



STRATEGIC VISION
INSTITUTE

VISION

VISIONARY INSIGHTS INTO THE STRATEGIC INQUESTS OF NATIONS

SVI FORESIGHT

VOLUME 2, NUMBER 8
AUGUST 2016

Compiled & Edited by:
S. Sadia Kazmi

Strategic Vision Institute
Islamabad

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Strategic Vision Institute (SVI)

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Strategic Vision Institute (SVI)

Strategic Vision Institute (SVI) is an autonomous, multidisciplinary and non-partisan institution, established in January 2013. It is a non-governmental and non-commercial organization, administered by a Board of Governors (General Body) supervised under a Chairperson and administered by a Management Committee headed by a President/Executive Director.

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.

Contents

Editor’s Note	1
What If Deterrence Fails: Thinking the Unthinkable on the 71 st Anniversary of A-Bombings	
Maimuna Ashraf.....	2
Iranian Nuclear Deal After a Year	
Amanullah Khan.....	5
Peaceful Civilian Uses of Nuclear Energy	
Shazadi Tooba	7
Pakistan TNWs: A Product of India’s Cold Start Doctrine	
Saima Ali.....	10
Indian Inclination towards Uranium Ores	
Beenish Altaf	12
Discriminatory Approaches and Weakness in NPT	
S Sadia Kazmi	14
US Nuclear Weapons in Turkey	
Saima Ali.....	16
International Day Against Nuclear Tests	
Maimuna Ashraf.....	18
IAEA Safeguards in South Asia	
Shahzadi Tooba	21
Deteriorating Social Cohesion in Pakistan	
Amanullah Khan.....	25
Revitalizing the National Action Plan	
S Sadia Kazmi	28
NSG Membership Should be Criteria Based and Not Country Based	
Beenish Altaf	30

Editor's Note

The electronic monthly issue of the SVI Foresight for the month of August brings with it another enlightening collection of opinion articles contributed by the SVI research team. The readers will find a rich mix of scholastic analysis on a wide range of topics. A very crisp analysis of Iranian Nuclear deal after a whole year, and a uniquely insightful debate pertaining to nuclear issues, can be found in this electronic monthly. At the same time keeping in mind the multidimensional implications of internal threats on the overall security dynamics of the state, a couple of opinion articles have specifically been oriented towards internal security issues of Pakistan. A very relevant debate on the revival of National Action Plan and the prospects of its success has also been deliberated upon in one of the articles. State's governance policy loopholes and the resultant unrest as well as the waning of social cohesion in Pakistani society have been very aptly addressed in another research article. The lack of social cohesion has been pointed as the root cause of several internal security problems and the ways and means to deal with this issue has also been suggested. A major portion of this electronic issue exclusively deals with the developments in the field of nuclear security, IAEA safeguards, objective analysis of NSG membership, the discriminatory approaches of NPT, and other topics related to pertinent debate on the feasibility of Deterrence.

It is hoped that the issue will help readers in staying updated with the current political environment and 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 improvement 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](#).

Syedah Sadia Kazmi
Senior Research Associate

What If Deterrence Fails: Thinking the Unthinkable on the 71st Anniversary of A-Bombings

Maimuna Ashraf

The world first observed the devastation of mass destruction during the last days of World War II in August 1945, Hiroshima and Nagasaki (Two Japanese cities) were hit by two different nuclear bombs. The nuclear bomb was never tested before and for the first time it was tested during World War II. Human beings and infrastructure at Ground Zero immediately vanished away. After these nuclear bombings, the word 'nuclear' stirred up with alarming fright.

On August 6, 1945, first nuclear bomb named as 'Little Boy' was dropped on Hiroshima by the US aircraft. President Harry S Truman announced next day that the bomb was more powerful than 20,000 tons of TNT. The nuclear bomb was dropped at an altitude of about 600 meters above the ground to assure maximum devastation. The city had military centers and industries in abundance. The destruction was unthinkable; almost 80% of the city vanished. Every house in the city was rather demolished or burned.

It was a uranium bomb that was dropped on Hiroshima and at the time of blast, the temperature at the hub of fireball was 50,000 degrees. The temperature on the ground (below 600m from the fireball) was approximately 4,000 degrees centigrade. It is estimated that about 350,000 were residing in Hiroshima and there were near about 76,000 buildings at that time. When the bomb was dropped 80,000 people instantly died while 140,000 subsequently died in next few months. Everything within the radius of 2,000 meters entirely wiped out while the damaged area reached to 13,250,000 square meters.

On August 9, 1945, the second bomb named 'Fat Boy' was dropped on Nagasaki, which was an industrialized city with some important ports. The bomb was dropped at an altitude of about 500 meters above the ground and it was more powerful than 22 kilotons of TNT. The bomb that was dropped on Nagasaki was plutonium bomb. In Nagasaki, about 270,000 people were living at the time of explosion. When the nuclear bomb was dropped, about 74,000 people died immediately.

The instant casualties in both cities were around 200 thousand while more people lost their lives due to wounds or various diseases, while many other lived with lifetime disabilities. As due to immediate and short term causes of radiations, 15–20 percent lost lives due to radiation sickness; 20–30 percent died because of fire burns and 50–60 percent was killed from other injuries. In total, about 300 thousand people were exposed to radiation. Moreover, other loss includes high damage to infrastructure and environment while long-term sequels are still continued.

The subject of nuclear war has changed in recent years as compared to cold war because the technological and political environment has changed. The nuclear danger has shifted from the quantity

to quality. During the recent times nuclear bombs are more powerful than those dropped on Japan in 1945. The nuclear war or danger of dropping a nuclear weapon on other state is interrelated to the number of countries possessing nuclear arsenals, which are increasing in 21st century.

In addition to P5, Pakistan, India, Israel and North Korea became a nuclear weapon state. Iran is also likely to enter into the nuclear club in a decade or more. Moreover, it is opined that those that have a civil nuclear program posses a potential to produce nuclear bomb in the future. The increase in number of countries possessing nuclear technology reinforced debate about the dangers of nuclear war.

McGeorge Bundy, President John F. Kennedy's national security advisor, said in 1969:

"Any decision that results in even a single hydrogen bomb explosion on one city of one's own country would be declared as a calamitous mistake; while explosion of ten bombs on ten cities will be resulted as a tragedy far beyond history, whereas a hundred bombs on a hundred cities are beyond imagination."

The interdependency of intentions and capability between nuclear states makes the nuclear crisis harder to handle than a conventional war and this is what happened in Cuban Missile Crisis.

In WW-I, about 20 million people were killed and the killings in WW-II doubled and tripled this number. After both world wars, humanity was restored but the horrors of wars still prevail.

General Douglas MacArthur said in 1960s:

"World war will wipe out both sides, if you lose you will be destroyed and if you win you stand to lose. In either case it is double suicide."

Similar views were expressed by a Former US Defense Secretary:

"If deterrence fails and crisis emerges, the whole western civilization will be annihilated."

Many researches presume that the deaths in WWII are unthinkable, it is estimated that such a conflict can result in 80 to 160 million deaths in US in first month and additional deaths of 20-30 million if the targeting strategy changes (hitting urbanized areas, nuclear power plant and military installations will cause more deaths). In addition to it, millions will die due to injuries, radiation effects and lack of medical assistance. Other than human killings, the ecological concerns are high in such a scenario, scientists believe that firestorm caused by the nuclear explosion can lead to nuclear winter which can erase 'homo sapiens' from earth forever.

Recent studies say that even a limited nuclear war between India and Pakistan would threaten all mankind and will result in devastating ecological aftereffects due to ash and fire storms on urbanized cities. Few analysts on this scenario articulated that if Pakistan and India drop about fifty nuclear warheads on each other, which is approximately 0.4% of the total warheads, then the destruction would be unpredictable for us.

At least 20 million people can die in the first week; moreover the environmental effects globally would be more calamitous because the firestorm would strike 5 million tonnes of dust in air which will

result in blockade of sunlight and substantial drop in temperature for many years to come. The sudden decline in temperature would highly effect the food production across South Asia. It will also wipe out the corn production in China and US. Hence, in case of war the temperature around the world will drop by 10-20 degrees Celsius which means that food production will stop, to starve the humans globally.

History is full of wars but the aftermath of a nuclear war (accidental or escalating) or dropping nuclear bomb (advertent or inadvertent) would be unthinkable catastrophic. Thus, the states threatening each other with dropping nuclear weapon and spending big junk of their budgets on nuclear arms race need to think the unthinkable on the 71st anniversary of Hiroshima and Nagasaki A-Bombings.

<http://nation.com.pk/blogs/08-Aug-2016/what-if-deterrence-fails-thinking-the-unthinkable-on-the-71st-anniversary-of-a-bombings>

Iranian Nuclear Deal After a Year

Amanullah Khan

It was in June 2013 when Hassan Rouhani became president of Iran and he promised to sort out nuclear issue with the west. It took two years to reach an agreement with P5+1 in July 2015. The deal (JCPOA) was indeed a big development in the face of power politics in the Middle East having profound political and economic implications for whole of the world.

There were logical reasons for the new president of Iran to melt ice with the west on the nuclear impasse. Rouhani came to power with support from reformists in Iran who wanted to solve the nuclear issue with the west so that multifaceted sanctions on Iran could be lifted, economy be stabilized and public is relieved from the tough economic crisis at home. Rouhani also wanted to build economic and diplomatic relationship with the west in order to end an isolation of his country and to address skepticism of the western countries about Iran's nuclear program. Some hardliners in the Iranian establishment were not happy over the Rouhani's government initiative for any compromise over Iran's nuclear program.

US had been regularly talking of using military force against Iran in order to destroy its nuclear installations; however, there were involved high potential risks. Washington and western world desired to end the mess with Iran politically. They wanted to have an access to Iran's nuclear sites through IAEA inspectors to keep a check on the activities there, thus limiting its capability to make a nuclear weapon within break out time of one year.

US closest allies—Israel and Saudi Arabia—expressed their concerns on the nuclear deal fearing that the deal would provide Iran an opportunity to access its frozen accounts in the western banks having billions of dollars, \$100bn. This big amount of money could be utilized by Iran to undermine their national interests in the region in shape of an active support to Syrian government and Hezbollah, a Shia resistance force based in Lebanon.

It is hard to say at this stage that whether the deal has proved productive for both parties or otherwise. However, in case of Iran, the government seems disappointed; many high-level officials in Iran have criticized Washington for not fulfilling its promises. President Rouhani in a recent live television interview confessed that west is not fully carrying out its obligations under the deal. He criticized Israel, US congress and some regional countries for creating obstacles. Likewise, Supreme leader Ali Khamenei while addressing a gathering on 27th death anniversary of the leader of Islamic revolution, Rohullah Khemeini, said that cooperation with the US was a mistake and Iran will not cooperate with the US on regional issues anymore. While, Iranian parliament speaker, Ali Larijani, said that Iran is left with no choice but to confront the US. Very recently, Iran executed Shahram Amiri, an Iranian nuclear scientist, for revealing the country's top secrets to the US.

Iranian public support for the deal has also dropped after a year. Lots of people celebrated the deal on the roads of Tehran when it was inked in July 2015. Recent poll shows that 62.2% Iranians thought all US, EU, and UN sanctions would be lifted under the agreement, now only 23.4% think the same. Interestingly, 72% said that they have no confidence that the United States will meet its obligations. Also, 73.7% of the population feels that their living situation is the same since the deal was signed. According to another survey, public opinion in the US was also negative about the deal, 30% of Americans approved the deal while 57% disapproved.

An important question here is that what Iran has achieved so far out of the deal. It has reduced stockpile of enriched uranium, uninstalled thousands of working centrifuges, and allowed IAEA inspectors to monitor its nuclear activities. Conversely, some sanctions are still imposed on Iran, and frozen assets have not been released in total. Washington is now targeting Iran's missile development program through new sanctions. Iran claims that its missile program would continue, as it does not come under the nuclear agreement. It seems like that US under pressure from Israel wants to limit Iran's defence capabilities to the maximum extent possible. However, this might not be promising because Iran's nationalistic leadership would not compromise on the country's defence in the face of severe existing threats to its national security.

The sum and substance is that future of the deal is ambiguous. There exists suspicion from both sides about each other's intentions. Regional security environment of the Middle East does not favor trust-building exercises between Tehran and Washington. In such a scenario, breach of the deal could anytime lead to its termination by any party. Worth mentioning is that terms and conditions are very important part of any bilateral or multinational deal in the international anarchic system. The formula of protecting national interests in international power politics is to play well diplomatically and politically. Iran has competent leadership and it took them months to finalize a deal with the west. It may not be easy for the US to continue breaching the deal and it ought not to do so because this may permanently close the possibility for Iran to compromise on its nuclear program. The double standard policy of the US may not work in case of Iran. Further, it would also damage US image before the international community.

<http://epaper.pakobserver.net/201608/12/comments-2.php>

Peaceful Civilian Uses of Nuclear Energy

Shazadi Tooba

Currently, energy demand in Pakistan during summers is 18000 MW and supply of power is 13000 MW, which cause 5000 MW of gap in the demand-supply chain whereas nuclear contribute 700 MWs to the overall electricity generation. It is estimated that in next 10 years the demand will grow exponentially making the current demand to twice of present level. Nuclear option can be best employed to meet the future challenges of demand in Pakistan.

Pakistan has three operational nuclear power plants, KANUPP-1, CHASMA-1 and CHASMA-2, which are the main contributor to the national grid. Independent Power Plants (IPPs) are producing 37.9 percent of electricity in Pakistan. On the other hand, Pakistan Atomic Energy Commission (PAEC) is only contributing 3.2 percent of electricity in the overall power production in Pakistan. So, the question arises here is whether Pakistan has the potential to explore the nuclear energy to end its unending power crisis or it is expecting much more (unrealistic) ?

Article IV of the NPT acknowledges the inalienable right of NNWS to research, develops, and uses nuclear energy for non-weapons purposes. It also supports the fullest possible exchange of such nuclear-related information and technology between NWS and NNWS. Right now, Pakistan is building its fifth nuclear power plants KANUPP-2 (1100 MW) at Karachi. Pakistan has also completed the construction work of CHASMA-3 (C-3) and CHASMA-4 (C-4), which will start pouring 655 MW of electricity into the national grid till 2016.

Nuclear Power Plants in Operation

Power Plant	Capacity (MW)	Year of Commissioning
KANUPP-1	137/100	1972
CHASMA-1	325	2000
CHASMA-2	325	2011

Nuclear Power Plants Under Construction

Power Plant	Capacity (MW)	Year of Commissioning
KANUPP-2	1100	-
CHASMA-3	325	2016
CHASMA-4	325	2017

Pakistan Atomic Energy Commission has presented a vision “Nuclear Vision 2050”. This vision envisages greater than 40,000 MW nuclear power by 2050 or about 15% of the projected capacity of the country. The per megawatt cost of installing a nuclear power plant was higher than other sources, but once completed it is one of the cheapest sources of power.

The PAEC needed nearly Rs15 billion during the current fiscal year to fast track work on Chashma nuclear power plants. For the next fiscal year, the Commission also needed nearly Rs200 billion for completing work on K2 and K3 nuclear power plants. The K2 and K3 are scheduled to be completed by 2022 and 2023. Dr Anser Parvez said that work on five more plants of 1,100MW each would commence in next 10 years.

Nuclear power plant development in next 17 years can produce 7370 MW of energy and the expansion of nuclear power plants till 2030 will enable the country to raise nuclear power level from 750 to 8,800 MW.

Pakistan is long being denied by its legitimate right of acquiring nuclear technologies to expand its civil nuclear program. China has cooperated with Pakistan to construct nuclear plants in Pakistan. Pakistan is facing discriminatory standards at international level to have civil nuclear technologies. On other hand, India is being benefited by Indo-US nuclear deal through 123 nuclear agreements at various levels e.g. a special waiver was given to India to enter into Nuclear Supplier Group (NSG) and country specific International Atomic Energy Agency (IAEA) safeguards.

Moreover an American think tank, Nuclear Threat Initiative (NTI) has released its comparative nuclear security indexation encompassing worldwide nuclear material security. This study has assessed Pakistan as the ‘most improved’ country among nine nuclear armed states. The white house has acknowledged in the way like “Pakistan is engaged with the international community on nuclear safety and security issues and is working to ensure its strategic export controls are in line with international standards.”

Although, no one can deny the fact, other sources of energy are also reliable, but expansion in the existing nuclear infrastructure can bolster and foster its aims to end the power crisis. Right now, to end the energy crisis in Pakistan seems to be not plausible, but the future investment on nuclear infrastructure can reduce the power crisis.

<http://foreignpolicynews.org/2016/08/14/peaceful-civilian-uses-nuclear-energy-pakistan/>

Pakistan TNWs: A Product of India's Cold Start Doctrine

Saima Ali

General Raheel Sharif gave a very clear message to the Indians On 6th December 2015, during the Defense Day celebrations held in GHQ that we are fully prepared to face any type of aggression, it can be conventional or non-conventional, Hot or Cold Start. The terminologies of Conventional and Non Conventional wars are well familiar to the people whereas Cold Start is a new term used by Indian Generals, which is unfamiliar to most of the Pakistanis. Cold Start is an Indian military doctrine which has been evolved by the Indian Generals to swiftly “punish” Pakistan for its alleged “nefarious activities” in India, in a short time before Pakistan could get away with it by involving a third party like, UNO or USA, leaving no time for Indian military to respond. It also aims at giving no reaction time to the Indian Political Government to restraint the offensive due to international or any other political pressure.

In 2002, Indian Forces lost around 1000 soldiers and 2000 wounded just trying to rush to the borders; in 2008 it took weeks for the Indian army to reach their positions while Pakistan forces were already there and ready – it took Pakistani forces a day to reach and a day to dig in. In response to the inability of the Indian military to leverage its conventional superiority, the Indian Army announced a new offensive doctrine in 2004.

In April 2011, Pakistan first test fired successful flight test of the solid-fuel Hatf IX (NASR), a road-mobile missile with a range of 60 kilometers which carries nuclear warheads of appropriate yield with high accuracy and has been specially designed to defeat all known Anti Tactical Missile Defence Systems. The second test was conducted in October 2013 and a year later another test was carried out on September 26, 2014. The Nasr, as the midget red-and white nuclear-tipped missile has been christened, is a slim pencil-shaped rocket with fins.. In its current configuration, the Nasr was housed in a multibarrel launch vehicle that could fire four of them simultaneously. The missile can carry nuclear warheads of appropriate yield, with high accuracy. Pakistan has claimed that it was designed to overcome missile defense systems. It is also claimed that this missile is accurate. Nasr is obviously India-specific and the salvo launch capability is a key ability in stopping Indian armored thrusts into Pakistani territory. Nasr is the most dangerous comprehensive development in the current scenario to contain India.

According to General Kidwai, the doctrine was meant to be allowed to run free against Pakistan... Therefore in order to deter the unfolding of operations under the doctrine Pakistan opted to develop a variety of short range, low yield nuclear weapons, also dubbed tactical nuclear weapons.

Pakistan justifies the deployment of tactical nuclear weapons as a response to India's Cold Start doctrine. Though India officially denies the existence of such a doctrine, it was first enunciated by the

Indian army after the Kargil War in 1999 and the terror attack on Parliament in 2001. Policy experts had complained that it took months for the Indian army to ready its strike corps for a counter-attack on Pakistan. Since then, India is supposed to have developed a proactive strategy to mobilize major formations at short notice to launch a surprise strike.

Both India and Pakistan had extended arms of strategic nuclear weapons planned to hit terror among civilian populations, or to conquest major military targets some distance away from the border. For instance, India's Agni V can beat targets over 5,000 km away and can be commenced from as far south as Chennai to strike Beijing or Islamabad. Pakistan, has developed Shaheen and Ghauri missiles to strike anyplace in India, and has lately extended their range to the Andaman and Nicobar Islands, where India has an important tri-service base. However never before were nuclear weapons meant to be used as a tactical contrive on the battlefield to prevent an advancing army corps.

Ever since Pakistan introduced the battlefield range Nasr/Hatf IX ballistic missile a few years ago, it has been criticized for triggering a new arms race in the region. Pakistan's security establishment regards all kinds of nuclear weapons as sponsors against a rising existential threat. Initially it was argued that the term Tactical Nuclear Weapons TNWs did not necessarily hold true in the context of the South Asia, where all nuclear weapons irrespective of ranges or yields are chiefly weapons of deterrence but later it was argued that these missiles were part of the concept of Full Spectrum Deterrence. Hence, the TNWs covered the immediate battlefield to deter the short sharp thrusts at multiple points below the perceived nuclear threshold within the framework of the Cold Start Doctrine (CSD).

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 superiority. Indian army forces are much larger than Pakistan's own conventional defense 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.

Economically it is hard to balance the security requirements with the basic needs of Pakistani citizens. As mentioned above, to counter insurgency campaign in the tribal areas bordering Afghanistan and the evolving situation in Afghanistan itself is having an impact on the internal security of Pakistan. As the US withdrawal from the country proceeds apace, India is busy enhancing its economic, military and intelligence footprint in the country to the detriment of Pakistan. A two front situation would only reinforce Pakistani resolve to believe more intensely in its nuclear deterrence keeping in view our national interests.

<http://foreignpolicynews.org/2016/08/15/pakistan-tnws-product-indias-cold-start-doctrine/>

Indian Inclination towards Uranium Ores

Beenish Altaf

Indian aspirations of uranium treasury could be best seen in the statement made by Prime Minister Narendra Modi who described uranium as “not just a mineral but an article of faith for India.” The ongoing uranium sales to India is at its peak since 2005 right after the US announced its budding strategic partnership with India. The US called India as its like-minded, best strategic partner and granted it an immensely gigantic uranium deal by paying all the prices whether it comes amend its domestic laws or requesting waiver from the export control cartel, NSG. Ever since then, India went for similar deals with Australia, Kazakhstan, France and many other countries.

Palpably, Tony Abbott signed the agreement to make Australia a “long-term, reliable supplier of uranium to India” in New Delhi. Article six of the treaty grants India unprecedented open-ended “reprocessing consent”, which could leave Australia without a say in how the nuclear material it shipped to India was used. Ironically, when uranium is used to generate electricity, weapons-grade plutonium can be recovered as a byproduct and “reprocessed” to create more energy or to produce nuclear weapons.

Since the treaty permits India to reprocess Australian uranium provided it does so in a US-approved facility. But Carlson, now a fellow at the Lowy Institute, said the US deal with India did not specify how the resulting plutonium should be managed. Similarly, he showed skepticism over the use of plutonium by this deal too.

Indian uranium deals with Kazakhstan and Australia. It imports around 40 per cent of its requirement — between 2008 and 2014, imports of uranium totaled 4,458 metric tonnes, 2,058 MT of which came from Russia’s Tvel Corporation, 2,100 MT from NAC Kazatomprom of Kazakhstan and 300 MT from Areva of France.

It is not possible to exactly identify how much uranium does India produces. Ironically, Indian government has never released fixed or exact data on local uranium production, but it is estimated to be around 350-400 MT. Total Indian reserves are estimated at 181,600 MT, mainly in Andhra Pradesh, Jharkhand and Meghalaya.

Acknowledging the fact that India is inclined towards uranium usage day by day, India has 21 operational nuclear reactors and six under construction, which use uranium as fuel. The nuclear component of India’s energy production is currently under 3 per cent at 6,000 MW. By 2032, India expects to have 45,000 MW of nuclear capacity, provided it has assured uranium fuel supplies.

India is believed to have stores of up to 110 warheads. A 2012 report by India’s auditor-general facilities were under-resourced and poorly regulated. When such facilities would be kept open-ended without any check and balance upon them, it is obvious that they would be subject of miss use

and miss handled. The truth is written very openly in one of the clauses of the 123 agreement that the by-product material shall not be subject to safeguards or any other form of verification under this Agreement, unless it has been decided otherwise by prior mutual agreement in writing between the two Parties. Factually, India is getting Uranium and its indigenous PHWR plants are now able to run on full capacity. Also, India is in a position to set up many more of the 700 MWe indigenous units ... 4 are already under construction, and 12 more under advanced stages of planning. Given that India is estimated to possess reserves of about 80,000–112,369 tons of uranium, India has more than enough fissile material to supply its nuclear weapons program, even if it restricted Plutonium production to only 8 of the country's 17 current reactors, and then further restricted Plutonium production to only 1/4 of the fuel core of these reactors.

According to the calculations of one of the key advisers to the US Nuclear deal negotiating team, Ashley Tellis: operating India's eight unsafeguarded PHWRs in such a [conservative] regime would bequeath New Delhi with some 12,135–13,370 kilograms of weapons-grade plutonium, which is sufficient to produce between 2,023–2,228 nuclear weapons over and above those already existing in the Indian arsenal. Although no Indian analyst, let alone a policy maker, has ever advocated any nuclear inventory that even remotely approximates such numbers, this heuristic exercise confirms that New Delhi has the capability to produce a gigantic nuclear arsenal while subsisting well within the lowest estimates of its known uranium reserves.

This growing inclination towards uranium reservations and increasing disastrous and advanced level weaponry would adversary impact the regional security architecture and strategic stability concerns. Keeping the above mentioned clues, it is not only India behind this entire catastrophe; it is in effect a part of a colossal plan of the entire power seeking community.

<http://www.eurasiareview.com/15082016-indian-inclination-towards-uranium-ores-oped/>

Discriminatory Approaches and Weakness in NPT

S Sadia Kazmi

The Non Proliferation Treaty (NPT) ideally aims at keeping a check on the spread as well as acquisition of nuclear weapons. However this pronounced intention seemingly is to keep an eye on the non-nuclear weapon states only. Either for the possible chances of them developing nuclear weapons or acquiring the nuclear weapons from the nuclear weapon states.

This is essentially a character of horizontal proliferation, around which the very focus of the treaty revolves. However such an approach is seen as inherently discriminatory as well as limited in the scope. Therefore the treaty has been subjected to criticism on many occasions especially by the states that are not signatory to it. They easily make their case strong by pointing out its weaknesses and loopholes.

The very fact that it only puts check on the non-nuclear weapons states, makes it partial and biased, while the five “recognized” nuclear weapon states are exempted from such scrutiny. This also does not take into account the vertical proliferation of the nuclear weapons and technology, hence is not a very effective arrangement when it comes to stopping arms race among the states, an objective that is outlined in its preamble.

Also, even though the treaty supports the peaceful use of nuclear technology, it doesn't really have any framework to ascertain that the states who possess it, will only be employing it for peaceful purposes. At the same time it highlights the division of the world into two nuclear blocks as nuclear haves and nuclear have-nots.

The NPT unnecessarily gives the five nuclear haves a privileged position where they can keep their nuclear stockpiles and demands the have-nots to remove and forego their quest to acquire nuclear weapons. This is the very reason why Pakistan strongly opposes the joining of this treaty.

This particular dimension has added to the security dilemma, invoking the urge among non-nuclear weapon states to acquire weapons for their security and safety, hence eventually adding to the arms race. This comes in direct clash with another clause in its preamble which stresses upon the cessation of the manufacturing of nuclear weapons.

Hence one can see the inherent flaw in this treaty where the very right of the states to secure their sovereignty is highly undermined. The realities of the internal political world don't seem to have been given any space in this treaty rendering it unrealistic.

It is also believed that the NPT is being used as a tool by the five recognized nuclear weapons states to put restrictions on others for the development and acquisition of these weapons, while they themselves have been allowed to continue to develop on their own stockpiles. This again is highly

discriminatory and explicitly biased. Another point is about its cutoff date, which as per this treaty is identified as 1st January 1967.

So any state, according to the provisions of NPT, which resorted to the development or acquisition of nuclear weapons after this cutoff date, has technically done so in violation of this treaty. In other words, this treaty takes away the right from the states to be considered as the recognized nuclear weapon states if they acquired nuclear weapons after this cutoff date and should instead be liquidating their nuclear assets.

This is why as per NPT there are only five recognized nuclear weapon states while the other four are not even recognized as the nuclear weapon state despite the fact that they possess nuclear weapons. So the issue of legitimacy of states that possess nuclear weapons, needs to be reviewed. This also puts these states under pressure to opt for disarmament and roll back their nuclear weapon programs.

However the withdrawal clause of this treaty simultaneously makes the NPT an intrinsically weak document which on one hand makes it obligatory for the states to refrain from developing and acquiring the nuclear weapons but on the other hand it allows the signatories to withdraw in case the treaty is somehow jeopardizing their supreme interest.

All these loopholes and intentionally biased approaches of NPT call for the revision and amendment of its provisions. The same has been demanded by many nuclear and non nuclear weapon states as well. Another aspect that glaringly makes it outdated is that it still reflects the West centric approach where the US and European powers are maneuvering the world matters. It largely ignores the fact that the world focus is now increasingly shifting towards Asia, predominantly towards East and South Asia. This naturally demands the treaty to be updated as per the latest trends of the international political environment.

A treaty like NPT can only be successful if it truly stands and deliver on its commitment to disarmament and condemnation of arms race. If it continues to bank upon its discriminatory policies, the ideals of a peaceful world free from arms race will remain a distant possibility.

<http://www.voiceofjournalists.com/discriminatory-approaches-and-weaknesses-in-npt/>

US Nuclear Weapons in Turkey

Saima Ali

The United States deployed thousands of shorter-range nuclear weapons with U.S. forces in Europe, Japan, and South Korea, and on ships around the world, throughout the cold war era. These weapons were planned to lengthen deterrence and defend allies in Europe and Asia. While most were withdrawn in the 1990s, the United States holds around 200 B61 bombs in Europe. These serve not only to deter potential aggressors, but also as an important element in NATO's structure. While all NATO nations apart from France contribute in NATO's nuclear planning, some also store U.S. weapons on their soil and provide aircraft that could deliver them in a conflict. The Cold War-era nuclear weapons are part of NATO's deterrence strategy.

The joint US-Turkish air base Incirlik is in southeast Turkey and houses NATO largest nuclear-weapons storage facility. The base has played a critical role in the fight against ISIS, as the US launches strikes into nearby Syria. During the failed coup in Turkey in July, the American Embassy in Ankara issued an emergency message for their citizens warning that power had been cut to Incirlik. U.S. Air Force planes stationed there were prohibited from taking off or landing and the security-threat level was raised to the highest state of alert. Eventually, the base commander was arrested over alleged participation in the agitation and implicated in the coup. Whether the US could have maintained control of the weapons in the event of a lingering civil conflict in Turkey is still an unanswerable question.

A US think tank has asked for the withdrawal of nuclear arms from Turkey's Incirlik Air Base, saying the country is in disorder and is too close to the Syria conflict zone. The report prepared by the Stimson Center nonprofit think tank, titled 'B61 Life Extension Program: Costs and Policy Considerations', questions the safety of American nuclear weapons stored at Turkey's Incirlik Air Base.

This is not the first time concerns have been raised about the security of nuclear weapons in NATO nations. The US has long had nuclear weapons in Turkey, most notably Jupiter missiles that John F. Kennedy secretly withdrew from the country following the Cuban Missile Crisis of 1962 when the Soviet Union and America climbed down from the brink of a nuclear confrontation.

There is also no indication that US military personnel or technical experts from the Department of Energy went to Turkey to provide further oversight for the weapons or to move them outside of Turkey due to concerns about their security. It was reported earlier that American weapons are being moved to the Deveselu air base in Romania. However, the Romanian foreign ministry strongly denied the information that the country has become home of US nukes.

According to unspecified reports, U.S. B61 bombs are stocked up on racks in secure underground vaults, inside protective aircraft shelters. The shelters are within a heavily guarded security perimeter, with U.S. forces responsible for their security. Reports indicate that the security perimeter at Incirlik was upgraded in 2015, and includes double fencing, lighting, cameras, and interference detection devices. The bombs are reported to be 12 feet long and heavy. Even if someone gained access to the

shelters and vaults, it would be difficult to move the bombs without proper equipment. The bombs are reportedly also equipped with Permissive Action Links (PALs), which prevent the arming and use of the weapons in the absence of an authorization code.

Most professionals agree the bombs are generally secure from unauthorized use and that U.S. forces would likely thwart most attempts to access or damage the weapons. But experts note the base is not impenetrable, and the safety, storage, and use control features are designed to delay unauthorized intrusion, access, and use while security forces defeat the threat and restore control. Some have speculated that a determined actor, particularly one with inside assistance, might be able to access to the vaults and eventually disable the PALs and, possibly, employ a weapon. At the same time, others note that, even if this scenario were possible, the perpetrators would have to achieve this goal while U.S. and NATO forces employed all means necessary, including deadly force, to recover the weapon. In other words, while one can imagine a scenario in which the weapons might be at risk, the probability of such a scenario succeeding is extremely low.

Although Incirlik probably has more nuclear weapons than any other NATO base, it does not have any American or Turkish aircraft equipped to deliver them. The bombs simply sit at the base, underground, waiting to be used or misused. It is important to mention that the B61s are broadly considered more a political symbol of US commitment to the NATO alliance than a military asset. The US does not have aircraft at Incirlik qualified to deliver the weapons.

Pentagon spokesman Peter Cook said “We’ve taken all those steps that we need to take to make sure that everything that we control in Turkey is safe and secure,”. US officials say the raising of the security level had to do with overall security concerns and not the nuclear weapons in particular. However, the upgraded security posture does also provide enhanced security conditions at Incirlik.

<http://foreignpolicynews.org/2016/08/29/u-s-nukes-turkey/>

International Day Against Nuclear Tests

Maimuna Ashraf

Dr Kenneth T Bainbridge was the physicist who directed the first atomic bomb test, and Trinity was the codename given to the world's first nuclear explosion by Dr J Robert Oppenheimer, known as the 'father of atomic bomb' for leading the World War II Manhattan Project that produced the first atomic bomb. His reaction to the Trinity test, in which he recalled a line from Bhagavad Gita is also remarkable: "Now I am become death, the destroyers of worlds."

The "foul and awesome display" of this plutonium implosion device was seen on July 16, 1945 at a site known as Jornada del Muerto, located in the New Mexico desert at Alamogordo, a few miles south of Los Alamos. The world recently observed the 71st anniversary of the dawn of nuclear age.

Since the first nuclear explosion till now, 2,120 nuclear test explosions have been recorded at dozens of test sites around the world by eight states: P5, India, Pakistan and North Korea. The US tested 1,030 atomic bombs. Russia, the second nuclear power, had 727 nuclear tests. The UK carried out 88 nuclear weapon tests, France 217 and China 47. India tested its first nuclear device in 1974, while reportedly six other nuclear devices were fired in 1998. Responding to India's nuclear weapon explosions, Pakistan detonated six nuclear devices at Chagai. North Korea exploded three nuclear weapons in 2006, 2009 and 2013 respectively, and another one recently.

To ensure protection of people's lives and environment, most of the atomic tests are conducted underwater or underground; however, almost 528 tests in early years were detonated in the atmosphere, resulting in spread of radioactive material. Often the underground nuclear explosions also vent radiations into the atmosphere, and leave radioactive contamination in soil.

To advocate the banning of nuclear tests and to educate the world about the legacy impact of nuclear detonation, the UN unanimously approved a draft resolution on December 02, 2009 to declare August 29 the International Day against Nuclear Tests. The resolution was initiated by the Republic of Kazakhstan with a view to commemorate the closure of the Semipalatinsk Nuclear test facility on August 29, 1991, which was the world's largest underground nuclear test site containing 181 separate tunnels; almost 460 nuclear explosions were conducted there, and a few reportedly resulted in dispersion of plutonium in the environment. The facility was closed by the Kazakhstan government after the dissolution of the USSR in 1991.

After the establishment of the International Day against Nuclear Test, all states party to the Non-Proliferation Treaty (NPT) committed themselves to "achieve peace and security of world without nuclear weapons" in May 2010. The inaugural commemoration of the International Day against Nuclear Tests was marked on August 29, 2010.

Therein lies the question as to why states detonate nuclear weapons if they jeopardise human health and environment. And is it enough to celebrate an international day against nuclear tests, and what other international mechanism has been placed in this deference? Pragmatically, states conduct nuclear tests to evaluate new warhead designs and to create more sophisticated weapons. An international instrument to ban all civilian or military purposed nuclear tests in all environments is not a novel agenda of nuclear arms control. In August 1963, the Partial Test Ban Treaty (PTBT), signed by the US, the UK and the USSR, entered into force, and banned the nuclear testing of signatory states in the atmosphere, outer space and underwater but not underground. Though underground, not only nuclear weapons testing continued but the quantity also increased.

Later, the PTBT became redundant with the signing of the Comprehensive Test Ban Treaty (CTBT) in September 1996, which bans all nuclear explosions in all environments. Before the CTBT, all treaties entered into force limit but not ban nuclear tests. Nonetheless, the CTBT will enter into force only after the 44 states listed in the treaty ratify it, of which 41 signed the treaty, 36 ratified, while the DPRK, India and Pakistan have neither signed nor ratified it.

Interestingly, five nuclear-capable states Egypt, Iran, Israel, including two NPT signatory states China and US, have signed but not ratified the CTBT. The conferences to facilitate the objectives of the CTBT takes place every other year, and 2016 marks the 20th anniversary of the opening for signing of the treaty. Since 1996, Pakistan, India and the DPRK have tested their nuclear weapons, while many states including the US and Russia claim they have not tested nuclear weapons since the signing of the treaty.

In 2009 President Barack Obama outlined his vision of a world free of nuclear weapons, and later he forged new treaties to reduce the number of and spread of nuclear arsenal. On the contrary, he promised in the 2010 Nuclear Posture Review to uphold the triad of nuclear arsenal supported by every former US president. At the end of 2010, the US ratified the New START agreement with Russia to limit both sides' arsenal to 1,550, but again no advancement ensued on a treaty that puts a permanent ban on nuclear tests.

Notwithstanding that the US and Russia did not explode nuclear weapons after signing the CTBT, since 1997-2014, the US has held 28 "subcritical, sub-zero tests in the form of computer simulations" at the Nevada National security site. Conversely, Russia has also been conducting subcritical experiments involving both uranium and weapons-grade plutonium at Novaya Zemlya test site near the Arctic Circle. It means that in the absence of an option for underground testing that previously provided assurance about the reliability of deployed nukes, designers of nuclear weapons now depend on computer simulations along with laboratory level nuclear tests to ensure and enhance the safety and reliability of nuclear weapons.

The Los Alamos National Laboratory was the first to conduct the subcritical experiment in 1997. The website of the US Department of State on computer simulation says: "Today, weapons designers benefit from better simulation tools and computers capable of running highly detailed calculations. Successes to date indicate that a cadre of world-class scientists and engineers can employ physics-based

simulations, modern experiments, validations against collections of re-analysed data from previous underground nuclear explosive tests, and peer reviews to support stockpile decisions well into the future without the need to return to nuclear explosive testing. These computer simulation advances provide the United States with the ability to monitor and maintain the nuclear weapons stockpile without nuclear explosive testing.”

Evidently, keeping an option by not ratifying the CTBT and conducting subcritical tests shows that the US aims to improve its arsenal qualitatively and wish to maintain its option or ability to conduct onerous underground nuclear testing if it becomes indispensable. Inevitably, Russia would also change its attitude towards the CTBT although it has ratified the CTBT in 2000 if the safety or readiness of their nuclear arsenal would no more comply with the treaty. The CTBT is a zero-yield ban, but the US and the UK held hydronuclear tests with yields up to four pounds, whereas Russia, France and China chose yield limits of 10 tons, 300 tons, or an exemption for peaceful nuclear detonation, respectively. Such yield limits are unacceptable to many NNWS while a preference for peaceful nuclear explosion exemption has been rejected by almost every NNWS.

Thus, the contour of the subject is that there is still a possibility to modernise the nuclear warhead components, verify the reliability of aging nuclear stockpiles and stimulate the environmental effects even if all 44 states ratify the CTBT because it does not stop them from hydronuclear subcritical test through computer simulation; and it allows NWS to qualitatively improve their arsenals at sub-zero. A grim reminder on the International Day against Nuclear Test is that a discriminatory CTBT would not fulfil the nuclear-test-ban ethos till it removes any escape routes including explosives or non-explosive tests.

<http://foreignpolicynews.org/2016/07/30/impracticability-us-india-nuclear-deal/>

IAEA Safeguards in South Asia

Shahzadi Tooba

The focus of the international community has always been to ensure that nuclear energy is used peacefully and safely. The ultimate objective of the international community is the fulfilment of general and complete disarmament on global level. Concern about the potential military use of nuclear material, the development of international trade in nuclear material and related equipment, and the entry into force of certain international treaties have led to the establishment of systems of international safeguards.

The IAEA is an independent intergovernmental organization consisting of over 150 Member States and a Secretariat headed by the Director General. The fundamental objective of the IAEA, as set out in Article II of its Statute, is to “seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world,” and to provide credible assurance to the international community that nuclear material and other specified items are not diverted from peaceful nuclear uses. Through safeguards, the IAEA is able to provide credible assurances that States are honoring their international obligations to use nuclear material only for peaceful purposes. Its independent verification work allows the IAEA to play an indispensable role in deterring the spread of nuclear weapons. Through early detection of any diversion of nuclear material or misuse of technology, the IAEA can alert the world to potential proliferation. The safeguards is basically a set of measures against the use of nuclear material, facilities and equipment for the development of nuclear weapons and other nuclear explosive devices. IAEA has served as a focal point so as to accelerate and enlarge contribution of atomic energy to peace, health and prosperity throughout the world and to ensure so far as it is able, that the assistance provided by it or on its request or under its supervision or control is not used in such a way as to further any military purpose through the implementation of its safeguards system.

However, the safeguards provisions of the Statute are not self-executing. A State is not bound to accept safeguards simply by virtue of becoming a Member of the IAEA. For that matter, safeguards can be implemented in States which are not Members of the IAEA. What is required for the implementation of safeguards is the consent of the State concerned, and that consent is most commonly manifested in the conclusion of a safeguards agreement with the IAEA. The type of safeguards agreement concluded with the State depends on the nature of the State’s basic undertaking.

There are mainly three types of Safeguards Agreements in the IAEA Safeguard system including: (i) ‘Comprehensive Safeguards Agreements’ (CSAs), which are also known as ‘Full Scope Safeguards’ Agreements, (ii) ‘Item-specific’ or ‘facility-specific’ Safeguards Agreements, and (iii) ‘Voluntary Offer Agreements’ (VOAs). In addition, to strengthen the overall safeguards system, another legal document known as ‘Additional Protocol’ has also been introduced in the 1990s.

The CSAs follows the structure and content set out in Agency document INFCIRC/153 (Corr.) and cover all nuclear material in a State. Under such an agreement, the State undertakes to accept Agency safeguards on all source or special fissionable material in all peaceful nuclear activities within the territory of the State, under its jurisdiction, or carried out under its control anywhere. Almost all the Non-Nuclear Weapon States pursuant to their obligation under the NPT have concluded the Comprehensive Safeguards Agreements. Comprehensive safeguards agreements are also required under other bilateral or multilateral arrangements such as the States, which come under Nuclear Weapon Free Zones.

Based on the provisions in the IAEA document, INFCIRC/66/Rev.2, 'item-specific' or 'facility-specific' safeguards agreements are applied only to specific items such as the nuclear material, facilities, equipment and/or materials specified in an agreement. These agreements are more stringent than the CSA: Safeguards applied to non-nuclear material, as well (e.g. heavy water, reactor grade graphite), heavy water production plants and applied in perpetuity. Only three countries, namely, Pakistan, India and Israel who are also not party to the NPT have item-specific safeguards.

The NWS or P-5 (namely, China, France, Russia, United Kingdom and the United States) have concluded safeguards agreements under which they have voluntarily offered nuclear material and/or facilities. These agreements are called 'Voluntary Offer Safeguards Agreements (VOAs). VOAs follow the format of agreements based on INFCIRC/153 (Corr.), but vary in the scope of materials and facilities covered, e.g. excluding those with national security significance. Under the VOAs possibility of withdrawing of nuclear material and facilities from safeguards also exist.

To further strengthen the safeguards measures and to provide the legal basis to the IAEA for verification of the correctness and completeness of States' declarations under comprehensive safeguards agreements the concept of Additional protocol was introduced in 1990s. The Additional Protocol (AP) is thus complementary to the aforementioned safeguards agreements. The AP provides access to IAEA inspectors to all components or segments of a State's fuel cycle—including uranium mines, fuel fabrication and enrichment plants, and nuclear waste sites – as well as to any other location where nuclear material is or may be present. Under the AP, a State is required to provide the IAEA inspectors, access to all buildings on a nuclear site on a very short notice of about 24 hours. The AP also has provisions for wide area environmental monitoring. Further provisions include the use of internationally established communications systems, including satellite systems and other forms of telecommunication; issuance of multiple entry visas (valid for at least one year) for IAEA inspectors; provision of information about the research and development activities in a State related to its nuclear fuel cycle, and on the manufacture and export of sensitive nuclear-related technologies.

Pakistan is amongst the category of States that are not party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The rights and obligations of the IAEA and Pakistan under the safeguards agreements for this category of states are based on guidelines contained in Safeguards Document(INFCIRC/66/Rev.2 or its earlier versions) adopted by the IAEA Board of Governors. Agreements in this category cover only specified facilities and materials. Assurances by the IAEA are necessarily limited to the

Safeguarded facilities or materials and do not extend to cover the totality of the State’s nuclear activities. As per this model the item-specific safeguards are applied to Pakistan’s nuclear facilities. Pakistan has the following facilities under IAEA safeguards:

S.#	Facility	Agency Publication	Type of Agreements	Date of Signing
1.	Pakistan Research Reactor-1 (PARR-1)	INFCIRC/34	Trilateral	March 5, 1962
2.	Karachi Nuclear Power Plant (KANUPP)	INFCIRC/116	Trilateral	June 17, 1968
3.	Karachi Nuclear Power Plant (KANUPP)	INFCIRC/135	Trilateral	October 17, 1969
4.	Fuel Reprocessing Plant	INFCIRC/239	Trilateral	March 18, 1976
5.	Hawks Bay Depot	INFCIRC/248	Bilateral	March 2, 1977
6.	Pakistan Research Reactor-2 (PARR-2)	INFCIRC/393	Bilateral	September 10, 1991
7.	Chashma Nuclear Power Plant-1 (C-1)	INFCIRC/418	Bilateral	February 24, 1993
8.	Chashma Nuclear Power Plant-2 (C-2)	INFCIRC/705	Bilateral	February 22, 2007

India initially indicated that it would only accept voluntary safeguards agreements for civilian nuclear facilities of the type that the IAEA had in place in the five NPT- recognized nuclear weapon states. The voluntary arrangement would allow India to add and remove at will facilities that were subject to IAEA facility- specific safeguards. This would keep open the possibility that a civilian nuclear facility could be reassigned to the country’s military program. It would also help to overcome the

reluctance of India's nuclear establishment to place more of the country's nuclear facilities under civilian safeguards.

India-specific safeguards agreement is based on the IAEA document, INFCIRC/66/Rev.2. This Agreement (INFCIRC/754) is not only "India-specific" but is also an 'Umbrella' Agreement in the sense that all nuclear activities and plants (including the current and future) have been covered in one document. Usually a safeguards agreement with the IAEA is concluded for a single type of plant—e.g., nuclear power plants, fuel enrichment plants, or reprocessing plants, etc. However, India managed to lump together in one single document all the safeguards provisions of different programs and facilities including nuclear power plants, conversion, enrichment, fuel fabrication and reprocessing plants. An Annexure to the Agreement has been agreed upon whereby India would inform the Agency about its facilities which would be brought under safeguards. The India-specific Safeguards Agreement acknowledges that India "shall file with the Agency a Declaration, based on its sovereign decision to place voluntarily its civilian nuclear facilities under agency safeguards in a phased manner."

Furthermore, "India on the basis of its sole determination, shall notify the Agency in writing of its decision to offer for Agency safeguards a facility identified by India...". While formulating its separation plan for civil and military facilities and activities, India had declared that it will only bring 14 out of 22 NPPs under IAEA safeguards. It may be inferred that the remaining 8 NPPs could be used to generate weapon-grade plutonium. Furthermore, India refused to bring the fast breeder reactors and related activities under IAEA safeguards. India also did not agree to bring all future nuclear power plants under IAEA safeguards. Only those NPPs will be subjected to IAEA safeguards, which India would submit for such purpose, leaving India the option to keep some of its future NPPs for military purposes.

IAEA, if not fully but somehow failed to achieve the main objective of these safeguards agreements. If India didn't deceive the world that it is using its program for peaceful purposes this nuclear race wouldn't have started in South Asia. Now it would be very difficult for IAEA to enforce the agreements without discrimination.

<http://foreignpolicynews.org/2016/08/29/iaea-safeguards-south-asia/>

Deteriorating Social Cohesion in Pakistan

Amanullah Khan

Pakistan is the outcome of tedious struggle of millions of Muslims who risked their lives, properties and honor for having their own independent homeland. Those reached Pakistan from India regarded themselves as fortunate enough. There were millions others who were very much part of the freedom struggle but could not make to Pakistan for unavoidable reasons, we are grateful to them, and pay tribute to them also, a lot.

The people had a dream to see Pakistan truly an Islamic welfare state. Despite limited resources, Pakistan survived at first stage, as it was not expected by the Indian leadership. Not only this, Pakistan liberated a part of Kashmir region, Azad Kashmir, and badly repelled Indian aggression in 1965. Economically, Pakistan was seen as a model of economic development. At one point of time, Pakistan gave loan to West Germany, and South Korea borrowed Pakistan's five-year plan for development. National institutions were nascent but performing well; PIA for example was a profiting organization. Above all, Pakistan was enjoying good image in the international community. Pakistan achieved these milestones due to honest and competent leadership with collective and solid support from the socially integrated nation.

Let us now comprehend about social cohesion phenomenon and its importance. Emile Durkheim, a sociologist, defines it as the interdependence between the members of the society, shared loyalties and solidarity. A cohesive society works towards the well-being of all its members, fights exclusion and marginalization, creates a sense of belonging, promotes trust, and offers its members the opportunity of upward mobility. Simply, it is all a strong sense of belonging to one another in a society. Shared values, shared interests, and shared vision are important components of social cohesion. Socially cohesive societies carry trust and confidence, face challenges boldly with collective wisdom. It also fortifies national identity cause. Social cohesion gets affected by transformation in the values systems, i.e., social, economic and political. Changes in policies at a state level directly influence social relationships at the societal level. In addition, it affects state-society relationship.

Pakistani society has undergone a significant change since independence, especially in late 1960s. It was never as fragmented as it is today. Deterioration started in many ways. The crisis that shook the very foundation of national unity was having political manifestations, at start. There are several other obvious reasons too. Currently, it is divided on linguistic, sectarian, political party affiliations, haves and have-nots, and liberal and religiously extremist lines. Unequal public spending for different parts of the country is also causing frustration in the society. Some parts of the country remain under special attention, while other lack basic needs and infrastructure. Marc Andre, the UNDP country director in Pakistan, exposed this reality. Addressing in a seminar, he said that 'public spending in Pakistan is politically driven, governments spend money on areas where they could gain maximum

political advantage', which eventually causes massive disparity and a strong sense of deprivation in the minds of people from backward areas. Hostile elements then exploit these feelings of the people; Balochistan is an example in this regard. Although, it is treachery on the part of some Baloch insurgents to ask for separation from Pakistan and getting assistance from hostile agencies, however, federal and provincial governments are liable for grievances of the people of Balochistan.

Besides, unregulated or poorly regulated capitalism is contributing to fragmentation of the society. Free market economy is good for rapid economic development but it needs a proper regulatory mechanism in place. The major drawback of capitalists' societies is that it produces trends like individualism, materialism, corruption and exploitations. A society becomes corporate in its nature with such an uncontrolled economic system. Pakistani society is under strong influence of unregulated capitalism. State control is weak on the private enterprises. In a more simplistic way, money has taken charge of social relationship in the society. Corruption is reaching new heights day by day. Other than that, international politics, outside interference in the internal affairs (social, economic, and political spheres) of the country through different means, are also having impact on the social behavior of people in Pakistan.

The country is suffering from the declining social cohesion. There seems chaos in the country. Inter sects, inter parties and inter provinces fights have gone up over the years. Ironically, there is a division between the establishment and political government on some foreign policy matters. This divided approach is a welcoming sign for the hostile forces. These antagonistic elements exploit such soft targets in the society for achieving their interests. The nation can turn into a crowd and eventually become a mob if the existing anarchy continuous unnoticed for a longer time.

There is much for social cohesion in Pakistan. We have a lot to share; abundance of resources, talented people, geographically significant location and above all, Islamic teachings of unity, brotherhood and non-violence. State authorities need to have full grip on public affairs in order to reduce disparities. The current generation be regularly reminded about the sacrifices our forefathers made for Pakistan; what was the purpose of achieving this sacred state of Pakistan and how could we move forward as an independent, strong and sovereign nation in the contested and disordered world. Syllabi in educational institutions and positive media role are also vital for social cohesion.

Moreover, people centric policies followed by implementations, in both letter and spirit, can promote the culture of harmony and trust among people from distant parts of the country. Unfortunately, we are passing through leadership crisis as well. Only a competent leadership can bring about such policies for national integration. Somebody rightly put, the nation needed a separate country before partition of the sub-continent and now the country needs a nation and a visionary leadership.

The aim of this piece of writing is not to be pessimistic about Pakistan's future but to highlight some gruesome realities. Generally, Pakistani people have kind and loving tendencies by nature. We have witnessed this on many challenging times in recent history. Public response in 2005 earthquake is enough to prove the argument. Good governance practices can help in nurturing an environment of cohesion in the society. All pillars of the state including media have to play their vital role in promoting

social cohesion. The ultimate objective should be to create an environment of positive peace (according to Johan Galtung's definition of peace) in the society. Finally yet importantly, we must remember our Quaid's lesson—unity, faith and discipline—to live like a dignified nation in the world.

<http://foreignpolicynews.org/2016/08/30/deteriorating-social-cohesion-pakistan/>

Revitalizing the National Action Plan

S Sadia Kazmi

The National Action Plan (NAP), which came out on December 24, 2014 as a result of a heinous massacre of school children in Peshawar on December 16, 2014 was even though a delayed action but a right one in the right direction. Since the very beginning its success depended upon the commitment and dedication of the civil and military leadership.

Hence it was witnessed that the All Parties Conference was attended by all and sundry, including the opposition parties, political parties in the government, and large number of military leadership too. From the onset it carried positive vibes about its purpose and the fact that it was unanimously being pursued by all the stakeholders, gave it a positive thrust. The 20 points agenda was approved in the meeting, which was indeed a well thought-out blue print identifying the main areas of trouble that were undermining the internal security of the state. It was being expected that same commitment would continue for the prime purpose of rooting out the menace of terrorism and extremism from the society, and eventually to establish the writ of the state.

However after much positive and hopeful beginning, the further development on the plan is still lacking. The impetus that it was expected to gain, was somehow lost on the way and now after almost 2 years one doesn't see much deliverance on the 20 points agenda deliberated upon in 2014.

The fact that the civil-military equation on various matters has always come in clash with each other, was even though not that obvious in this particular matter, but the force with which military had taken up this cause was seen missing on part of civil leadership. There are also some instances where one sees that the civil leadership expressed some reluctance in adopting a stern stance against the extremist organizations and the convicts. This very dimension did cause a major slowing down of the progress on materialization of set milestones. The establishment of military courts did compensate the slackness of civil leadership, but it did require renewed pledge by the civil leadership too.

At the same time even though the "problem areas" had sufficiently been identified but they were not supported by any framework as to how to go about achieving those goals. Probably the involvement of army was being seen as "delegation of responsibility" instead of "sharing of responsibility", a thought that needs to be reviewed. One can also point out another very important area which is required for the successful achievement of NAP goals and that is the civic responsibility. There is an ever growing need that the civil society takes utmost care in curbing down extremist sentiments. It should refrain from getting involved and showing sympathies to the factors which invoke sectarian and ethnic rifts. Also there is a need to indoctrinate people in this regard so they could readily condemn any such instances. This could be done through responsible role of media. Regular programs and shows should be relayed on religious harmony. Pakistan's diverse ethnic and cultural richness could be telecasted on regular basis so that the people should feel connected cross culturally. The role by military leadership by conducting operations like zarb-e-azb will be complimented and supported immensely by a parallel measures taken through soft policies.

Having said all that, it was high time that the NAP should have been revived. The meeting convened for the purpose of implementing the NAP is once again a right move. The body supervising the progress on NAP contains some high profile names and once again there is a lot of hope attached that it will finally deliver. It should not face the same fate as NACTA. Finally the political will is there and the supervisory committee should be able to make the goals meet. With the help of 29 new wings of the Frontier Corps for border management, a lot of suspicions cross border activities could be kept under check. At the same time process of mainstreaming the tribal areas is going to positively help in pacifying the grievances of locals against the government and its policies. The government also should realize that it doesn't have to wait for tragedies in order to move ahead with progress on such projects. Previously Peshawar school attack became the reason and now the tragedy in Quetta which killed 75 people, finally was able to wake up the authorities from their slumber. A special emphasis should be given on making NACTA functional as is already outlined in the 20 points of NAP. Now is the time that the momentum should be maintained, so that the NAP doesn't become just another document of 20 points which no body had clue what to do with.

<http://foreignpolicynews.org/2016/08/31/revitalizing-national-action-plan/>

NSG Membership Should be Criteria Based and Not Country Based

Beenish Altaf

Pakistan is one of the few states, worldwide, to possess nuclear weapons. It aspires to be a member of the Nuclear Suppliers Group (NSG), an association of 48 nations that oversees international trade of atomic and atomic-related materials and technologies with a shared commitment to global nonproliferation. Even though Pakistan is not a signatory of the Treaty on the Nonproliferation of Nuclear Weapons or the Comprehensive Test Ban Treaty but still, the country's experience in civil nuclear program demands attention of the NSG at this juncture.

Mohammad Kamran Akhtar, Director General of Disarmament at Pakistan's Ministry of Foreign Affairs, told the Korea Herald that his country's membership would allow for a safer and more accountable trade of nuclear materials in line with global standards and best practices. Dismissing recent allegations that Pakistan had supplied nuclear-related items to North Korea, Akhtar expounded Islamabad's efforts to curb Pyongyang's nuclear ambitions through the United Nations Security Council sanctions and allay regional tensions in South Asia through coordinated efforts at arms control with India.

The most recent debate over NSG or on the expansion of NSG is moving towards what is going to be the criteria that can be accepted by consensus at the Nuclear Suppliers Group. Yet, even after the great hype followed by hot debates internationally in this meeting, the outcome over the NSG membership remained stalled. To end this deadlock, few states are now working to decide some criteria mutually acceptable to all.

Indubitably, in order to step forward and improve the global non-proliferation goals, putting in new members in NSG would be an encouraging and constructive option. Along with, it would be equally vital to uphold the efficacy and effectiveness of NSG. Therefore, the expansion should be carried out on non-discriminatory bases — by taking on the Criteria Based Approach. The meeting of June 26-27 in Buenos Aires called for discussion on the NSG's relationship with India.

In this regard, on June 22, 2014 in Argentina, India has ratified its Additional Protocol with the International Atomic Energy Agency (IAEA) to expand oversight over its civilian nuclear program. This protocol was approved back in 2009 that paved the way for NSG to grant India-specific waiver for it to have commercial relations with other countries in the civilian atomic field. In effect, the waiver was necessary as India, despite being a nuclear-armed state, is not a signatory to the NPT thus does not qualify for nuclear trade. But even then, the US labeled this ratified protocol as another important step in bringing India into the international non-proliferation mainstream. Although, the group is not a formal

organization and its guidelines are not bindings, but still, its members are expected to incorporate the guidelines into their national export control laws. Ironically, it does not mean that any country specific diversion or waiver would become legal under the guidelines of NSG.

The criteria-based approach can really facilitate NSG to universalize the regime's application. Nevertheless, NSG would only stay behind as an 'illegitimate cartel of industrialized countries' if it still opt for country-based approach instead of a adopting a non-biased criteria-based approach for its expansion of member states.

The NSG at the 26th plenary expressed its concerns regarding continuing proliferation activities around the world and stated its unwavering support for the full and effective implementation of the nonproliferation treaty. However, a 'challenge to non-proliferation norms was the granting of discriminatory waivers, arrangements which denoted double standards and opened the possibility of diverting material intended for peaceful use to military purposes'.

<http://southasiamonitor.org/detail.php?type=n&nid=19048>