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Air Marshal BN Gokhale (Retd) PVSM, AVSM, VM Director, CASS



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Editor's Note

"I alone cannot change the world, but I can cast a stone across the waters to create many ripples."

- Mother Theresa

In the last quarter of 2015 the Centre took part in an event held first time in Pune termed as Pune Dialogue on National Security (PDNS). This dialogue was jointly organised by Pune International Centre (PIC), The Tribune Foundation of Chandigarh, PPF and our Centre for Advanced Strategic Studies (CASS). The dialogue was a great success and will now be an annual event with the aim to focus on issues which can enhance our national Security. Highlights of the report of PDNS 2015 are being carried in this issue of our Quarterly Journal.

Along with the PDNS 2015 report this issue carries 4 articles of interest in varied areas. With trouble in the Middle East at the forefront, thaw in US-Iran relations has added a new dimension to the scenario. Fortunately India has continued to maintain good relations and trade with Iran even during the sanctions. Air Marshal Kukreja reflects on all these issues in his article on Iran.

Starting with trouble in Ukraine, Europe continues to tackle multiple problems of weak economy, massive refugee influx and the danger of being sandwiched with possible revival of Cold war between US and

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Russia. The Ukraine crisis continues to simmer and Air Cmde SN Bal analyses the situation deftly from the very genesis of this crisis.

With the Fourth and Fifth estate playing the important role of shaping public opinion, well known journalist, Nitin Gokhale has written an article on the topic of Media and National Security. His dispassionate views are reflected in this article. Lastly, this issue also carries an article on Cyber Warfare by Pukhraj Singh an expert in this field. Network security becoming very vital in all sectors of government and private enterprises, a synergetic approach is the need of the hour. Undoubtedly, there are certain steps already under way but more needs to be done.

While the country reels under the pressure of drought and water shortages, there is a need to revisit various options for providing water to all. River-linking project has not only taken off but at least we need to stop the river water disgorging into the sea with more projects like Kalpasar presently under development in Bay of Khambhat. With solar energy becoming a clean and somewhat cheaper option, desalination plants using predominantly solar energy need to be installed. Let us hope for a good monsoon this year after 3 years of consecutive shortfall in rain. We plan to cover some of these aspects in the next issue of CASS Journal and also in PDNS 2016.

I wish to thank all the authors, subscribers and the readers for your support.

Jai Hind.

(Bhushan Gokhale) Air Marshal (Retd) Director CASS

Date: 25th March 2016 Director, CASS

Pune Dialogue on National Security

Air Marshal Bhushan Gokhale (Retd)

Introduction

- 1. The Centre for Advanced Strategic Studies (CASS) took part in the Pune Dialogue on National Security (PDNS) which was held in Pune on 31 October 1 November 2015. PDNS was jointly organised by Pune International Centre, the Tribune Trust of Chandigarh, the Policy Perspectives Foundation of Delhi and the Centre for Advanced Strategic Studies. This Pune Dialogue is proposed to be held annually with the aim providing inputs for formulating a comprehensive National Security Policy.
- 2. Since almost every sphere of national activity has bearing on National Security, it was not possible to cover every aspect, though salient aspects were covered during the two day dialogue in six sessions. The sessions included discussion and deliberations on following subjects:
 - National Security Policy Framework
 - External Dimensions
 - Federalism and National Security (Internal Dimensions)
 - National Resources: Impact on National Security
 - New Technologies: Emerging Perspective for National Security
 - Fourth & Fifth Estate

KEY RECOMMENDATIONS

- 1. A continued confirmation of our constitutional imperatives to ensure that all apolitical institutions -the armed forces, the judiciary, the police force and the civil administration—function without fear or favour.
- 2. In the prevailing security environment, there is a need for concerted efforts to stem and roll back forces of extremism and fundamentalism through swift executive and judicial actions.
- 3. Public-private partnerships to harness the potential of cyber and space technology. This should include hiring the ablest experts in these fields on terms and conditions that match international standards.
- 4. Establishing a mechanism that would allow upper, lower and middle riparian countries to devise water-basin based policies that take into full account environmental concerns.
- 5. Ratify and implement the commitments made at the recent Paris conference on climate change within the agreed deadlines. Give a greater thrust to cooperative federalism to ensure that responsibilities in matters such as emission control and energy security are equitably shared by the Centre and the states.
- 6. Recognise that apart from Telangana, Madhya Pradesh, Haryana, Delhi, Chhattisgarh and Jharkhand all states of the Union, including the island territories, are front-line states with a land or sea border. They thus have a critical stake in addressing the challenges posed to national security along our land and maritime boundaries.
- 7. Front-line states to establish dry/wet ports with a view to enhance the benefits of the import and export trade. Maritime states, including island territories, to reinforce their efforts in 'blue economy' inclusive of its 'green' and 'ocean' content with special reference to environment and exploitation of the EEZ.
- 8. Raise the threshold of available and deployable technology by providing for and incentivising the National R&D and Innovation effort. This would provide for techno-military adequacy on one hand and dual technology on the other hand-designed to improve the living standards of all. The Make In India mission could be a harbinger to achieve this objective and help India move away from a 'labour arbitrage' economy to a 'knowledge arbitrage' economy-and thus find its rightful place amongst the developed comity of nations. Summary of Discussion

Pune Dialogue on National Security

SUMMARY OF DISCUSSION

Session 1: National Security Policy Framework

- 1. The external threats to our national security cannot be met in full measure unless robust, well-orchestrated and sustained institutional efforts are deployed at all levels of governance to address our internal fault-lines: economic and social disparities, tensions between castes and religious communities and genders, clash of regional and subregional interests over allocation of financial and natural resources, strained ties between the Centre and the states.
- 2. The fault-lines account for the alienation of an increasing number of citizens from the Indian state. It breeds frustration and anger, particularly among the young, and that, in turn, leads them to succumb to the temptation of extremism and violence.
- 3. Therefore, existing mechanisms to mediate between conflicting interest groups must be invigorated and, wherever required, new ones must be established. The instrumentalities to implement their goals including, above all, coordination between the agencies concerned will need to be finessed to ensure the desired outcomes. This also requires constant inter-action, directly and through the social media, between the organs of the state and local communities.
- 4. To argue that peace, stability and harmony within the country alone can enable us to meet both the traditional threats to our security and those that are of a more recent vintage with the requisite sense of purpose and urgency is to state the obvious. But it is necessary to do so because all too often security is defined solely in terms of defence and policing alone.
- 5. No one can doubt the imperative need to modernise the armed forces and the intelligence apparatus to deter aggressive designs on land, sea, air and cyber-space. Yet it stands to reason that a national security policy cannot be effective if it lacks active public support. Such support will not be forthcoming if there is a dichotomy between a strong economy and a well-honed defence establishment, on the

one hand, and a weak social infrastructure on the other.

- 6. The core of the traditional threats to our national security lies on our periphery. India has a 15000 km-long land-border, 7500 km-long coast-line and some 1197 islands. Most of our states thus have either land or sea borders with countries that present us with the most difficult challenges to our security interests. It is therefore of the utmost importance to involve these states in shaping and implementing the national security policy.
- 7. Such cooperative federalism would necessitate re-doubled efforts to ensure the well-being of their populations, especially in the remote areas of the country such as J & K and the North-East. This calls for much greater rail, road, air and telecommunications connectivity a sine qua non for social and economic development with these areas and a more pronounced empathy for the political and cultural aspirations of their inhabitants.
- 8. The domestic agenda mentioned above should go a long way to contain four threats to our security: external threats externally abetted, external threats abetted by internal forces, internal threats abetted by external forces and internal threats abetted by internal forces.
- 9. On the external threats abetted by external forces our national security policy must be geared to engage with our neighbours from where such threats largely emanate even while drawing the redlines that they can cross only at their risk and peril. The engagement must be with all stake-holders civil society groups, members of elected bodies, business houses, cultural outfits etc. However, the engagement must include, where necessary, those who command real power and influence in the foreign policy and strategic fields. Protocol reasons must not come in the way of establishing direct contacts between, for example, the army and the intelligence services of Pakistan.
- 10. To draw the red lines is admittedly a hazardous task. Our security establishment must know what, how and when it should do what it needs to do if the lines are crossed. Such clarity of intent and of ways to act to promote it is of the essence. Otherwise our response will be found wanting in credibility. Accusations of flip-flops, prevarication and lack of spine will fly thick and fast. It would be best not to make

magisterial pronouncements on this issue.

- 11. A quiet, calibrated approach that sticks to the 'trust but verify' path would be in order. Delhi's post-Pathankot conduct is in many respects a fine example in this regard. Its key merit is that it circumvents a debate that is hard to settle: whether the Pakistani army is genuinely prepared to bury the hatchet with India or not. One test of this genuineness will be how quickly Islamabad moves to bring the culprits of terror strikes in India to book. Another would be Afghanistan where the Pakistan army wants to diminish India's role to a bare minimum after the withdrawal of Western forces from that country.
- 12. India's ties with China are far more complex due to the asymmetry in their economic and military prowess. To counter its designs, especially in the neighbourhood (Pakistan, Afghanistan, Nepal, Sri Lanka), India must continue to strengthen relations with all countries that share its apprehensions about Chinese power. But it must not do so at the risk of shrinking the space of Sino-Indian cooperation.
- 13. At the same time, New Delhi must be clear about the extent to which it can count on the United States to promote its own strategic interests. This is doubtless easier said than done. But one has to recognise that despite all their reservations about Pakistan, the Americans won't dump that country. Its strategic location, and the 'investments' it has made in Afghanistan, will ensure that its relations with Washington never reach a point of no return.
- 14. None of this however can detract attention from India's opportunities provided it sheds the ideological baggage of the past and does not burden itself with another ideological baggage. Its size, location, pluralistic character and democracy enable it to reach out to countries that may have differences between them Israel and Iran, Gulf states and Iran, US and China, US and Russia, Japan and China and so forth but which, for their own national interests are eager to cooperate with it. This would be especially true of countries that share ancient historical and civilisational links with India.
- 15. The cooperation can cover a vast range of subjects: energy supplies, maritime security, technology transfers, intelligence sharing, joint military exercises, indigenous production of military hardware, natural disasters and, not least, common endeavours in cyber and

- electronic space. On maritime security we would need not only to forge strategic links with sea-faring nations and island nations in the Indian and Pacific Oceans but also create a pearl of ports all along our own coastline. And on cyber security that is crucial across the board of our interests and concerns we would need to establish a national grid that protects information flows from hackers. Joint public-private sector initiatives would be of critical importance in this area to exploit our soft-ware talent pool.
- 16. All of this pre-supposes a clear recognition of the competing centres of gravity in the strategic field today: the Suez Canal, the Malacca Straits and the Pamir Knot. It also pre-supposes a cleareyed recognition of the main features of the new great game: infrastructure, energy, climate change, water resources and religious extremism and terrorism. On this latter score the key challenge is of course how to deal with the proliferation of non-state actors that act sometimes with and sometimes without the overt or covert support of governments.
- 17. Regional and international mechanisms would need to be established to meet this challenge. This might entail some curbs on civil liberties. But that is a risk worth taking provided this is done within the confines of the law and the Constitution.
- 18. A regional mechanism to address the issue of water resources would also be in order. Its members would include upper, lower and middle riparian states. The role of India, which is a middle riparian one, would be crucial in this regard. The most significant initiative it can take would be to expand the scope of the discussion on this issue: from river flows to water basins.
- 19. India and Pakistan, for instance, would have to go beyond the provisions of the Indus Waters Treaty to develop an integrated development plan for the conservation of the Indus Basin. It would include the linkages between water, land users, the environment and infrastructure. This requires vast financial and technical resources but also something that is equally, if not more, significant: political will of all stake-holders.
- 20. Assiduous efforts would therefore have to be undertaken to drive home the point that a satisfactory resolution of water-related issues on the lines suggested above would go a long way to address the

- security concerns of the two countries. This would hold good for China and all its South-Asian neighbours as well.
- 21. Perception management is another area that deserves urgent and sustained attention to counter the subtle and none-too-subtle psychological warfare waged against us. We have no institution for national perception management to promote national integration. Nor do we have an institution to de-radicalise individuals who fall prey to extremism.
- 22. To meet all the challenges enumerated above we need, for a start, to publish on a periodical basis documents that comprehensively discuss all matters related to national security and to ensure that they are widely discussed. (This is now a standard practice in countries like the US, UK and China.) The discussions must not be Delhicentric. None of this precludes the national security establishment from deliberately introducing some degree of ambiguity in its policy if only to take swift corrective measures whenever circumstances compel it to do so.
- 23. At the core of a national security policy is one overwhelming question: is it time for India to be not what it has been so far - a status quo power - but a revisionist power that is willing and able to exert its authority and influence commensurate with its reserves of hard and soft prowess? The answer is blowing in the wind.

Pune Dialogue on National Security

SUMMARY OF DISCUSSION

Session 2: External Dimension

- 1. The external dimension to our security is linked to our geographical location as well as our economic association with other countries in an inter-dependent world. We live in a rough neighbourhood where China and Pakistan pose not only territorial threats but also those that impact on development. Our other smaller neighbours sometimes indulge in politico-diplomatic coercion and creating irritants in our relations. We have an abiding interest in our close economic ties with many developed and developing countries.
- 2. Our internal security has external economic, cultural and social linkages. Countries inimical to our interests could use them to create conditions of discord and social conflict, adversely affecting our social and economic well being. The most serious among such machinations is the scourge of terrorism.
- 3. China is the biggest challenge to India. It is a threat to our security, our aspirations and our environmental space. Besides blocking our aspirations of seeking permanent membership of the UN Security Council China will also continue to put obstacles in all our development plans particularly in areas which it claims. It has undertaken construction of as many as 17 dams on the Brahmaputra in Tibet. It also uses its financial clout in international financial organisations such as ADB and WB to ensure that we do not get aid for development projects.
- 4. China is working on two strategies concurrently. It is trying to establish its dominance over the three million square miles of South China Sea. Though it may appear that USA is in some decline, China expects it will come back stronger and more effective because of its strength in science and technology and American resilience. In the meantime it feels it has a window of strategic opportunity for the next few years. China has built its military and economic strength to a point where it has started to assert itself in various

- fields. It, therefore, offers USA a new type of great power relations, in which the two of them settle all outstanding issues and rule the world. Though the US has not accepted that offer, there are areas in which their views are similar.
- 5. Two other developments are a matter of concern as they directly affect our security. USA is keen on pulling out of Afghanistan and is encouraging China to take more responsibility there. They both want Pakistan to move in because that will then be the best way to retain some control there. The other is the unveiling of the China dream. Apart from wishing the Chinese people to be wealthy and strong it also talks of rejuvenation of China. Rejuvenation implies recovery of territories that were lost those include Arunachal Pradesh and areas in J&K. Perhaps in furtherance of this China has carried out massive build-up of defence infrastructure and military logistics including extension of high speed trains to Lanzhou military district bordering India. New infrastructure will allow PLA to induct additional forces for a major offensive quickly.
- 6. Pakistan enjoys a strategically important geographical location which places it in the vicinity of the new great game. It is balancing its relationships with USA, China and the Islamic world to maximum advantage. Its main concerns today are Afghanistan, internal security and India (J&K). It treats Afghanistan as its own suba (province) to be controlled as such and as a gateway not only to Central Asia but to the West and East. GHQ Pakistan Army is increasingly in a position to dominate Afghanistan and is doing so. It is matter of grave concern to our security as the recent attack on our consulate in Afghanistan demonstrated.
- 7. The collusion between Pakistan and China is an increasing source of threat to our security, particularly since 2013 when China unveiled its new strategy including a new foreign policy. It has for the first time identified countries as friends and foes; the former are to receive untold benefits. Many countries bordering India have been listed as friends. Pakistan will be a main beneficiary; a slew of projects valued at \$ 46 Bn have been announced. Also for the first time, China has altered its position on Pakistan by endorsing its occupation of Kashmir and ceding of Shaksgam valley to China.
- 8. Pakistan's uses unpredictability as a tool in its relationship and

- diplomacy with India. It also exploits its nuclear capability in military posturing; its recent stance on tactical nuclear weapons and that after the terrorist strike at Pathankot are cases in point.
- 9. There appear to be comprehensive and multi-faceted covert plans for perception management and psy-war by China and Pakistan which pose a significant threat to our security. Such plans are directed at the population in India. There are already people in our country questioning our stand on the border issue. Articles and papers written at the behest of China are being placed in circulation. Pakistan uses the audio-visual and print media to project a soft image of it which may be gaining ground. Cyber capability is also being built up including units to be raised for penetrating major communication and business hubs as well as cyber systems.
- 10. Two of the greatest sources of threat to India's security arise from Afghanistan. One is about how the void is going to be filled after USA withdraws from there and the other is radicalisation of the Afghan society. US national security establishment and foreign policy does not appear interested in curbing, leave alone eliminating, the armed insurgency. It appears to encourage China to play a larger role there. In turn the Chinese will be happy to see Pakistan doing it for them; a country they can manipulate easily. That leaves India in a lonely corner with huge interests but little influence.
- 11. It appears that Afghanistan will soon come under heavy pressure of radicalisation. Wahabi thinking is entering into the School text books (printed and published in Pakistan). Increasing American apathy combined with increasing domination by Pakistani military establishment, mercenary nexus with narcotics trade will become a major threat to India; we are already witnessing its devastating impact in Punjab.
- 12. Proliferation of Jihad is being fuelled by Al Qaeda, ISIS and their affiliates in different parts of West Asia, Africa as well as South Asia. It is not just extremist philosophy supported by money from the Arabian Peninsula but also tech-savvy radicalisation that is the major threat. The fanatic jihadist together with highly educated cyber warriors who are rapidly using the internet and social media to spread radical ideology are the real potent danger.
- 13. India has historically had close relations with countries of West

Asia. That region has become more complex since the Arab Spring commenced in 2011. There is a divide between Saudi Arabia and Iran. Saudi Arabia finds itself disadvantaged owing to the new Shia empowerment that has disturbed the strategic balance vis-a-vis Iran. There are series of confrontation and proxy wars between the two Islamic giants such as those in Yemen, Syria and Lebanon. A Sunni government in Syria would bring it in the Arab camp and thus restore the strategic balance.

- 14. Altogether it is a murky picture in West Asia. USA is following a policy of strategic restraint and its relations with Iran are improving which has Israel concerned. Russia seems to have a clear vision of its interests in the region. They are opposed to any regime change in Syria by external intervention and also any proliferation of Jihad in Syria. China has close personal ties with all countries in the region but is maintaining a low key profile.
- 15. India is alarmed at the instability and insecurity in West Asia. It gets 75% of its energy requirements from there which is likely to increase substantially over the next 10-15 years. India has \$200 Billion trade connectivity with the region. In addition remittances from 8 million Indians are working there amount to \$35 Billion annually. It would be greatly affected if instability leads to a war in West Asia.
- 16. India sits at the natural junction of busy international shipping lanes that criss-cross the Indian Ocean. The sea area around India is one of the busiest in the world with over one hundred thousand ships transiting the international shipping lanes each year. India's stake in the geo-political stability of this area is obvious when one considers that over \$110 Billion of India's trade passes through the straits of Bab-El-Mandab each year. Almost a billion tons of oil from West Asia passes close to India's shores. Though some of it is required for our own needs for energy, the greater part is destined for, among others, Japan and China.
- 17. Our maritime interests revolve around protection of our on-shore and off-shore installations, sea lanes of communications, sea-borne trade, our EEZ and deep sea-mining sites apart from ensuring protection from sea-based threats to territorial integrity. As our economy develops, the volume of our sea-borne trade will rise appreciably. The requirement of oil for increasing energy needs will also increase

- substantially, further adding to the traffic on the sea lanes and their security.
- 18. We are aware that China has been increasing her presence in the Indian Ocean; PLA Navy has been obtaining berthing rights and acquiring port facilities in many states bordering Indian Ocean from Myanmar and Sri Lanka to the Gulf. In Pakistan it has virtually taken over the ownership of port of Gwadar. Pakistan is actively pursuing development of road access from Kashgar through the Karakoram through Pakistan to link with Gwadar, even at the risk of surrendering a part of its sovereignty over parts of its territory.
- 19. There is a transition in the global order where the geopolitical centre of gravity is shifting to Asia-Pacific where many countries are jostling for geopolitical space. The present situation differs from that during the Cold War. Confrontation between major powers is not through proxies but direct. In the area of Indian and Pacific oceans there is complete lack of security architecture. USA and China represent two competing models which may get into conflict since they cannot adjust with each other. In the Asia-Pacific region the only possible counterweight to China could be India. However, it cannot be on its own; and Indian policy does not allow entering into an alliance.
- 20. There are also conflicting national interests. Major powers have to be careful in the positions they take in major conflicts such as Saudi Arabia Iran confrontation, the Afghanistan conundrum, the challenge posed by ISIS, particularly that in Syria. In each case it may have different ramifications for India. Very often US's other interests create difficulties for us, particularly when it concerns Afghanistan, Pakistan and even China. A major challenge for India is to insulate its relationship with USA from such provocations. It cannot take a position too close to USA because that could reduce the leverage with Russia and even with China and it cannot be cold to USA either. That is a strategic challenge.

RECOMMENDATIONS: EXTERNAL DIMENSIONS

1. A seminal comprehensive national security policy (NSP) document needs to be prepared. It should have two parts; one for public domain and the other a classified part. In the latter we could define desired

- strategic goals and end states.
- 2. A corollary to the NSP should be analyses outlining ways and means to achieve defined ends.
- 3. A road map for strengthening present relationships and building new ones (to include countries like Indonesia). This should also include plans to prevent gamesmanship of adversaries like Pakistan and China.
- 4. A policy to develop close relationship with countries of West Asia to include both sides of the Shia-Sunni divide.
- 5. A well thought out position on the dams being built by China on the Brahmaputra and diversion of its water. We should bear in mind that while in the case of the Brahmaputra India may be the lower riparian state but it is upper riparian in the case of rivers that flow into Pakistan and Bangladesh.
- 6. There is a need to counter the challenge of growing Tech-Savvy terrorism which also uses Tech-Savvy news media and propaganda.
- 7. A plan to counter hostile perception management and cyber attacks.

Pune Dialogue on National Security

SUMMARY OF DISCUSSION

Session 3: Internal Dimension

- 1. Speakers and other discussants in this session highlighted the multidimensional and interconnected nature of challenges and unanimously stressed the need for a synergy, continuous interaction between the Union and State Governments and revamping the internal security architecture to cope with these challenges.
- 2. A general consensus emerged that viewed 'Internal dimensions of national security' as those challenges and issues that undermine constitutionally mandated governance and disturb peace and social stability within the national borders. These include multiple assertions of identity based movements riding fault lines of religion, language ethnicity, caste, etc. Other challenges like terrorism (both cross border and home grown), violent extremist's movements including separatism, Left Wing extremism, fragile security situation in J&K, persisting remnants of militancy in the North east and illegal infiltration also continue to claim attention. Discussants also warned of a creeping (and in certain cases manifest) cynicism amongst the people about the credibility and fairness of the political, administrative, justice and police systems in delivering security to citizens. The role of citizens in national security particularly with reference to internal dimensions should be reemphasised. The response to these challenges should be broad based and people centric. Conscious efforts should be made to involve the citizenry in consultations and implementation stages of security strategy both at the policy and the grass roots level.
- 3. Economic growth is both a facilitator and an outcome of peace and social stability. Viewing dimensions of internal security challenges in exclusive silos would present a narrow and erroneous perspective. These challenges are interconnected. Inequities in growth and development are fuelling discontent in various forms. Much of the remedial intervention by government suffers from corruption and

weak execution. Presence of disadvantaged people in large numbers places the security architecture under stress. Economic growth and job creation have thus assumed criticality from the perspective of internal security management Demographic dividend of a rising young population requires accelerated and sustained economic development for generation of jobs. Increased economic aspirations, rapid urbanisation and rising population are also amongst challenges having security implications. Converging appropriate Govt. developmental initiatives, skill building etc. and policies in identified vulnerable areas affected by violent armed movements merit consideration as remedial interventions. There is a need for a policy framework that recognises and addresses the interconnected nature of these challenges A cross cutting strategy will have to be worked to bring together multiple Government departments and agencies in a coherent and integrated manner.

- 4. The Constitution of India has distributed security responsibilities distributed between the Union and the State Governments exclusively in certain respects and concurrently in others. This makes 'national security' including 'internal security' (both the terms have not been used in the Constitution) a shared responsibility. The Constitution anticipates the need for coordination, resolution of disputes peacefully and deliberating on subjects of common interest between the Union and State Governments. In a politically fractious environment, conscious efforts by all concerned are necessary to keep basic concerns like National Security beyond controversy. An appropriate forum for consultations on such issues would be required for consultations on such issues. Developing a structured framework for regular consultations would be required for evolving consensus and policy coherence between the Union and State Governments on issues relating to Governance including security challenges to deal effectively with these problems. Inter State Council can also be used for the purpose.
- 5. Terrorism for India has a pronounced Pakistan context as hostile Pak based non-state actors persist in their depredations. These depredations would continue unless Pakistan Government takes a firm stand to deny them space and succour. (Events like Pathankot in January 2016 reinforce this apprehension.). Periodic interdiction

and neutralisation of terror modules in India also show the need for continuing vigilance against both trans-border and home grown varieties of terror. Increasingly bipolar Global terrorism too pose a clear challenge to countries like India with most terror groups in the region aligning either with Islamic State (IS) or Al Qaeda (AQ). Both are eying South Asia while contesting with each other. The foot prints of IS are already seen on Indian soil. Simultaneously, the danger from groups like Indian Mujahedeen, LeT or Jaish e Muhammad remain potent and alive.

- 6. Terrorism today has morphed into an amorphous ideological network of radicalised groups and individuals. Technology has given these elements an asymmetric advantage through social media and the internet. Consequently, profile of new recruits to terror groups are changing. Now even educated youth from relatively well to do background are falling prey to the fatal attraction of the toxic ideology of violent extremism. Growing radicalisation of youth therefore requires urgent and sustained remedial attention. Given the nature of this problem, co-operation of the community concerned is important to make any headway. Increasing resistance from the community concerned in India to radicalisation has been a positive development and needs encouragement.
- 7. Security sector reforms particularly that aimed at countering terrorism in India that began a few years ago remain incomplete. This should be speeded up. The reform should touch both the Union and State Government institutions and link them in an agreed interoperable protocol. Pathankot incident has brought painfully alive the importance of a properly understood protocol or integrated frame work of implementation of a strategy amongst the stake holders. There is an urgent need to provide an appropriate mechanism that promotes 'jointers' of the security framework. This should include integrating Central and State police teams in a national CT strategy. Such joint teams should be set up in collaboration with State Governments with an agreed protocol to bring effective synergy in implementing an agreed Counter terrorism strategy;
- 8. The Government approach should not, however, be wholly based on the Police and Security forces in dealing with these internal challenges. Other stakeholders should also be brought in particularly

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in the incubation and mitigation stages. Engagement with civil society in coping with these challenges should be promoted. Identifying drivers of social discontent underlying across several functional domains and linking them in an integrated framework of remedial response would promote. A judicious combination of hard security measures and focussed development would be required with emphasis on redressal of genuine grievances of the people. A protocol of complementary functioning in pursuance of a shared strategy by all our civic institutions including the Civil Police is needed. All projects that are considered critically essential from the security point of view should be processed expeditiously. A 'single window' processing (like already advocated for commercial projects) should replace the existing cumbersome multi layered clearance process that often causes delay. The single window scheme should be serviced through a joint empowered mechanism (in each state) comprising the Union and State Government officials.

9. Since the Police at the grass roots level are the first responder, the people legitimately expect a lot from the Police. Paucity of man power, equipment and training has, however, crippled the civil police that plays an important role in delivery of services to the citizens and contribute towards internal peace and stability. An urgent look is needed to examine the way internal security institutions including the Civil Police to perform their functions. India cannot face the security challenges of 21st century with Policing of 20th century on the one hand and a Police structure of 19th century on the other. A speaker termed it as a crisis of capacity. Criminal Justice system should be augmented to speed up trial as large number of pending cases and huge numbers of under trial prisoners undermine credibility of the system in the eyes of the people. This should include increasing the number of Courts. A strong Law enforcement foundation serves the internal dimensions of National Security as it also performs broader intelligence and first watch functions on the ground. A weakened grassroots level increases the load on higher tiers and increases uncertainty. Consequently, growth in the armed Police component has been very high signifying a shifting emphasis in policing. Restructuring and revamping of the State Police is necessary not only to enable it to cope with the contemporary challenges but also

to prepare it for scaling it up to meet the future needs.

10. The State Governments should be helped to frame a perspective plan to meet projected future needs for 2030/2040 in terms of Police Public Ratio, equipment, training institutions and other policing parameters. The Centre should facilitate preparing national standards and interoperable protocols to ensure smooth co-ordination and cooperation amongst different Police forces. Agreed and well defined parameters/standards with a linked system of implementation/ observance of these standards in police institutions and by its personnel should replace the current practice of ad hoc executive directives. An 'Integrated Risk Management' approach would bring a synergy amongst the State/local Government/agencies and other stake holders at the grass roots level. Making Policing a standards driven activity would bring predictability and uniformity in policing throughout the nation. Once the standards of Policing are set, appropriate independent regulatory bodies would be required to be set up at the Centre and the States to perform the regulatory functions in respect of any dispute or doubts regarding implementation of such standards.

RECOMMENDATIONS: INTERNAL DIMENSIONS

- 1. A comprehensive Counter terrorism (CT) doctrine should be drawn up so to ensure a coherent response to incidents of terror. A well thought out doctrine will bring clarity about role of different partners and stakeholders in a national CT strategy.
- There is also a need for a policy framework that recognises and addresses
 interconnected nature of internal security challenges as well as ensures
 complementary functioning of Government departments and agencies
 in a coherent and integrated manner.
- Legislative and administrative initiative is needed to move towards a
 culture of 'Integrated Risk Management' approach to bring a synergy of
 efforts amongst the Centre, State, local Governments and other stake
 holders.
- 4. Security sector reforms should be speeded up. These reforms should link both the Union and State Government institutions by developing agreed interoperable protocols to deal with contingencies of internal security.

- 5. Developmental projects that are considered critically essential from the security point of view should be processed expeditiously. A 'single window' processing (like already advocated for processing commercial projects) should replace the existing cumbersome multi layered clearance process that leads to delays in approval and execution. This scheme should be serviced through a joint empowered mechanism (in each state) comprising the Union and State Government officials.
- 6. Developing a structured framework for regular consultations is necessary for evolving consensus and policy coherence between the Union and State Governments on issues relating to Governance including security challenges. Inter State Council can also be used for the purpose.
- 7. Functioning of the internal security institutions including the Civil Police should be reviewed. The Civil Police plays an important role in delivery of services to the citizens and contribute towards internal peace and stability. Identifying drivers of social discontent underlying across several functional domains and linking them in an integrated framework of remedial response would promote synergy.
- 8. Revamping of the State Police is necessary not only to enable it to cope with the contemporary challenges but also to prepare it for coping with future needs. The crisis of capacity in the Police should be addressed in a time bound manner. Formulation and phased implementation of a perspective plan to meet future policing needs for 2030/2040 in terms of Police Public Ratio, equipment, training institutions and other policing parameters will help.
- 9. Policing should be made a standards driven activity to bring predictability and uniformity in policing throughout the nation. The Centre along with the States should facilitate preparing national standards and interoperable protocols for smooth co-ordination and co-operation amongst different Police forces.
- 10. There is a need to strengthen the process of Police verification and special re-verification of not only security personnel but also of the MES and contract workers.
- 11. To take the collective response to internal security challenges beyond the Police and Security forces, the civil society and other stake holders should also be assigned appropriate roles in combating growth of divisive movements. Similarly, radicalisation of youth calls for sustained remedial attention with co-operation of the community concerned.

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Pune Dialogue on National Security

SUMMARY OF DISCUSSION

Session 4: National Resources

1. Pressures created by population, resources, energy, climate, economic and environmental factors could combine with rapid cultural, social and technological changes to provide new sources of deprivation, rage, insanity and instability. The most persistent and potentially dangerous threats will possibly come less, from ambitious States and more from failing States, those who cannot meet basic needs of their population, much less the aspiration of their people. Many countries in the world now have converted the term 'national resources' to 'natural security'. So, while security has so many dimensions... there is a growing school which has added natural security as a sub set to national security. Some tenets are discussed in the succeeding paragraphs.

Social Capital

2. One of the most important and yet intangible sources of national security is social capital. The foremost aspect of this is social harmony set within the tenets of our Constitution. It exemplifies the trust that exists amongst citizens between communities and between the citizens and the State. It is important to safeguard the institutions that create this kind of trust. Going beyond the intangible, there is a need to build instruments that translate this trust into inclusive and equitable distribution of public services for all. For example, 'Aadhar' as an instrument of the transaction and as identifier, allows people to do transactions between unknown people, people who don't necessarily trust each other. So, creating and institutionalizing instruments like this is important to create trust in a huge diverse country like ours. Social capital could probably be the most important underpinning of our national security strategy.

Independent National Resources Commission

3. We have a lot of work to do when it comes to the way we domestically manage our natural resources. A case can be made for an independent shared water resources, forests natural resources commission for and other areas. We can de-politicise natural resources. We believe there are constitutional provisions, which allow us to do this, but, these have not been sufficiently used.

Human Capital

4. We treat education as some kind of infectious disease, which must be locked up and nobody should be allowed to touch it, instead of looking at education as a flame of knowledge, which benefits everybody. So, liberalization of education at all levels is the key - it's crucial to national security. Because, if we don't do this right, we have the huge number of young functionally-illiterate people, who have nowhere to go and can't fit in.

Energy Security

5. Four aspects are critical for our energy security policy. First, is to drive international supplies through markets. Second, energy security belongs to the country, which has acquired control and mastery over energy technologies. We are terrible here. Fifty PhDs have been done on carbon capture in China, not one in India! We say coal is our resource. But where is the research capacity on clean coal. We have to produce more PhD researchers. Third, most of the great changes that we have had in India have come from a combination of civil society pressure and judicial activists, whether you look at CNG, auction of coal blocks or spectrum. This has to change. Proactive policies, de facto and not post facto should be the norm. Fourth, there are lots of people who don't like nuclear energy, but we are in a fuel deficient country, we need everything. We are not in a pick and choose situation we need everything and we need it from different places. What we need is a mind-set change. There is a need to get political unity in this unique area for sustainable and inclusive growth. Fortunately for us, with the thorium cycle we will have sustainable energy with thorium sands from Kerala.

Environmental Misuse

6. Environmental misuse – We have reached a situation wherein we are overusing natural resources such as water and other resources such as space, and real estate, because we don't price them properly. For example, Bangalore gives a subsidy of about Rs 13,000 per year to a rich family in terms of water subsidies. Similarly, with respect to parking there is a lot of free parking. But free parking is basically transfer of wealth – national wealth to a person, who necessarily doesn't deserve it. So, pricing water, real estate, pollution and other resources, provides a resource base for funding the needs of an inclusive society. This is an economic principle. National resources are being wasted and allocated wrongly because they are not priced properly.

Water

- 7. We have only 4% of the total water against 16% of population. Even that water is not being used efficiently. Let us take an example of one state to elaborate the point - Maharashtra. In Maharashtra alone, 40% of the rainfall goes down into the Arabian Sea. First, we need to take more steps to conserve water. Second, whatever water that is conserved needs to be used efficiently. 80% of the water in Maharashtra is used for agricultural purposes. The remaining is for industry and urban purpose. But even for agricultural purposes, you can have better used drip irrigation etc. and try to save water to do it. Whatever water that is used for domestic purposes, also can be recycled. In Nagpur and Nasik, waste water is now being used by the power industry. Similar steps can be taken elsewhere to try and see that water is conserved and recycled. Third is tariff; just as in the power sector, 80% water, which is used for agriculture is almost free, with very little charges. Maharashtra has put a regulatory commission to try and fix tariff for that. But it will be still a long way before you can decide this independently. Distribution of water, whether it is to the industry or for domestic use, is going to be a major area of conflict. Steps have to be taken... independent of political pressures. And for this, the States will have to take the initiative.
- 8. We have witnessed a serious attempt by the separatists in J&K about ownership of water. It is Pakistan's design to politicise the issue of natural resources. They have a long-term

- objective. This should be flagged as an issue, because it has the potential of mischief, especially when there has been uptake in Pakistani support to the terrorism in J &K.
- 9. The government should also consider a policy to see whether we can bring together the lower riparian States... about the rivers that flow' from China... We believe that all riparian states will be happy to have a conversation since we are both an upper and a lower riparian state.
- 10. Finally, there a case to review the entire Indus Water treaty, with a major accent on how to manage the entire river basin, as has been done in certain European countries. The key is river basin management. It is not a question of jettisoning the water treaty, but to look at it in the light of newer challenges for a win-win situation.

Culture as Soft Power

11. A lot can be done for sensitizing and for advancing our national interest across our borders. Similarly, if there are concerns about the domestic situation, the same soft power can also be used internally, in innovative ways. You can't launch a charm offensive and impose your soft power on others. It has to come naturally. Gradually, we have to create an enabling atmosphere, where soft power grows organically and is not hindered. Soft power needs to be a Foreign policy objective.

Resource Import

- 12. On materials for electronic components and electronic devices with our 'Digital India' and 'Make in India' campaigns the requirement will be of the order of about 100 billion dollar import by 2020. We need a policy on this as part of our national resource import plan. The same is true for Rare Earths 97 or 98% of the supply comes from two countries, US and China. In recent years, a range of power equipment and defence related components are being purchased from the People's Republic of China. How much of such equipment should be acquired by India in the context of national security considerations needs to be reviewed on priority.
- 13. On resource import we need to focus on four aspects. First is the importance of securing sources of supplies. Second is safe passage

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because that stock has to get to India since we are a heavy import economy. Third, establish the requirement of strategic stocks and their storage. Fourth, the extent to which we can improve our prospects by being a part of more global arrangements or some way of connecting between global arrangements.

Exploitation of Our EEZ for Mineral Wealth

14. There are tremendous resources at sea. Since we are amongst the five countries, which have been given sites in the ocean - this gives us an opportunity to vast amounts of mineral wealth. Blue economy, is the new direction that we need to address - Hydrates and marine food being the low hanging fruit for early and easy benefit.

RECOMMENDATIONS: NATIONAL RESOURCES

- 1. Recognise that Natural resources are an inescapable component of National Security.
- Social Capital as a byproduct of an indigenously designed Human Resource architecture (to include school, skill, university and higher education) enhances the index of National Security.
- Need for a Natural Resources Commission to lay out policy guidelines for harnessing their optimal value for inclusive and sustainable growth - pricing and storage are key.
- 4. Need for a Comprehensive Energy Security Policy.
- 5. Emphasis on a Blue Economy to integrate Maritime India with Continental India.
- 6. Identification and role of frontline states land and maritime (including island territories) in furthering trade and ensuring security.

Pune Dialogue on National Security

SUMMARY OF DISCUSSION

Session 5: Impact of Technology

 Perceptions of threat to national security have undergone major changes largely due to advances in technologies that have significant impact on defence and security perspectives. Game changing technologies have revolutionised the way nations manage their security interests and power projections. The international balance of power in future will be dictated more by techno-economic strength than by conventional military power. This session focused on four select areas of technology that would have major impact on national security.

Emerging New Technologies -

- 2. A new trend in emerging and enabling technology today is that they are often driven by innovations in civilian domain and then adapted for military applications. Whether it is the ICT (Information-Communication-Technology) or Robotics and IA (Artificial Intelligence), their integration in defence and security strategies has transformed the tenets of war-fighting as is evidenced in use of combat UAV for surgical strike against terrorist or rogue elements.
- 3. Another change emerging is the confluence of material science, nano-technology and bio-technology in creating capabilities hitherto found only in science fiction. Advances in sensors and their integration with command—control networks have revolutionised situational awareness and modern warfare. Simulation and virtual reality are good examples of how modern technologies can be great enablers for the mankind to foresee the future threats and build appropriate defence technologies and capabilities.
- 4. While security priorities and market forces in the globalised world are creating new vulnerabilities, indigenous strength in S&T (Science and Technology) and an ecosystem for innovation and

engineering excellence will be vital for a country like India towards becoming a world class power. Nations will have to learn how best to compete and cooperate simultaneously to work for common good and against common dangers to mankind.

Cyber Security: Imperatives for India

- 5. The most fascinating aspect of the 'Digital Age' has been the quick evolution and establishment of internet with network of computers and communication systems across the world as the virtual domain of cyber-space. While this has opened up immense new avenues for real-time information exchange that is becoming the life-line of 'knowledge society', vulnerabilities of cyber space to misuse by adversarial forces for strategic or commercial gains have now created a new and growing threat to national security of sovereign nations.
- 6. Government of India has recently announced new initiatives for 'Digital India' and while the aim is to leverage technology t the maximum make India a strong nation, India's vulnerability in cyber space is quite serious with over 400 million computers as possible 'Botnets' capable of affecting information security. Increasing dependence of most critical functions of the government or the business on cyber space carries the risk of hacking or sabotage with paralysing effects on the efficacy of governance and security infrastructures.
- 7. While a good National Cyber Security Policy was announced in 2013 and many initiatives commenced for building defensive capacities for cyber security, implementation actions have been often slow and in the rapidly changing dynamics of cyber-space, remaining abreast with latest in technology will be vital for India to retain a significant level of superiority in cyber space. The ubiquitous nature of cyber threat will demand very robust collaboration between the government and the industry within the country to build a level of technology maturity that can attract international cooperation for the 'catch-all' policy to succeed over this world-wide threat spectrum of cyber challenges.
- 8. With the expansion of social media and its possible misuse by non-state entities, control of cyber-space is a very tall challenge for all sovereign nations and given India's large population and vast

diversity, the nature of 24x7 changing threat will require a very professional and dynamic response to ensure high level of security in cyber space. In the final analysis, a confluence of capabilities in various arms of technology, management, governance and security planning and planning – will be crucial to maintaining an edge in this domain.

Space Security: Policy Priorities

- 9. With increasing use of satellites and outer space for critical communications, surveillance and navigation as well as commercial data transfer functions, the vulnerability of space capabilities of sovereign nations have been on a steep rise. While the "Outer Space Treaty" (OST) is the main international agreement for peaceful use of space, there is an acute lack of policy framework for protecting national interests in outer space.
- 10. While most space faring nations invested in space technology primarily for defence and security objectives, India has been very slow to leverage space assets for security purposes despite robust end-to-end capabilities in space technology for civilian applications. There is urgent need for an 'Indian Space Policy' that should provide the necessary military capabilities for India's space security in consonance with India's aspirations in outer space.
- 11. India must acquire counter-space capabilities for ballistic missile defence as well for protection from ASAT weapons if and when deployed by adversarial countries. This will require robust investments in R&D and enthusiastic participation of the private sector for drastically reducing India's dependence on foreign technology, components and material. Space capacities for meeting both the strategic and the internal security requirements must be built in an integrated manner with the overall planning for defence and security.
- 12. International cooperation particularly for space-debris management will be crucial and indigenous technology maturity will determine India's position among space powers. India's technology ability for high situational awareness will be vital for national security for the uncertain future. A clear articulation of India's space policy can

remove many ambiguities and be officially supportive to India's response to its legitimate concerns in outer space.

Deterrence Stability

- 13. With nuclear armed neighbours on either side, credible nuclear deterrence assumes great significance in India's security calculus. Deterrence stability both with Pakistan and China will be essential to avert a nuclear conflict. First priority is crisis stability, which in times of crisis must reduce the incentive for first use of nuclear weapons. So the policy of 'No First Strike' is very mature in this context. However for this to be effective on both sides there is need for a 'deterrence vocabulary' that reduces ambiguity and chance of misinterpretation. This is more relevant for Pakistan which may perceive nuclear stability to undercut strategic deterrence meant to counter India's conventional superiority. This asymmetry will require very astute diplomatic handling but from a positions of relatively stronger strategic capacity.
- 14. While Pakistan prefers a risk-maximising approach for nuclear weapon brinkmanship to derive maximum gains from it nuclear capability, India will have to evolve very strong situational awareness mechanisms and very alert command-control systems for meeting all challenges to India's deterrence stability. Here again other technology options like efficient missile defence capacity or energy beam weapons can tilt the balance in India's favour.
- 15. Given the tremendous strides in force multiplying technologies and sophistication of modern surveillance and intelligence capabilities, future world may be moving towards making nuclear weapons totally non-useable, thereby reducing their importance in strategic calculations. Given India's strong advocacy for a nuclear-free world the technology-march may lead the world in the desired direction. Hence India needs to take a leadership role in this direction and strive for nuclear free Asian region.

RECOMMENDATIONS: IMPACT OF TECHNOLOGY

 S&T strength of India must improve quickly to enable world-class capacity building in defence critical technologies. Investments

in R&D and innovation must increase dramatically both in the government and the private sector.

- Evolving a mature 'Space Policy' and integrating it with defence and strategic planning is imperative for India to optimally leverage the fair maturity achieved in space technology for defence and security priorities of the nation in outer space and on the ground.
- High degree of self-reliance in cyber technology will be critical for India to be a leading international player in cyber security. Capacity building, skill development and robust institutional structures will be vital to India security in cyber space.
- For India's no-first strike policy to provide deterrence stability, technology superiority and heightened situational awareness will be critical to balancing nuclear deterrence. Superiority in cyber, space and BMD technologies may reduce the importance of nuclear weapons in future and India must evolve long term policies for such goals.

Pune Dialogue on National Security

SUMMARY OF DISCUSSION

Session 6: Fourth and Fifth Estate

Nebulous form and purpose

- 1. If we are looking for any kind of organised role for the media in terms of national security we are barking up the wrong tree. The entire media cannot be controlled. All the structures of information dominance have collapsed and we exist in a world where information is being re-appropriated and there are an equal number of counter narratives.
- 2. Most of the media is funded by less than respectable economic interests. They are more in the business of entertainment. Every news channel now spends an extraordinary small amount on news gathering. Because of the pressure to make money, the editorial side gives way to demands from the advertising side. Though there may be exceptions but print could not stick to its strengths when the TV arrived. Now it has to contend with the social media that has no filters at all, can't be trusted but is all pervasive. There are course corrections happening. Focus is primarily on a dozen English TV channels and newspapers, but the language media is far more influential, critical and pervasive.
- 3. May be in the last 10-15 years, media may have become an antidemocratic force. It may pretend to talk for the people but is talking only of the middle class but is anti-poor anti-people. Everybody thinks that playing to the gallery is the new game. The herd mentality has dangerous consequences. Everybody felt that Anna Hazare Project was cleansing India. Even a Tata company began sponsoring ads. All these things are very dangerous. Therefore media is an expensive and a dangerous mistress to have. But a smart government should have a media policy on how to control, how to manipulate (it).

Missing the story

4. Because the media's attention is elsewhere, it is missing the story of resurgence of rural India and the need to understand and report on

changes in rural India. The media has failed to capture the story of rural India and to understand the nature of the changes. Rural India comes into focus only when there is a lynching or some other act of violence because currently it crises-driven and celebrity-led.

Soft power

- 5. India has tremendous reserves of soft power. The resources of soft power are not adequately assessed. Therefore, there are no clearly formulated objectives. It also has certain limits. The popularity of Hindi films and songs has not diminished Pakistani and Nepali hostility to India. The infirmities in domestic and foreign policies shape perceptions more than cultural, ethnic and religious affinities. These limits though should not diminish the efficacy of the concept. As China discovered, pouring in resources has limits too. China's set up 500 Confucius Institutes abroad as against India's 38 cultural centres. But many had to be shut down because of China's continuance with policies on human rights that ran counter to the tenets of many overseas partners. At the same time India's soft power cannot be leveraged to safeguard interests if the India story on diplomatic and economic fronts doesn't sell abroad.
- 6. According to one benchmark, India's soft power on a measure of six indices fares poorly as compared to any other nations.
- 7. India has been home to many foreign students from developing nations. Many have risen to become heads of state or government besides several other important positions in the executive and legislature. They should be encouraged to form an alumni association. India needs to advertise many of its strengths such as the flexibility of the Constitution to address contentious issues, promote various flavours of gastronomy etc without underrating the military and economic levers.

The Fifth Dimension

8. Security agencies could not trace the house in Islamabad from where Mumbai attacks were being directed. For a geek, it would have taken a few minutes to trace the IP address. India has been suffering tremendous collateral damage because of cyber warfare. The Stuxnet worm devised to destroy Iranian centrifuges found its way into India and impacted some of the critical infrastructure.

- 9. In addition India looks for enemies among the Chinese and the Wahabis. Vigil must be maintained on both but fact is India's secrets are being purloined through other sources as well. It is true that 90 per cent of the information flows through the US and 10 per cent of the really critical information doesn't. The West tries to get at that by back windows of reputed corporations. We need to search for all sources of disruption\misinformation without giving credence to past record or rhetoric about a free world.
- 10. In future without understanding the nature of cyberspace, it will be difficult to cause disruption or protect the nation from disruption. There is a chasm between high level interlocutors on cyber security and technical security professionals. Space is not being ceded to younger people. India must promote hackocracy, embrace the culture of cyber punk need to understand the asymmetries of cyber space. New disciplines in higher studies dealing with various aspects of cyber must be introduced. Current dimensions cannot even contextualize the nature of the conflict. The Indian Fifth Estate does not have an army of ready warriors and geeks. There is no other media that can beat the social media in sending out information.
- 11. There is always an element of surprise in the Fifth Dimension. That is why news may not be managed all the time.

Perception Management

- 12. Perception management must move to the stage where India can predict from the social media trends what kind of political scenario will unfold. This way India can avoid being taken by surprise such as during unrest in Manipur which was being reflected through social media for some time. The Hackocracy should be able to sniff open source indicators to flag social unrest and natural calamities by sieving unstructured information and see what larger superstructures can be derived. Cyberspace is a planter's paradise. Very often there is manipulation and subversion too. High decibel advertising cannot help beyond a point. India is also behind by two or three years in causing a degree of creative confusion. This is an exercise that cannot be delayed.
- 13. Central to perception management is a clear definition of domain

national interests. The tem seems to have gone out of fashion and instead we believe in standing on a moral high horse. The media's job must be to define the term and use it often enough so that the common public comes to know. However, successful efforts of the Government to modernize the Government or the economy cannot create positive perceptions about India if culture and the society slip into regression. Like China's Confucius Institutes, Indian soft power too cannot sell abroad as long as negative factors affect the quality.

Can Media be managed?

- 14. Profession has become more egalitarian and everybody's free. That is the beauty and burden of it. A small local language newspaper can make news which will be picked up by the bigger boys. The herd mentality will endure. Once a former Prime Minister had to invite five editors for a cup of tea and was assured that perceptions had been managed. There are 500 people today who think they can make a difference. And this is not counting the social media. Information is today agnostically flowing across various channels.
- 15. At the same time, business interests also define how perceptions and media are managed. Japanese funds may blunt The Economist's strident criticism of Japan's rising nationalism. Channels dedicated to international news by China, Russia are doing well. But the manner in which India manages its own national channels tell the Indian Government shouldn't come anywhere near an international channel.
- 16. But there invariably be subjectivity in the discourse. We must disabuse ourselves of the notion that the media is a subjective entity. Philosophically, there is nothing objective. There are only facts. Some we choose to highlight, some we don't.

RECOMMENDATIONS: FOURTH AND FIFTH ESTATE

1. There is a need to acknowledge that cyber is the first-line of defense for an information economy like India. As such there is a need to guard against the specter of cyber-espionage, which can do irreversible damage to our national security.

- 2. There is a need to constantly assess the impact of inimical snooping operations of our National Security agencies.
- 3. It is proposed to set up a pilot project/incubated company funded by the government that may pave the way for a nationwide automated cyber-intelligence network based upon open structured threat sharing standards like STIX and TAXII.
- 4. There is a need to recognize the importance of media for projecting soft power, as well as for perception management.
- 5. The structures of information dominance have collapsed. Some of the media will remain `unmanaged'. The alternative view point can sometimes be useful for course correction.

Iran- After The Sanctions

Air Marshal Dhiraj Kukreja, (Retd)

Introduction

On July 14, 2015, Iran and the six major world powers announced a deal after 18 days of hectic debates and discussions, intense, and at times even testy, negotiations. The deal seeks to control Iran's nuclear ambitions, though vehemently denied by it, of possessing a nuclear weapon. In exchange, the nearly four-decade standoff with the West, and the imposed sanctions, would end. The agreement would keep Iran from producing enough fissile material for a nuclear weapon, for at least a decade; it has made obligatory new provisions for inspections of nuclear reactors in Iran, including military sites.

The accord was a successful culmination of a long-drawn process that commenced in June 2013, almost two years before the final signature, when the maverick President of Iran, Mahmoud Ahmedinejad, relinquished office after the present incumbent, Hassan Rouhani, was elected in a surprisingly low-key election process. Rouhani, the President-elect, was known to many in the West and in the USA, having been Iran's chief nuclear negotiator from 2003 to 2005, and hence, was the focus of the media coverage during the Iranian elections.

It was assessed in the West and USA that if Iran desired domestic stability, a change in its foreign policy was essential in a very volatile geo-political environment; Rouhani, it was expected, would be the person to initiate the change. Iran had been under years of US and Western sanctions, leading to economic stresses and domestic discontent. Sectarian differences in the region, coupled with economic issues, had reduced, if not halted Iran's influence in the region.

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Strangely enough, Rouhani combined conservative and reformist tendencies. As a cleric, he did not seek major changes in Iran's internal power structure with the *mullahs*, of the sort Ahmadinejad had sought, yet he advocated cooperation with, and outreach to, other branches of Iran's power structure such as the military and civilian politicians. While defending Iran's nuclear programme and regional agenda, he understood issuing ultimatums to the West and escalating tensions, rather than working for conciliation, would not earn the much-needed relief from sanctions.

THE NUCLEAR AGREEMENT

The changes in Iran's foreign policy came sooner than expected. Within three months of being elected, President Rouhani, in a speech at the UN General Assembly (UNGA), said that Iran would be willing to "engage immediately in time-bound and result-oriented talks to build mutual confidence and removal of mutual uncertainties." Continuing in the same tone, he further elucidated, "nuclear weapons and other weapons of mass destruction have no place in Iran's security and defence doctrine, and contradict our fundamental religious and ethical convictions." In the same forum he, however, decried international sanctions against Iran, but also struck a conciliatory tone stating that, Iran did not seek to increase tensions with USA. As was expected, analysts and leaders in USA, Israel and other Western nations, received Rouhani's speech at the UNGA with cautious optimism. Yet it did create history, as USA and Iran initiated the process of direct diplomatic contact after a gap of nearly 35 years.

The agreement signed between the P5+1 and Iran, after turbulent and often agitated discussions, going late into the night at times, is considered a landmark deal that could transform the geopolitics of the region in the coming years. There, however, are sceptics and have not accepted it, considering Iran's reputation of going back on its word. It, therefore, is necessary to highlight some salient issues of the agreement.

Under the accord, Iran is to reduce its uranium enriching centrifuges from almost 20,000, to a figure of 6,104, a two-thirds reduction; those in use are to be reduced from almost 10,000 to half that figure. In addition, Iran has committed to using only the existing models that it currently possesses, and not go in for the advanced versions that it was planning to install. Iran would also reduce its existing stockpile of enriched uranium from about five tons to 300 kgs, for 15 years. Once this figure is reached, the US experts estimate that Iran would need

a minimum of 12 months to enrich enough uranium for a weapon.

In return for the inflexible measures announced against Iran, the EU and US sanctions would be removed, but after due verification by experts. If at any time, it appeared that Iran had not fulfilled its obligations, the removed sanctions could instantly be re-introduced, without a warning! While Iran would get access to some modern, sensitive technologies, an arms embargo would also be in place for five years, and restrictions on Iran's ballistic missile programme for another eight years. Even before the ink had dried on the accord signed on July 14, 2015, reactions and results had begun. Iranians poured onto the streets in jubilation to celebrate the nuclear deal that for many has raised hopes of ending the isolation, which had led to years of sanctions and hardships.

REPEALING OF SANCTIONS AND THE EFFECTS

The International Atomic Energy Agency (IAEA) released a report Jan 16, 2016, confirming that Iran has honoured its commitments to the nuclear deal it reached with international powers in July last. With the announcement came the expectation of Iran's return to the international community and, more important for its government, the end of most EU sanctions and several important US sanctions. With the legal framework already in place the EU and US, announced the formal rescinding of their respective sanctions shortly after the release of the report.

Iran's oil sector is the first beneficiary, as the capping on export volumes is now removed. The European Union has commenced removing its embargo on Iranian crude oil imports, and the United States is in the process of suspending its so-called secondary sanctions on foreign firms doing business in Iran, which means that foreign companies that import Iran's oil, or invest in its oil sector need not do so under threat of American sanctions. However, other US embargos remain largely intact, so while other Iranian industries will also now see the benefits of the agreement, these benefits will mostly derive from trade and investment from Europe.

Iran had been preparing for this moment. Iranian Oil Minister Bijan Zanganeh announced that his country would raise oil production in two phases. In the first phase, Iran planned to increase oil production by 500,000 barrels per day (bpd) within a week of the removal of the sanctions. In the next phase, the increase in oil production would be by an additional 500,000 bpd within six months.

Analysts, however, are doubtful of Iran's capability to achieve all that it aspires to, though the Iranian government insists that it can do so. The reservations arise from its aim to pump in to the market so much oil, in so short a period; Iran's most recent annual production tests do suggest it can increase production to 500,000 bpd relatively quickly, but the six-month target appears uncertain.

The cynics have their reasons. Iran cannot flip a switch and expect to pump as much oil as it once did. Much of the country's installed capacity is in older fields that have a natural annual decline of 8-10 per cent. Even if Iran could expedite the process of oil extraction by shutting down the fields to have the added benefit of raising reservoir pressure, it cannot really increase its production without new upstream activity, either at existing or new fields. Iran also needs a substantial amount of investment to bring its new oilfields online, which is not likely to materialize for several years. What it does have is a large storage of oil to sell; the estimated amount ranges from seven million barrels to fifty million barrels. If the figure is the latter, that alone could increase exports by 500,000 bpd for more than three months! Iran's traditional destination markets are the expected beneficiaries of the exports. Some 200,000-220,000 bpd would be exported to customers in France, the United Kingdom, Italy, Spain, and Germany; exports to India, a huge consumer of energy, are also expected to increase by 200,000 bpd.

Iran's most immediate benefit in the aftermath of the sanctions is the unfreezing of assets abroad, worth at least \$32 billion. There are various figures available with Iranian 'specialists'; some American officials put the figure at \$55 billion while others give still higher numbers. Iran is planning to spend a major portion of this on upgrading its railways, airports, and aircraft; it is close to clinching a deal with Airbus to buy 114 new planes while putting its total requirement at 400. The balance cash would possibly be used to help the country's banks, which were pushed to the brink of insolvency, if not into it, by the previous Ahmadinejad administration. Some critics, however, fret that the money will instead be used to fund terrorism and Shia militancy abroad.

Another quick win will come from Iran's readmission to the global banking system and payment networks, which will help drive down the cost of imports since, in recent years, Iranian businesspersons have not had access to letters of credit. Ending such restrictions could add up a percentage point to annual growth, the IMF reckons. Industry should benefit within months, and over the longer period, Iran should be able to attract foreign investment, which had fallen

in recent years. Even before the lifting of sanctions, many European delegations visited Tehran in the preceding 18 months, to assess for themselves whether the country would be politically stable and friendly to business. Iran's economy is far more diverse in comparison with other oil producers in the region, such as its regional rival, Saudi Arabia. By most estimates, Iran's GDP could grow by about 5-8% a year, despite the prevailing weak oil prices. In addition, the results of the recent elections would have been a ticket of assurance of stability in the political system within Iran.

NORTHERN GEO-POLITICS AFTER THE SANCTIONS

The United States has formally lifted third-party economic sanctions imposed on Iran over its illegal nuclear programme, a limited breakthrough for a troubled bilateral relationship. US however, continues to retain a large number of other sanctions, including disallowing US firms and entities from doing business with Iran, with an aim to target Iran's missile programme. That some sanctions remain, and newer ones imposed due to Iran's recent missile tests, is a reminder, that while the US and Iran may have patched up an agenda to resolve their nuclear differences, the two remain adversaries on a host of other issues. Resuming a hostile relationship with Iran amid growing foreign policy challenges worldwide would severely constrain the United States, especially in an election year, and sap its ability to deal with emerging threats that extend beyond the Middle East. Iran, too, would rather focus its energies on repairing its economy and defending its sphere of influence, as Sunni forces in the region join hands to push back Iran and its Shiite allies.

With the end of sanctions, it is also Iran's ambition to re-establish its economic influence in the Caucasus region. The adjacent South Caucasus region, encompassing Azerbaijan, Georgia, and Armenia, is one area that Iran will have in its sights for greater cooperation, reaching out to make deals on trade and energy. In doing so, it will inevitably have to consider the role of Russia, which has dominated the political and economic affairs between the Black and Caspian seas for two centuries. Russia and Iran are regional geopolitical rivals; the dynamics of the rivalry are manifested in the long-simmering Nagorno-Karabakh conflict between Azerbaijan and Armenia, and on negotiations over pipeline projects for Iranian hydrocarbon exports. Despite their rivalry, however, Russia and Iran will probably work together in order to block Western-led infrastructure projects, which they both largely oppose, and to avoid foreign military presence in the region, particularly by Georgia.

In the South Caucasus, however, Tehran's re-emergence will have particularly sweeping effects. For quite some time now, Iran has lagged far behind its regional rivals in terms of economic and military influence, even as it has become increasingly interested in Azerbaijan, Georgia, and Armenia for their transit and energy possibilities. It has a number of reasons for wanting to increase its regional involvement. Europe is trying to diversify its sources of natural gas, away from Russia, and Iran wants to seize the opportunity to take over these markets. It, however, needs access to the South Caucasus first. Exporting energy through Turkey would be more convenient for Iran, but difficult relations between the two countries on issues, including how to end the Syrian civil war, ultimately make the Armenian route more viable. So far, there has been talk of building a \$3.7 billion railway and of extending a natural gas pipeline between Armenia and Iran. However, that plan, too, is complicated for it, because Russia has repeatedly tried to stall or become a shareholder in major infrastructure projects so as not to lose its influence in Armenia.

Notwithstanding the many hurdles that continue to arise, Iran has enhanced its pace of construction on railways from Iran through Azerbaijan connecting to Russia's North Caucasus railway branch, circumventing Armenia, to get its exports to the European market and to Georgia. Iran is also determined to increase its trade with all the South Caucasus countries, with trade with Georgia and Azerbaijan set to more than triple from below \$1 billion to \$3 billion.

Despite the disputes over influence in the South Caucasus, Russia and Iran have shown they can cooperate, both being aware of the larger threats to their interests. For example, the EU and NATO are increasing their regional presence through political and economic treaties. Iran and Russia also oppose Westernsponsored economic projects, which threaten their influence in the region, thus making Russia increasingly willing to work with Iran. Apart from the alignment of economic priorities, the two nations are also broadly aligned in their military priorities, sharing a common concern in the ongoing conflict in Syria.

Iran-Saudi Arabia Rivalry

The blowback reaction to the nuclear deal, and subsequently to the lifting of the sanctions, from Iran's Middle-East rivals, Israel, Saudi Arabia, and other Sunni dominated monarchies of the region, has been on the expected lines. Af-

ter the initial criticism that the Iran deal was a 'stunning, historic mistake', Israel has been generally quiet, probably at the behest of USA. Saudi Arabia's laments, at the time of the finalisation of the deal, that the region would now become 'more dangerous' than ever before, could have been considered as forewarnings of the drawing of battle-lines between the two traditional rivals of the region, each wanting to curtail the other's influence and ensure own hegemony.

The war in Yemen that was initiated in March 2015, the execution of the Shiite cleric Nimr Baqir al-Nimr on 02 January, 2016, along with another 46 convicts, was a part of a larger strategy put in place by the new Saudi monarch. Creation, and then exploitation of a sectarian divide between the Sunni and Shia population in the country, more so after the backlash of the execution, was a larger game plan of the Saudis, to facilitate the government tightening its grip on power through cracking down on dissent. In addition, a show of force would also increase their influence over the smaller Sunni monarchies in the neighbourhood.

While the Iranian reaction of the attack on the Saudi embassy, followed by the breaking off diplomatic relations, appeared to have been anticipated, it is the reaction, or a lack of it, of some of the other Arab nations of the area that deserves a mention. Kuwait with a sizeable Shiite minority of its own only denounced the attack. Egypt was even more circumspect in its reaction, even though Saudi Arabia was to sign loans and grants worth \$ 3 billion on 05 January, three days after the execution and subsequent events. It so appears that while accepting the economic and military capabilities of Saudi Arabia, nations will exercise restraint in voicing their opinion regarding contentious sectarian conflicts in the region.

The current actions by Saudi Arabia are by far the most aggressive against Iran and go beyond any other initiatives taken since the Iranian Islamic Revolution in 1979. Saudi Arabia is perhaps aware of the instability of its position in the region, yet it has adopted an attitude, indicative of almost complete contempt for world opinion, which probably could be the result of a long-standing sense of deliverance, granted for decades to the Saudi royal family by the US and its allies. In such a scenario, Saudi Arabia would be looking for support from within its Arab and other allies, although most of them have kept a distance from the confrontation. There is no unanimity in the support that is coming from the Gulf Cooperation Council (GCC) that Saudi Arabia heads by default, and outside support by smaller nations are not consequential enough to matter. The US is in damage-control mode. Saudi Arabia is about to find out who its real friends are!

Saudi Arabia has diligently been seeking alliances all over the region. To lure allies, it has promised military and economic cooperation. Militarily, Saudi Arabia has launched a 34-country regional "anti-terrorism" coalition that pointedly excludes Iran and its allies, Iraq and Syria. The partnership bolsters Sunni interests in all the major theatres of the Sunni-Shiite conflict, namely Syria, Iraq, Yemen, and Lebanon. The proclamation, however, was made unilaterally, and caught its 'allies' by surprise, to the extent that Pakistan did not respond for many days, until it finally accepted to be a part of the alliance. Saudi Arabia's efforts aside, protests in Iraq, Lebanon, Bahrain, and Turkey illustrate the difficulty that the kingdom faces in maintaining the coalition. Though Saudi Arabia will continue to develop a Sunni Arab alliance in the Middle East to combat Iranian influence, it will struggle to pacify Shiite communities within its own borders. This failure will only make sectarian tensions worse.

Is Iran Still a Dangerous Actor?

Iran has a dubious 'record of accomplishment'; it has been for long, supporting violent groups in neighbouring nations and working to undermine opportunities for resolving the Israeli-Palestinian conflict. Its proxies in Iraq are responsible for the death of hundreds of US military personnel serving there, and its financial and military backing of the leadership in Damascus, has enabled the Syrian leader to wage a destructive and distressing war against his own people, creating a refugee crisis in the EU.

Iran's ruling system is so steeped in bitterness toward America that these sentiments routinely find expression in the kind of harassment and humiliation meted out to the US sailors who inadvertently went astray in Iranian waters recently. The suspicion and resentment within the US establishment, is reciprocated. Notwithstanding the newfound progress in relations between the two nations, neither of the two can alter their ideology and strategic interests in a hurry. It, however, is hoped that the nuclear deal is an indication of Iran's capacity for pragmatic policymaking based on a rational cost-benefit assessment. Over time, further bilateral engagement may reinforce these inclinations within Iran.

Iran possesses one of the Middle East's largest militaries, but not necessarily, the most capable. That it is even able to threaten regional rivals, with the technology it has, is actually somewhat of a surprise. Decades of sanctions pre-

vented Iran from effectively upgrading its arms and military equipment, leaving it far behind countries it would consider its rivals. Now that the sanctions have been lifted, the Iranian military is trying to catch up to those rivals, which include Saudi Arabia, Turkey, and UAE, which have spent hundreds of billions of dollars on some of the most advanced weaponry available in the international market. Decades of sanctions have also made it difficult for Iran to source spare parts to repair and maintain its existing military equipment, particularly Western weaponry acquired when the Shah was in power. Nevertheless, it appears determined to restore a parity of capabilities in its military, by procuring better weaponry, although continued policy differences, opposition from local allies, and mistrust on the nuclear and missile programmes, effectively block Iranian access to Western defence markets. To narrow the gap with its neighbours, it is no surprise then, that Iran is looking elsewhere for new technology, namely Russia and China; whether it succeeds in getting what it wants, time will tell.

After the overthrow of the Shah, the country was renamed as the Islamic Republic of Iran; as the name suggests, it is a curious blend of people-power and theocracy, with the *mullahs* dominating for most of its 37 years. In the present, as the revolutionaries are ageing, a new generation of leaders, which is willing to court a warm relationship with the West, is arising. This, obviously, has not been taken well by the theologians, wondering where the country is headed under the stewardship of elected politicians. In the run-up to the elections held on February 26, there was an attempt to clamp down on them, to ensure that the moderates do not win. The results, however, have proven otherwise. Iranian President Hassan Rouhani celebrated an unprecedented victory for reformist candidates in Iran's elections, the first since the signing of the nuclear deal, which could significantly impact the presidential elections, due next year.

One cannot fully mitigate the Iranian threat without understanding and addressing the complex historical and geopolitical context in which it festers. For all Iran's penchant for troublemaking, its regional influence is often overstated; Iran is not the sole author of the region's instability, the other Arab powers of the Middle East, most of them American allies, bear significant responsibility too, for fuelling the extremism, sectarianism and lack of accountability that feed the region's conflicts. There really can be no answer to the Iranian threat, but the general opinion is that Iran will lie low for at least the next decade, if not more, to regain what it has lost in the past years.

REPEALING OF SANCTIONS: IMPACT ON INDIA

Relations between India and Iran are based on a commonplace political adage that there are no permanent friends or enemies in politics, only permanent self-interests. Ranjan Mathai, India's former Foreign Secretary, as quoted in Deccan Chronicle, February 19, 2012, has summarised the necessity of why India needs Iran: "Our relationship with Iran is neither inconsistent with our non-proliferation objectives, nor is it in contradiction with the relationships that we have with our friends in West Asia or the United States and Europe. Iran is our near neighbour, our only surface access to Central Asia and Afghanistan and constitutes a declining but still significant share......of our oil imports". It is, therefore, a requirement of serving Indian national interests.

India needs Iran, not only for its gas and oil but also because of its geo-strategic location. Iran provides the link for India to tap the vast iron ore reserves in Afghanistan, by building a 900 km rail-link through Chahbahar Port of Iran to the iron ore mines. Iran also provides India the connectivity to the hydrocarbon reserves of Central Asia. On geo-political issues, India and Iran are on the same side in Afghanistan with a mutual distrust of Taliban. If India strains its relations with Iran, there is the lurking fear that China may step into the void that India would create with its departure and steal a strategic victory. Iran, therefore, has been a crucial test for Indian foreign policy, a test in which India, so far, has achieved success with Indian diplomacy walking a tightrope between the realpolitik and ideological policy options, with some surprising finesse.

The nuclear deal and the subsequent revoking of the sanctions, has therefore, played a vital role in allowing India's execution of its energy security options more freely. The ushering in of a new era of relationship between the West and Iran, more specifically the US, has provided India with more elbowroom in expanding its foreign policy interests with Iran. Further, the lifting of sanctions is bringing Iranian oil into the market, maintaining low oil prices, and hence, favouring India's economic stability. India is clearly looking at the re-normalised energy equation with Iran with more keenness, and it expects a positive spinoff in the India- Iran strategic interests.

The strategic opportunities for India go beyond the immediate availability of more oil at lower prices. Iran has the world's second largest natural gas reserves; with appropriate introduction of technology in the exploration sector, it is likely that this estimate will be revised upwards. India has engaged Iran in negotiations over provision of gas, an area that warrants focussed attention to

augment India's energy supplies for the long term. Leveraging India's imposing hydrocarbon buyer-status, will call for an innovative energy strategy, wherein the vast need for fertilizers will also be enabled, thereby giving a fillip to the agricultural sector.

The other area that is of considerable strategic worth is the Chabahar port in Iran, located about 70 km West of the Gwadar port in Pakistan; this port has considerable strategic potential for India to enhance its maritime foot-print in the Arabian Sea, and beyond towards the Hormuz. Since long, India has been looking at this port as an alternate link to Iran, Afghanistan, and Central Asia that will by-pass Pakistan. India has also invested in the road link connecting Afghanistan's Delaram district to northern Iran, with a high-density road-rail connectivity envisaged from Chabahar.

Iran, now admitted once again into the comity of nations, albeit with certain constraints, opens up many opportunities and challenges for India. The gradual return of Iran to the regional strategic and security fold will have a considerable impact on how India deals with Afghanistan and Pakistan. The development of the relationship, however, will depend on the insightfulness that Iran and India display.

CONCLUDING THOUGHTS

Sanctions relief is a welcome reprieve for the Iranian economy. Questions, however, abound as to whether Iran can do all it aspires to, in respect to upgrading its economy, though the government insists that it has the capability to reach its goals. There are many hurdles in its path, economic, political, and geo-political. While Iran's return to the market bodes well for its own economy, it bodes ill too, for oil prices are already in a state of decline. Prices are predicted to fall further, even to the \$20 per barrel range, which would be extremely detrimental to not just oil producers such as Venezuela and Russia, but even Iran. Even if Iran does achieve its goals of increasing oil production as it has stated, it needs oil prices to reach at least \$60, for a meaningful contribution to its economy.

The country has already gone through a round of elections in February to elect a new national parliament and assembly of experts, which can choose and remove the supreme leader. Hard-liners, who strongly criticized Rouhani's more moderate and traditional conservative supporters by downplaying the significance of the nuclear deal, have not fared well. With sanctions removed,

Rouhani's supporters may be able to capitalize on the momentum in election polls. More important for Rouhani, however, will be the presidential election in early 2017. Low oil prices present Rouhani with a difficult challenge. His original campaign was on a platform of improving Iran's relations with the West to improve the country's economy, weighed down as it was by sanctions; with oil prices so low, and likely to remain so, Rouhani will have a difficult time showing how sanctions relief actually improved the lives of his constituents.

The US formally lifted third-party economic sanctions imposed on Iran over its illegal nuclear programme, a limited breakthrough for a troubled bilateral relationship, and an effort to bring Iran in from the economic cold. However, it has retained a large number of other sanctions including disallowing US firms and entities from doing business with Iran and targeting Iran's missile programme; the list of other issues that remain, has at the top, Iran's violent opposition to Israel, and sponsorship of militant groups, both of which it sees as imperative to its larger geopolitical interests. Talks of a US-Iran détente, including working out a wider understanding on how to run the Persian Gulf, are likely to be futile because Iran has ambitions to be the dominant power of the Gulf, and a leader of the Islamic world.

Saudi Arabia and Iran are the only two nations in the region that continue to be stable and both are equally important and integral to regional security. The new Saudi Arabian leadership, however, is inexperienced in matters of global politics and rather impulsive in its decisions, an indication highlighting the more fundamental issues of Saudi policies, instead of displaying practical prudence. This could prove to be damaging, in the long-term, to Saudi Arabia's position in the region. US actions, since the Saudi execution of the Shia cleric have indicated that it is willing to continue to engage Iran, rather than blindly support its long-time ally. The battle-lines between the two regional powers have been drawn!

It is now a little more than a month (at the time of writing this piece) that the sanctions were revoked. The coming months, and the speed of the economy's response to the lifting of sanctions, will be crucial in determining the direction that Iran would follow over coming years. The economy has great potential, but will it be realised? The world, and the people of Iran are waiting for the peace dividend.

AIR MARSHAL DHIRAJ KUKREJA, PVSM AVSM VSM (RETD)



Air Marshal Dhiraj Kukreja, PVSM AVSM VSM, retired as the AOC-in-C of Training Command, IAF on 29 February 2012. A pilot by profession, he has flown various fighter and transport aircraft (MiG21, MiG 23, AN 32, IL 76, Do-228).

The Air Marshal, in his long stint in the Air Force of about 40 years, has held many operational and staff appointments. Prior to taking over as the AOC-in-C, he was the Deputy Chief - Doctrines, Organisation and

Training, and later Operations, in HQ IDS. The officer has commanded a premier transport squadron in the Northern Sector, Air Force Station, Yelahanka - the main transport training base of the IAF, and the Air Force Academy at Hyderabad.

He is the first Air Force officer to have undergone an International Fellowship at the National Defence University, Washington DC, USA while simultaneously pursuing a post graduate course in 'National Security Strategy' from National War College, USA. A member of think- tanks, he is a prolific writer with more than 125 articles on matters of national security and other contemporary topics, published in various defence journals; he is also an invitee to many seminars on national security and related issues.

Also By The Author

- 1. India and Iran-Rough Days Ahead, Defence & Diplomacy, July-September 2012.
- 2. US-Iran: New Found Understanding and Impact on India, Defence Watch, December 2013
- 3. Iran A Sequel: Analysis of the Interim Nuclear Deal, Defence Watch, January 2014
- 4. Understanding Iran, CENJOWS Synodos Paper, January 2014.
- 5. Iran No Longer A Pariah, Defence Watch, September 2015
- 6. Middle East An Assessment, Indian Defence Review, June-September 2015.



Ukraine: Trials And Tribultions Of A Fledgeling Nation – State

Air Commodore SN Bal AVSM (Retd)

"...the way one war ends determines the shape of the next...Richard Sakwa"...those who do not learn from history are condemned to relive it..."

- George Santayana

Introduction

Every nation-state is a man-made entity and not primordial in nature: being the end-result of an evolutionary process. While some nation-states have reached an acceptable degree of stability and hold their own in the world order, others are still in a state of flux. Fatalists maintain that history is deterministic and unfolds in conformity to some preordained plan. Others assert that human interventions determine final outcomes, and which lie in the realms of possibility and probability.

Ukraine is one such example of the latter: though independent since December 1991, it has yet to attain an acceptable degree of geo-political stability as also evolve a strong national identity that encompasses its heterogeneous society. Ukrainians are yet to decide what it means to be Ukrainian as also who is to decide, and its proper place in the world. Contemporary nationalists from western Ukraine claim to be European, though uneasy (or unwilling) to

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reconcile with historically proven historical links with Russia – though other Ukrainians readily accept them. This has been termed the "Ukrainian crisis".

Europeans themselves cannot agree on what it means to be European. Metternich, the Imperial Chancellor of Austria-Hungary, asserted that "Asia... begins at the Landstrasse" – the road out of Vienna to the east. The French say Europe lies west of the Rhine: Germans assert that Europe ends at the Oder and Neisse rivers. The Poles consider everything on the other side of the border with Belarus and Ukraine as Asia. The Belarusians and Ukrainians argue that Asia lies beyond their borders with Russia. The Russians in turn claim that Asia is in Kazakhstan. The Kazakhs point to China: only the Chinese do not protest the claims that they live in Asia¹.

To compound matters, both the US and Russia vie for influence in Ukraine. The US, along with a, sometimes reluctant, European Union aspires to expand geo-political (and military) influence in a new "drang nach Osten" ("thrust toward the East") - a term coined in the 19th century to designate German expansion into Slavic lands. An increasingly insecure Russia aspires to reassert itself in former Soviet lands and safeguard what it perceives to be its overriding strategic interests. Both these mutually incompatible and confrontationist positions are the genesis of the "Ukraine crisis": actually a zero-sum game – a geo-political cul-de-sac.² After the eastward expansion of the EU in 2004, as also NATO's inclusion of former Soviet Republics and communist states, Ukraine is now the new frontier in this new East-West divide.

Thus the "Ukrainian crisis", which is internal to Ukraine, and the "Ukraine crisis" which could be perceived as an externalization of the former, and both being mutually interdependent, are exploited by both the US and Russia in a new Great Game: a renewed confrontation between the US, along with the EU, and Russia. This post-Cold War development threatens the peace and stability of the Eurasian landmass. If allowed to aggravate unchecked, it could precipitate a new US-Russian geo-political confrontation with possibly military ramifications at both regional and global levels – with Ukrainians being the most adversely affected.

¹ AJP Taylor, *The Habsburg Monarchy 1809 – 1918*, The University of Chicago Press, Chicago and London, 60637, 1976, ISBN: 0-226-79145-9, p. 9. See also *Conversations on Europe/Weiser Center for Emerging Democracies Lecture Aleksander Kwaśniewski*, President of Poland (1995-2005), 08 October 2009.

² Richard Sakwa, Frontline Ukraine: Crisis in the Borderlands, IB Tauris & Co Ltd, 6 Salem Road, London W2 4BU, 2015, ISBN: 978 1 78453 064 8, pp 3, ix (Preface).

EVOLUTION OF UKRAINIAN NATIONALITY AND STATEHOOD

The Ukrainian nation-state evolved from Kievan Rus - a loose federation of East Slavic tribes founded in AD 862 by Rurik, the Varangian chieftain from Sweden. Later, Kievan Rus was ruled by Prince Oleg of Novgorod (a city-state in Russia) from AD 882 to 912. Byzantine Christianity was adopted in AD 988. At its greatest, Kievan Rus extended from the Baltic Sea in the North to the Black Sea in the south, and from the Vistula River in the west to the Taman Peninsula in the east. After the Mongol general Batu Khan stormed Kiev in AD 1240, Kievan Rus disintegrated into many principalities that paid tribute to the Golden Horde.

By mid - 14th century, present Ukrainian territories came under the Golden Horde, the Grand Duchy of Lithuania and the Kingdom of Poland, and since AD 1569 under the Polish – Lithuanian Commonwealth.



Map No1.Polish -Lithuanian Commonwealth (1619) (Boundaries are contemporary) Source: Google

Crimean The Khanate also ruled some portions of contemporary Ukraine between AD 1478 and 1774. In AD 1654 Hetman Bohdan Khmelnytsky created the Ukrainian Cossack State by concluding the Pereyaslavl Agreement with the Russian Tsar against domination by the Polish-Lithuanian Commonwealth. Contemporary Ukrainian nationalists perceive this as a lost chance for independence - though Khmelnytsky would

hardly have opted for the Tsar's protection if he was capable of remaining independent of Poland-Lithuania.

Russians, Belarussians and Ukrainians, whose origins lie among the east-Slavic Tribes, claim ancestry from Kievan Rus: the Poles being considered west-Slavic. Contesting this, contemporary Ukrainian nationalists assert Ukraine's 'European' identity, while Russia is perceived as 'Eurasian', thereby denying Russia its Kievan roots. Even Russian claims to be "European' can be contested on grounds of their being an admixture of, inter alia, Scandinavians, Turks and Mongols. Ukrainian nationalists consider Ukraine and Russia as different

national communities – a sentiment that echoes in the moribund and debunked Two Nation Theory: the founding principle of the Pakistan Movement. A quasi-scientific explanation imagines Ukrainians to be 'Aryans', while Russians are 'Turanians'. Given that the Mongols, Poles, Turks, Lithuanians, Russians, and briefly Germans, ruled territories that constitute contemporary Ukraine, any claims to racial purity – or to being 'Aryan' could well lie in the realms of romantic fantasy. These nationalists actually focus on 'separatism' – this time from Russia, while conveniently denying past Polish-Lithuanian domination. After the Treaty of Brest-Litovsk, the fledgling Soviet government ceded large parts of western Ukraine to Germany – and partially recovered during the Russian Civil War. In WWII, Germany occupied Ukrainian and Russian territory right up to the Volga River.

Between 1939 and 1945 Eastern Galicia, Northern Bukovina, Southern Bessarabia and Transcarpathia were incorporated into the Ukrainian SSR. After 1945, Ukraine enjoyed independent membership in the UNO along with Belarus and the USSR. Nikita Khrushchev transferred the Crimea to it from the RSFSR in 1954. Thus the boundaries of Ukraine evolved over time, and mainly due to significant external events: post-WWI redrawing of boundaries after breakup of Austria – Hungary, the Russian – Polish war (1919-21), the Russian Civil war (1917-22), the Molotov – Ribbentrop Pact of 1939 respectively, and post – WWII incorporation of territories from Poland and Czechoslovakia. The latest change is the reversion of the Crimea to the Russian Federation in 2014 following a referendum.



It is indeed significant that the leaders of Russia, Belarus and Ukraine dissolved the USSR on 07 – 08 December 1991, as were also its founding members in 1922. In Soviet times Ukrainians, the second largest nationality after the Russians, actively participated in the Soviet project. Several Ukrainians occupied the highest positions: Leon Trotsky, Soviet politician and founder of the Red Army, Grigory Yevseevich Zinoviev, member of the first Politbureau and Leonid Ilyich Brezhnev, General Secretary of the Communist Party of the Soviet Union from 1964 till death in 1982.

During WWII, more than 4.5 million Ukrainians joined the Red Army, and some 250,000 served as partisans. Members of the Ukrainian intelligentsia were also shot by the Germans in significant numbers. It is equally significant that during WWII some Ukrainians actively collaborated with the occupying Germans in the SS - Freiwilligen - Schutzen Division Galizien, many obtaining British and Canadian citizenship after the war. These did not figure in the Nuremberg war crimes trials. Many guards in the German concentration camps were Ukrainian.

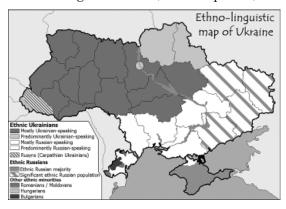
Russia asserts (and not entirely without reason) that Ukraine never existed in its present borders before becoming part of the Soviet Union: the current borders being the result of Soviet state-building. Ukrainian independence was also not the outcome of a nationwide movement, but more the result of a power struggle in Moscow³. While reasons for breakup of the USSR could well be an object of continued research, it would suffice to suggest that it was more a result of an imbalance between centrifugal and centripetal forces at the centre: when centrifugal forces overcame the weakened centripetal forces, the constituent republics declared 'independence' - the Russian Soviet Federative Socialist Republic (RSFSR) being the first to pull out of the Soviet Union.

Post-Independence Scenario

At independence, and free of the all-encompassing supra-national 'Soviet' identity, schisms in the differing and sometimes incompatible orientations of Ukraine's heterogeneous population began to manifest themselves. Russians are most prominent in the Crimea, Donetsk, Luhansk, Dnepropetrovsk, Odessa and Kharkov. Hungarians are significant in Transcarpathia along with Poles, Belarusians, and Jews. Bulgarians live mainly in Odessa. The 2001 census by the State Statistics Committee of Ukraine, showed a demographic composition of 77.8% Ukrainians and 17.3% Russians. Russian speakers are predominant in the eastern parts. It is indeed significant that many Russians and Russian-speakers in the east are content to being Ukrainian citizens, do not advocate separating

³ The Crisis in Ukraine: Root Causes an Scenarios for the Future, Valdai Discussion Club Report, Moscow, September 2014, ISBN: 978-5-906757-07-4.

from Ukraine and joining Russia – only want Russian to be recognized as the second official language, and to be allowed to propagate and preserve their culture. However, though almost 80% of the population is fluent in Russian, there is a linguistic divide (Refer Map No 3).



Map No 3. Source: Google

According the official census in 2010, 1.9 million Ukrainians in Russia, the third-largest ethnic group after Russians and Tatars. An estimated 340,000 Ukrainians youth permanently settle Russia legally each year, due to the high poverty rate, high unemployment, poor harvest and social unrest. The divide is not just on linguistic diversity,

also cultural. The former Austrian-Polish territories are Ukrainian – speaking, support pro-Western candidates, are pro-EU and fear Russian influence. Russians or Russian-speakers in eastern Ukraine lean towards Russia. Some western analysts gratuitously give Ukraine the 'right' to sever all ties with Russia and start a new pro-Western and pro-democratic path out of Russia's orbit—with the expectation (or perhaps demand) that Russia be a mute observer. A minority of Western and Russian analysts opine that Ukraine experienced a right-wing coup in February 2014 that removed a legally elected president and established a new regime – funded by Western agencies to remove Ukraine from Russian influence. A third interpretation is that since independence the Ukrainian nation-state has not quite emerged and its identity between the West and Russia yet not determined. Russia considers its right to ensure the safety of Russians in eastern Ukraine.

Ukrainian-Russian relations reflect the problematic relationship between Russia and the West (US). Both Mikhail Gorbachev and Boris Yeltsin sought parity with the US. Yeltsin was humiliated by Western loans, and NATO's inclusion of former Warsaw Pact countries. Under the 1994 Budapest Memorandum, Russia recognized Ukraine's sovereignty and territorial integrity – in return for surrendering (former) Soviet nuclear weapons. However, NATO's

bombing of Yugoslavia in 1999 resulted in the geopolitical marginalization of Russia. Relations with the US deteriorated after the invasion of Iraq in 2003 further aggravated by the West's prompt recognition of Kosovo's controversial independence in February 2008. A number of countries fear that it is a precedent, affecting territories in Europe and non-European parts of the former Soviet Union. In the 2000s, Vladimir Putin was convinced of a deliberate US strategy of encirclement and containment. That there is more than an element of truth in this perception is difficult to discount.

Rapprochement with NATO was a calculated political balancing act by Ukraine's second President Leonid Kuchma for political leverage with Moscow. Russia expected Ukraine's fourth President Yanukovych to bring Ukraine into the Customs Union alongside Russia, Belarus, and Kazakhstan: be an ally like Aleksander Lukashenko of Belarus. The Customs Union, being a Russia-led Eurasian entity, would bring better economic benefits and bargaining positions with the EU to the west and China to the east. From 2010 to 2014 Yanukovych maneuvered between the EU and Russia for a better deal. On 21 November 2013 he postponed the EU Association Agreement, being unable to secure financial relief from Brussels to compensate for the loss to Ukrainian industry from closer economic association with the EU. The colour revolutions and enlargement of the EU and NATO in 2014 precipitated Russian frustration and insecurity.

EUROMAIDAN DEMONSTRATIONS

These demonstrations began on the night of 21 November 2013 in Kiev demanding the resignation of President Yanukovych, rejection of Russian influence, and greater integration with the European Union. However, they soon developed into a vicious confrontation resulting in a fractured state, alienating key industrial regions in the east, and an uncertain future. Nationalist groups mainly from western Ukraine stressed a Ukrainian identity separate from, and even inimical to Russia: Yanukovych, an easterner, was seen hijacking Ukraine to merge with Russia. This was viewed with deep suspicion and outright hostility in western Ukraine. Allegedly, these the protests were supported, funded, and exploited by Ukraine's oligarchic clans who were unhappy with Yanukovych and his Donetsk allies expanding their business interests at other oligarchs' expense. (Refer Map No 4)



Map No 4. Source: Google

A survey conducted from 23 to 27 December 2013 by the Research & Branding Group, reveals that 45% Ukrainians supported Euromaidan, while 50% did not. Polls on 03 February 2014 also show age – related discrepancies. The majority of young people are pro-EU, while those 50 and above prefer the Customs Union. The post-Euromaidan war in the Donbass (Donets Basin), after Russia re-took the Crimea, was waged in the Donetsk and Luhansk oblasts of eastern Ukraine between government and separatist forces – the latter allegedly helped by Russia. On 05 September 2014 a ceasefire (the Minsk Protocol) was signed, but violations by both sides continued, and it collapsed in January 2015. After a new ceasefire on 12 February 2015 (Minsk II), separatists launched an offensive on Debaltseve forcing government forces to withdraw, resulting in a stalemate or "frozen conflict". According to the UN Refugee Agency (UNHCR), over 500,000 people have fled their homes for safety, while hundreds of thousands have fled mainly to Russia. By February 2015, over 5,000 have been killed and well over 10,000 seriously injured in the conflict.

UKRAINIAN-RUSSIAN INTERDEPENDENCY



Map No5.Source: Google

A glance at Map No 2 clearly indicates that since the Pereyaslavl Agreement of 1654, the current borders of the Ukrainian nation-state are the result of territories added by Imperial Russia and later part of nation-building by the Soviet Union: the current assertion of pro-West Ukrainian nationalists notwithstanding. Beginning in the 1930s, the Soviet government under Joseph Stalin carried out a

policy of rapid industrialization and collectivization of agriculture in the Ukrainian SSR. Thus at independence, Ukraine had a firm industrial base that encompassed military aircraft manufacture, ship-building, heavy vehicles manufacture and an aerospace industry in addition to extensive agriculture in the western regions. The half-built aircraft carrier 'Varyag' at the Nikolayev shipyards was bought by China - later emerging as the 'Liaoning'. Ukraine is the world's sixth-largest exporter of military and transport aircraft. Notwithstanding the present antagonism between Ukraine and Russia, this significant interdependency has to be acknowledged as a reality and simply cannot be wished away.

Russia depends heavily on Motor Sich in Zaporizhia for helicopter engines, and on the Antonov plant in Kiev for transport aircraft. The Yuzmash plant manufactures rockets and missiles: more than half the components of Russia's intercontinental ballistic missiles come from Ukraine. The Zorya – Mashproekt plant is the main supplier of naval turbines to Russia. The Ukrainian economy is supported by Russia to the tune of at least USD 5 billion: the West would have to support it with a minimum of USD 276 million as a bail – out if Ukraine joins the EU4.

Ukrainian industry depends almost entirely on Russian demands. Severed defence contracts would severely impact Ukraine: the large pool of unemployed, highly skilled, nuclear specialists might eventually find employment in rogue states. Moreover, if Ukraine joins the EU, its industry would have to compete

⁴ Richard Sakwa, Frontline Ukraine: Crisis in the Borderlands, IB Tauris & Co Ltd, 6 Salem Road, London W2 4BU, 2015, ISBN;978 1 78453 064 8, pp 73, 145.

with western industries for markets. President Poroshenko, (who owns the confectionery company "Roshen", and has the nickname 'Chocolate King'), is willing to grant eastern Ukraine local autonomy while retaining powers to determine national policy. Almost 40% of Poroshenko's exports are to Russia, which would have to compete with international giants like Nestle, Unilever or Cadbury in western markets if Ukraine joins the EU⁵. Ukraine also depends on Russia for 60 % of its natural gas.

However, mismanagement, corruption and economic malpractices of the oligarchs, sometimes with tacit understanding of the government, resulted in impoverishment of Ukrainian citizens over the years. Some diplomats from the US have described Ukraine under Presidents Kuchma and Yuschenko as a kleptocracy ("rule by thieves"). Yulia Timoshenko, Yuschenko's first Prime Minister – also known as the 'Gas Princess', made a fortune out of energy-trading in the 1990's. She was removed on 08 September 2005 by Yushchenko for serving certain business interests, and betraying the ideals of the Orange Revolution.

Ukrainians and Russians are not mutually hostile – but distrust the other's political leadership. Most Ukrainians perceive to be at war with Russia, while most Russians view this as an internal conflict. This is an opportunity for radical groups to escalate violence and further divide the two populations. To most Russians, Ukraine is not quite foreign: but a country led by pro-Western elites and anti-Russian western Ukrainian nationalists. Moscow fears Kiev will clamp down on the Russian language, culture, and identity in the eastern regions. Russia is also wary of the EU's Eastern Partnership (EaP) with post-Soviet states and its largest member – Ukraine. Significantly, in September 2015 the Ukrainian Ministry of Foreign Affairs confirmed Ukraine will continue in the CIS "on a selective basis" – indicating that Ukraine is keeping its options open.

EASTWARDS EXPANSION OF NATO

The North Atlantic Treaty Organization (NATO), a military alliance, was formed on 01 April 1949 – though till the Korean War was more of a political association. As a reaction to the induction of West Germany into NATO during the Cold War, the Warsaw Pact was formed in 1955 by the Soviet Union. It was

⁵ *Ibid.* p 143.

⁶ *ibid.* pp 52-53. See also Kyiv Post, 02 September 2011.

terminated on 25 February 1991, thus removing the *de facto* main adversary to NATO. The Soviet Union formally broke up on 26 December 1991. However, in the ensuing geo-political and geo-military vacuum, under President Bill Clinton NATO continued its eastwards expansion, incorporating several former Warsaw Pact countries⁷.

The rationale for this has been adversely commented upon even in the US. In 1998 John Keenan said "... I think the Russians will react quite adversely [to eastwards expansion]...no reason for this whatsoever...make the Founding Fathers of this country turn over in their graves...our differences...were with the Soviet Communist regime... "On 09 February 1990, the German foreign minister, Hans-Dietrich Genscher assured the Soviet foreign minister Eduard Shevardnadze "...one thing is certain: NATO will not expand to the east..." However, US overall philosophy has been articulated by Madeleine Albright "... if we have to use force it is because we are America; we are the indispensable nation. We stand tall and see further than other countries into the future... "Such a statement smacks of an utterly misplaced arrogance.

Quite predictably, in April 2008, Russia objected to NATO expansion. The Bush administration supported incorporation of Ukraine and Georgia into NATO in 2005-2008 alienating Russia further: Putin remarking the Ukraine would disintegrate if it joined NATO. The question of Ukraine joining NATO was broached by the author with the Commander of the Leningrad Military District in 1999. His reply was simple and direct: contingency plans were in place. If Belarus and Ukraine were to join NATO, Russia's encirclement on its western borders would be complete: a worst – case scenario for Russia and which is certain to precipitate a violent reaction. Germany and Italy assert that Ukraine's incorporation into NATO could escalate into a second Cold War, giving Putin an excuse for military action. Russia's minimum goal is to ensure Ukrainian neutrality - a buffer, between Russia and the EU and NATO: one of Russia's top foreign policy priorities.

Today, NATO incorporates Poland, Hungary, the Baltic States, Bulgaria, Romania, Slovakia, Slovenia, Albania, Croatia and Montenegro (in 2015). The Membership Action Plan (MAP) is a programme of advice, assistance and practical support to the individual needs of countries wishing to join the Alliance. The rationale for continued eastwards expansion of NATO can be better appreciated in the words of Halford John Mackinder "... Who rules East

⁷ *Ibid*, p 45.

⁸ *Ibid.* pp 45- 46, 227.

Europe commands the Heartland; who rules the Heartland commands the World-Island; who rules the World-Island commands the world..." It is naively expected, or perhaps required, that Russia (and possibly China) accept this new world hegemony without a whimper.

Russia's capacity, and will, to cause mischief if Ukraine joins NATO is real and cannot be simply ignored – reincorporation of the Crimea being direct evidence of it. It is easier for Russia to destabilize Ukraine than for Ukraine, even with Western help, to build a more stable and secure state – the economic bailout required would be colossal. Russia can periodically sponsor covert low-key separatist activity in the east and south – without actually annexing the region. Moscow's immediate aim would be to prevent Sweden and Finland from either joining NATO or denying use of their territories and airspace by it. Though overt and conventional attacks on the Baltic States are highly unlikely, there are myriad ways in which Russia could pressurize them. Estonia's and Latvia's large ethnic Russian minorities provide a ready-made pretext for intervention to safeguard their rights – as Stalin did before WWII. A similar ploy was used by Hitler to annex Austria and dismember Czechoslovakia.

The Kaliningrad enclave is a Russian wedge between Poland and Lithuania. Enhancing Russian military presence in the enclave could threaten both these countries – as also conducting aggressive patrolling along the entire Baltic coast. Today Germany is the dominant power in Europe. Russia could influence Germany to resurrect claims on East Prussia – ostensibly to 'correct' Stalin's arbitrary action in giving it to Poland after WWII. Russia could also sponsor separatist movements in Transdniestria – which has already indicated a desire to join the Russian Federation. Russia's planned Nord Stream Pipeline under the Baltic Sea for energy transshipment direct from Russia to Germany could entirely bypass the Baltic States and Poland. Some view it as a resurrection of the Molotov – Ribbentrop Pact of 1939. Six EU states (Bulgaria, Estonia, Finland, Slovakia, Latvia and Lithuania) entirely depend on Russia for gas.

A key question is the extent other NATO members can or will contribute in a direct military confrontation with Russia. This is likely to divide NATO members and the West (US) over possible responses to the situation in Ukraine. Can Ukraine afford NATO membership and the financial liabilities thereof – and at the price of antagonizing Russia? Would the US risk going to war with Russia over Ukraine? While a rich field for speculation exists, historical precedents could be a pointer. On 06 June 1944 President Roosevelt told the Polish Premier Stanislaw Mikolajczyk (of the Polish Government in exile) "...on your own

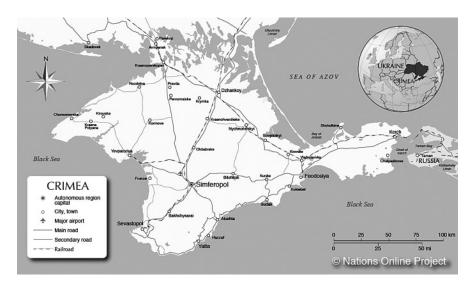
you have no chance to beat Russia...the British and Americans have no intention of fighting Russia...when a thing becomes unavoidable...one should adapt oneself to it... the United States government stands solidly behind you...". Ukraine and NATO/ EU states would follow the US reactions to gauge Washington's commitment to Ukraine (and to European security) - a weak reaction could undermine US credibility. In the 'realpolitik' of international relations moral and altruistic considerations are subservient to expediency and myopic national self-interests. The Munich agreement with Hitler is a case in point – Czechoslovakia was shamelessly abandoned by its allies Britain and France for "peace in our time".

REVERSION OF THE CRIMEA TO RUSSIA

Re-integration of the Crimea into Russia could be seen as a reaction to the Euromaidan and its aftermath, as also a proactive step to counter the strategic ramifications of Ukraine joining NATO. Moscow's choices post- February 2014 were limited to doing nothing or to act decisively. The swiftness of Russia's action suggests that contingency plans were already in place. Transfer of Crimea in 1954 to the Ukrainian SSR remains controversial. Since some 85 % water requirements for Crimea was supplied from the Kakhovka reservoir in Ukraine, a single republican administration was perhaps inter alia considered expedient.

However, after breakup of the Soviet Union, administrative boundaries became international boundaries. According to the 2014 Russian census, 84% of Crimean inhabitants claimed Russian as their native language and voted overwhelmingly in a referendum on 18 March 2014 for reversion to Russia. While Kosovo declared independence from Serbia without a referendum, in the case of Crimea there was a referendum – the questionable validity of it notwithstanding. Russia would have to solve the problem of water supply to Crimea – but may well be a window of opportunity to work with Ukraine in the spirit of cooperation dictated by interdependency. (Refer Map No 6)

⁹ John Toland, *The last Hundred Days*, The Random House Publishing Group, Random House Inc, New York, ISBN 0-8129-6859-X, p 44.



Map No 6. (Source: Google)

Russia asserts that the Crimea should have reverted to it on breakup of the Soviet Union since it is the "continuer state" assuming responsibilities, treaty obligations and privileges of the Soviet Union. When Ukraine declared independence on 11 march 1990, Boris Yeltsin's secretary, Pavel Voschanov warned "...if any republic breaks off Union relations with Russia, then Russia has the right to raise the question of territorial claims..." Moreover, the strategic port of Sevastopol has been an 'object of all – union significance' since 29 October 1948, and is the home of the Black Sea Fleet besides having a network of airfields, radar stations and ship repair yards. Moscow feared the 2010 Kharkov Agreements, which extended the lease and basing rights from 2017 to 2042 would be renounced by Ukraine.

The possibility of the US Sixth Fleet operating from Sevastopol, with Ukraine a NATO member would be a strategic threat to Russia. With the Black Sea dominated by Ukraine and Turkey, both now being NATO members, and along with Bulgaria and Rumania, the Russian Navy would be restricted to the Sea of Azov. With reversion of the Crimea to Russia, the military balance in the

¹⁰ Richard Sakwa, *Frontline Ukraine: Crisis in the Borderlands*, IB Tauris & Co Ltd, 6 Salem Road, London W2 4BU, 2015, ISBN,978 1 78453 064 8, p 67.

Black Sea has significantly increased Russia's power – projection capability, will and credibility in the eastern Mediterranean, Balkans, and in the Middle East: Russian military activity in Syria is evidence of this. Thus reversion of the Crimea could be seen as Russia's proactive response to safeguard its strategic interests.

REGIONAL AND GLOBAL IMPLICATIONS: THE FUTURE

The situation in Ukraine, unless resolved, has potential ramifications at both regional and global levels. Though the conflict is presently in the political, economic, and information spheres, it could have military overtones as well - militarization of Ukraine by the West, or its inclusion in NATO being the 'trip-wire'. It is not too difficult to predict US reaction if China were to induct a few airborne and armoured divisions in Mexico as part of 'friendly relations' and conduct 'inter-operability' exercises between the two sovereign and independent countries. In 1962 Soviet missiles in Cuba generated geo-political tectonic tremors right up to Washington.

The US seeks to restore a "holding line" against Russia in Europe, refusing to treat it as an equal and recognize its sphere of influence in Ukraine and Eurasia. With US - Russian trust fundamentally shattered, a new 'Great Game' is underway with Russia openly challenging US attempts to establish a global hegemony. Defiance of the US enhanced Russia's credibility in the Middle East: relations with Damascus strengthened, thaw in relationship with Cairo, and Russia reaching out to the Gulf States and Jordan.

A recession – ridden Europe is unwilling (or unable) to confront Russia. Europe is dependent on Russian energy and is also a significant trade – partner. According to the Russian Federal Statistics Service, in 2013 the EU accounted for 57% of Russian exports and 46.5% of Russian imports. Germany is Russia's most important bilateral trading partner: in 2013 trade was close to €77 billion, which underscores its geopolitical role in managing relations with Russia. Russia responded to western sanctions by a ban on fruit and vegetables from the EU, the United States, Australia, Canada, and Norway. Russia is a growing market for European farmers - Poland and Lithuania were the biggest losers from the Russian ban.

Increasing ties between Moscow and Beijing, though a temporary marriage of convenience, are indicative of a mutual interest to restrain US advances in Asia. However, China will exploit Russia's alienation from the US and estrangement from the EU while keeping the door open to cooperation with the US. Putin

publicly praised both India and China for "restraint" during the Ukraine crisis. Moscow could look forward to reinvigorate ties with India, particularly in the defence technology sphere: a window of opportunity for India to explore.

India's neutral stance in this crisis is indeed sound, since it enjoys favourable relations with the US, Russia and Ukraine. Jumping on the nearest bandwagon – US or Russian would not be in India's long-term interests. While India may well have a seat on that bandwagon, its duration of stay on it – much less the direction it takes would not be in India's hands. Whereas during the Cold War India successfully did a delicate balancing act between the two superpowers, and was not seduced by Brezhnev's Collective Security project, today there are three contestants in the new Great Game – the US, China and a resurgent Russia. It is hardly likely that all three will unite against the rest of the world: in all likelihood any two would be pitted against the third at any point in time. With India's experience in non-alignment, it should not be too difficult to navigate the ship of state through this geo-political labyrinth – given the will of course to safeguard its long-term strategic interests.

Washington needs to recognize the legitimate interests of major players, including Russia. This has been summed up succinctly by the well-known US strategist Stephen Cohen "...the [US] administration's goal...unclear...a negotiated compromise...to include a Ukraine...free to maintain long – standing economic relations with Russia and banned from NATO membership...bring the entire country exclusively into the West, including into NATO...or to provoke Russia into a war with the United States and NATO in Ukraine..."11

Vladimir Putin argues on an emotional note "...Kiev...the mother of Russia... cannot live without one another...Russians and Russian – speaking people live in Ukraine...[Russia] will always defend their interests using political, diplomatic and legal means...in Ukraine's own interest...to ensure these...interests fully protected... the guarantee of Ukraine's...stability and territorial integrity..."

The classic realist, Henry Kissinger adds "...if Ukraine is to survive... it must not be either side's outpost against the other...the West must understand that, to Russia, Ukraine cannot be just a foreign country...the United States needs to avoid treating Russia as an aberrant to be patiently taught rules of conduct established by Washington...for the West, the demonization of Vladimir Putin is not a policy; it is an alibi for the absence of one..." 12

Future developments would depend on a host of factors - the outcome of

¹¹ Richard Sakwa, *Frontline Ukraine: Crisis in the Borderlands*, IB Tauris & Co Ltd, 6 Salem Road, London W2 4BU, 2015, ISBN;978 1 78453 064 8, p 226..

¹² ibid, pp 106, 224

the US Presidential Elections, Europe's financial stability and the pivotal role of Germany in the EU, Putin's survival and Russian economy, as also stability of the Ukrainian nation-state. It is in the long-term global interests that Ukraine emerges as a sovereign, independent, neutral and viable nation-state: a bridge between the West and Russia. Ukraine has all the necessary attributes: skilled and disciplined manpower, a viable industrial base and the capacity to feed its population. However, it could do well to move to a pluralist stance in which its differing nationalities have equitable opportunity in the long-overdue task of nation-building. Both the Ukrainian and Ukraine crises must be effectively addressed. This calls for statesmanship of an exceptionally high order among all players – the US, Russia and especially Ukraine.

Moreover, the myths of a unipolar world and dangers of unbridled hegemonism must be recognized - hegemonism being incompatible with a pluralist world. A unipolar world is also an unsustainable and unstable model – what is not the only pole automatically becomes the second one. The US and the EU must acknowledge the futility and inherent dangers in a new "drang nach Osten" – both Napoleon and Hitler tried, and inflicted uncalled for devastation on their countries and brought misery to their peoples - more out of a misplaced egomaniacal vanity than actual necessity. Russia too must recognize that Ukraine is another side of Russia itself, while Russia is also a part of the Ukrainian identity. 13 The stakes are indeed very high. If the situation continues (or is allowed) to deteriorate out of geo-political myopia, the world may well be faced with a situation succinctly described by Winston Churchill "...the whole world... including all that we have known and cared for, will sink into the abyss of a new Dark Age made more sinister, and perhaps more protracted, by the lights of perverted science..." It is inappropriate to take a deterministic and fatalistic position on history – positive outcomes are possible through appropriate human interventions. All it requires is an indomitable will and resolve.

BIBLIOGRAPHY

- The Ukraine Crisis: An International Law Perspective, Royal Institute of International Affairs - 10 St James's Square, London, 11 July 2014
- The EU and Russia: Before and Beyond the Crisis in Ukraine: HOUSE OF LORDS, European Union Committee, 6th Report of Session 2014–15, 20 February 2015 Published by the Authority of the House of Lords London: The Stationery Office
- The Ukrainian Crisis and European Security: Implications for the United States and US Army, Published by the RAND Corporation, Santa Monica, Calif. 2015
- SPECIAL REPORT The Ukraine-Russia Conflict Signals and Scenarios for the Broader Region UNITED STATES INSTITUTE OF PEACE, 2301 Constitution Ave., NW • Washington, DC 20037
- The Ukrainian Crisis A Disputed Past and Present: Harvard Policy Brief May 2014
- Ukraine and Russia: People, Politics, Propaganda and Perspectives Edited by Agnieszka Pikulicka-Wilczewska & Richard Sakwa E-International Relations Bristol, UK 2015
- The Ukraine Crisis And the Resumption of Great-Power Rivalry© 2014 Carnegie Moscow Center. 16/2 Tverskaya Moscow, 125009, Russia
- The Crisis in Ukraine: Root Causes and Scenarios for the Future: Valdai Discussion Club Report, Moscow, September 2014, , ISBN: 978-5-906757-07-4.
- Contingency Planning Memorandum No 3: Crisis Between Ukraine and Russia, Steven Pifer July 2009, Council on Foreign Relations®, Inc
- John Toland, *The last Hundred Days*, The Random House Publishing Group, Random House Inc, New York, ISBN 0-8129-6859-X, p 44.
- Frontline Ukraine: Crisis in the Borderlands, Richard Sakwa, IB Tauris & Co London, New York. ISBN: 978 1 78453 064 8 \
- Conversations on Europe/Weiser Center for Emerging Democracies Lecture Aleksander Kwaśniewski, President of Poland (1995-2005), 08 October 2009.
- Kyiv Post, 02 September 2011.
- Source of maps: Google

AIR COMMODORE SN BAL AVSM (RETD)



Commissioned as a transport pilot on 04 June 1967, he has logged over 6200 hours on various aircraft, and also held a Senior Commercial Pilots License. Commanded the Paratroopers Training School and served as Air-II at the Central and Western Air Commands respectively. Retired on 30 September 2002 as the Air Officer Commanding, Air Force Station, Agra.

A graduate of the Defence Services Staff College, Wellington, he was the Head of Department, HRD & Strategic Management at the College of Defence Management, Secunderabad. Attended the National Defence College at New Delhi.

Visited the RAND Corporation, Santa Monica, and attended a programme on Civil-Military Cooperation at the John F Kennedy School of Government, Harvard University, Massachusetts, USA. Postretirement served as the Dean and Director, Symbiosis Institute of Mass Communication, Pune. A PhD in Political Science, and an MPhil in Russian, he has master's degrees in Management and Defence Studies,. Authored a book "Central Asia; India's Look-North Policy". Has contributed articles to the Institute of Defence Studies and Analyses, as also the Indian Defence Review. Currently teaches Organizational Behaviour at B-Schools in Pune.



Media And National Security

Shri Nitin A. Gokhale

Traditionally, national security has always been viewed through the prism of combating external threats and meeting internal challenges. Use of force for protecting the core values of a nation—in India's case its democracy, diversity and tolerance—has been defined as national security.

But of late, the discourse on national security is undergoing a subtle transformation. The scope of national security has been widened. It is no longer confined to counting force levels or just matching military power with a neighbour. Now, experts talk about a multi-dimensional, multi-faceted approach to define National Security.

The threats are manifold and before getting into discussing how the Indian media has dealt with and will deal with issue of national security, it is important to briefly dwell upon what defines comprehensive national security.

In the not-too-distant future, major powers will be focused on the proliferation of weapons of mass destruction, terrorism, narcotics, and organized crime more than conventional armed conflicts. Information warfare, threats emanating from cyber space and aerospace will consume more national resources than ever before.

Rising regional powers like India will have to contend with regional conflicts and developments associated with them: refugee crises, peacekeeping, humanitarian emergencies, environmental problems, global health issues, technological developments, and economic collapse. Issues of demographics, including migration and health; depleting natural resources and degradation of environment will lead

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to conflicts. And nations will have to be prepared to combat these more than the traditional threats.

According to a CIA trend analysis, by 2015 more than half the world's population will be urban. The number of people living in mega-cities--those containing more than 10 million inhabitants--will double to more than 400 million. The explosive growth of cities in developing countries will test the capacity of governments to stimulate the investment required to generate jobs and to provide the services, infrastructure and social supports necessary to sustain livable and stable environments.

Other issues that will take up more time will be: Health: Disparities in health status between developed and developing countries--particularly the least developed countries--will persist and widen.

Developing countries are likely to experience a surge in both infectious and noninfectious diseases and in general will have inadequate health care capacities and spending.

The number of chronically malnourished people in conflict-ridden Sub-Saharan Africa will increase by more than 20 per cent over the next 15 years.

By 2015 nearly half the world's population--more than 3 billion people--will live in countries that are 'water-stressed'--having less than 1,700 cubic meters of water per capita per year--mostly in Africa, the Middle East, South Asia, and northern China. So the challenges to national security come not just from the adversary across the border but also enemies within: Disease, hunger, natural calamities, mass migration and lopsided development.

Meeting these challenges and not just guarding the borders will constitute National Security. Like Comprehensive National Power, National Security is all encompassing.

But traditionally, we in the media have looked at national security from the narrow prism of hard military power, simply because media more than anyone else loves wars and conflicts. As a famous editor in the US, Michael J Oneill had famously said: "It is well known that media are more devoted to conflict than to tranquility, and that war is routinely defined as news, while peace is not. What is good for the world, in other words, is not necessarily good for the news business."

Ladies and gentleman, coming to India specifically, in the first 15 years after India attained independence, the Indian media was generally conformist. Since India was in the nation building phase, media was supportive of the effort as far as possible. So very few anti-establishment views were articulated in that phase. But the debacle in the short but brutal war with China in the winter of 1962 was a

game changer not only for the establishment but also for the Indian media.

The shortcomings and wrong decisions at the policy level were so blatant that the Indian media was forced to sit up and review its pro-establishment stance. DR Mankekar, was among the tallest media personalities in India that time. He was a courageous reporter, a brilliant editor and an outstanding author. In the preface to his slim but valuable book titled—the guilty men of 1962, Mankekar explained: "In a democracy, the people have a right to know the why and wherefore of a national disaster. The government is accountable to the people. Where the government fails in its duty, a publicist may step in to fulfill that task."

Indeed by the time, the 1970s dawned the Indian media had started focusing more and more on military issues, thanks to big international events like the Bangladesh Liberation war of 1971 or the peaceful nuclear explosion at Pokhran in 1974.

Today, it is almost compulsory to have dedicated journalists reporting on various ministries like Defence and Home, traditionally considered the bastions of national security. But even today, we are stuck in covering day to day activities rather than looking at larger issues in these ministries.

There is too much trivia that gets dished out in the name of reporting on these two ministries mainly because there is a lack of skills to handle to relevant issues both among journalists and security personnel in the armed forces and the central police organizations. This weakness needs to be overcome quickly. How do we do that? I will come to that a little later but let me draw your attention to the evolution of military-media relations over the past two centuries and then look at what the present is and the future may look like.

In 1869, Field Marshal Joseph Garnet Wolsley wrote a book called The Soldiers Pocketbook about his experience during the Battle of Crimea. One of the highlights for me was his observation: "Those newly invented curse to armies who eat all the rations of the fighting man and do no work at all.

The "curse" that the Field Marshal was talking about more than 140 years ago was the War Correspondents who reported on the military campaigns of Victorian Britain.

Among the first to live and march with combat troops in modern era was William Howard Russell who reported for the *The Times* of London during the war in Crimea in the 1850s. His reporting highlighting the shortcomings and bungling in the war were not liked by the authorities but the people were outraged leading to reform and correction in the military.

The Field Marshal's anger and disgust was primarily directed at Russell but

by the time he wrote his famous treatise *The Soldier's Pocketbook* in 1869, several other "War Correspondents" had made their way to the battlefield, stayed with the troops, braved the bullets and bayonets and brought home the real picture of the battles.

Clearly, journalists have been billeted with troops for over 100 years before George Bush's war against Saddam Hussein in 2003 brought the term 'Embedded journalism' into popular lexicon.

In the military campaign that followed, a unique access to the battlefield was granted to embedded journalists for war news coverage...The United States (U.S.) Department of Defense (DoD) authorized the embedding of more than 500 journalists in their military fighting units. The 'embeds' (as the journalists traveling with the army units were called) were defined by the Pentagon as: "A media representative [that lives, works, and travels with a military] unit on an extended basis -- perhaps weeks or even months...[in order to] facilitate maximum, in-depth [news] coverage of U.S. forces in combat and related operations."

This decision stirred up a lot of controversy relative to the type of news content that was being reported by embedded versus non-embedded journalists.

As a result, the issue of embedded versus non-embedded war journalism has fueled much controversy and debate. (http://knol.google.com/k/the-embedded-war-journalism-controversy)

There are those who believe that the American decision to embed journalists with frontline combat units stemmed from the US military's two contrasting experiences—one bitter, the other sweet.

The first was in Vietnam when the antipathy between the military and the media reached its peak.

In a detailed study on the military-media relationship during that period, a US Army War College researcher came to a conclusion: "Prior to the Vietnam War, the American press had generally supported national war efforts and the national leadership with positive stories. The Vietnam war was the first time that reporters reported on American units that lacked discipline, used drugs on the battlefield, and had US soldiers questioning war aims while the war was ongoing. These stories, though factual, were viewed by the military as 'negative.' Moreover, the uniformed leadership viewed these stories as a major reason they were losing the war at home while they were winning the battles in Vietnam." (The CNN Effect: Strategic Enabler or Operational Risk? by Margaret H. Belknap, United States Army, 2001)

By the time the US was ready for the Gulf War in 1991, it had learnt its lessons well. The military had judged the needs of the media and also worked out the ways

to control the flow of information in its favour.

As Belknap said, "Operation Desert Storm "was the most widely and most swiftly reported war in history."

In addition to being the first "CNN War", this war also marked a turning point in military-media relations and a turning point for Americans' view of that relationship.

Colin Powell, by than an important figure in the US military hierarchy, had learned his lesson from the Vietnam mistakes and the subsequent Panama invasion episode. He ensured not only media access but that the "right" kind of spokesman stood before the camera lens before the American audience.

Powell recalled, "We auditioned spokespersons. ... We picked Lieutenant General Tom Kelly, as our Pentagon briefer because Kelly not only was deeply knowledgeable, but came across like Norm in the sitcom Cheers, a regular guy whom people could relate to and trust."

Belknap says Powell also understood that live press conferences meant that the public would see both questioner and responder. Ever since the Vietnam War, the public viewed the media as fighting to get "the truth" from a military hiding behind a cloak of secrecy During the Gulf war, Americans saw both media and military on the TV screen.

Powell later wrote: "When the public got to watch journalists, even the best reporters sometimes came across as bad guys." Perhaps the strongest evidence of the shift in American perceptions was a Saturday Night Live, a popular American TV programme.

Toward the end of the Gulf war the media was ridiculed on Saturday Night Live. Belknap's study notes: "They were (reporters) portrayed as enemy Iraqis trying to wrestle Americans war plan secrets away from an Army spokesperson."

THE SUB-CONTINENTAL EXPERIENCE

The Americans went on to further refine the concept of embedded journalism in Afghanistan but in India, it is still a halfway house.

There is no official embedding as such but the Indian military takes reporters on official guided tours to various facilities and events, fully on government expense. So, most of the reports are episodic, event-based in nature.

There is another kind of arrangement that exists between the media and the Indian military. Reporters' travel to border areas or insurgency hit areas where the Indian army is deployed in large numbers. The Army than 'facilitates' their visits, shows them around, briefs them about the tasks, talks about the difficulties and achievements and then reporters write about or broadcast what they witnessed and understood during the trip.

It is a 'loose' arrangement, but the only one that comes close to the 'embed' arrangement in a semi-war situation. I say semi-war since the Indian army is continuously involved in counter-insurgency in Kashmir and the north-east in a no war no peace situation

Old-timers in India however recall that in 1965 and 1971 wars with Pakistan, select reporters did travel with the Indian military. Indeed, an All India Radio journalist is famously in the frame of an iconic photograph of the Indian general accepting the surrender of 90,000 Pakistani POWs at the end of the 1971 war!

In the most recent war in Kargil over a decade ago, there was no formal embedding but most of us who reported that war, interacted closely with the troops and many a times depended on their support for sustenance in the war zone. Volumes have been written about the synergy between the media and the military in Kargil and its contribution in whipping up a patriotic fervour across the nation that time but all of that was happenstance not design.

Currently, there is an intense discussion on in the higher echelons of the Indian military on how to deal with the media at large and whether to have a policy that will allow embedded journalists in future conflicts.

But elsewhere in the sub-continent, notably in Sri Lanka, I personally experienced the reality of embedded journalism.

Eelam War IV, (2006-2009) will in fact is remembered for the flawless execution of information warfare techniques by the Sri Lankan state.

Embedding journalists was just part of the entire Information Warfare strategy.

I found the Sri Lankan methods both effective and offensive.

Effective, purely as a battle strategy. Offensive, to my sensitivity as a journalist.

The idea was to create a firewall around the battle zone.

The objective was two-fold: control and denial.

Control the flow of information and deny access to unpalatable journalists.

Simultaneously, the Sri Lankan government created a one-stop shop for information from the battle zone.

The Media Centre for National Security (MCNS), which functioned from a small, non-descript building in the heart of Colombo's high security zone but outside Defence HQs, became the most important address for visiting and local media during the war. You went here to register yourself for a trip up north, into the battle zone. You asked for and got war footage here and you got your latest information from this centre.

The weekly briefing by a cabinet minister, Keheliya Rambukwella, whose sole task was to interact with the media, were held here; the army, navy and air force spokesperson, all senior serving officers, worked under a Director-General, a civilian trusted by the President and his brother, the defence secretary, functioned out of this building.

The DG, MCNS, Lakshman Hullugalle, a pleasant, accessible man, became the most well known face and voice from Sri Lanka during the war since all TV channels went to him for a phono-in and a byte whenever they needed an official update. And he obliged everyone. The MCNS worked 24x7, updated defence.lk, an information-rich website, almost every hour and all key personnel, including the DG, remained accessible round-the-clock.

By putting in place this system, Sri Lanka virtually eliminated the possibility of any other source giving news to the information-hungry media. Even the trips to the battle zone—I went on three of them—were beautifully orchestrated. We were always asked to report at the airport before dawn.

There, after a thorough security check, we would board a Russian-built AN-32, land at Anuradhapura, a historic town in central Sri Lanka, and then get transferred to two waiting Mi-17 Helicopters. Cameras would start rolling the instant we were on board the choppers. A piece to camera (PTC) or a standup to use an American term, on board a helicopter after all gives that sense of realism to war coverage!

So inevitably, most of us TV reporters would record at least two or three PTCs before we landed at either Kilinochchi or Paranthan, close to the battle. Another very subtle arrangement used to be in place at those locations. An assortment of armoured personnel carriers (APCs) and jeeps would be waiting for us to be taken to the brigade headquarters or a location closer to the actual fighting zone.

Now, a ride atop an APC is a television reporter's delight. A piece to cam aboard an APC, which looks like a tank, but is not really a tank (but then how many people can discern or distinguish a tank from an APC) would do very well for your own as well as the channels image, thank you. The viewer will certainly be impressed!

So all of us TV reporters used to clamber atop an APC, do our PTCs and then go for a briefing, which from TV's point of view, are boring anyway. A formation commander at a lectern, explaining tactics on a map is not great television, so we would wonder out in search of images that conveyed a war zone. Invariably we would find soldiers in various stages of battle readiness outside the briefing rooms: some would be resting, some others would be cleaning their weapons; APCs and jeeps full of soldiers in their fatigues would be whizzing past. So cameras would be busy recording those images.

The point is: the Sri Lankan military had worked out what TV crews need and provided the props accordingly. I am not saying any other military would not have done it. But most military planners in the world would have been less subtle.

The Media handling by the Sri Lankan state would in fact make for a fascinating study. Having realized that the LTTE in the past had made very good use of its access to international media in projecting its image as an outfit fighting for a separate homeland for Tamils, Sri Lanka decided to cut off the oxygen supply of media support to the LTTE cause and instead deluged journalists with timely information and restricted access.

The local media was tamed through twin methods of coercion and chauvinism. Those who refused to fall in line, were coerced, threatened and even killed (14 journalists lost their lives in Sri Lanka in the last four years) and all others were won over by a simple appeal: it is as much your war as ours, so please cooperate. Simultaneously, pro-LTTE blogs and websites like Tamilnet.com were made inaccessible inside Sri Lanka.

The result: a completely lop-sided coverage of Eelam War IV.

As a student of media, the Sri Lankan strategy has fascinated me. They have refined the lessons and practices adopted by the Americans in Iraq and Afghanistan and evolved their own model that shuts out every other contrary view. But war is a dirty business and nations adopt tactics that suit them.

As a journalist, I was not happy being part of a one-sided coverage, but to be fair to the Sri Lankan state, winning the information war was as essential as gaining a military victory. That a section of the Western, bleeding heart liberal, media is now targeting the Sri Lankan state for what it calls war crimes committed by the Sri Lankan army, is in a way, a left-handed compliment to its strategy of creating a bubble around the war zone in which no one could enter without the permission of the Sri Lankan military.

So is embedded journalism or traveling with the military good or bad for journalists?

Many news media experts believe that embedded journalism provides a more accurate story of a war when compared to the traditional approach of news gathering via military briefings prepared for the press.

In contrast with this perspective, however, many other broadcast media specialists believe that embedded journalists who travel with military units become

too emotionally bonded to the troops after long periods of time and will therefore lose objectivity in their news reporting.

I personally have a mixed feeling on this one.

However, reporting on conflicts should be just one part of covering national security issues. Media houses either have to hire specialists to report on highly technical and sensitive subjects like missile and nuclear programmes to make the complexities easy to understand for the average viewer or reader. Or at least allow those involved in reporting on those issues—even reporting on the art of war is complex—time off to master the subjects. Unfortunately there is neither inclination nor resources to implement such a wish. Instead, little knowledge is sought to be passed off as great expertise because the tendency in the media today is to be a participant in the process rather than be a detached observer and chronicler.

When the military criticizes the media for lack of interest and knowledge, it forgets that the media does not have the luxury of undergoing periodic upgrades and courses—YOs, Senior Command, Higher Command, NDC Course to cite just a few examples—as the military men do.

The 21st century is marked by an abundance of information. In previous years, dominance was achieved through rationing information, exercising information control, censorship and propaganda. Such methods are not practical or prudent in the contemporary world. There is a constant increase in the number of sources of information which cannot be muzzled and have to be managed. The security forces therefore will have to focus on balancing openness with security to exploit the power of the media, both tactically and strategically. Media strategy can longer be the job of the public relations officer alone, but must be seen as a command function. Security Forces will have to think of ways to function outside the vertical silos if the media war is to be won.

While the media certainly needs to train and equip itself to discern, detect and dissect national security issues, the government, the armed forces and even academics who deal in issues of national security, have to understand the way media functions. There is a crying need to have more interaction between these players without the pressure of deadlines. So far, the tendency is to keep away from each other. That does not help either side. Unless national security becomes the concern of the nation and not just a handful few, we will continue to have a problem of wrong projections.

And as I have said in the past, the traditional media has been a friend and supporter of national aims and national security.

I am not so sure about the new elephant in the tent: the Social media. It is wild,

it is irreverent, it has its own set of rules and it does not bother about big names and bigger reputations.

As the then National Security Adviser Shiv Shankar Menon, recently said at a cyber security conference: "Cyberspace is today the fifth domain of human activity, in addition to land, sea, air and outer space. Our dependence upon cyberspace for social, economic, governance, and security functions has also grown exponentially. Unfettered access to information through a global inter-connected Internet empowers individuals and governments, and it poses new challenges to the privacy of individuals and to the capability of Governments and administrators of cyberspace tasked to prevent its misuse. "The govt's job is complicated by the unique characteristics of cyberspace. It is borderless in nature, both geographically and functionally; anonymity and the difficulty of attribution; the fact that for the present the advantage is with offense rather than defence; and, the relatively anarchic nature of this domain."

Media practitioners—both traditional and those in the fifth domain—will necessarily continue to focus on national security as they view it. It is up to decision-makers and national security mandarins to exploit their presence, reach and influence to suit to their own aims and objectives. Therein lies the trick.

In the end I want to leave you with a thought: In my view, more interaction, not less between the media and keepers of national security is the way forward. Familiarity in this case will breed more knowledge not contempt.

SHRI NITIN A. GOKHALE,



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and conflicts, Gokhale is a visiting faculty at almost all the top Indian military in institutions in India including the National Defence College, the Army, Navy and Air Force War Colleges, the Defence Services Staff College and the College of Defence Management.

Cyber, Darkly

Shri Pukhraj Singh

You are the one observer of all, and in reality always free.

Your bondage is this: You see the other – not yourself – as the observer.

– Ashtavakra Gita (circa 500-400 BC)

The bias of observation weighs heavily on all strategic initiatives in cyberspace. At a caucus on national security governed by the Chatham House Rule, hellbent *faujis* painted a profile of Lieutenant General Naseer Khan Janjua, the recently appointed National Security Advisor of Pakistan.

I saw grey, neatly trimmed heads nodding in agreement to a cautionary note on Janjua, as someone mentioned tactical nuclear weapons (TNW). TNW, kind of like computer exploits, is a chimera, but it still manages to inspire military doctrines in this part of the world. It seemed to me that the three-star officers who led the panel discussion were clutching on to the vestiges of symmetric warfare.

During my turn to speak, I could only share the immensely overpowering feeling of humility that one is subjected to while going through an exfiltrated 'top secret' document laying out plans to "defeat India". Even a mid-level bureaucrat like me knew that Janjua would have felt betrayed if someone had credited him with TNW rather than his brilliance in executing Operation Azme-Nau, a powerful specimen of network-centric warfare. It is actually fun to take inspiration from our convenient enemy Pakistan, underscoring how asymmetry can completely demolish the conventional interpretations of dominance.

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The invisible battles of the future will be won by exploiting this observational gap between the hawks at the helm and the operators in the trenches. The generals swim on the surface of scale, showcase, formula and precision, while minnows like me hunt in an ocean of subversion, delay, denial and randomness.

For now we see through a glass, darkly; but then face to face: now I know in part; but then shall I know even as also I am known.

– 1 Corinthians 13:12, King James Bible

Even Einstein balked at the quantum nature of the universe, remarking that "God does not play dice". Stephen Hawking quipped at his deterministic leanings by invoking the famous biblical allusion of "seeing through a glass darkly". The paradox of the mirror projecting what we expect to see, failing to know what is behind it, applies to cyberspace as well. Multiple, verifiable truths can exist there – that is the very foundation of information warfare.



A 15th century rendition of Ouroboros (Source-Wikipedia)

And just like Arthur C. Clarke's concession that "any sufficiently advanced technology is indistinguishable from magic", I have often resorted to alchemy to explain the dynamics of cyber intelligence. Take, for example, the alchemical symbol of Ouroborous – the picture of a serpent eating its own tail, also seen as a coil around Shiva's wild avatar of *Nataraja*. It's a spectacular enigma. The snake is ceasing to exist, as it is consuming itself, yet it does exist. It represents what is not obvious, what is not in the picture – the

system. The system defines its existence; the object, the painter of the object and the observer came from the very system. Only the sum of it all makes sense. The snake is also destroying and regenerating itself at the same moment; in a way it is transcending space, time, and the system, too. That's hacking. And in cyber intelligence, the cycle itself makes more sense than do its stages.

Information warfare is mainly an inward discipline. Offence merely an extension of defence. Victory nothing but a mathematical stalemate. The observer a set of statistical anomalies.

Dave Aitel, a hacker who has worked for the National Security Agency (NSA), draws an interesting parallel between biology and cybersecurity [1]. Both of them – like many other complex, chaotic processes – show 'emergent behaviour'. The components as a whole do not make sense, but the system they form does.

Aitel further elaborates the failing concept of defence in cyberspace, heavily focused on the detection of knowns and unknowns, based on what we call the "signatures". The human body produces billions of antibodies which cling on to the intruders, destroying themselves in the process. However, each of these antibodies is only slightly randomised, not requiring a large engineering blueprint against the types of attacks.

Like the other subtle games which Mother Nature plays, she protects an extremely sophisticated and vulnerable machine with a rapidly orchestrated response mechanism – a perfect balance between brute force and anomaly detection. For its fragility, the human body has a remarkably low 'signature memory'.

Aitel's interpretation of Cyber Threat Intelligence is simple: rather than going for the jugular, engaging in time and resource-intensive investigations, it should aid in quickly resetting the diseased entities, bringing everything to normal.

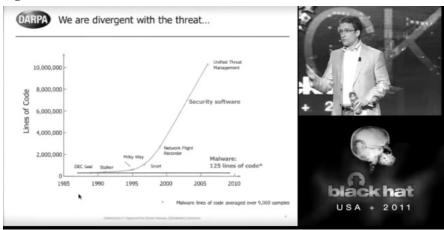
But to understand the nuance of his argument, some immersion is required on the disastrous state of affairs in cybersecurity.

Valuations and investments have proven that security is one of the most promising sectors of the technology industry. A mad race has engulfed the enterprise market in the last two decades. Every week, a new vendor emerges, promising to offer a definitive detection of cyber attacks – a pinpointed solution which expects to sit on and sanitise one of the enterprise's interfaces like the perimeter, the endpoints or the server farm, etc. The market habitually laps them up, largely driven by regulatory pressures than an actual fear of getting breached.

Such a haphazard pileup has only led to one thing: a broadening of the attack surface. Mudge AKA Peiter Zatko, the rockstar of hacking, in his keynote address at Black Hat 2011 explained the 'divergent' nature of the industry with a simple graph [2]. As security products became increasingly bulky, in

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terms of the number of lines in their source code, the malware sizes remained eerily consistent. When an exponential curve meets a straight line, it results in nightmares.



A screen grab from Mudge's keynote at Black Hat, 2011

The situation is such that we have billion-dollar companies like FireEye – building products simulating every network transaction, parsing every packet and executing every transferred file in a sandboxed environment, looking for anomalies before they are good to go to the intended recipient. Forgetting how counterintuitive it is to productivity and efficiency – the cornerstones of computerization – one cannot help but grieve about its regressive effect on cyberspace in general.

Of course, these products carry their own vulnerabilities, not to mention state affiliations which make their disclosures selective. It's a true mathematical orgy to know that every simulator is limited by certain constraints and assumptions, its very engineering premise – and given the persistence of a hacker, it's bound to give in at some point. That inflection point is where the world comes crashing down and a nation state begins its handiwork. In fact, we have come full circle to Aitel's veiled argument – that insecurity is also an emergent property.

How did we end up levying the burden of insecurity on a puny little enterprise? And how do we even remotely assume that these enterprise-centric solutions can be used for protecting a country's cyber assets as well? How did the smartest guys in the room end up making such a horrible gamble?

To understand, we'll have to excavate one more layer of the relic that is the Internet.

"Now, I am become Death, the destroyer of worlds." - Robert Oppenheimer, quoting from Bhagavad Gita, after the first atomic test.

After the pilferage at the Office of Personnel Management came to light, Craig Timberg of *The Washington Post* captured the collective moan of a nation. Dwarfing his Pulitzer-winning coverage of the Snowden affair, Timberg's spellbinding five-part essay on the broken foundations of cyberspace turned out to be a specimen of great finesse and beauty, melancholic enough to leave any hacker teary-eyed [3]. One by one, the key architects of networking offered their confessions and regretted unleashing the monster upon us.

Much like a Jackson Pollock painting, the computer architecture is a layer of abstractions. It's the most resourceful model for an information system. Limit the complexity to one layer, and only relay the required data to the other via certain defined interfaces – the Gall's Law at work. The mainframe was the first attempt at resource sharing. Systems managed the allocation of resources and interfaces via processes. Soon, architects realised that resources needed to be shared across physical or logical boundaries, too. That brought on the process of internetworking. Given the nascent hardware, it was decided that resilience would be its benchmark. Naturally, security was antithetical to that premise.

As requirements grew exponentially and networks mushroomed, the processes ballooned as well. Additional support structures were added to scale it. Simplicity, like beauty, lies in the eye of the beholder. It became a labyrinth of layers, a series of inelegant fixes and hacks heaping upon each other.

What we see today is an overexploited, underperforming hotchpotch of standards and interfaces. Going back to the drawing board would require an investment of trillions of dollars and tremendous geopolitical will.

To display a simple JPEG image, your computer loads dozens of routines. Every piece adds its own bit of automation to make it less tedious. Every layer, right from the hardware microcontrollers to the parsing software of the JPEG format, works towards that goal. Two image viewers share the same JPEG rendering instructions – called libraries – out of common sense. A single line of bad code in that library can break all imaging functionality. To worsen things, the entire process is highly dynamic, with multiple permutations and combinations creating thousands of hypothetical layers and execution paths.

The hacker thrives on this very simplicity limited to layers, latching on to

the host like a parasite sharing the same genome. He or she understands that every layer communicates with the other via mutually agreed upon interfaces. By remaining hidden from the strongest layer to reach the weakest, he or she can eventually control the process. If there's a secret mantra to this dark art, this is it.

Over the years, as the systems introduced one security patch after another in a race against time – barely surviving against that elusive enigma called the "threat landscape" – the exploitation techniques also saw many advances.

Earlier, the hacker was like a circus gymnast, somersaulting across ropes to land on the right spot. A tad bit of manipulation here and there, some hit and trial, and a little innate skill. Now, he or she can make the whole circus tent collapse. What are referred to as "exploit primitives" – by leveraging the basic constraints and architectural assumptions of a multi-layered, multi-component computer architecture, one could elegantly force the system to reach a state where it humbly surrenders control, bypassing all security.

To quote a paper written by LANGSEC, a collective revisiting the very fundamentals of computer science, "...at its current sophistication and complexity, exploitation research as a discipline has come full circle to the fundamental questions of computability and language theory." [4]

Say, the recently discovered vulnerability in the GNU C Library (glibc) [5]. The languages C and C++ are the building blocks of the Internet, with glibc being the widely accepted tool to facilitate the compilation of code written in those languages to machine-level instructions. No wonder, the vulnerability affected almost everything humming and blipping in cyberspace. An apt comparison would be someone managing to alter the laws of physics to control the universe. A presentation at the 2016 RSA Conference highlighted that with the advent of mobile ecosystems, the world population is the most vulnerable it has ever been [6].

Enter a nation state with a billion-dollar cyber offensive program. With the advances in exploitation, one doesn't even need a set of probabilistic prerequisites or zero-days (unpatched weaknesses) to compromise. By introducing the right set of conditions (geopolitically or technically like the NSA does) or by triggering the existing complexities in an environment, all forms of sentience could be rigged. In security, everything is made to fail at some point – the nation state knows when and how. The 'window of vulnerability' becomes infinite, every bit and byte 'weaponised'. After a couple of years of sustained targeting, one could subvert the society of an adversarial country so deeply that it figuratively ceases to be sovereign, bleeding it dry.

Any miniscule, inconsequential conduit of cybernetics could trigger that catastrophe waiting to happen. I am reminded of the 2013 raid on *The Guardian*, right after it published the first few documents obtained from Snowden [7]. The General Communications Headquarters, the British sidekick of the NSA, made sure that not just the hard disk, but every chip, every microcontroller from the motherboard, as well as the keyboard and the trackpad were ripped apart. This deliberate act demonstrates the level of exploit persistence techniques these agencies have attained.

If it's not a gravel of sand about to be fabricated into a semiconductor or a mind waiting to transform its ideas into a computer program, it's vulnerable and an existential threat to national security.

And here we are, with our pathetic public discourse, arguing with each other about Net Neutrality and all. What about hardware or software neutrality? The Net doesn't run on ether! Those think tanks, the didactic cesspools – the mere extensions of a caste and status-ridden society that ours has always been – divorced from the reality, misleading us. The clarions of 'Digital India' are so shrill that they have made us tone-deaf. Go down the rabbit hole and you'll realise that ignorance has become our collective trait and denial the only strategic overture.

(The writer helped set up the cyber-warfare operations centre at NTRO.)

REFERENCES:

- 1. https://vimeo.com/102641000
- 2. https://www.youtube.com/watch?v=IWGjWYIToFU
- 3. http://wapo.st/1J9UYJy
- 4. http://langsec.org/papers/Bratus.pdf
- 5. http://arstechnica.com/security/2016/02/extremely-severe-bug-leavesdizzying-number-of-apps-and-devices-vulnerable/
- 6. https://twitter.com/iamthecavalry/status/705839779435253760
- 7. https://theintercept.com/2015/08/26/way-gchq-obliterated-guardianslaptops-revealed-intended/

SHRI PUKHRAJ SINGH



Pukhraj Singh played an instrumental role in the setting up of the cyber-warfare operations center of the National Technical Research Organisation.

He was laterally inducted into NTRO from the private sector at very short notice after the 26/11 attacks. It was a multi-disciplinary tenure, ranging from geopolitical doctrine formulation, eventually approved by the Prime Minister, to the very brasstacks of cyber-operations.

The inputs from Pukhraj's small but highly disruptive division helped chart the course of some seminal government initiatives on cybersecurity like the National Critical Infrastructure Protection Centre (NCIIPC) and Inter-ministerial Task on Cyber-Defence & Preparedness.

Later on, he spent some time at Aadhaar, India's flagship social security project as the national cybersecurity manager.

Pukhraj also had brief stints with commercial threat intelligence teams located in the US and Canada. He occasionally speaks at international security conferences.

On a personal note, Pukhraj runs a small non-profit initiative called Abroo, working for the Dalits of Punjab. He admires writers and poets like Joseph Campbell, Hunter S. Thompson, Amir Khusro and Bulleh Shah.

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