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JANUARY 2017

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Strategic Vision Institute
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Strategic Vision Institute (SVI)

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Strategic Vision Institute (SVI)

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SVI aims to project strategic foresight on issues of national and international import through dispassionate, impartial and independent research, analyses and studies. The current spotlight of the SVI is on the national security, regional and international peace and stability, strategic studies, nuclear non-proliferation, arms control, and strategic stability, nuclear safety and security and energy studies.

SVI Foresight

SVI Foresight is a monthly electronic journal. It has a multi-disciplinary perspective highlighting on the contemporary strategic and security studies. The Journal is envisioned to be a collection of policy-oriented articles written by its Research Associates, Visiting Faculty and professional experts. The objective is to provide the readership with a concise all-round and real-time policy oriented discourse on contemporary strategic regional and international developments, highlighting their relevance to Pakistan.

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Editor's Note

The *SVI Foresight* for the month of January brings with it a rich mix of high quality analytical opinions on a range of subjects dealing with strategic, security and international politics. The articles mostly focus on the contemporary developments and give an in depth diagnostic review of the regional and global strategic and security environment.

With the launch of Babur-III and Ababeel, Pakistan has acquired the much needed nuclear triad. This development has remarkably added to the stabilized relationship between the two South Asia nuclear states now that both have assured second strike capability. The missile tests by Pakistan hence hold a great importance as they have considerably reduced susceptibility of a nuclear attack. One of the articles included in this volume reflects upon the repercussions of these missile tests. The author maintains that even though both Pakistan and India both have sufficient nuclear capable bombers, warheads and ballistic and cruise missiles, it is due to the robust modernization and enlargement of India's military arsenals which brings in a quantitative and qualitative asymmetry yet challenging Pakistan. This is what enforced Pakistan to build its own nuclear capabilities with the sole purpose of ensuring the credibility of its nuclear deterrence. The first successful flight test of Ababeel, after the two operational MRBMs Shaheen-I and Shaheen-II, would enable Pakistan to launch multiple warheads using Multiple Independent Re-entry Vehicle (MIRV) technology. This development placed Pakistan among few states, including US, China and Russia, to possess this technology.

Another article in this issue deals with how the successful test of ICBM by India has opened up a new debate on missile proliferation in South Asia and its impact since the missile has been termed as 'game changer' and 'giant leap' in country's strategic calculus. It also shows that India might be developing most of its capabilities to counter China, yet a variety of capabilities can allow India in future to adopt an aggressive strategy towards Pakistan. Consequently, it is argued by many analysts that India is moving from its minimum deterrent posture to higher state of readiness and war-fighting capabilities. It also underestimates the widely-recognized statement that India has a centralized command and control system. This also raises questions

about deploying canisterised missiles under centralized command. India by developing these sophisticated capabilities is increasing instability in the region since it would pressurize the neighboring nuclear state to improve the readiness of its weaponry that ultimately would increase missile proliferation and intensify the risk of escalation.

One can also find an equally important analytically commentary about the exchange of nuclear installation lists between India and Pakistan. The article tries to find if this practice ensures the safety of nuclear facilities or not. It is rightly concluded that only this exchange of lists does not ensure the safety of all nuclear assets. Keeping in mind the rivalry and nuclear competition of both South Asian armed states, the facilities that come under the exchange umbrella are not too open to either side. For instance, if the uranium enrichment is taken into account, India is reportedly enriching it in secret and off-the-record. The separation of isotopes and reprocessing facilities is also kept secret. India is also engaged in the illegal export of thorium from Tamil Nadu and Europe as shown by the Indian media reports early last year. Hence there is a need to comprehensively analyze this aspect as well.

With regards to India's inclusion into MTCR, pertinent arguments have been laid out in another opinion article about the huge benefits that it has given to India. The membership not only helped New Delhi to upgrade its supersonic missile Brahmos but has enabled India to go up in the global supply chains of these technologies. That it would like to become a legit supplier is the reason why it is willing to put its supply plans to international scrutiny by having joined the MTCR. The article also reflects upon what India would do if its dream of obtaining NSG membership comes true. Such a membership would, for sure, add to the already ambitious orientation of India and will lead the way for the enhancement of its uranium reserves for military usage.

Other articles included in this issue deliberate upon a number of significant areas that have direct implications for Pakistan. These include a detailed overview of challenges and prospects in the way of Pakistan's civil nuclear projects, violation on Indus Water Treaty by India and the Indo-Pakistan relations in the contemporary perspective etc. A distinctive viewpoint can be found regarding Pakistan's FMCT policy. Similarly a critical appraisal of India's nuclear safety

and security measures, help one understand clear biases of international community and loopholes in the existing safety and security measures of India. These weaknesses in India's prevalent safety measures are a direct risk to the ambitious policy of nuclear arms development and enhancement of its capabilities. Nonetheless the international community seems to deliberately turn a blind eye over this important issue.

Last but not the least an extensive debate can be found about the emerging geopolitical jostling and reshuffling of global alliances. One can find a unique take with regards to the changing priorities of the state which in turn is giving rise to a different set of partnerships between Russia and China on one hand and India, US, Australia, Japan etc. on the other hand. CPEC being the main launching pad has the potential to bring the two estranged Cold War allies back together not just to benefit from the promised dividends of the project but also to collectively counter the Western influence in this part of the world. Another article closely linked with the same debate has explored the prospects of expansion of CPEC. With a lot of media hype about the potentials of the multibillion dollar project, a number of states have been found willing to join the CPEC. The article is an attempt at finding out the authenticity behind such proclamations and aims at gauging the expected benefits for the stakeholders if in case the spectrum of CPEC goes beyond including the immediate regional states. These and other issues have been critically analyzed in this volume.

It is hoped that the issue will help readers in staying updated with the current political environment and they will find the analyses useful. The SVI Foresight team invites and highly encourages the contributions from the security and strategic community in form of opinion based short commentaries on contemporary political, security and strategic issues. Any suggestions for further improvements are welcome at our [contact address](#). Please see [here](#) the copy of SVI Foresight electronic journal. You can find us on [Face book](#) and can also access the SVI [website](#).

Senior Research Associate
Syedah Sadia Kazmi

Paradise on Fire; Human Rights Abuses in Kashmir

Babar Khan Bozdar

Larry Collin in his book “Freedom at Midnight” writes that Partition of Subcontinent was one of the dangerous divorces in the history. Today India and Pakistan are two independent countries on the map of the world but Kashmir issue is still unresolved. Kashmir is the unresolved agenda of partition and till today the people of Kashmir lack freedom. The paradise on earth is every day washed with bloodshed and the voice of innocent people is being suppressed through bullets and pellets. This is what we call State barbarism? And the civilized world has sewed their lips on human rights abuses in Kashmir. The human rights violation in Kashmir is not new but these wounds are 65 years old. India and Pakistan have fought three wars on the region of Jammu & Kashmir but without any conclusion and still there is a possibility of future wars on Kashmir, if not resolved timely.

When Britain announced partition of the sub-continent, the ruler of Kashmir Maharaja Hari Singh announced the accession of Kashmir with India on 26 October 1947 in return for military aid and assistance without soliciting public opinion. More than 77% population belongs to Muslims. Moreover, Indian forces entered the Valley and forcibly captured it. Later on, UN Security Council passed a resolution calling on both India and Pakistan to withdraw their forces.

A ceasefire was agreed in January 1949 under the supervision of UN observers. Later on different rounds of negotiations were held but India rejected its withdrawal from the Valley and since Kashmir has become a bone of contention between India and Pakistan. Since the accession, the people of Kashmir are subject to oppression, suppression, subjugation and on the mercy of Indian army. Indian army is brutally suppressing their voice. It is reported that everyday bullet-riddled bodies of Kashmiri youths are found. This is barbarism and inhuman act of Indian army and now this chapter should be closed and injustice should be stopped.

Recently we have seen unrest in Kashmir after the brutal murder of Burhan Wani by Indian security personnel. After the sad demise, the anti-Indian protest started in whole Kashmir and protestors defied curfew and recorded their protest worldwide. Curfew was imposed, Mobile and Internet services were suspended and media men were not allowed in the Valley. Jammu & Kashmir police and Indian paramilitary forces used pellet guns, tear gas shells, rubber bullets and assault rifles against peaceful protesters.

Human Rights Commission accused more than 500 soldiers and officials of Indian armed forces including custody, death, abduction, torture and enforced disappearance cases. The 354 page report was compiled by Association of Parents of Disappearance Persons (APDP) and the International People’s Tribunal on Human Rights and Justice in Indian occupied Kashmir (IPTK). It has analyzed 214 cases of abuse and highlighted the role of Indian army in the killing of 70 innocent peoples and disappearance of 8000 people. The report claimed very high ranking officials as perpetrators.

Let's see what the UN Charter says in this regard: 1. All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act toward one another in a spirit of brotherhood, 2. Everyone has the right to life, liberty, and security of Person, 3. No one shall be held in slavery or servitude, slavery and slave trade shall be prohibited in all their forms, 4. No one shall be subjected to torture or to cruel, inhuman or degrading treatment and punishment, 5. Everyone has right to recognition everywhere as a person before a Law.

There are thirty articles of Human Rights Charter, which signify and put stress on human rights, but in the light of above articles, the Question is that, have human rights institutions succeeded in implementing above Charter in Kashmir? Since insurgency in Indian Occupied Kashmir, more than 600000 Indian troops are deployed in Kashmir, while the Indian government refuses to release official figures. The huge number of troops is not deployed there for playing Chess, and in fact, they are playing with human rights. The troops have been accused of human rights abuses in Kashmir and have engaged in extra-judicial killing. Similarly, Indian government itself admits that Kashmir lags behind other States in terms of socio-economic development and there is a high level of unemployment in the State. Is this also not an act of human rights violation? Kashmir is burning with bullets and shells and its suppression is condemnable. Why is civilized world silent? It is questionable. In this regard, position of Pakistan is praiseworthy. Pakistan always supported the voice of oppressed and suppressed nations, while on Kashmir Pakistan has an official claim that it belongs to Pakistan and now Kashmir issue must be resolved. The Indian Constitution says that all citizens shall have an equal right to freedom of speech and expression and when it comes to Kashmir, Indian army forgets the Constitution and starts barbarity. It is clear that there is a difference in Indian subject and verb. To sum up, I will suggest, "Say no to Indian brutality in Kashmir" and let's step forward together to say no more human rights violations in Kashmir.

<http://pakobserver.net/paradise-on-fire-human-rights-abuses-in-kashmir/>

Pakistan's Civil Nuclear Projects: Challenges and Prospects

Tooba Shahzadi

To eliminate the menace of load shedding from the country, and to prove Pakistan's stance and commitment for peaceful uses of nuclear energy, Chashma-III nuclear power plant has been inaugurated that will add 340 MWe electricity to national grid.

Chashma-III Power Plant is no doubt yet another milestone in the Pak-China joint collaborations. This was the third project after successful operation of Chashma-I and Chashma-II projects, which were fully operational and producing 325 and 340 MW respectively.

Pakistan Atomic Energy Commission (PAEC) has successfully built Nuclear Power Plants (NPPs), operated and maintained them with an experience of more than 45 years. All Nuclear Power Projects, including Chashma-III have been approved by Pakistan Nuclear Regulatory Authority (PNRA) for Nuclear Safeguards as per International Atomic Energy Agency (IAEA) agreements thereby maintaining highest safety standards.

Pakistan Atomic Energy Commission (PAEC) established the first nuclear power reactor at Karachi named Karachi Nuclear Power Plant (KANUPP-1/K-1). K-1 was a small 137 MWe Pressurized Heavy Water Reactor (PHWR) operationalized in 1971. K-1 contributed towards power requirement of Karachi for nearly 45 years and has been given an extension of ten years after a careful review by PAEC. The second unit Chashma-1 (C-1) is a 325 MWe two-loop Pressurized Water Reactor (PWR) that was installed in May 2000. Its twin unit, Chashma-2 (C-2), was installed in 2011 with an upgraded capacity of 330 MWe. The net capacity of the above three nuclear power plants is 600-700 MWe, which amounts to 4.3 per cent of the total energy mix. Though functioning efficiently, yet the installed nuclear power plants are not enough to bridge energy supply and demand gap. Pakistan, therefore, decided to install another two nuclear power plants C-3 and C-4, each carrying 320 MWe with Chinese assistance to its grid. The work on installation and operationalization of these projects started in 2011 for a functional life of nearly 40 years, under the complete safeguards of the International Atomic Energy Agency (IAEA).

Following the progress made on C-2 and C-3, and contextually recognizing the need for more energy, Pakistan, in June 2013 announced that two 1000 MWe class reactors would be installed as K-2 and K-3 adjacent to the site of K1, in Karachi. It is expected that the K-2 and K-3 will be finalized by 2020 and 2021 respectively. The K-2 and K-3 projects are an inescapable necessity for Pakistan, as in recent times, the production of electricity is far outnumbered by the demand coupled with announced and unannounced load shedding are impeding the growth and development. Pakistan was producing 755 MWe electricity from the existing nuclear plants and it would reach to 40,000 MW by 2050. However it is very low with compare to our immediate neighbor's production capabilities.

Despite fulfilling International Atomic Energy Agency (IAEA) safeguard standards, the Nuclear Supplier Group (NSG) raised apprehensions about China's supply of C-3 and C-4. Coincidentally, the aim of the NSG was to ensure that transfer of nuclear material would not be diverted to unsafeguarded nuclear

fuel cycles and nuclear explosive activities. The NSG elaborated and served the purpose of the Nuclear Non-Proliferation Treaty (NPT – came into force in 1970) Article III and IV. It's worth noting that China acceded to the NPT in 1992 and signed the provisions of the NSG in 2004. The contracts for C-1 and C-2 were signed in 1990 and 2000 respectively, before China joined the NSG, which imposes an embargo on sales of nuclear equipment to Nuclear Weapon States (NWS) that are not party to the NPT. Therefore, the Chinese official stance is that C-3 and C-4 are similarly “grandfathered,” and arrangements are consistent with those for units 1 and 2.

Secondly, the design of K-2 and K-3 (which is known as the ACP-1000 design) is seen to be in violation of internationally acclaimed safety standards required of a nuclear power plant. According to PAEC, the “ACP-1000 model selected for the new reactors is based on the well-tested PWR concept of which hundreds of systems are operating around the world.” PAEC also reported the ACP-1000 design as a Generation-III plant and claims ‘Passive Safety Systems (PSS),’ which means that no active interference is needed in case of errors or failure. These passive safety systems help the plant’s engineers or operators a maximum of 72 hours to act in case of emergency situations as it has been incorporated with additional security measures unlike the Chernobyl and Fukushima accidents.

On Accidents’ Evaluation, the evidence shows that the K-1 has been running smoothly for the last 45 years, neither did it release any radiation nor did it create any other predicament for local residents. Furthermore, these fresh K-2 and K-3 power plants, according to the PAEC, are double containment plants that mean radioactivity will remain inside the plant even in case of any misfortune. The Pakistan Nuclear Regulatory Authority (PNRA) has casted low chances of releasing radioactive material from the reactors into the environment. Indeed a double containment wall to avoid the release of radioactive material makes the two nuclear reactors safe. More so, Karachi’s population is within the requirements of nuclear power plants; no development will be permitted in the vicinity of the plants. The design can withstand an earthquake of 9.0 Richter scale. Moreover, Karachi Development Authority clearly prohibits all housing society construction within 5 km of K-1.

On the efficacy of K-2 and K-3, PAEC’s sound credentials and accident free record of operating nuclear power plants up to this date, markdowns any doubts. From 1960s up till now, only two deaths were reported from nuclear plants’ incident, which is not very high. PAEC had carried out surveys that reveal the maximum temperature of water in Karachi is 31oC and the water that is used for cooling the plants only had increased around 2 to 3oC that was still less than harmful level for marine life that is 38oC. The current location of these plants has been regarded as feasible by the relevant authorities such as the PAEC. The National Command Authority has also set up a specialized force for the protection of nuclear installations. There are other issues as well, such as availability of infrastructure, geographical stability against natural disasters and the likes that point to the area outside Karachi as a suitable candidate to host a nuclear plant.

PAEC has initiated a comprehensive nuclear safety & security plan which involves risk assessment, preparedness and an evacuation plan for people living out to 15 km from the site. This feature has become more significant after the Fukushima incident that did not have a natural cooling system as they thought that there would be no electricity shutdown in Japan. It is paramount that the

PNRA and PAEC ensure a close coordination with the NDMA in order to reinforce preparedness plans to respond to natural and man-made accidents.

To achieve a mid-term target/plan set out by the PAEC, Chashma-IV Nuclear Power Project to be completed in 2017 and Karachi Nuclear Power Projects K-2 and K-3 will add a total of 8, 800 MW electricity to the National Grid by 2030. A 45 years old K-1 is the best example to pursue all the planned NPP in Pakistan to meet the further energy requirements.

<http://foreignpolicynews.org/2017/01/15/pakistans-civil-nuclear-projects-challenges-future-prospects/>

Ignored MTCR Benefits for India

Beenish Altaf

Amid huge hue and cry over the Indian bid to the NSG membership, India silently went on to become member of the Missile Technology Control Regime (MTCR) in mid 2016 — an Indian diplomatic achievement which was undermined when India entered the elite MTCR group and the membership is still undermine even by the Indian diplomatic experts. May be its India's diplomatic ploy to keep its MTCR membership benefits under cover and they are not even discussing its benefits that helped them stop any such talks floating in either local or any global media organization.

The membership not only helped New Delhi to upgrade its supersonic missile Brahmos but enabled India to go up in global supply chains of these technologies and that is why it is investing in projects like the upgrade of Brahmos. That it would like to become a legit supplier is the reason why it is willing to put its supply plans to international scrutiny by having joined the MTCR. While there are statements that are alarmists on both sides, it could be useful to consider other and better-reasoned objectives for any development such as this. Yes, it applies both ways. Otherwise, we will be stuck with the security dilemma.

India joined the MTCR on June 9, 2016 prior to the formal plenary held in Busan (South Korea) on October 17-21, 2016 primarily thanks to the assistance of Russia. As such, India immediately decided to benefit from its entry into the group by deciding on to the enhancement of the range of its supersonic cruise missiles beyond their previously known limit.

Despite the fact that India is heading towards the advancement of its missiles after joining the 34 nation group where, MTCR actually work to restrict the proliferation of missiles, complete rocket systems, unmanned air vehicles, and related technology for those systems capable of carrying a 500 kilogram payload at least 300 kilometres, as well as systems intended for the delivery of weapons of mass destruction (WMD).

India and Russia have agreed to extend the range of the BrahMos supersonic cruise missiles beyond the current 300 km. The proposal to increase the range has been under consideration for a long time, but it is now formalized after India became a MTCR member this year. It has also been mentioned in the Indian press that only minor changes will be enough to extend the range of BrahMos missiles up to 372 miles.

BrahMos, is a joint venture between the Russian Federation's NPO Mashinostroyeniya and India's Defence Research and Development Organisation (DRDO) who have together formed BrahMos Aerospace. The name BrahMos is a portmanteau formed from the names of two rivers, the Brahmaputra of India and the Moskva of Russia. It is a short-range ramjet supersonic cruise missile that can be launched from submarines, ships, aircraft or land.

It needs to be taken into account that Russia has very bluntly welcomed India's entry into the MTCR group. Russia itself believes that it is a key anti-proliferating member of the group. The membership for India has definitely eased space and missile collaboration with Russia, which could not supply cryogenic engines and other dual use technology missiles to India, because it was bound by MTCR norms. This is because of the fact that the MTCR guidelines prohibit its members from transfer, sale or joint production of missiles beyond 300-km range to countries outside the group. As such India now has the license to increase the range of its missile jointly with Russia.

This joint step by India and Russia is an offensive move that points towards Pakistan, as it was very difficult for the BrahMos with just a 300 km range to target inside Pakistan. After enhancing the range the missile will be able hit anywhere inside Pakistan, and thus has vast regional implications. Indeed, this could be worrisome not only for Pakistan, but also for China.

An Indian military official stated at some point of discussion, that "our threat perceptions and security concerns are our own, and how we address these by deploying assets on our territory should be no one else's concern." The statement depicts the aggressive and offensive mode of the Indian mind making. A greater range for the BrahMos would imply that India's power to strike would get an unprecedented fillip.

Last but not the least, it could be taken from the above that as India is doing this right after gaining MTCR membership, one has to wonder what it would do if its dream comes true of obtaining NSG membership. Such membership would, for sure, lead the way for India to enhance its uranium reserves for military usage.

Analytically, China stonewalled India's entry into the NSG at the recent June Plenary as it has an impact on the country being an active member of the group, but it could not stall India's membership to the MTCR seeing that China is not a member. Nevertheless, India is undoubtedly spending more and more in developing its tremendous firepower and strike capabilities. This is alarming for the world in general and the region in particular.

<http://www.dayafterindia.com/2017/01/16/ignored-mtcr-benefits-for-indian/>

Exchange of Nuclear Installation Lists in South Asia

Beenish Altaf

The only thing that two arch rivals India and Pakistan adhere to and are obeying in true spirits is the exchange of their nuclear installations under the agreement, which prohibits them from attacking each other's atomic facilities. The 'Agreement on the Prohibition of Attack against Nuclear Installations' was actually signed on December 31, 1988, and entered into force on January 27, 1991. It was signed by the then Indian Prime Minister Rajiv Gandhi and his Pakistani counterpart, Benazir Bhutto. This bilateral agreement signed between India and Pakistan restrains them from carrying out any surprise attack and also impedes foreign assistance in attacks on each other's nuclear installations and facilities. It also bounds them to inform each other whenever any change occurs in their nuclear installation. For this reason, both countries have to update each other about their nuclear installations and facilities.

In addition to the Agreement on the Prohibition of Attack against Nuclear Installations, Pakistan and New Delhi have also signed the Agreement on Consular Access. The latter was signed between the two countries on May 21, 2008. It facilitates the exchange of a comprehensive list of nationals, which include civil prisoners, and fishermen of each country lodged in their respective jails, as per the provisions of the agreement twice every year — on January 1 and July 1.

Since the first such exchange took place on January 1, 1992, this year marks the 26th consecutive exchange of the nuclear installation lists — a part of the treaty signed between the two countries. This exchange is always carried out through a proper diplomatic channel in both New Delhi and Islamabad. Both the lists were delivered to the high commissions on either side.

While analysing relations among both the countries, it is evident to narrate that tension generally prevails in the geostrategic environment of South Asia. Previously, Indian security forces had committed a mayhem in occupied Kashmir after the death of freedom fighter, Burhan Wani. After Wani's killing, thousands of protesters in held Kashmir took to the streets and protested against the Indian government. Thousands were injured by the Indian security forces' usage of pellet guns. On the other side, the bilateral relations also suffered when 19 Indian soldiers were killed in the Uri attack. India blamed this incident on Pakistan, which Pakistan vehemently denied. Since the past couple of months, both countries have continuously exchanged fire across the Line of Control; suffering casualties.

The term 'nuclear installation or facility' according to the agreement's language includes nuclear power and research reactors, fuel fabrication, uranium enrichment, isotopes separation and reprocessing facilities as well as any other installations with fresh or irradiated nuclear fuel and materials in any form and establishments storing significant quantities of radioactive materials.

Despite having so many skirmishes with each other, both states kept up with the years-old traditions of exchanging installations lists by developing it as an exercise in faith. But paradoxically narrating, only this exchange of lists does not ensure the safety of all nuclear assets. There is a need to comprehensively analyse this aspect as well. Keeping in mind the rivalry and nuclear competition of

both South Asian armed states, the facilities that come under the exchange umbrella are not too open to either side. For instance, if the uranium enrichment is taken into account, India is reportedly enriching it in secret and off-the-record. The separation of isotopes and reprocessing facilities is also kept secret. India is also engaged in the illegal export of thorium from Tamil Nadu and Europe as shown by the Indian media reports early last year.

Moreover, with regard to the nuclear power and research reactors, India's regulatory framework for the safety of nuclear power plants, when analysed by IAEA in 2015, was declared in a need of further action with regards to the nuclear regulation as it was not independent enough to take internal emergency arrangements. It is also clear that India has a poor nuclear materials safety record. The Nuclear Materials Security Index (NTI) ranks India below Pakistan, and only above North Korea and Iran. Thus, when assessing altogether, this does not only depict the poor state of export controls in the country but also intricate the associated concerns of nuclear proliferation and misuse, which are generally not elaborated by the Western media.

It would not be wrong to narrate that the exchanged list is merely a list that depicts what it wants to show to the world. Despite the fact that the 1980's CBMs were effective initiatives, there should still be a mechanism to move ahead from those CBMs by working towards a focus on the safety and the transparency of nuclear installations and facilities on both sides.

<http://dailytimes.com.pk/opinion/19-Jan-17/exchange-of-nuclear-installation-lists-in-south-asia>

What an ICBM Tells About Trends and Targets

Maimuna Ashraf

The strategic landscape of China, India and Pakistan contours the regional environment because three states share commonalities about historical conflicts, geography and power acquisition. In the South Asian region, the arms race is proportional to the nuclear developments of India. In order to achieve significant superiority over Pakistan and satisfactory status quo with China, India has recently augmented its nuclear and missile programme more speedily. Several tests conducted last year by India enhanced the sophistication of its nuclear programme and upgraded sea-based deterrence. The recent successful test of Indian Inter-Continental Ballistic Missile (ICBM) has embarked a new debate on missile proliferation in South Asia and its impact since the missile has been termed as 'game changer' and 'giant leap' in country's strategic calculus.

The final testing of Agni-V ranks India among exclusive states possessing ICBMs. The significant and noteworthy aspect of this development is the incorporation of new technologies in the Agni-V missile. The induction of these technologies hints towards future trends, strategies and aspirations. Moreover, the provided canister based launch system would support the storage of missile until the desired launching time. The mated form of warhead and missile would enable the operational flexibility by making the missile preparation/deployment time shorter. It eases the reloading and increases the readiness. Second, this canisterised version from a road mobile launcher would enable the flexibility of launching the missile from anywhere in the country and make the missile highly mobile. An important technique to ensure safety and reduce the vulnerability of nuclear assets on land is to make them mobile. The frequent mobility of missiles declines the adversary's capability to continuously monitor and track them with the aim to hit accurately. Moreover, if decoys were also to be placed with real missiles, it would further complicate to hit the opponent's real missiles. Third, Agni-V is solid fuel propelled missile that offers longer storage life, as compared to the liquid fuelled missile which offers less shelf life and demands longer time before preparation. Thus, solid fueled missile reduces preparation time, increase accuracy and improve readiness level. Fourth, the test launch of a missile in a depressed trajectory would provide the ability to counter ballistic missile defence (BMD). The BMD system consists of sensors to detect and track the missile/warhead and a guided missile, called interceptor, to intercept and destroy the incoming enemy ballistic missiles by using the "hit-to-kill," direct impact technologies. However, in the depressed launch, the angle and less flight time do not provide enough reaction time to BMD to track and hit the target. Fifth, Agni-V is also significant for India's weapons capability in space. In the words of DRDO Chief VK Saraswat, "Agni-V's launch has opened a new era. Apart from adding a new dimension to our strategic defence, it has ushered in fantastic opportunities in building anti-satellite (ASAT) weapons and launching mini/micro satellites on demand". Sixth, in future, Agni-V is expected to be incorporated with MIRV technology. The coupling of a nuclear-capable ballistic missile with MIRVs looks more dominant posture for a minimum deterrent. Moreover, since both China and Pakistan do not possess BMD thus this technology also signifies Indian ambitions beyond these two states. The range of missile brings a major portion of Asia and Europe (reportedly includes Moscow and Tehran) within its

sweep. Accordingly, this submarine-launched ballistic missile revolves around a nuclear triad of land, air and sea-based capability.

Consequently, the way India is lately vehemently pursuing its ambition to build long-range power projection capabilities, the trend hints to operational deployment of nuclear-armed ballistic missiles of different ranges against its adversaries, that certainly includes its two nuclear neighbouring states.

Pragmatically, India's existing strategic threat scenario does not necessitate a missile with range more than 5000 km. However, it has been reported by Indian officials that after concluding Agni-V flight testing, India will push the development programme of Agni-VI while the capabilities and specifications of the missile have already been decided. The question arises that against whom these extended ranges of missiles will be aimed at. Although there was no unpleasant reaction from the international community especially from a Western state, however, the Chinese reference about India breaking the UN limits on nuclear arms and the long-range missile is significant as far as the global arms control measures are concerned. Chinese stance is that India's growing role as a not-NPT state is changing the geopolitics of Asia-Pacific region.

Consequently, it is argued by many analysts that India is moving from its minimum deterrent posture to higher state of readiness and war-fighting capabilities. It also underestimates the widely-recognized statement that India has a centralised command and control system. The question arises about deploying canisterised missiles under centralised command.

India might be developing most of its capabilities to counter China, yet a variety of capabilities can allow India in future to adopt an aggressive strategy towards Pakistan. India by developing these sophisticated capabilities is increasing instability in the region since it would pressurise the neighbouring nuclear states to improve the readiness of its weaponry that ultimately would increase missile proliferation and intensify the risk of escalation.

<http://dailytimes.com.pk/opinion/21-Jan-17/what-an-indian-icbm-tells-about-trends-and-targets>

Pakistan's National Security Calculus

Saima Ali

New Delhi denies the reality of Cold Start as a concept, attributing the terminology to off-the-cuff remarks by Indian officers. Nonetheless, India has been implementing a strategy that has deeply startled Pakistan, driving Islamabad to invest in tactical nukes and change its own nuclear posture, leading credible minimum deterrence to full spectrum deterrence. At the same time, Islamabad is alert of the gap in conventional military capabilities between itself and India.

Pakistan has taken an asymmetric approach to the new threat, building up and relying on an arsenal of tactical nuclear weapons, lower yield nuclear weapons designed for direct use on the battlefield against enemy forces. Pakistan is calculating that tactical nuclear weapons would essentially counter India's conventional military superiority. Although it is a nuclear power, India does not operate or plan to develop tactical nuclear weapons. Obviously, Pakistan will have an advance in this situation. India has adopted a fast-launch stance which will be hardly de-escalated by international diplomacy's measures. In turn, the Pakistani defence and deterrence capabilities are grounded on a usage of the tactical nuclear weapons. This is raising the possibility of a full-scale nuclear war on the South Asia in case of a potential conflict between Pakistan and India.

In fact Pakistan is more than capable enough of thwarting an Indian offensive. Pakistan arm forces are concentrated on the Western border and all of our military resources and focus is being pulled into the new military operations so this makes us susceptible from an attack of any size on our Eastern border; tactical nukes were developed to counter India's massive numerical conventional weapons superiority.

Indian army forces are much larger than Pakistan's own conventional defence Pakistan would be justified in using tactical nuclear weapons against, like Indian tanks if they traverse over. The position is that this would be a defensive rather than offensive. It would not target Indian cities but be used for protecting Pakistan territory. Cold Start was the trigger that got Pakistan to think along these lines as it seriously alarmed the Pakistan High Command. Earlier on, nuclear development in Pakistan was along the same lines as in India, except that India went in for the hydrogen bomb and Pakistan is still working with fissile material.

Nonetheless, as Lt Gen Kidwai revealed in 2015 that while Pakistan had already moved from minimum deterrence to full spectrum deterrence, the current arsenal size would be sufficient for the next 10 to 15 years. As per the estimates of the arms Control Association, Pakistan currently has between 100 to 120 nuclear warheads as compared to India's 90 to 110 warheads. However, Pakistan believes that the rising conventional difference with India fetched its inherited security dilemma from the eastern borders, lowering its nuclear thresholds and forcing it to boost efforts to play the much anticipated numbers game. The full spectrum deterrence, as being implemented by Pakistan, is a little different than that perceived by others, specifically the west. It needs logical literature and clarification

on the subject. It would be helpful to neutralize the international community's concerns regarding the concept that Pakistan aims for nuclear parity with India.

Factually, Pakistan does not seek equality; it only aims for balance. The opposite could be true for India because its program is neither for balance nor parity but rather for its so called prestige and supremacy. Pakistan's National Command Authority (NCA) is clear on this, which full spectrum deterrence, in its qualitative term, is to plug the gaps in deterrence and address any forms of aggressions.

<http://pakobserver.net/pakistans-national-security-calculus/>

The Trump Administration's Policy vis-à-vis South Asia

Zainab Aziz

Donald Trump's Doctrine after becoming the 45th President of the United States regarding South Asia is not really vague to be speculated. The Trump Administration's economic and national security teams will have to deal the region with both long-term geo-strategic policies and near-term tactical decisions at a time when the South Asian region is encompassed with the muddled situations and problems. Pakistan, being the frontline state against terrorism is still suffering due to the "DO MORE" rhetoric as the Global War on Terror is in the culmination phase now.

Afghanistan seems to have drowned more deeper into instability while the India's development and the economic growth has met a temporary setback. China has intensified its involvement in the form of developmental projects and infrastructural reforms in Nepal, Bangladesh, Sri Lanka and specifically Pakistan in the shape of multi-faceted billion dollars project of the China Pakistan Economic Corridor.

Although Trump stated less about Afghanistan crisis during his campaign, it is obvious that Afghanistan will be on priority list in South Asia especially due to the presence of US troops which were to be depleted up to 5,500 troops by the end of year 2016. However, 8,400 troops have been retained to guide and help the Afghan Forces to fight against Taliban who are rearing their heads up once again by making the new territorial gains.

Just like the previous US Administrations, the Trump team requires a post-haste review of its policies and will have to devise a strategy that serves the US national interest by eradicating the Taliban insurgency and initiating the developmental projects in the war-torn country.

The new US Administration is likely to upskill, guide and train the Afghans in the counter-terrorism expeditions. Trump has vowed to completely eliminate the radical Islamic terrorism, primarily the Islam State as his first stratagem for achieving the national security goals. The fragile government of Kabul needs the diplomatic assistance from the Trumps Administration. The restoration of the Taliban's terrorist attacks and the troubled armistice between the Afghan National Unity Government's and the Taliban is getting worse and this chaotic situation necessitates the Trump's revised policy towards Afghanistan, though the willingness for the political reconciliation may seem indefinite yet.

The next challenge that the Trump team will encounter will be Pakistan. It is evident throughout the history that US foreign policy has always been inclined towards India in South Asia. Likewise, in the Donald Trump's era the policies will continue in the same manner without any sharp divergence in the favor of Pakistan. Resultantly, Pakistan must engage itself in soft power diplomacy by collaborating more with China in the mega-project of CPEC and it should turn its eye towards East Russia for the better future prospects.

This would definitely shape the foreign policy of Pakistan in a more multidimensional and diverging ways. It is humbly anticipated that the recent US Administration would shun its policy of Congagement (a policy of containment and engagement) vis-à-vis Pakistan. Which, however might give a sigh of relief to all the intelligentsia and the policy makers of the respective countries. This conducive environment will lead to the relations based on mutual trust striving for mutual interests, giving space to the engagement policy only.

The bilateral relations between India and Pakistan are currently at lowest ebb following the terrorist attacks in Uri and Pathankot for which Pakistan was thoughtlessly accused without any evidence. This situation becomes more alarming when both the states are nuclear power. India's efforts to declare Pakistan as the state sponsor of terrorism lead the US policy maker to rethink the Pakistan's status as it always played a crucial role against the GWOT.

Although Pakistan's efforts have been acknowledged for carrying out Operation Zarb e Azab, still the Trump Administration can raise its apprehensions for the compartmentalization of the terrorist groups. In order to avoid this worrisome obligation, Pakistan must discontinue its dubious policies towards dealing with the terrorist organizations otherwise it can jeopardize the Pakistan's stance in the Republican-dominated US Congress.

However, it is envisaged that the exigency of the contemporary circumstances is that US foreign policy must have a complete and structural refurbishment vis-à-vis South Asia. If Pakistan is ignored, it would be counterproductive to the US interests in the region. Pakistan is the state that cannot be marginalized for a longer period of time. Stronger ties with Pakistan will result in peace and an end to the insurgency in Afghanistan that is ultimately in the interest of the whole world specially US.

<http://www.voiceofjournalists.com/the-trump-administrations-policy-vis-a-vis-south-asia/>

Credibility of the Chinese and Pakistan's NC2 Structure

Nauman Hassan

Nuclear Command And Control (NC2), a mechanism to regulate the nuclear weapons, delivery systems and nuclear forces; to make sure the security, safety, reliability and survivability of nuclear weapons by utilizing all available organizational and technical measures.[1] Paul Bracken defined C2 in his book as “an arrangement of facilities, personnel, procedures and means of information, acquisition, processing, and disseminations used by a commander in planning, directing, and controlling military operations”. [2] NC2 got more intensification during the Cold War era when both the nuclear weapon states (US and USSR) possess about 70,000 devices.[3]

US Department of Defense elaborated C2 as “the exercise of authority and direction by a purposely designated commander over assigned forces in the accomplishment of the mission. Command and Control functions are performed through an arrangement of personnel, equipment, communications, facilities and processes employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.[4] C2 is a set of arrangements or facilities to maintain survivability, security, safety and reliability of strategic weapons.

China started work for nuclear acquisition in midst of 1950s. China conducted its first successful atomic test in October 16, 1964. After a few years of test, China faced strained relations with Soviet Union. At that time, China officially announced a defensive “No First Use Policy”. Till the end of 1980s, China had small number of nuclear weapons relatively to other nuclear weapon states. Due to unsophisticated technology and small numbers of weapons, they were more vulnerable to first strike. The unavailability of second strike capability could further minimize the credibility of China's deterrence. Just before the high-tech Gulf War, military's communication system of China was based on radio and land line communication instead of fibre, which was more vulnerable to first strike. Under the leadership of Deng Xiaoping, military kicked off improvements in command and control, military structure, technology (from unsophisticated technology to more sophisticated high-tech technology).

Second Artillery Corps was established in July 1, 1965 and started work properly in October 1, 1984. It comprises 4 % of PLA's personnel and receives 15-20 % of PLA's total budget.[5] The research, development, and production of nuclear weapons in the People's Republic of China (PRC) appear to be under the control of the military. The Second Artillery Corps (SAC) is tasked with implementing the reliable and secure command and control of China's nuclear and conventional missile forces. The PLA's Second Artillery (missile force) deploys nuclear-armed and conventionally armed missiles for strategic deterrence and manages the storage and security of nuclear weapons.[6]

SAC is headquartered in Qinghe, near Beijing, it is controlled and ordered directly by Central Military Command (CMC).[7] It is responsible for training of strategic forces, security of nuclear weapons and to make sure the survivability and readiness for retaliation after first strike. *Chinese Military Power* suggests that “China has an extensive network of hardened, underground shelters and command and control (C2) facilities for both its military and civilian leadership.”[8]

Chinese Nuclear Command and Control:

China's NC2 is very secret and ambiguous; nobody knows the exact information about Chinese NC2. All the available information is based on leaked documents and technology revelation. Chinese nuclear forces are believed to possess almost 240 nuclear warheads. According to Michael Swaine, China maintains "a highly centralized and unified command" system for nuclear operations. There are two decision making bodies; the Politburo Standing Committee (PBSC) and the Central Military Commission (CMC). All members of the two bodies (7 members of PBSC and 8 members of CMC) are party members. The Commander of SAC is also member of this decision making bodies. There are four people who involved in final decision making process e.g. Chairman of the CMC, (a position equivalent to commander-in-chief of the country's armed forces), Vice Chairman of CMC, President of the National People's Congress and a representative from PLA. . The final authority to launch or use nuclear weapons rests in the hands of the Chairman of CMC; he has also final veto power.[9]

There are four layers of command between the headquarters of SAC and the basic launching units; the headquarters of the SAC, regional Base command, the brigades and the battalions. SAC's headquarter serves as relaying point connecting every basic launching unit and site to CMC through direct communication "Hot Lines".[10]

The exact number of regional base commands is unknown, but some sources put the figures at six. All the regional base commands have sub-bases, each of which is allocated the duty of specific targeting. Below the regional bases, there are fifteen missiles brigade, responsible for missiles firing mission in a conflict. All the brigades are made up of number of battalions equipped with different types of missiles e.g. strategic missile carrier or several tactical missile systems. The battalions are further sub divided into companies e.g. companies of launching units, logistic supply companies, security companies and engineering companies. There are different types of cites; permanent silos for ICBMs, pre-constructed launching sites, potential launching sites and fake sites.[11]

Both Pakistan and China had an assertive control on their nuclear weapons which reduce the risk of accidental and unauthorized use of weapons. The political leadership (prime minister) who is the chairman of NCA is responsible for taking decision regarding use of nuclear weapons. There is a debate that military is dominating the political leadership in Pakistan and had a strong control on nuclear weapons so they are the one who had authority to launch nuclear weapons. In Pakistan, Nuclear weapons are considered as political weapons and had nothing to do with military, military is only protecting weapons what their job is and political leadership is the one who will give order to military to use weapons according to the changing political environment. China had also assertive control over its nuclear arsenal, authority to launch China's nuclear forces occupy by the Chairman of the Central Military Commission (CMC), a position held by President of china.

Safety, Security, Survivability:

China is working more on the survivability of its nuclear force by deploying mobile missiles and moving missiles underground, to ensure that the country's limited number of land-based strategic missiles can survive a first strike(both nuclear and conventional). China had built tunnels of

underground *Great Wall* to protect its smaller nuclear arsenal and assure a reliable second-strike capability. The tunnels are reportedly hundreds of meters underground, deep in mountain areas, and are difficult to detect from space so that China weapons can survive in a first strike. China is not using Permissive Action Link as they believe that two man rule to launch is more than enough to protect weapons from unwanted use.

International community had some concern regarding safety and security of Pakistan's nuclear arsenals they claim that nuclear arsenals of Pakistan are not secure because of terrorist attacks, instability etc. However, Pakistan as responsible nuclear weapon states is concerned about the safety and security of its arsenals and is taking security measurements, Pakistan soon after nuclear weapon test Pakistan establish National Command Authority (NCA) for managing all matters related to Pakistan's nuclear weapons. The arsenals are stored on different locations and only few reliable and trusted people had knowledge about those locations. Deep underground tunnel are constructed for keeping arsenals safe. Around 20,000 trained personnel are protecting the arsenals from all kind of security threat (terrorist attacks, accidental use, and unauthorized use). Monitoring of all personnel who had any kind of link with nuclear arsenals.

Pakistan nukes are not on hair trigger alert and in peacetime the nukes are in disassembled and de-mated state for avoiding unauthorized use. Permissive Action Link system is used to assure the security of weapons which locks the nuclear weapons electronically. Now after struggle of years a US study on worldwide nuclear material security released in 2014, considered Pakistan as the 'most improved' country among nine nuclear weapon states and finally confess that Pakistan is better at safeguarding its nuclear materials than India, a country how claim to be better than Pakistan. Nuclear weapons can effect civil-military relation in both ways, weapons can stabilize the relation as both cannot work in isolation they needs to work together. Pakistan had establish national command authority who is responsible for taking decisions regarding use of weapons Prime Minister is the chairman. Strategic Plan Division (SPD) functions as the NCA's secretariat.

Communication and Intelligence

China had dedicated communication network for managing and directing nuclear operations within 22 Base and also the overall communication links between the authorities. Fibre optics and wireless communication network system is playing a vital role in NC2.

Integrated Battlefield Area Communications System (IBACS)

Broadband integrated services digital networks (B-ISDN)

Application-specific integrated-circuit (ASIC)

Digital microwave communications system (providing all-weather communication support ability)

Satellite ground stations .Are providing a reliable and secure communication.

Communication regiments (units) are responsible for managing landline and microwave communication, fiber optic, satellite ground stations for better and clear communication to avoid any ambiguity in given orders and information. The military communications network is separate from the civil telecommunications network, but it is possible to link both of them, in a time of crisis.

Pakistan is also working on establishing a secure communication from higher authority to battle ground commander in peace and war time which will allow Pakistan to share clear and secure information.

This has special implications for China's nuclear submarines. In crisis situation, China's communications with its submarine fleet leave so much to be desired. It seems these submarines have to raise themselves to shallower waters to convey or receive any instructions. Now hypothetically, operating in east coast of Taiwan, to hunt any carrier strike groups, how can these be expected to surface and transmit requests for guidance from Beijing? Even in peacetime PLAN remains part of PLA and its commanders are subject to multiple lines of authority from headquarters, from their respective Military Regions, four General Departments and so on. Because of this weakness, PLA supreme command (*tongshuaibu*) is supposed to have established a streamlined joint wartime command structure. But closer review of Chinese writings shows that instead of delegation-style command, the new focus on network-centric warfare (*wangluozhongxinzhan*) is seeking to further tighten control over all of its nuclear assets including submarines. All this has serious implications for China's nuclear C2 systems and operations.

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Why Geo-economically Strategic Central Asian Region Attracts World Powers?

Nauman Hassan

The Central Asian region becomes the center stage in the wake of international power politics on the basis of Geo-economic potential of this region. The regional and global players are trying to set mechanism to explore all the potential of independent but still fledgling Central Asian states for their political and economic development. This region has world's best growth performance with about 8% GDP that indicates geo-economic potential of these states. The key economic activity of Central Asian states is the export of energy reserves that boost up the power and influence of the region. However, the geo-economic reserves are not equally distributed among these states as they all are the part of Caspian Sea Basin.

Iran, Russia, Turkmenistan and Kazakhstan are bordering a naturally enrich inland body of water that is Caspian Sea Basin. According to estimates, total reserves of Caspian Sea Basin harbors are 449 TCF (trillion cubic feet) of natural gas and 48 BB (billion barrels) of oil that is the largest supply in Turkmenistan, that is more than total gas reserves of America (North and South) and Asian oil reserves. Nevertheless the oil has to travel by pipeline or rail to foreign markets as Caspian Sea itself has no maritime gateway to other seas of the world. This large quantity of the Caspian's fuel reserves has brought in the world major energy firms to plan new production operations through the pipelines which are required to ensure the availability of these energy reserves to the various markets. It is also obvious that the energy prospective of this region is not fully realized because of the uncertainty that exist regarding legality status of Caspian Sea. Regardless of efforts, so far among these coastal states only Kazakhstan, Azerbaijan and Russia have successfully formulated agreement for the rights of development and demarcating possession of the Sea's resources.

Since independence has emerged as one of the largest curator of gas reserves. Turkmenistan, since its independence has emerged as one of the largest curator of gas reserves. Modern Turkmenistan possesses not only a huge resource base of hydrocarbons on land and at sea, but also the possibility of its use. Experts estimate the total potential hydrocarbon resources of the country up to 71.2 billion tons of oil equivalent, of which 53 billion tons are on the land, and 18.2 billion tons – of the sea. The most significant part of these volumes – over 70 percent – accounts for natural gas. Ranking 4th in the world in natural gas reserves, Turkmenistan is seeking to expand access to the international gas market, to maximize the use of their natural resources. At present, the Turkmen gas is exported in three areas: in Russia, Iran and China.

It is comparatively less endowed country with regards to oil and gas reserves as compared to Kazakhstan or Turkmenistan, yet 171 proven oil and gas fields are currently in the possession of Uzbekistan. Uzbekistan also has proven natural gas reserves of around 1.9 Tcm, however continuing

export of gas may result in gradual depletion of resources due modest chances of future discoveries. Uzbekistan's has not yet done any significant discovery regarding fuel reserves so it's also unassertive. With recent discovery of giant Kashagan oil field, proven oil reserves of Kazakhstan have touched the figure of 40 billion barrels, with 3.2 % of the world proven oil reserves. The current proven 2.5 Tcm reserves of gases are also expected to increase to 3.3 Tcm in next decade but with the condition of future exploration.

Transportation of the oil and gas wealth of the landlocked Central Asia is perhaps the most challenging task for all the competing players in order to reach the energy rich Central Asia. Except those which are located in northern Iran, pipelines that have completed before 1997 are directed to Russia through different Central Asian states. Caspian region oil is being transported through several other pipelines to Europe specifically to U.S markets and these pipelines are have enough capacity to transfer present availability of oil to the targeted region. Brief overview of the few significant routes and major oil & gas pipeline projects throughout Central Asia are Trans-Caspian gas pipeline, Baku-Tbilisi-Erzurum (BTE) Pipeline, Turkmenistan-China Gas Pipeline, Turkmenistan-Afghanistan-Pakistan-India Pipeline (TAPI) and Central Asia Centre gas pipeline system (CAC). First two of following oil pipe lines have been completed and oil is being exported while there remaining are nearing completion Caspian Pipeline Consortium (CPC), Kazakhstan Caspian Transportation System (KCTS), Kazakhstan-China Pipeline and Baku-Tbilisi-Ceyhan (BTC).

Besides Hydrocarbon, the region is also profusely rich in mineral reserves. Kazakhstan and Uzbekistan produces around 20% of the world's uranium with Uzbekistan as the world's 10th largest producer. The Kumtor goldmine in Kyrgyzstan is the eighth largest in the world. Though Kyrgyzstan and Tajikistan are not blessed with much hydrocarbon resources, yet Tajikistan is leading with potential hydropower production capacity of around 40,000 MW, with Kyrgyzstan following at potential of 26,000 MW. Two countries have large surplus generation in spring and summer seasons and have greater potential to contribute in meeting the energy needs of the other South and Central Asian countries. Kazakhstan is the major producer of grains in the region, while Uzbekistan is at 6th position in production and 2nd in exporter of cotton. With just 8% contribution to GDP, Kazakhstan is comparatively less dependent on agriculture. More than 80% of the cultivated land in Turkmenistan, Tajikistan, Kyrgyzstan and Uzbekistan is productive.

<http://foreignpolicynews.org/2017/01/26/geo-economically-strategic-central-asian-region-attracts-world-powers/>

Pakistan's SLCM: An Emerging Challenge to India

Saima Ali

The dawn of 10th January, 2017 brought up a wave of happiness and pride all over Pakistan, when Pakistan successfully tested Babur III submarine-launched cruise missile (SLCM). Babur-3, which has a range of 450km, is a sea-based variant of Ground Launched Cruise Missile (GLCM) Babur-2. This was successfully tested earlier in December, 2016. In a public statement, the Inter-Services Public Relations (ISPR) department stated that the Babur III SLCM will provide Pakistan with a Credible Second Strike Capability, expanding deterrence. This accomplishment of Second strike capability can be considered as a foremost milestone in Pakistan Arm forces after the appointment of new Chief of Army staff General Qamar Javed Bajwa. At the same time as the pursuit and now the successful attainment of a second strike capability by Pakistan represents a foremost scientific milestone; it is the strategy of response to nuclear strategies and postures to India.

India has already developed sea-based missile BrahMos and developing Nirbhay cruise missiles. The BrahMos missile can be launched from submarines, ships, aircraft or land, can carry warheads weighing up to 300kg, and strike targets on land and at sea. It has been in service with the army since 2007 and is currently being tested for use by the Air Force's Sukhoi-30 fighters. But the submarine launched variant of BrahMos has reportedly been tested but its limited range and requirement of rising to 40 meters depth to vertically launch the missile, off course compromise its defensive capabilities. India sing its own praises, shows that Nirbhay would have an operational range of about 1,000 Kilometres however all its four tests so far have ended in failure. The fourth test of the missile took place on December 21, 2016 in Odisha.

Strategic analysts believe Babur-III being a cruise missile, is better than the Indian sea-based ballistic missiles. Babur-3 SLCM incorporates state-of-the-art technologies, including underwater controlled force and advanced guidance and steering features, duly augmented by global navigation, terrain and scene matching systems. Pakistan's statement illustrates that: "Babur-3 SLCM in land-attack mode is capable of delivering various types of payloads and will provide Pakistan with a Credible Second Strike Capability, augmenting deterrence." Specifically, the statement noted that the Babur-3 test was a "step towards reinforcing Pakistan's policy of credible minimum deterrence."

Looking back in history Pakistani Foreign Ministry spokesperson replied to India's July 26, 2009, launch of its first locally built nuclear-powered submarine by asserting that "continued induction of new lethal weapon systems by India is detrimental to regional peace and stability," adding up that "without entering into an arms race with India, Pakistan will take all suitable steps to safeguard its security and maintain strategic balance in South Asia." In May 2012, Admiral Mohammad Asif Sandila, then-Chief of Pakistan's Naval Staff, announced "the formal establishment of the Naval Strategic Force Command of Pakistan," describing the force as "the custodian of the nation's 2nd strike capability."

General Kidwai indicated in March, 2015 that the submarine program is "a work in progress," adding that "this capability will come into play in the next few years." So here is the output. As

mentioned above Pakistan has been working hard towards second strike capability for years in 2012, it set up a Naval Strategic Force Command and the test-launch of Babur-3 does not come entirely as a surprise. Pakistan had established a nuclear naval authority the Naval Strategic Force Command in 2013.

With the successful test of the Babur III SLCM, Pakistan is now a step closer to a functional nuclear triad. While this does complicate Indian strategic calculations and the real challenge to India would be if Pakistan's second strike capability would include Sub launched ballistic missiles. Pakistan possesses three Agosta 90B submarines, the PNS/M Khalid, the PNS/M Saad, and the PNS/M Hamza. China vowed eight submarines to Pakistan, which will be a very complex challenge for India. India should focus on how Pakistan's capacity to develop such missiles would affect India, instead of disparaging the vulnerability of its nuclear submarines as well as its SLCMs. Pakistan will this year receive eight modified Chinese S20 Yuan-class diesel-electric submarines capable of fielding the SLCM. Also the recent Type 093 Shang submarine, docked at the Karachi harbor, is likely being used to inspect the movements of Indian warships far more closely than ever before at a time when China is competing with India for domination of the Indian Ocean. Some analysts believe that after becoming a member of the MTCR, India and Russia are now planning to jointly develop a new generation of BrahMos missiles with 600 km-plus range. Accordingly, Pakistan is planning ahead to assimilate the peril and to sustain credible deterrence.

<http://foreignpolicynews.org/2017/01/26/pakistan-slcms-emerging-challenge-india/>

Anchor of Stability: A Flawed Perception

Aqib Shoukat Paracha

This August will mark 70 years of Sub Continent's Independence. The two South Asian nuclear states are still figuring out the real matters of contention. With the time passing by; the foreign policies of both states are taking new dynamics. These dynamics are resulting in multiplying and worsening of existing relations between Pakistan and India. The sizable shift in India's foreign policy came with the PM Modi's establishment. India and America today are more warmhearted and affectionate to each other than before. On other side is the China-Pakistan economic partnership that could contribute to the stability paradox in South Asia. The China- Pakistan partnership doesn't entail any major conventional buildup; neither has it promised to strategically compete with any state in neighborhood or around. That's why it remains obvious that by no means Pakistan's impression is questionable.

Strategic stability phenomenon in South Asia primarily bank upon the strategic plot between Pakistan and India. Contemporarily, both states are on lowest ground of their bilateral relations. The reason other than many destabilizing variables is India's destructive kind of engagements with United States. The igniting factor for worsening of both states' relations is the expanding defense cooperation between India and United States. Recently Ashton Cartor (the United States Secretary of Defense) and Manohar Parrikar (the Indian Defense Minister) reached an agreement that titled India as "Major Defense Partner" of United States. This accord will primarily boost their bilateral defense trade and will promote the co-production and co-development of defense-related equipment. India's defense spending experiences a major upward shift every year; it will further expand after this agreement. The major defense partner status that along with other perks and privileges will constrain India to be more vigilant regarding the transformation in Indo-Pacific, which they both refer to as their mutual interest.

The Indo-United States partnership had seen unnatural advancement during Obama administration. In the same years Pakistan accomplished unusual successes in its war against terrorism. These successes paved the way for Pakistan's to engage for promotion of reliable regional setting. Also, Pakistan engaged in an unusual economic cooperative agreement i.e. the CPEC. Pakistani authorities have made it clear many times that CPEC have no other gains other then forwarding Pakistan's economic master plan. Pakistan has done sizable work for promotion of regional stability. But on the other hand, Indian conventional buildup and its tone of siding Pakistan have complicated the regional settling. In reciprocation to this Indian attitude Pakistan has to consider balancing of conventional capabilities to ensure deterrence stability. During United States and India's growing diplomatic relations; Pakistan faced serious lack of trust in its relations with United States. This Indian partnership is also quoted by many defense analysts as a strategy to limit China's regional and global expanding impression.

US-India strategic partnerships that aim to boost both India's nuclear and conventional capabilities are seriously disconcerting for South Asian environment. The recent defense accord between India and United States pave the way for joint defense exercises raise question mark on regional stability. It proves

the Pakistani stance that American partnership with India is a source of causing distress among regional states of South Asia. To counter this strategic imbalance Pakistan maintains a legitimate deterrent capability that is necessary for its survival. This day by day growing relation is narrowing the future probability of favorable relations between Pakistan and United States. Certainly, Pakistan will have to bridge this distance in order to balance the strategic output of Indo-U.S partnership. Further on, India's acknowledgment of Cold Start Doctrine, leave no option for Pakistan other than improving its short range missile capabilities that it consider more valid to respond to India's military adventurism. The reasons behind India's emerging aggressive capabilities are its diplomatic and defense ties with United States. India portray itself a reliable partner to United States for counter China Policy. This American defense initiative has pulled South Asian region into a vulnerable environment; that directly force Pakistan for building counter measures either by arms buildup or by diplomatic engagements.

India is referred by United States authorities as an anchor of stability for South Asia. India must therefore consider its responsibility to promote conducive atmosphere for regional stability. But that is what India is shy off. Also the prevailing regional situation nullifies the Indian efforts of being an anchor of stability. Pakistan, on other side is the state that can turn down the Indian hegemonic attitude. However, Pakistan has always opted to maintain strategic stability. Pakistan has also crushed the terrorism infrastructure that ratify, that no cross border terrorism can take place from Pakistani territory. Correspondingly, Pakistan expects India to maintain desirable strategic equilibrium and stability that will in long run be beneficial for both states. As Pakistan consider Indian strategic engagements as threat to its security, so this constrains Pakistan to opt for durable alternatives to meet the security challenges that are posed by the expanding India's military and nuclear capabilities. Pakistan's aspirations for healthier strategic environment can never be based on its compromise on deterrent capabilities. Pakistani authorities have made it clear many times that maintaining nuclear deterrence is critical for Pakistan's security.

<http://foreignpolicynews.org/2017/01/27/anchor-stability-flawed-perception/>

Indo-Pak Relations

Asma Khalid

Year 2016 is marked as the darkest year in the history of Kashmir as latest Indian's brutal violence echoed in the territory. A massive uprising has occurred against the use of pellet guns, murders, mysterious disappearances, false encounters and other human rights violations by Indian army stationed in Indian-occupied Kashmir (IoK). Use of the pellet guns has brought the Kashmir issue into the focus of international community and human rights activist as hundreds of the innocent people were severely injured by Indian forces to contain uprising which started in the wake of Burhan Wani's martyrdom whereas no human right violation has been reported on the Pakistani side of Kashmir. Ironically, the UN human right body has remained silent on Human Rights violations. Additionally, Kashmir dispute has shadowed the Indo-Pak bilateral relations of as both nuclear neighbours are engaged in unresolved territorial conflict since independence. It is significant to note that, dynamics of instability plays central role to make Indo-Pak bilateral relations unpredictable. Some of the pragmatic factors such as Kashmir conflict, violations of ceasefire agreement, India's intervention in Karachi and Baluchistan and water issue have remained the main bone of contention.

Indo-Pak relations have severely deteriorated in the wake of terrorist activities and cross-border firing. Since the early 2016, terrorism is key element influencing the relations of both states such as scheduled foreign secretaries level talks has been suspended soon after the terrorist attack at Pathankot airbase. Tension arose to extreme level after Uri attack and India's claim about surgical strikes. Biggest setback to bilateral relations is that India without doing any investigation puts blame on Pakistan. Apart from that, cross-border firing at LoC has added more bitterness in indo-Pak relations. Though India and Pakistan have maintained ceasefire agreement but 2014-16 saw high profile ceasefire violations. India alleged that Pakistan infiltrates terrorists into Indian territory, however Pakistan itself is a victim of terrorism and many military operations have been launched by Pakistan's army to counter militancy and maintain security and peace. So labelling Pakistan as terrorist state could not be justified. Furthermore, India is engaged to destabilize Pakistan by trying to portray itself as the victim of state-sponsored terrorism. In this regard, on 6th January 2017, Pakistan handed over a dossier to UN Secretary-General Antonio Guterres, containing proofs of RAW involvement in terrorist activities in Pakistan. According to evidence, India and its intelligence agency is engaged to destabilize Pakistan and involved in Karachi and Balochistan unrest. So undoubtedly, India is instigating instability and trying to portray negative image of Pakistan in the international community.

Such activities have added more bitterness in Indo-Pak relations. It is unfortunate that Pakistan's offer of bilateral talks is considered as Pakistan's weakness and India kept on pursuing its anti-Pakistan policy. So, it is imperative that India must reciprocate responsibly, as tension between two nuclear neighbours can bring the region on the brink of the nuclear clash. Therefore, Pakistan's liable response and efforts have played the significant role to maintain conducive atmosphere in the region. Many complex factors, such as territorial disputes, cross border firing, terrorism and India's violation of Indus water treaty and illegal constructions on Chenab and Neelum rivers has articulated the strategic

culture of hostility and increased the sense of insecurity and uncertainty between India and Pakistan. Normalization of Indo-Pak relations lies in the peaceful resolution of conflicts. In this regard lack of trust and political understanding are the key factors that have influenced the bilateral ties. Additionally, critical nature of disputes needs specific attention of both India and Pakistan at bilateral, regional and global levels, while keeping in view that only efforts of Pakistan cannot work to resolve the conflict. Need of the hour is instead of portraying itself as the victim, Indian armed and political forces should stop employing tactics to pursue its anti-Pakistan policy and utilize every opportunity that can explore the chances of positive bilateral relations. Only way forward is constructive approach from both sides to resolve the conflicts as Pakistan cannot work alone. So, collective positive efforts are only bargaining chip to bring the region to new heights of peace and security.

<http://pakobserver.net/indo-pak-relations/>

Violation of Indus Water Treaty

Babar Khan Bozdar

The most liberal water-sharing pact known as Indus-Water Treaty was signed by Pakistani President Ayub Khan and Indian Prime Minister Jawaharlal Nehru on September 19, 1960, in Karachi and the water of six rivers-Beas, Ravi, Sutlej, Indus, Chenab and Jhelum was shared between two countries. This landmark pact was brokered by World Bank. Since this agreement, India and Pakistan had fought three major wars and there was a constant strain in their diplomatic relations but treaty survived despite severe nature of relations between both countries. Recently, Indian Premier Narendra Modi stated that “Blood and Water can’t flow simultaneously” but in fact, this Indian move will flow blood over water simultaneously. Historically, the partition of Sub-continent created a conflict over the water of Indus Basin. The newly born states were unable to share water and manage an essential and cohesive network of irrigation. Moreover, during partition, the tributaries of Indus basin were given to India and Pakistan felt its livelihood threatened by the possibility of Indian control over the tributaries that bolstered water into the Pakistani portion of Indus Basin. The IW system of rivers comprises of three Eastern Rivers, the Sutlej, the Beas and the Ravi while three western rivers are the Indus, the Jhelum, and the Chenab. As per arrangements, Ravi, Beas, and Sutlej which constitute eastern system are exclusively allocated to India, Similarly Pakistan had allowed exclusive use of western rivers and India was bound to supply water to Pakistan for 10 years, Until Pakistan will be able to construct canal system for the utilisation of water of Indus, Jhelum, and Chenab.

The accord was meant for the permanent solution of water between India and Pakistan but none of them was eager to trade off their particular positions and arrangements achieved a stalemate. Pakistan attempted to take the matter to the International court of Justice (ICJ) for the peaceful settlement of dispute but India refused to argue that it will be resolved bilaterally. The treaty has placed limitations on design and operation of hydroelectric plants, storage works and other river works that are to be constructed by India on the western rivers. India is bound to provide information relating to these works in advance while Pakistan has right to communicate its objection with India. Indus water treaty was meant for resolving their issues bilaterally, but now water dispute is intensely politicised in India because hawks in India publically demanding for abrogating the treaty without realising the side effects or rationality of their demand. Indeed, their demand is an attempt of pushing both countries to the brink of war.

The legal instrument had so far sustained and delivered despite ups and downs in Indo-Pak relations, but it is the first time that Modi’s government called for abrogating IWT. The possible reason behind this statement is that Modi government lost his credibility and capability in delivering good governance. It also lost his support within. Hence, it came down to terrorist activities likes abrogating IWT. In this way, Modi’s statement is an attempt to divert the mind of people and gain anti-Pakistan sympathy. It is not so easy to scrape Indus water treaty because World Bank is the Mediator while

certain restrictions are implemented on both Parties in case of violating treaty. The article nine of IWT provide its better explanation and restrict both countries from violating Indus water treaty. Simultaneously treaty couldn't be scraped unilaterally. Without consultation with Pakistan Indian move will be treated as an act of war and again it might trigger conflict between hostile neighbours over water which has serious consequences for both countries.

Pakistan is an agricultural country and water is the source of survival. Similarly, Indian robbery over water will never be accepted from Pakistan side. In fact, it is the matter 180 million lives. In this situation, Indian ambition of scraping Indus water treaty will be dangerous. Linking water with security, I think it is a narrow minded approach because there is no connection war and wide. So, such policies will not only suffer India and Pakistan but region too. In this situation, leaders should come up with durable solutions rather than triggering hostility.

<http://pakobserver.net/violation-of-indus-water-treaty/>

CPEC and Prospects of Expansion: An Analysis

Sadia Kazmi

Recently there has been a lot of media hype about a number of states joining or showing inclination to join the CPEC. Both the print and electronic media as well as social networks are abuzz with the CPEC becoming the most sought after Regional Project with inevitable Global pull. Whether the commotion has any authenticity or not is altogether another debate but one cannot just ignore the fact that the CPEC has gained a lot of regional and global attention. Sometimes this attention has insecurities wrapped in the concerns expressed as is the case with India or the US. Even at its nascent stage the CPEC seems to hold a huge potential for the reshuffling of alliances. Most significant of which would be the one between China and Russia with Pakistan sitting at the center.

Once again despite the media hype, one can't go over the board in proclaiming any country's inclusion in the Project, however the possibility surely cannot be ruled out. Owing to the nature of this project and the huge dividends that it carries not just for the immediate region but beyond, the international community naturally feels inclined to be part of this mega billion dollars project. The \$51 billion project has been all over the news lately, not only because it's a game-changer for China, Pakistan and Asia as a whole, but also because there's a theory that India could start a military conflict over the CPEC. But seeing how many nations are siding with the CPEC, it's very unlikely that India would start a war over it. In the same vein, there have been reports about different countries expressing proclivity to join.

Some of these as have been mentioned in the media are: Iran, Afghanistan, Turkey, France, Saudi Arabia, UK, Germany, Belarus and Russia. One can witness an interesting fact that the countries that have traditionally not been able to get along well with each other, are simultaneously eager to be together in this venture. Iran and Saudi Arabia don't seem to have any qualms reaping the benefits together. Not just that but Iran which now enjoys close association with India and has even received a lot of Indian investment in the construction of Chabahar Port: an alleged counter to Gwadar port, has itself shown the desire to be part of CPEC. The rational theory does seem to be at play where the self interests govern the states behaviors and decisions.

Also if these news reports are to be believed, then one can see very interesting prospects of expansion of this project not just connecting the Southeast Asian region to South and Central Asia, but extend further into Middle East, Europe and Russia. No wonder it is often being touted as the Game Changer. Russia if becomes part of it would get easy access to the warm waters. However Ministry of Foreign Affairs of the Russian Federation said in a press release that Russia is not discussing the possibility of joining CPEC with Islamabad. "The Pakistani media reports about secret negotiations between Russia and Pakistan on the implementation of projects as part of the China-Pakistan Economic Corridor (CPEC) are not true to the facts". However the news is still doing the rounds. This might also imply that the traditional ally of India i.e. Russia is now willing to desert India for Pakistan. At the same time many assumptions keep appearing about the possible triangle between Russia, Pakistan and China,

wherein the CPEC could be the possible launch pad for such an alliance. In connection to this according to sources cited by Pakistan's Daily Times, the chief of Russia's intelligence agency, Federal Security Services, made a secret visit to Pakistan. It was in November last year that Russia and Pakistan held backdoor meetings which led Moscow to formally request access to Gwadar Port and ask China and Pakistan to be part of the lucrative multi-billion-dollar project. India surely won't be very happy at such a development owing to the historical enmity between India and Pakistan.

The media reports also claim UK showing desire to join CPEC. This would definitely give a huge ascent to the CPEC. Other European countries have also expressed desires such as France. This could have a domino effect on the other European states which might feel tempted to follow suit. France and Germany are already in the news regarding this. Italy, Spain and others could soon be joining in. Last year in November, Jean Marc Fenet, head of the Embassy of France's Regional Economic Department for India and South Asia, expressed his country's interest in becoming part of the China-Pakistan Economic Corridor. Addressing the business community at the Islamabad Chamber of Commerce and Industry (ICCI), Fenet said France views Pakistan as a huge and prosperous market for business. He further added that France is keen to further strengthen bilateral trade and economic relations between the two nations and views the CPEC as an opportunity to creating many business and investments.

One way of deciphering the authenticity of these media proclamations is to observe the responses of the states. Sensationalizing a small incident is the forte of News media but usually there is no smoke without fire. While one has to exercise maximum responsibility in reporting the news, the reactions of the states could provide enough credibility to the reported news. There is no doubt that the potential of the CPEC has been acknowledged worldwide. Only recently Mehbooba Mufti suggested the trans-Kashmir corridor, with diverse sub-corridors as a supplement to the CPEC. She expressed activation of all trade routes with Pakistan by stressing upon Azad Kashmir and Jammu and Kashmir being the nucleus of whole activity, eventually connecting the region to resource rich Central Asia. Hence the emerging and transforming geo-political and geo-strategic scenarios at the regional and global levels have made it imperative for the states to reevaluate their interests and proceed accordingly. These developments do take time but they provide enough fodder to the media to churn on.

<http://foreignpolicynews.org/2017/01/30/cpec-prospects-expansion-analysis/>

India's Nuclear Safety and Security

Tooba Shahzadi

The Central Industrial Security Force (CISF) soldier fired indiscriminately at the officers at the barracks in Aurangabad district in eastern India's Bihar state before trying to flee. He was overpowered by his colleagues and is suspected to be suffering from some mental illness. Initial investigation revealed that the refusal of leave has been one of the usual reasons for servicemen to turn the gun on their senior officers. Earlier a similar incident happened in March 3, 2016 when a CISF constable killed two of his colleagues before shooting himself and his pregnant wife in Ratnagiri. According to Indian Express, mental illness is one of the reasons.

According to the official website of Central Industrial Security Force, the CISF came into existence in 1969 to provide integrated security cover to the Public Sector Undertakings (PSUs) which, in those years, occupied the commanding heights of the economy but currently, it is providing security cover to nuclear installations, space establishments, airports, seaports, power plants, sensitive Government buildings and ever heritage monuments. Hats off to the Indians having mental illness and other psychic issues, they are securing the most sensitive sites i.e. nuclear installation and power plants.

Coming to the safety measures, a Washington-based news organization released a report written by journalist Adrian Levy for The Center for Public Integrity, that claims radioactive and toxic waste has been leaking out of India's oldest and most important uranium mine, affecting people, livestock, rivers, forests and agricultural produce in the area.

The report accuses India's nuclear establishment of systematically overlooking evidence that points to a radiation hazard at the Jaduguda uranium mine in Jharkhand's East Singhbhum district. The state-owned Uranium Corporation of India Ltd (UCIL) has been operating the mine since 1967, extracting around 1,000 tons of uranium ore per day, which accounts for 20% of the raw material for India's nuclear power generation. It has, however, remained closed since September 2014, following a Centre's directive to suspend activity till UCIL's lease is renewed.

Studies say that mining has exposed workers and villagers to radiation, heavy metals and other carcinogens, including arsenic. Toxins discharge into underground aquifers and the Subarnarekha river could be contaminating the food chain, from fish to vegetables. The most authentic thing is that Levy's report claims to have "reviewed hundreds of pages of personal testimony and clinical reports in the case that present a disturbing scenario".

The report cites a 2009 paper authored by a team lead by physicist Dipak Ghosh from Kolkata's Jadavpur University. The study had collected water from Subarnarekha and adjacent wells, and found some of the samples had levels of radioactive alpha particles that were 160% higher than safe WHO's safe limits. The report also documents incidents of: radioactive leaks, such as the bursting of a pipe carrying toxic slurry, 1.5 tonnes of solid radioactive waste and 20,000 litres of liquid radioactive waste had spilled from a new pipe, close to Jaduguda town.

A recent study of about 9,000 people in villages near the mines has documented cases of congenital deformities, infertility, cancer, respiratory problems and miscarriages. Nuclear scientist of India, Sanghmitra Gadekar, who was responsible for conducting the survey on radioactive pollution in villages near the mines, says there was a higher incidence of miscarriages and still births. Summarizing all the above mentioned reports by US based think tank and by Indian nuclear scientists, no safety measures have been taken against radioactive leakage or waste management which is affecting the nearby villages of the plants, and moreover the ignoring role of IAEA to implement its safety measures is a big question mark to its core objectives.

Concluding the article on anti-nuclear pollution activist Xavier Dias words “These are dust particles that fly around. They enter the water, the fauna, flora, the food system. And they are killers, but they are slow killers. They kill over generations.”

<http://foreignpolicynews.org/2017/01/30/indias-nuclear-safety-security/>

Pakistan's Policy of FMCT

Asma Khalid

The efforts for nuclear disarmament dates back to 1945 post World War II, when the two super powers US and USSR invented the lethal weapons of mass destruction. This damaging invention brought dramatic changes in military circle and gave boost to the concept of universal nuclear disarmament. Basically, eradication of nuclear weapons is a desirable universal goal to maintain international peace and security. United Nations (UN) contributed in the efforts and device a Conference known as Conference on Disarmament (CD) to further advance the process. FMCT is one of the off-shoot of CD, working for the goal of nuclear non-proliferation and disarmament. Main objectives of FMCT includes elimination of fissile material stockpiles, ultimate end of nuclear weapons, contain arms race and it is believed that conclusion of FMCT would harmonize the NPT and CTBT. However, Target States of FMCT includes P5, India, Pakistan, Israel and North Korea. Though ample efforts are made to conclude FMCT but two primary issues have created a gridlock in its negotiations and entry into force: one is issue of existing stockpiles and second is safeguards mechanism comprising of verification procedures followed by International Atomic Energy (IAEA) safeguards.

Pakistan has blocked the negotiations on fissile material cutoff treaty (FMCT) and strictly following its stance that pre-existing stockpiles should be included in the draft of the FMCT before negotiations. It supported the December 1993 UN General Assembly resolution and Shannon Mandate (1995) because it will help to deal with the pre-existing stocks of fissile material.

Though pressure on international community especially US is building that it should make Pakistan agree to the initiate negotiations on FMCT. Pakistan's reluctance to sign the treaty as it is also attributed to the discriminatory policies of the West on civilian nuclear cooperation. Pakistan's position on FMCT is determined by the national security interests and the objectives of strategic stability in South Asia as growing conventional imbalance and absence of arms control regime to avoidance of an arms race are main concerns of Pakistan.

It is significant to note that, it was not Pakistan to introduce nuclear weapons in the region, actually it was provoked to maintain the Minimum Credible Deterrence to fulfill its security demands. Additionally, Pakistan's nuclear program is based on the defensive posture. It has initiated its nuclear program to address its security issues as well as chalked out its apprehensions regarding the potential FMCT in a way that it could address Pakistan's security concerns as it is viewed that extensive difference between India and Pakistan's fissile material Stock piles has the ability to erode the nuclear deterrence stability in the region because there is no doubt that India will use its fissile material stocks to manufacture the nuclear weapon. The Indo-U.S. nuclear deal has further consolidated Islamabad's stance on the FMCT at CD. In this regard Pakistan shouldn't agree to accept or freeze the inequality. Along with the issue of existing stockpiles, Pakistan has concerns on the term "FMCT" because cut-off involves a mere halt in future production whereas the actual objective of the treaty is to ban the production and stockpiling of fissile material. Pakistan seems most likely to stand in the way unless some

method can be found to deal with the pre-existing stockpiles. Pakistan has still retained the demand regarding the elimination of existing stock-piles. The most interesting side is that several states and international analysts support the Pakistan's proposal regarding the title of the treaty and demand of eliminating pre-existing stocks. Another important dimension of the issue is that Pakistan is not alone in its demands but most of the non-Aligned countries like Syria, Iran and Egypt are also in favor of Pakistan's stance.

If FMCT is concluded then military nuclear program of states will also be affected, especially Japan, Canada and Australia will suffer a lot by this ban. It is viewed that Pakistan will be among the most affected countries once any negotiated settlement on FMCT is reached. Because P-5 has already enough fissile material and they do not require more in future. However, Israel and India, with the help of United States and European countries would also have huge stockpiles of fissile material. Ultimately it will be Pakistan, left behind with minimal fissile material.

Keeping in mind the stance of Pakistan on FMCT, It is clear that Pakistan's position on FMCT actually revolve around its national security issues, dynamics of strategic stability in region and to ensure the peace in world. Pakistan would have to face serious security issues if FMCT is concluded without addressing Pakistan's concerns of existing stockpiles. Whereas it might be possible that Pakistan enter in negotiations regarding treaty in future, after its concerns of existing stockpiles are addressed and reduction of the existing stockpiles of nuclear material takes place under disarmament measures. Hence preferably, the treaty should be titled as FMT rather than FMCT and ideally must be concluded in a way that it must follow non-discriminatory approach and it must address national security concerns of all states under the present realities to achieve the non-proliferation objectives.

<http://foreignpolicynews.org/2017/01/30/pakistans-policy-fmct/>

Learning from Chinese Model: Power and Security Through Economic Rise

Muhammad Adil Sivia

Foreign policy is carefully crafted course of action or inaction by the foreign policy making elite for positioning the country in such position to exploit the current and brewing international environment for maximizing the national interest of the country.

Keeping the country relevant to the international system best characterized to be in flux is ongoing challenge that foreign policy elite face. A.F.K. Organski in his book World Politics discussed the politics of rise and fall of world leader. The sublime factor that he identified for rise of state for power and prestige at world level was economic rise through industrialization. The most important element of national power but often downgraded during the Cold War rivalry between two blocks was economic power.

Modern China started as a country of secluded and downtrodden nation. Through reforms, opening up and integration with the international economy Chinese leaders starting from Deng Xiaoping made economic power the article of faith for Communist Party of China. Fast forward, China becomes the second largest economy of the world. Increased demand by the Chinese and expectations from comity of nations for increased Chinese role in international politics is consequence of journey on the road of economic development.

Ascension of China in international politics has created ripples receiving mixed response across the world. The Chinese economic model and foreign economic interaction centered on the principles of win-win and no political interference approach are very attractive especially for developing countries that suffered one way or other at the hands of existing hegemon of the international system. The de facto hierarchy structured by the hegemon is based on rewards that the leader can and does offer to those who fall in line. The confluence of national interest and regional and geopolitical alignments in the 21st century is overwhelmingly going to be on the economic dictates.

Stark discontinuity and restructuring of trade policies as touted by Trump administration will be such a luxury that will be self-inflicted damage for American leadership and power in the world. Much feared restriction of benefits of world economic order underlined by free trade would force strategic recalculation in many countries benefiting from US led world economic order. The message that Chinese president Xi Jinping delivered the platform of World Economic Forum in Davos to the world economic and financial community has strong overtures about economic and political role China is going to play. The rise of China is direct consequence of opening up, globalization and free trade led by USA.

Xi Jinping has delivered a message loud and clear that China does and will own globalization and if need be as a result of inward US policies, China will perform increased leadership role for steering anchoring the ship of global economy out of troubled waters. Abrupt and rash decisions on part of

Donald Trump to withdraw the US from trans Pacific Partnership instead of renegotiating unfavorable terms has give strategic opportunity to China for exercising the power of purse more assertively. The US is the reigning hegemon and will continue to play dominate role in world economic and political affairs in the near future, but China is destined to lead the world in the end. Fear about forceful and fundamental restructuring of western led international order are addressed to certain extent, at least in economic domain that China will own and play due role for promotion of globalization and equitable liberal international order.

The Chinese leader again reiterated long standing Chinese demand for more inclusive globalization, especially for developing world and restructuring of international institutions, especially those assigned the of defining rules of the trade game be more open and reflective of today's economic realities.

The detractors, who argue about isolation of Pakistan, fail to appreciate the strategic move that Pakistan has made in the form of CPEC to be centre of Chinese designs to exploit geography for economic gains. The lesson for ruling elite of Pakistan that can be drawn from Xi's speech is survival of Pakistan and expenditures on hard power are dependent on putting economic house in order. Xi highlighted the singular strategy for increasing power of country explaining the gates on the road of economic development can be unlocked through investing in the people, the real asset: "From the historical perspective, economic globalization resulted from growing social productivity, and is a natural outcome of scientific and technological progress". Investment in people led to economic development that is multiplying, diplomatic, political and military power of China.

The military modernization program initiated by Narendra Modi and his predecessor is mere conversion of economic power for expanding military muscle. Indian expansionist and hegemonic polices are forcing Pakistan to take requisite measures for her defence especially through technological strides in different conventional and nuclear warheads delivery systems. Survival through robust and sufficient hard power is dependent on economic base of the country. Investing in people, the real asset of the country, for industrial development of the country should be made part of national security discourse.

<http://www.eurasiareview.com/30012017-learning-from-chinese-model-power-and-security-through-economic-rise-oped/>

Geopolitical Jostling and Sino-Indian Relations

Sadia Kazmi

As per the common understanding, it is believed that the rapid developments on the projects under CPEC are becoming a source of great insecurity among the official circles in Delhi. India feels its security concerns growing stronger. Simultaneously there is a widespread feeling among the Indian political leaders and locals alike that China is not taking Indian concerns seriously. Various headlines in Indian news papers claim that the “Sino-Indian relations seem to be headed for freezer over the CPEC”. However China and Pakistan both have offered India to join hands in this mega project. China claims that this is not a state centric project but holds huge promises not just for the region but beyond. China rightfully maintains that the basic purpose of CPEC is to bring about regional integration through generating economic activity. However India doesn’t seem to be too convinced and claims that CPEC violates the territorial integrity and sovereignty of India as it plans to pass through Jammu and Kashmir, which it claims to be India’s terrorist. Nor does India look eager to join any setup which has Pakistan at the center stage. This doesn’t seem to be a very positive trajectory of relations for China and India to move along. In addition to this, another traditional ally Russia is increasingly warming up to China. Russia, feeling a great discomfiture at the hands of US-India growing closeness, feels naturally upset. This could very well be one of the possible reasons as to why Russia is showing interest in establishing closer ties with Pakistan.

The regional and global reshufflings are shaping up the broader shifts in the strategic outlook of the states. Russia’s concerns despite being the close ally of India sometimes have been over looked and India’s self interests with the US generally have taken the lead. Now since China apparently has found a new ally in Russia, where both have joined hands to reap economic benefits from joint collaborative ventures, another common objective is to block Western influence and interests regionally as well as globally. This might be a reason as to why one doesn’t see any active support from Russia for India’s allegations against China’s intents behind CPEC. India claims that China is bent upon bringing infrastructural development and self sufficiency into Pakistan and ultimately letting it have inroads into Indian claimed territory of Kashmir. India views the CPEC as an insidious attempt by China and an attempt to change the ground realities. The Chinese offer to India to join CPEC has been met with a question from Indian counterpart about how China would feel if the same situation arises in Tibet. Nonetheless China believes that India joining the CPEC would “boost its export and slash its trade deficit with China” and “the northern part of India bordering Pakistan and Jammu and Kashmir will gain more economic growth momentum”. Mehbooba Mufti’s statement about opening up trans Kashmir trade routes as a supplement to CPEC, further give a hard blow to India’s territorial claims over Jammu and Kashmir. The wise move today as is being interpreted by many states is to embrace the CPEC not just to make it into a reality but because it promises huge benefits to all the participant states. Hence it serves everyone’s interests.

Simultaneously Russia and Pakistan have once again embarked upon the renewal of their bilateral ties after a long gap. The two held their first joint military exercise in September last year,

succeeded by their first bilateral consultation on regional issues. Although the arms embargo was lifted back in 2014, it will be this year that Russia plans to deliver four Russian-made Mi-35M attack helicopters to Pakistan. The news is also doing the rounds that Russia might merge Eurasian Economic Union with CPEC.

China's refusal to grant a membership status to India in the NSG has further caused deterioration of relations between the two. One cannot rule out the possibility that testing of long range ballistic missiles Agni IV and V is India's way of showing annoyance. However that led to an inevitable reaction from Pakistan in the form of testing its first sea cruise missile that could be eventually launched from a Pakistani submarine. In addition to this China has expressed the willingness to help Pakistan increase the range of its nuclear missiles. As per the editorial section in China's Global Times, "If the Western countries accept India as a nuclear country and are indifferent to the nuclear race between India and Pakistan, China will not stand out and stick rigidly to those nuclear rules as necessary. At this time, Pakistan should have those privileges in nuclear development that India has."

India however is not just banking on Russia or China but is simultaneously strengthening its partnerships with countries like United States, Japan, Australia and Vietnam. Not only is it resorting to increasing its nuclear capabilities on regular basis, but has also fortified its military along the Chinese border. While the presence of nuclear weapons serve the purpose of assuring regional deterrent guarantees, the shifting geopolitical alignments in Asia could lead to growing tensions in the Indian subcontinent and might add to the volatility.

<http://foreignpolicynews.org/2017/01/31/geopolitical-jostling-sino-indian-relations/>

Babar-III and Ababeel: Contours and Counters

Maimuna Ashraf

The South Asian nuclear states are intertwined in a traditional security competition and rapidly enhancing its nuclear capabilities. Currently, both Pakistan and India have enough nuclear capable bombers, warheads and ballistic and cruise missiles. Notwithstanding this aspect, the robust modernization and enlargement of India's military arsenals has significantly increased the size of its conventional and nuclear weapons, both quantitatively and qualitatively. The growing disparity and asymmetry in South Asia has always been favorable to India yet challenging for Pakistan. It has been repeatedly stated by Pakistan that India's rising nuclear and conventional ambitions have enforced it to build up nuclear capabilities to ensure the credibility of its nuclear deterrence.

Previously, Pakistan indulged in miniaturization of warheads after India's doctrinal transformation, whereas lately Pakistan responded with two missile tests to Indian sea based developments and ballistic missile defense capabilities which are rapidly maturing. Pakistan's two first-ever recently tested nuclear-capable missiles, 'Babur-3' submarine-launched cruise missile (SLCM) and 'Ababeel' surface-to-surface medium range ballistic missile (SSBM), has further reinforced the debate on South Asian maritime security, second-strike capability and missile defense technologies in the regional landscape.

In 2012, Pakistan set up a Naval Strategic Force Command and it was presumed that country has been working towards this capability. It was surfaced after the test of Indian long awaited submarine Launched Ballistic Missile (SLBM) K-4 and commissioning of nuclear powered ballistic missile submarine INS Arihant that Pakistan will look to neutralize Indian sea based deterrence by equipping its conventional submarine with a submarine-launched variant of a cruise missile. Lately, after the successful test of nuclear-capable Babur-III SLCM from a submerged platform, Pakistan declared to achieve the second strike capability and stated it the 'manifestation of the strategy of measured response to nuclear strategies and postures being adopted in its neighborhood'. Babur-III has been incorporated with the state of the art technologies that include sophisticated guidance system, highly advanced navigation features, and underwater controlled propulsion that would hit the target with defined accuracy. Moreover, stealth technologies like terrain hugging and sea skimming flight capabilities will dodge air defenses and radars in emerging South Asian landscape with India possessing Ballistic Missile Defense (BMD) while the sea-based mobile platform will keep it undetected. The land-attack mode of Babur-3 cruise missile would be able to deliver numerous types of payloads. Reportedly, Pakistan modified one of its three Agosta 90 B diesel-electric submarines to launch SLBM. Few ambiguities prevailing about the survivability of conventional and nuclear combination at sea, on the contrary, similar apprehensions were expressed about the certain attributes of Arihant that are believed to limit its operational role, and indicates skepticism about the success rate of missiles tested from submarine. Pragmatically, no submarine based nuclear forces can be entirely invulnerable to modern anti-submarine warfare techniques. Though, a while back Pakistan approved a proposal to purchase

eight modified diesel-electric attack submarines from China which are expected to strengthen Pakistan's burgeoning second-strike capability.

Conversely, the first successful flight test of Ababeel, after the two operational MRBMs Shaheen-I and Shaheen-II, would enable Pakistan to launch multiple warheads using Multiple Independent Re-entry Vehicle (MIRV) technology. This development placed Pakistan among few states, including US, China and Russia, to possess this technology. The statement by ISPR reads that "Ababeel is capable of carrying nuclear warheads and has the capability to engage multiple targets with high precision, defeating the enemy's hostile radars", which shows that missile, has been built-in with stealth technologies to escape hostile air defenses. Ababeel is expected to have been featured with solid-fueled rocket motors like Pakistan's other MRBMs that ensure high precision and reduce missile operational timings. The statement says that 'test flight was aimed at validating various design and technical parameters of the weapon system' however in future Pakistan may develop the surveillance and reconnaissance capabilities to master the technology of MIRV payloads. The development of the Ababeel weapon system was aimed at ensuring survivability of Pakistan's ballistic missiles in the growing regional Ballistic Missile Defence (BMD) environment. Therefore, this development will augment Pakistan's deterrence posture. Nonetheless, a timely successful response shows operational preparedness of the Strategic Forces and Pakistan's capabilities to safeguard its security, which should not be undermined.

These developments implies three evident and instant implications; first, it is likely to provide Pakistan a seaborne nuclear deterrent while India already possesses it after formally commissioning its nuclear powered submarine — INS Arihant. Second, since Indian BMD had reduced India's vulnerability to Pakistani ballistic missiles strike, undercut Pakistan's offensive posture yet strengthened India's defensive capabilities therefore MIRV technology is an effective option to neutralize this development. Third, these developments stabilizes the status quo because when the strategic equilibrium is in play; the concept of mutual destruction functions and the nuclear opponents has reciprocal annulment of options for war at any level. Thus theoretically, completion of nuclear triad on both sides assures credible second-strike capability and stabilizes the nuclear relationship between the two South Asian nuclear states by decreasing susceptibility to a nuclear attack.

<http://dailytimes.com.pk/opinion/31-Jan-17/babur-iii-and-ababeel-contours-and-counters>