Policy in 2011, and eight committees/task forces set up to look into various aspects of national defence, including defence production and self-reliance, since 2000. Clearly, the issue remained a priority for various governments, but the outcome has been meagre. Consequently, forward movement during the last decade lacked purpose. By the end of the 14th Five Year Plan, the cumulative capital expenditures over 2012–27 are projected to exceed \$235 billion.

In the Defence Procurement Policy, special incentives to encourage the domestic private sector, including government R&D funding for product development, were announced. Some of the larger enterprises (including TCS, Tata Power, Godrej, HCL, L&T, Mahindra, Kirloskar) to be classified as Raksha Udyog Ratnas to enable them to be treated on a par with DPSUs. There are about 6, 000 Small and Medium Enterprises (SME), many of whom feel that they are nimbler and better suited to innovate in niche areas. In fact, they oppose limiting FDI to 49 per cent, the position supported by domestic majors and the MoD, though above 49% is with the approval of Gol.

Government has initiated many measures (Buy and Make, IDDM, Simplified Make II category procedure, FDI etc.) to encourage industries to join the National Defence Manufacturing Programme and is in right direction. By themselves, many of these measures are welcome but together, these seem to have failed to create a military-capable, dual-use manufacturing technology base. Different lists of defence products in the MoD, the DIPP and the Directorate General of Foreign Trade (DGFT) add to the confusion. Further, most of these technologies are controlled under the Wassenaar Arrangement of which India is not a member of this group, thus making it more difficult to acquire such technologies. With multiple players pulling in different directions, it is easy for vested interests to tweak specifications of items to be procured to favour a

certain vendor and derail debates to the limits of FDI in defence.

The US Defence Advanced Research Projects Agency (DARPA) has a team of only 240 scientists who run all its R&D activities through funds provided to academic institutions and private industry with a permanent arbitration committee which resolves such issues amicably and their decision is final. In Israel there are wholly state-owned ordnance factories, public-private partnership defence companies and completely private defence companies that undertake both R&D and defence production. Margaret Thatcher privatised the national armament industry including reputed names like British Aerospace (BAE) and Rolls Royce, the sale of Royal Ordnance Factories to Vickers, and the operation of the Royal Dockyards to private contractors. Today BAE and Rolls Royce continue to prosper in a competitive market. These models need to be studied for their appropriateness to our environment. For US, the defence industries are indigenous and are world exporters of defence equipment as is the case of UK, France and Russia.

What needs to be done and Areas of Concern

To ensure self-reliance, the government no doubt is heading in the right direction by laying emphasis on “Make in India”. It is the implementation that needs to be fine-tuned and some of the major issues are:

- (a) **Trust.** Bridge decades old trust gap between the private industry and the Govt. by ensuring and overseeing a level playing field for the private industry, DRDO, DPSUs and OFB. The decision-making bodies need greater financial autonomy and authority including DRDO.
- (b) **Capacity & Flexibility.** Make capacity and flexibility

the watchwords for strategic and military planning so as to give maximum options to deal with any contingency that may arise to threaten the nation.

(c) **Uniqueness.** Apart from liberalising FDI, an appreciation of the characteristics of the defence industry and coordination among the multiple stakeholders who drive and have often distorted the decision-making process must be addressed. If the aim is to achieve export capability, then the weapon system must first be in service with our armed forces. Lack of an institutional capacity and capability to take it to its logical conclusion should be addressed. It is a matter of fact that strategic depth in defence production can be increased only by aiming at being 'internationally competitive' through the policy objective of defence exports. In the absence of such an approach, India's defence industrial policy is unlikely to take off in the foreseeable future.

(d) **Make.** The "Make" procedure for ICVs failed to achieve the results with just four companies competing for one weapon system. The policy of maximising indigenous production without a strong R&D policy back-up would not bring tangible results. License production is more of an economic compromise between the supplier and the buyer, and it does not and cannot bring about significant technology transfer without an inbuilt specific and suitable mechanism.

(e) **Partnership.** Expedite the formation of the Strategic Partnership in the vital four sectors viz. fighter aircraft, helicopters, submarines and armoured fighting vehicles and expand its scope to other areas. There is a lingering fear that

the Indian strategic partners having committed their funds to infrastructure and getting the initial order would lose out to the DPSUs in the long run. This would sound the death knell of this well intended idea. The private sector must be allotted big ticket contracts to boost their confidence and morale.

(f) **Events& Trade-off.** From International perspective, be as clear as possible about what can and cannot be achieved by military intervention and accordingly make policies for defence industries. Avoid the trap of artificial “trade-offs” between non-military and military programs by focussed budgeting.

(g) **Resolve.** Set up a National Defence Industry Committee with Permanent Arbitration Cell having finality for expeditious settlement of disputes. It should resolve turf battles between various government agencies, reconcile competing interests of SMEs and industry majors, set targets, monitor implementation. Co-ordination of policy approaches be carried out by:-

(i) Creating uniform lists of defence products and related technologies;

(ii) Enabling the harmonisation of Indian lists with the Munitions List and Dual Use Technology List of the Wassenaar Arrangement, with the eventual aim of securing India's membership. An enabling framework already exists with India's Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) export control lists;

(iii) Amending the Industries (Development and Regulation) Act to bring defence and dual-use technology-

related Industrial Licensing into sync with the above;

(iv) Amending the terms of the production licence for defence items to ensure that control of the entity cannot be transferred without Government of India (GoI) approval that all exportable items and services will be available domestically, and that exploitation of IP generated will not be denied in India. These conditions would render the debate of FDI levels irrelevant

(v) Promoting the clustering of SMEs with industry majors through targeted policies.

(vi) Changing the role of the Department of Defence Production, whose structure limits it to a mere administrative unit for OFs and DPSUs;

(vii) Integrating the working of the LTIPP with defence R&D, production, procurement and offsets policies;

(viii) Providing a degree of continuity and predictability in the policy framework for the next 10 years instead of the annual revisions that have afflicted the sector in recent years.

(h) **SWOT.** In view of India's strength in software, greater emphasis be laid in fields such as AI and cyber security. A concerted effort be made to develop and manufacture the "chip" indigenously on a large scale. At present some chips are made for strategic systems indigenously. A SWOT analysis will give a better appreciation of areas that need to

be harnessed for immediate, mid-term and long term future. The user requirement will decide the technological prowess and this in turn will depend upon what the adversaries have and where the advances in technologies are ahead with breakthroughs.

(j) **Offsets and G2G.** The offset programme has not fructified as envisaged. Hence the restrictions need to be identified and removed and offsets extended to the civil sector too for implementation. G2G contracts with differential structure having strategic costs such as for BrahMos and FGFA may remain relevant for WIN-WIN situations and where availability of technology and numbers do not match and offsets can get subsumed. This arrangement is useful for countries having downturn and India having the numbers.

(k) **Training.** The staff at the Department of Defence Production need to undergo continuous education programme and given longer tenures to ensure continuity.

(l) **Learning Curve.** The learning curve for Defence Industries has been flatter in India. Unless we invest in R & D to match the latest in technology and weaponry, we will remain followers without steeper learning curve and will not be able to export thus depriving us from economies of scale for the private sector to become financially viable, sustainable and growing.

To conclude, Government has taken many initiatives for self-reliance in defence industrial base and is at the Make in India campaign with support from Private sector and MSMEs. The intentions are noble and ambitious, and the world has taken notice of it. What needs to be done

is to implement and give confidence to the players on continuance of policies. The idea of introducing private sector executives at JS level in 10 ministries is a good move to galvanise Govt departments and infuse corporate culture. Privatisation is welcome with a caveat best explained by the saying- *"You should not bite the hand that feeds you. " But maybe you should, if it prevents you from feeding yourself"* by Thomas Stephen Szasz. Unless invested in R & D and managing Research for Defence, we will remain flat in the learning curve and be always a follower. Lastly, in a democratic set up with the elections in the next year, there is always an uncertainty looming large on continuance of policies.

"There is an inverse relation of the reliance on the state and self-reliance.
" -William F. Buckley

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VETERANS AND NATION BUILDING

Mr R Chandrashekhar*

The task of securing a vast and varied nation as India is a monumental one requiring Armed Forces that are exceptionally well-trained, dedicated and motivated with their personnel committed to adhere to a regimen of complete obedience to authority, a culture of sacrifice, proficiency in their tasks, complete professionalism with impartiality, objectivity and secularism by rising above every other consideration.

The Armed Forces are in fact a crucible of national integrity with a unique functional eco-system of their own who can seamlessly operate with equal efficiency across different types adverse climate and terrain conditions. Their Officers and soldiers undergo extended periods of academic and experiential training that imbibes in them to maximise results with minimum application of resources, flexibility to operate either independently, in teams or as a large force and use arms, armament and other equipment necessary to meet the needs of securing the objective of the mission.

There is one harsh factor that sets apart the conditions of service of Armed forces personnel from those in any other Service - the imperative to retire while still relatively young and with several years of productive service left and at which their family requirements are at a peak.

Unique Talent Pool

The Veteran talent pool is a rich one, with dual streaks of common and individual attributes. Hailing as they do, from one of the three Armed Forces, Veterans are steeped in the well-regarded virtues of discipline, commitment to duty and towards achieving stated objectives. They adapt readily to working in teams and hence, as a class are a worthy talent to deploy towards execution of major projects and schemes. These virtues however are somewhat amorphous and by themselves are inadequate to be directly applied to the tasks of nation building and for them to contribute towards public service or in the corporate sector or through individual initiative, they would require skills, training and management/organisational capabilities in tune to the specific field of endeavour.

On an individual basis, at the soldier, sailor and airmen level, veterans would have been trained, to very high levels of competence, in their respective 'trades'. Depending on which 'Arm' 'Service' and 'cadre' to which they belong, veterans would have a range of weapons from pistols and rifles to artillery guns, operated radios, radars, sophisticated missile platforms, and imported equipment ranging from tanks, aircrafts, submarines. They would have laid communication lines, built roads, bridges, helipads and runways, set up support infrastructure in disaster hit areas – invariably done so overnight and even operated the air traffic controls of civilian airports, manned railways, and restored essential services like transportation and water supply. Some veterans have opportunity to have participated in United Nations Peace Keeping Missions.

Some aspects of life in the Armed Forces that require a closer understanding are, foremost, that they are consciously 'apolitical'. Of

course, all personnel are in touch with events, perhaps even more than their civilian counterparts, through the media and the large number of events that the army organises, more or less on a continuous basis. Their personnel, as would any conscious citizen, are well aware of the obtaining political situation that impacts their lives, at the national, state, district and even the village level, but they deliberately debarred from participation and distanced from the dynamics of political processes such as elections.

A 'High Synergy' Ecosystem

Professional life in the Forces is mostly one of teamwork. Individual allocated assignments, responsibilities and tasks are segments of a larger task to accomplish completion. High synergy amongst participants is the hallmark. All post-retirement opportunities on the civil side are not configured that way, requiring to some adjustment on the functional plane. Having led career-long relatively segregated life in various cantonments, military stations, and 'Units' in 'field areas' or in 'peace stations' in which a carefully controlled self-contained ecosystem has been maintained and the requirements of each member provided for, life in the Forces is a mix of an extremely active and demanding professional life and one of 'home away from home' comfort and harmony in which all of one's requirements are met. The flip side of this 'detached' life is that when the time comes for Armed Forces personnel to cease to be on the active list, either because of superannuation, retirement or being boarded out on medical grounds, the re-integration into civil society is not always easy, a major aspect of this mismatch being of the Veteran's expectation from Society. The 'good life' in the Forces is indeed very difficult to entirely let go.

Superannuation - Realities

It is a harsh fact that good vocational opportunities are in towns and cities and of continuing to provide children the high standards of education that the Forces provided them, the resettlement is not necessarily in or near what is 'home'. Individually, the Veteran is deprived of '*Sthaana Bal*' or the 'home turf' advantage of life in the Cantons or in their own homes.

Next, insofar as emoluments, for a veteran to maintain even a semblance of the quality of life he is accustomed to, the sum total of the emoluments and pension must match that of his last drawn pay and allowance. So, a job must fetch him at least half his erstwhile pay.

Choosing a place to relocate is a major challenge driven by own skills, family circumstances and importantly, children's education.

Life in the Service is a rather straightforward existence, bereft of corruption and intricacies. Rank and the status it provides have been cherished privileges. Civil life is vastly different and a Veteran is compelled to 'find his level' in the rather turbulent waters of civil life and society. Many do not seek to come out of the shell of their comfort zones and prefer options such as re-employment.

Nation Building

The 'tasks' of nation building are inclusive of all public service to the nation and of every individual effort and enterprise directed towards creation of national wealth. The challenge is to facilitate and effectively utilise the wealth of experience and talent amongst ex-servicemen in a

manner that promotes the creation of that wealth and at the same time meet the aspirations and needs of ex-servicemen.

Government and Organisation Support

Recognition in the Government of veterans being a talent that would need some hand holding to reintegrate into society is evident in the Ministry of Defence having a full scale 'Department of Ex-servicemen Welfare' (DESW) created in September 2004 and formulates various policies for the welfare and resettlement of the veterans in the country and works through two Inter Services Organisations, the Kendriya Sainik Board (KSB) and the Directorate General of Resettlement (DGR).

DGR Initiatives

The DGR facilitates required training to retiring and retired officers to enhance their qualifications and skills so as to enhance the prospects of post-retirement employment. It has programmes that include courses on a range of subjects importantly, Information Technology, Management, Technical Skills and Agro-based Industries. The courses are regularly reviewed and additional courses offered. Courses on the 'Resettlement Training Programmes' range from vocational courses of three-month duration to degree /diploma courses, via distant learning programme of one to three-year duration in diversified fields. Especially designed two-week programmes in Second Career Transition have also been introduced for officers looking to build successful new careers in the corporate/self-entrepreneurial sectors. JCOs and other Servicemen are provided Vocational Training in diverse fields in Government, Semi-government and Private Institutes spread all over the country.

Major DGR initiated self-employment schemes are the SEM-FEX-II Scheme (in operation since over three decades 1988-89 with the assistance of the National Bank for Agriculture and Rural Development (NABARD) to set up agriculture and allied activities, including State Road Transport Operators (SRTTO), and also for setting up of village, cottage, tiny and small scale industries in rural areas, the SEMFEX-III Scheme in collaboration with the Khadi and Village Industries Commission (KVIC) which provides financial support to establish industries in rural areas.

The DGR registers/sponsors private ex-servicemen security agencies for providing security guards to various Public-Sector Undertakings (PSUs) and industries in the private sector. Besides, some states have set up ESM corporations, which are also providing security services.

The constraint however is of numbers – with as many as 70, 000 well-disciplined military personnel retiring annually, the DGR is not just equipped to provide training to such large numbers.

Re-employment

The Central and State governments provide a number of concessions to ex-servicemen for their re-employment in Central/state government posts. These include reservation of posts/relaxation in age and educational qualifications, exemption from payment of application/examination fees, and priority in employment to the disabled ESM and dependants of deceased service personnel on compassionate grounds. For the jawans, both the central and state governments have reserved some Group C and Group D posts. The reservation in the central government

ministries and departments is 10 and 20 per cent in Group C and Group D posts; in public sector undertakings (PSU's) and banks it stands at 14. 5 per cent in Group C and 24. 5 per cent in Group D posts. Though the prospect appears very attractive, in actual fact the numbers of posts reserved remain underfilled with the unutilised vacancies reverting to the general pool. There are no reserved jobs, either in the Government or in Public Sector Enterprises for either Officers or for JCOs.

Aspect of 'Skill Branding'

A reality of civil life is it being ruthlessly money smart and therefore placing the Veteran in direct competition to trained talent that is far younger and ready to work for much lower remuneration. Though some technical trades do impart skills proximal to civil requirements, a major impediment that some Veterans face is that in spite of their actually possessing a skill with years of experience, these skills are not 'branded' to enable establishment of applicability in civil end use. To address the aspect of 'branding' of skills mentioned before and enhance employability of retiring or veterans, training facilities are being aligned with the National Skills Qualifications Framework (NSQF) developed by the Sector Skill Councils (SSCs). The MoU encompasses DPSUs and OFs participating in skill development initiatives and has an ambitious target to train around three lakh ESM / their family members over a period of five years.

Harnessing Niche Area Expertise

The shortfall in talent to fill vacancies in training establishments, static headquarters, specialised technical appointments in projects where continuity is a major requirement, like war gaming or components evolv-

ing various systems for net-centric warfare is well-known. So is the fact that there exists adequate talent within the ex-servicemen personnel to fill these voids with the organisational inhibitions being factors issues like seniority, command and control, facilities to be provided etc. which are resolvable. A comprehensive model of re-employment of those possessing such 'niche' expertise, across all ranks would facilitate harnessing the much-needed talent that otherwise would simply waste out.

The 'Land Army' Experiment

An early experiment on utilisation of ex-servicemen towards execution of projects by deploying them in a command structure akin to that in Service has been Karnataka's 'Land Army' with no less as the former COAS, General P PKumaramangalam as Chairman. Now known as the Karnataka Rural Infrastructure Development Limited (KRIDL) which is a Govt. of Karnataka Undertaking, the Land Army was started as a Directorate of Land Army in the year 1971 under the Rural Development Department of Government of Karnataka with the objectives to Inculcate a sense of discipline in youth, train them in the art of working together as a body and make use of the labour force thus available for the creation of permanent productive assets.

All jobs were given to military officers, so as to give the necessary quasi-military character and harness their imagination, knowledge, leadership, drive and were capable of achieving results, instead of looking over their shoulders for instructions. The work of the Land Army was characterised by speed, economy and high technical standards, largely because of the training of the field staff on military lines in developing the qualities of leadership, integrity and devotion to duty, as well as technical competence in the field.

While the Karnataka Land Army moved on to become a largely 'civil' organisation that of Madhya Pradesh does not even find a reference in the public space and no senior State bureaucrat could even recall.

The organisation model on which these Armies were based however merits a revisit. Infrastructure development projects of today, be they for road construction, housing, soil reclamation, hygiene and sanitation, flood control measures forestry, adult education, are mega projects that require to be executed with efficiency and speed. A dedicated work force comprising ex-servicemen with required skills necessary for the particular project built on lines of and functioning on the command and control structure of the military would harness the efficiencies of the ex-servicemen on a familiar working template. If this model finds acceptability, training programmes for ex-servicemen could be especially attuned to meet the specific skill requirements of such workforces.

Government Development and Welfare Schemes

It is well known that some Government schemes initiated with much enthusiasm, such as the *Jawahar RozgarYojna*, Million Wells Scheme, Self-employment and Entrepreneurial Development Programme, the erstwhile *Ganga Kalyan Yojna*, *Indira AwasYojna* and so on have not been entirely successful. The causes for failure are largely improper management and poor skills. Ex-servicemen being incorporated with such schemes, both as administrators as also in the work force itself, could well have sustained them and helped achieve their objectives. The TA Battalion raised recently for the *Swachh Bharat Abhiyan* – Ganga Cleaning Project testifies to a recognition of the need for a commit-

ted and dedicated force for large projects. Even for ongoing national schemes, such as the National Rural Employment Guarantee Scheme, employing ex-servicemen to manage and participate in various projects under the scheme would make these efficient and result-oriented and thereby reckon as positive 'nation building'.

Recent initiatives by the DESW for joint programmes to associate ex-servicemen with corporates like Amazon and OLA is also a creditable step forward and hopefully be a beacon for further such tie-ups with corporates.

Cooperatives and NGOs

Setting up and managing Cooperatives especially for Agri-products, cold storages, would tap into the leadership attributes of ex-servicemen. These attributes can be utilised to good use if they form or join NGOs that work for the betterment of underprivileged and weaker sections of society. Lt Gen VS Oberoi (Retd) former VCOAS a venerated senior veteran who supports such activity, states that he knows "many who are deeply involved in such welfare work, in both cities and villages. I am myself heading an institution – the War Wounded Foundation – which has been set up to assist our comrades who have been disabled in war or war like conflicts" and urges "you too can choose a cause, which appeals to you".

Time for a 'Fauji Foundation' type Model

Pakistan's 'Fauji Foundation' is today amongst that country's largest business conglomerates which "Earns to Serve" the interests of ex-servicemen. Its history dates back to 1945, when a Post War Services Re-

construction Fund (PWSRF) was established for Indian War Veterans who served the British Crown during WW-II. At the time of partition (1947) when Pakistan came into being, the balance fund was transferred to Pakistan in the proportion of its post WW-II veterans. Till 1953, the fund remained in the custody of the civilian Government but was transferred to the Army in 1954. The Army instead of disbursing the balance fund of about Rs 18.2 million (USD 0. 2 million) among the beneficiaries, invested it in establishing a Textile Mill. Later from the income of the textile mill, it established first 50 bedded TB hospital at Rawalpindi. From that initial corpus of Rs 18.2 million in 1953, the Fauji Foundation today runs more than 18 industries, the income from which is utilized to serve about 9 million beneficiaries (5 % of country's population).

The commercial activities of the Fauji Foundation are either Fully Owned and Affiliated Projects (such as the Fauji Cereals, Foundation Gas, Overseas Employment Services and the Fauji Foundation Experimental and Seed Multiplication Farm) or through Associated Companies (some being the Fauji Fertilizer Company Limited, Fauji Cement Company Limited, Mari Petroleum Company Limited, Fauji Oil Terminal And Distribution Company Limited, Fauji Akbar Portia Marine Terminal Limited). More than 80 per cent of the income goes towards the welfare activities every year that covers health care, education and vocational/technical training and welfare - conducted through 115 medical facilities, 100 Schools & Colleges, 65 Vocational Training Centres and 9 Technical Training Centres.

Such 'corporate' activity jointly owned, executed and manned by ex-servicemen, initially seeded through government support and

thereafter self-standing could become a 'default' employer for meritorious ex-servicemen. The very fact that such a ready 'option' is available would in itself be a reassurance to prospective retirees and would provide direction to them as to which specific skill they must hone up and seek training to develop. The 'win-win' for both employment and welfare is obvious.

Pertinent to recall here that large number of veterans have done highly creditable work in reviving and turning around dying or dead organisations, both in the public and private sectors. Examples such as of Col SP Wahi and Maj Gen SCN Jatar who were Chairmen of ONGC and Oil India Ltd are well remembered. The ability is well there, it is initiative that is required.

Time to 'Boot-strap'

An element of 're-adjustment' however becomes due from the side of ex-servicemen as well. To quote Lt Gen VS Oberoi "I always felt and sometimes articulated that some veterans were the biggest pain in the neck for serving persons. After I demitted service and joined the ranks of the veterans, this view, instead of diminishing, has been further reinforced. Aspirations of some veterans are akin to the proverbial bottomless well, for they seem never to be satisfied". Pushing the need to adjust themselves to the realities of life outside the uniform and yet maintain the ethos of the Armed Forces that they continue to represent, he advises veterans not to expect perks and privileges, maintain a vigorous lifestyle and recognise that 'Izzat' or honour "continues to occupy that position of pre-eminence when they join the ranks of the veterans at the same time stressing that "merely living in the small realm of your

own fraternity will make you both tired and retired, when in actuality you are neither”.

Given the enormity of numbers involved and resource constraints, there is only that much that the Central and state Governments can and will do in the cause of ex-servicemen. Yet, with each passing month, a huge flow of skill and talent flows downstream in relative waste. It is time for an ‘out of the box’ approach and innovative ideas to harness the potentials in this flow. It is perhaps also time for ex-servicemen themselves, individually, in groups and with or without assistance from their parent Services, come forward, accept and face the realities of life and bootstrap to serve their own cause.

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