

CTBT: A critical evaluation from a Pakistani perspective

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Abstract

The Comprehensive Nuclear Test Ban Treaty (CTBT) has failed to achieve the desired ratifications to come into force due to the discriminatory policies of major nuclear weapon states. Since the 1950s, Pakistan has been pursuing the objectives of nuclear non-proliferation and disarmament and has opposed the nuclearisation of South Asia. In an effort to curb the nuclear threat, Pakistan offered numerous proposals ranging from the establishment of a nuclear weapons free zone to introducing a regional test ban treaty but India, while rejecting all such proposals, introduced nuclear weapons in the region. As a result, Pakistan was left with no choice but to pursue a nuclear weapons programme. However, as a nuclear weapon state, Pakistan desires strategic restraint, but India's aspirations to achieve global power status are driven by its need to enhance its strategic capabilities. India's refusal of any international and regional disarmament offers, including the CTBT, also compelled Pakistan to link its stance in the signing of these instruments with India due to its security concerns. As a result, India and Pakistan, by choice or compulsion, are actively involved in a dangerous nuclear arms race. Both states have forgotten that their citizens are facing difficult times and the armament competition is expected to further exacerbate their suffering. Therefore, there is an urgent need to end hostility and instead focus on peace and prosperity in the region. Ending discrimination and strengthening disarmament instruments like the CTBT will be essential in promoting 'equal security for all states'.

Introduction

The United States (U.S.) conducted its first atomic test, "Trinity", on 16 July 1945 at Alamogordo, New Mexico thus heralding the dawn of the nuclear age. Since then, nuclear testing continued and more states joined the nuclear club by detonating nuclear devices. In May 1998, Pakistan, to maintain a strategic balance in the region that was altered by India's nuclear tests, conducted six tests: five on May 28 and one on May 30.¹ It is estimated that from 1945 to 2013, eight nuclear states (U.S., Russia, China, U.K., France, India, Pakistan and North Korea) have conducted approximately 2,053 nuclear tests.² The U.S. currently

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leads the list with 1,030 nuclear tests; Russia with 715 tests; U.K. with 45 tests; France with 210 tests; China with 45 tests; India with five weapon tests and one peaceful nuclear explosion; Pakistan with six tests; and North Korea conducted three nuclear tests (*see Table:1*).³ As a result, today the world harbours around 17,300 nuclear warheads (*for complete inventories see Table:2*).⁴ These nuclear weapons are enough to destroy the entire human race several times as the doomsday clock is set at five minutes to midnight.⁵

The international community has taken numerous steps over the past decades to control and eventually eliminate nuclear weapons. The CTBT is one of such efforts. The cessation of nuclear tests was discussed during the ninth session of the United Nations General Assembly (UNGA) in 1954 and has been on the UN agenda since 1957.⁶ However, it was not until 1996 that the international community introduced a practical step in the form of the CTBT draft. The main objective of the CTBT is to prevent states from carrying out all kinds of nuclear weapons testing or related explosions within their territory or areas under their control.⁷ The CTBT also aims to prevent states from helping or encouraging other states in carrying out any nuclear weapons related tests or explosions.⁸ Almost 17 years have passed but the CTBT has still been unable to come into force due to the lack of interest shown by eight Annex-2 states whose signatures and ratification are a prerequisite for the CTBT to become effective.⁹ The CTBT, as of 11 November 2013, holds 183 states' signatures with 161 states party to it.¹⁰ This also includes 36 ratifications from Annex-2 states.¹¹

Does Pakistan still require nuclear weapons in order to safeguard its national security interests? Do these nuclear weapons need more testing? Does Pakistan's current economic, political and internal security condition allow it to modernise its nuclear weapons? At this point does the "more may be better" practice ensure a safe and secure future for the next generation that needs better education and more social and economic security? Or is it the right time to control and eliminate nuclear armament in order to invest more on socioeconomic development and address more urgent and non-traditional security threats to human survival? In the subsequent sections, this study will analyse and attempt to answer these questions with special reference to Pakistan's past and present positions on the CTBT and recommend a way forward without comprising Pakistan's national security interests.

The Pakistani context

Each nuclear weapon state has its own security challenges and dilemmas. The development of nuclear weapons and the regulation of nuclear policy is

conducted in order to strengthen and safeguard national security interests. Pakistan too has its own complex security challenges and dilemmas vis-à-vis its traditional rivalry with India. These security challenges not only compelled Pakistan to develop, but also to strengthen its nuclear deterrent capabilities to counter a conventionally superior, hostile neighbour which has grudgingly accepted Pakistan's separate identity and existence since independence.

Initially, Pakistan was solely interested in the peaceful application of nuclear energy and benefited greatly from the 1953 Atoms for Peace¹² proposal and by becoming an active member of the International Atomic Energy Agency (IAEA). Pakistan strongly supported international efforts to halt the spread of nuclear weapons technology in order to promote regional and international peace. Following the 1965 Indo-Pakistan war and consequent Indian nuclear ambitions, Pakistan grew vigilant of its national security concerns and forcefully maintained a stance against horizontal proliferation during the Nuclear Non-Proliferation Treaty (NPT) debate. Later, Indian aggression against Pakistan's territorial integrity in the 1971 Indo-Pak war compelled Pakistani leadership to pursue a nuclear weapons policy even if it required 'eating grass' for years to come.¹³

Despite concerns of growing Indian aggression, Pakistan attempted to arrest horizontal proliferation in South Asia. In September 1972, it proposed to denuclearise South Asia, following in the footsteps of the Treaty of Tlatelolco; a treaty that in 1974 became an active campaign for a nuclear weapons free zone (NWFZ) at the UN.¹⁴ India responded to this proposal by conducting its so-called Peaceful Nuclear Explosion (PNE) in 1974 and argued that the entire Asia-Pacific region should be included in the NWFZ proposal. Pakistan continued on its path of non-introduction of nuclear weapons in South Asia and in 1978 again proposed an Indo-Pak joint declaration to renounce the acquisition and manufacturing of nuclear weapons. This proposal was followed by a 1979 Pakistani proposal of inspections of the two countries nuclear facilities, the signing of the NPT and the acceptance of the full-scope of IAEA safeguards.¹⁵ However, India refused all these proposals citing its security concerns vis-à-vis China. At that time, the international community did not address Pakistan's legitimate security concerns against India's aggressive designs and failed to stop India from embarking upon a dangerous nuclear weapons programme. This eventually compelled Pakistan to initiate its own programme.

Initially, Pakistan's nuclear weapons programme suffered technical difficulties due to the stringent conditions set by developed western nations and their monopoly over nuclear technology.¹⁶ Additionally, the international community started to propagate a negative opinion aimed directly and solely

against Pakistan's nuclear programme. The U.S. placed a regime of sanctions and cut off aid against Pakistan thus neglecting the country's legitimate security concerns vis-à-vis India.¹⁷

Strategic restraint in South Asia

Although Pakistan initiated its nuclear weapons programme as a defense mechanism employed to reduce its vulnerabilities, it was hopeful to arrest the nuclear arms race by advocating for a nuclear test ban treaty. That remained Pakistan's central position in the international arms control and disarmament debate during the 1970s and 1980s. From 1984 to 1986, Pakistan participated in ten such resolutions in the UNGA and urged nations to achieve the objectives of complete disarmament through a nuclear test ban agreement.¹⁸ In 1987, fearful of Indian ambitions of carrying out another nuclear test, Pakistan even proposed a bilateral regional test ban treaty with India.¹⁹ At that time, Pakistani leaders believed that a negative security assurance (NSA), adherence to the NPT, establishment of a NWFZ, IAEA full scope safeguards and a comprehensive test ban would help to control nuclear weapons proliferation.²⁰ India rejected all these proposals citing its security concerns vis-à-vis China, raising questions regarding continued nuclear testing by major nuclear states and viewing Pakistan's nuclear programme with suspicion. On the international front, the test ban debate also suffered due to the super powers rivalry during the Cold War. The U.S. and USSR were preoccupied with the "more may be better" syndrome and conducted around 311 nuclear tests during the 1980s.²¹ Pakistan was deeply disappointed by the slow progress of the CTBT and urged to ban further nuclear testing in order to halt the nuclear arms race.²² Illustrating their insecurity to sign the CTBT, major nuclear powers wanted to maintain their positions as advanced and sophisticated nuclear weapons inventory holders, which required increased nuclear tests.

In 1991, Pakistan succeeded in signing a bilateral agreement with India against attacking each other's nuclear installations. In 1993, Pakistan proposed the creation of a missile-free zone in South Asia and in 1996 voted in favour of the CTBT while India voted against the treaty.²³ India opted out of these disarmament efforts and bilateral proposals because it had acquired the nuclear weapons capability and wanted to introduce nuclear weapons in the region. Apprehensive of Indian nuclear ambitions, Pakistan kept its nuclear option open and linked the signing of the CTBT with India. Pakistan's stance on the CTBT eventually proved right in 1998, when India detonated its nuclear devices. The Pakistani leadership made it clear that Pakistan would not compromise over its national security and will take all necessary steps to safeguard its legitimate

security interest.²⁴ At that time, Pakistan was left with no choice except to match this altered strategic balance by developing nuclear capability.²⁵ Pakistani nuclear tests triggered the Glenn amendment sanctions by the U.S. thus making it amply clear to Pakistan that in order to safeguard its legitimate national security objectives, it would continue to pay heavily in terms of international sanctions.

After becoming a nuclear weapon state, Pakistan declared that its nuclear weapons capability was solely meant for defensive purposes not for offensive one.²⁶ In June 1998, it unilaterally announced a moratorium on nuclear testing and offered talks to reduce the chances of nuclear exchange between India and Pakistan.²⁷ On 23 September 1998, Pakistan's then Prime Minister, Nawaz Sharif, showed willingness to sign the CTBT if India would reciprocate and the U.S. agreed to lift its sanctions.²⁸ Later in 1999, Pakistan stressed the need for the CTBT and mutual strategic restraint in South Asia in its talks with U.S. officials in Islamabad.²⁹ The Pakistani proposal for a strategic restraint regime in South Asia was later discussed in the 1999 Indo-Pak talks and a MoU was signed to work on bilateral nuclear CBMs. Contrary to Pakistan's restraints proposals, India released with its 1999 nuclear doctrine draft, which was viewed by Pakistan as a dangerous step towards a nuclear and conventional arms build-up.³⁰ On 25 August 1999, Pakistan's Foreign Office expressed reservations about India's aggressive conventional and nuclear militarisation programme as a dangerous trend for regional peace.³¹

The policy of nuclear restraints and responsibility was even followed by General Musharraf. Pakistan believed that the objectives of the CTBT could only be achieved through equality and under an atmosphere free of coercion.³² However, the Indian nuclear doctrine compelled Pakistan to sign the CTBT as dictated by national consensus. The establishment of the National Command Authority (NCA) as 'Institutionalised Capability' in 2000 and the three point nuclear doctrine of 'minimum credible deterrence,' were the first steps in this regard.³³ In 2001, in order to promote peace and to strengthen international confidence in Pakistan's nuclear programme, Musharraf dismissed the nuclear arms race and proposed to formalise a regional nuclear test ban treaty.³⁴ To enhance strategic stability, Pakistan even renounced the use of nuclear weapons and once again proposed the denuclearisation of South Asia.³⁵ Although Pakistan proposed a mutual rollback of nuclear programmes, India rejected the proposal citing its security concerns vis-a-vis China.

Pakistan's proposal of the establishment of a strategic restraint regime in South Asia was based on the following principles:³⁶

- A bilateral nuclear test moratorium treaty
- Non-weaponisation, non-deployment and a de-alert status of nuclear capable missile systems
- An advance missile test notification
- Moratorium on developing Anti-Ballistic Missile systems
- Nuclear CBMs to reduce the chances of miscalculation or accidental use of nuclear weapons
- Transparent and open nuclear doctrines
- Not to indulge in any nuclear arms race
- An agreement on non-use of force, including the non-use of nuclear weapons
- Conventional arms balance with a mechanism for the resolution of disputes, particularly Kashmir.

India rejected these proposals and adopted the option to use nuclear weapons in its nuclear doctrine. However, in 2003, Pakistan declared to retain “minimum nuclear deterrence” as the cornerstone of its national security policy.³⁷ In the meantime, international pressure on Pakistan to unilaterally rollback its nuclear programme was rejected by Musharraf as “irrelevant, outdated and totally false.”³⁸ During the 2004 composite dialogue, India and Pakistan pledged to enhance nuclear CBMs but reiterated that both will not sign the NPT.³⁹ Pakistan also proposed a “no war pact” with India to avoid the chances of a nuclear or conventional war and to halt the nuclear arms race between India and Pakistan. It is worth mentioning here that Pakistan may consider signing the NPT if the world community formally recognises Islamabad as the seventh declared nuclear power. Following the dialogue, Musharraf showed his willingness to reduce nuclear arsenals if India reciprocated and linked the Kashmir dispute with nuclear CBMs. As a positive outcome of the two-day expert level talks on nuclear CBMs held between India and Pakistan in June 2004, reaffirming their unilateral moratorium on nuclear testing, both states agreed to establish a hotline between their Director-General of Military Operations (DGMOs) and between their foreign secretaries.⁴⁰

In 2005, in order to continue on the path of restraint and to strengthen international non-proliferation regimes and disarmament objectives, Pakistan reiterated its stance for a strategic restraint regime in South Asia. However, after many rounds of talks, on 3 October 2005, during the Indian External Affairs Minister’s visit to Islamabad, Pakistan and India signed an agreement on advance notification of ballistic missile tests.⁴¹ At that time, the Indo-U.S. nuclear deal emerged as a major irritant to Pakistan’s national security interests. Initially, the U.S. tried to impose the CTBT on India as an “essential” step for the U.S.

Congress to approve the deal.⁴² However, India rejected such pre-conditions and the deal was nonetheless signed. As a result, India would be able to develop more fissile material to develop more nuclear weapons. This deal brought wide-ranging implications for the region thus altering the international non-proliferation regime.

Global nuclear renaissance and the CTBT

“Nuclear renaissance” soon became a catch phrase as it was estimated that more than twenty states had the capability to develop nuclear weapons on short notice. The CTBT, initially considered central to nuclear disarmament and non-proliferation objectives, soon became victim to its principal sponsors due to their double standards and discrimination against certain states.⁴³ In 2006, the North Korean underground nuclear test put a question mark on the ongoing efforts for the ratification of the CTBT. Pakistan deplored the North Korean announcement of conducting a nuclear test.⁴⁴ In 2007, Pakistan strongly expressed its reservations at the UN, arguing that the CTBT would fail to come into force if states interested in developing nuclear weapons would continue to enhance the possibilities of nuclear testing.⁴⁵ Furthermore the Indo-U.S. nuclear deal made it clear that by signing the CTBT unilaterally, Pakistan’s security interests would be seriously compromised as India embarked on the path to develop more nuclear weapons through this deal.⁴⁶

During 2008-10, Pakistan, a staunch proponent of disarmament and non-proliferation, reiterated its position at different UN forums arguing against the actions of certain nuclear weapon states that it claimed had eroded the global consensus in the following ways:⁴⁷

- Delay in the entry into force of the CTBT causes harm to the objectives of arms control and disarmament
- Ongoing nuclear development and deployment by the three ex-NPT nuclear weapon states. Pakistan believed that India was enabled to build and upgrade its strategic weapon systems through the Indo-U.S. nuclear deal thus causing vertical proliferation⁴⁸
- Perceived threat of proliferation from NPT signatory states
- Technological capability of several non-nuclear weapon states to develop nuclear weapons
- Existence of large stockpiles of fissile material
- Growing role of non-state actors in the nuclear proliferation equation

- Discrimination and double standards of major international powers in terms of applying non-proliferation norms as they deny the right to peaceful nuclear cooperation to certain countries and allow countries like India to continue its nuclear programmes
- Militarisation of outer space will exacerbate asymmetries between states which will initiate the development and deployment of ABM systems as well as the drive to develop useable nuclear weapons
- Increased defence spending will increase insecurity among states as asymmetries in conventional capabilities will grow

Based on these arguments, Pakistan believed that the trends were unsupportive to the cause of the CTBT and general nuclear disarmament. Therefore, it demanded a new non-proliferation and disarmament mechanism based on non-discrimination and with universally applicable criteria. In 2011, Pakistan pointed out that the Conference on Disarmament's (CD) history clearly demonstrated a pattern of double standards by choosing not to negotiate those agreements that undermine the interest of major nuclear weapon states. The CTBT was concluded once the major powers had carried out a sufficient number of nuclear tests and further testing became unnecessary since they had already developed alternate techniques in the form of computer simulation.⁴⁹ Pakistan repeatedly stressed that major powers should not shelve a comprehensive approach towards nuclear disarmament and no treaty should be negotiated in the CD, which is contrary to the security interests of its member states.⁵⁰

Adhering to principles, taking precautions

The above arguments clearly illustrate Pakistan as a responsible nuclear weapon state that has handled its non-proliferation and disarmament commitments very seriously. Pakistan fully supported the international community and the IAEA in curbing the nuclear black market, which allegedly involved Pakistani scientists and a whole range of middlemen located in European capitals and in Asia. Combining most of the previous regulations, Pakistan introduced its most important legislation, "Export Control on Goods, Technologies, Material, and Equipment related to Nuclear and Biological Weapons and their Delivery Means" in 2004.⁵¹ In addition to disassembled status, Pakistan also equipped its nuclear warheads with Permissive Action Links (PAL).⁵² It has initiated the Personnel Reliability Programme (PRP) and strengthened its intelligence capacity in order to deal with nuclear safety and security issues. Approximately, 20,000 highly trained professionals safeguard Pakistan's nuclear assets.⁵³

Pakistan has also enhanced international confidence over the safety and security concerns of its nuclear assets.⁵⁴ The country actively participated in the first and second Nuclear Security Summit (NSS), in 2010 and 2012 respectively, and assured the international community of its safety and security measures.⁵⁵ The U.S. also expressed its confidence in the safety and security of Pakistan's nuclear assets. During the 2012 NSS, Pakistan reiterated that nuclear security is a national responsibility and highlighted key achievements since the 2010 NSS which included: founding a training academy to provide training in physical protection and personnel reliability; establishment of a school for nuclear and radiation safety; in process of establishing Nuclear Security Training Centres; revised safety parameters of nuclear power plants following the Fukushima accident; a renewal of its five year Nuclear Security Action Plan; and deploying special nuclear material portals at important entry and exit locations to prevent illicit trafficking of nuclear related materials.⁵⁶ In addition to this, Pakistan is a member of the Nuclear Safety Convention, the Convention on Physical Protection of Nuclear Material, the Convention on Early Notification of a Nuclear Accident, and the Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency. Pakistan is also an active member of and a contributor to the Global Initiative to Combat Nuclear Terrorism (GICNT) and has been fully cooperating with the 1540 Committee.

With regard to the Fissile Material Cut-off Treaty (FMCT), Pakistan strongly believes that a wide disparity in the fissile material stockpiles of India and Pakistan could erode the stability of nuclear deterrence.⁵⁷ Pakistan's principle stance on the FMCT was that the treaty must address the past, present and future of fissile material production and proposed that it should be renamed the Fissile Material Treaty (FMT). The asymmetry in the stockpiles at the global and regional levels will be a factor of strategic instability. Therefore, a proportional reduction of future and existing stockpiles is necessary. The NCA clearly stipulated that Pakistan's position on FMT revolved around its legitimate security interest and strategic stability in South Asia and that it would not compromise over any selective or discriminatory approach, which is prejudicial to its legitimate security interests.⁵⁸

Pursuing the CTBT

It is not the sole responsibility of Pakistan to pursue the objectives of disarmament and close the doors on nuclear testing. The ratification of the CTBT by key international players is essential for the success of this treaty. The ratification by the U.S. would likely enhance the chances of ratification of the CTBT by China, India, Iran, North Korea and Pakistan.⁵⁹ A renewed

commitment of the international community under the ‘Global Zero’ action plan requires the ratification of the CTBT as a first and essential step towards nuclear arms control and a phased, verified and proportionate reduction of all nuclear weapons to zero.⁶⁰ This can only be achieved if equipped with a sincere and serious commitment from major nuclear weapon states. U.S. President Barack Obama in his famous speech in Prague on 5 April 2009 termed the existence of thousands of nuclear weapons as the most dangerous legacy of the Cold War and pledged to pursue the U.S. Congress to ratify the CTBT. The U.S., in its 2010 Nuclear Posture Review (NPR), committed to pursue the ratification of the CTBT and decided not to conduct nuclear testing and pledged to not develop nuclear warheads.⁶¹ It is unlikely that Obama will gain support for his nuclear disarmament mission because of opposition from a polarised Congress. The U.S. Senate has passed the New START treaty but there is no guarantee that the Senate will support the CTBT ratification.⁶² However, this goal can take a long time, provided that the American commitment to nuclear disarmament remains the same.

More recently the basic objectives of the CTBT were jolted when North Korea conducted its third nuclear test on 12 February 2013. The U.S. President, urged North Korea to end its “belligerent approach” and emphasised that the U.S. was ready to take “all necessary steps to protect its people” and defend its allies in the region.⁶³ China is a strong supporter of the CTBT but is reluctant to ratify it unless the U.S. reciprocates. Israel conditioned its stance to ratify the CTBT on three main grounds i.e. complementation of International Monitoring System (IMS); the right to equal status; and regional security concerns.⁶⁴ Egypt and Iran linked their stance with regional security concerns and Israel. The significant development so far is Iran’s interim nuclear agreement, signed with key international players over its alleged nuclear weapons programme. A successful conclusion of this agreement will reduce the chances of military confrontation between Iran and the West, particularly the U.S. and Israel. Furthermore, assurances from Iran that its nuclear programme is only meant for peaceful purposes will open up avenues of international cooperation. Therefore, a constructive engagement between Iran and key international players will enhance the prospects of regional and international peace. However, the true outcomes of this deal are yet to be seen.

Analysis

Overall, Pakistan in all its recent deliberations to strengthen the objectives of non-proliferation and global disarmament strongly supports the principles of non-discrimination and mutual respect of ‘equal security’ for all states.⁶⁵ Pakistan

believes that 'equal security' of all states can help to address the motives that drive states to acquire weapons to defend themselves. A threat from superior conventional or non-conventional forces coupled with the existence of disputes, conflicts and international discrimination can compel any state to go nuclear. A renewed commitment to achieve nuclear disarmament in a reasonable time frame under the NSA can help stabilise international peace and security.⁶⁶ Furthermore, Pakistan wants to pursue a strategic restraint regime in the region by promoting conventional stability and stressing a need for balanced reductions in conventional forces and armaments. This requires tremendous political will, especially on the part of major powers to achieve the goals of nuclear disarmament and non-proliferation in a balanced and non-discriminatory manner.⁶⁷

The above argument clearly shows that at the bilateral, regional and international level, Pakistan always promoted the objectives of non-proliferation, disarmament and peace. Acquiring defensive nuclear capability to address its legitimate security challenges and dilemmas, Pakistan's decision to go nuclear was due to a threat from its eastern neighbour, India.⁶⁸ The past 66 years of Indo-Pak antagonist relations have witnessed three major wars (1948, 1965, and 1971) and many near war situations (1990, Kargil 1999, and the 2001-2002 border mobilisation). Even today, both nuclear neighbours remain confrontational on territorial disputes (Kashmir and Sir Creek), issues of terrorism and a disrupted peace process.⁶⁹ In these circumstances, it is not possible for a state like Pakistan to limit or abandon its nuclear capabilities.

Pakistan's national security concerns grow as the conventional disparity increases vis-à-vis India. As India embarks on enhancing its strategic arsenals and spending billions of dollars to modernise its armed forces, Pakistan's nuclear weapons serve as an infrangible guarantee of its independence and physical integrity. Nuclear weapons capability has made it possible for a weaker state to defend itself against a large, powerful adversary.⁷⁰

Over the past decades, Pakistan has promoted regional peace and cooperation and maintained its stance against any nuclear arms race in the region. However, in order to maintain strategic stability and a strategic balance vis-à-vis India, Pakistan continued on the path of minimum credible nuclear deterrence. From 1974 to 1997, annual General Assembly resolutions on the establishment of an NWFZ in South Asia were supported by Pakistan. India rejected these resolutions on the grounds that such a zone would not address its security concerns about Chinese nuclear arsenals.⁷¹ Similarly, territorial disputes, Indian support to Pakistani militant groups, and water issues between both states still serve as a

possible flash point for another war; one that India is determined to win.⁷² Border violations by India mark its insincerity in maintaining regional peace and highlight a manipulative tactic of exploiting cross border terrorism to launch an offensive against Pakistan. This serves as a logical and valid justification for Pakistan to retain the nuclear weapon option as long as threats to its national security and territorial integrity emanate from India.

The answers to the questions of future nuclear testing, the modernisation of nuclear weapons inventory and the development cost of the “more may be better” scenario lie in the future role of nuclear weapons in India and Pakistan’s nuclear doctrines. From “unacceptable damage” under punitive retaliation with nuclear weapons to “disproportionate response” under full spectrum deterrence, both states are moving towards war fighting scenarios rather than maintaining strategic and deterrence stability. However, doctrinal ambiguities also play a dangerous role because both states have declared to maintain a minimum nuclear deterrence capability but have not specified a certain limit of nuclear warheads. According to different open source estimates, Pakistan’s current nuclear weapon stockpiles range from 100-120 whereas Indian stocks range from 90-110 (see table 2). These estimates disturbingly illustrate that in the past 15 years, stockpiles have increased from single digit to triple digit figures.

Although India and Pakistan have pledged to follow their moratorium on nuclear testing, recent reports and trends in their ‘evolving’ nuclear doctrines and technological advancements show otherwise. Both countries repeatedly test ballistic missiles to improve their strategic delivery capabilities qualitatively and quantitatively. Short range ballistic missiles (Pakistan’s Hataf IX NASR with a range of 60 kilometre was tested to counter India’s Cold Start doctrine and missile Parhaar with a range of 70-150 km) capable of carrying nuclear weapons signal the development of tactical nuclear weapons (TNW). Short range delivery systems require the development of low yield TNW. As a result, their numbers can reach up to few hundreds. TNW tests are conducted in order to validate their accuracy and credibility.

Following the Indo-U.S. nuclear deal, India is actively pursuing nuclear related deals with the U.S. Russia, France, Mongolia, Namibia, Argentina, Canada, Kazakhstan, and South Korea to acquire the latest nuclear related technology and materials. After securing such technology, India is expected to conduct more tests to enlarge its nuclear arsenal. Armed with a desire to attain prestige, India sees such efforts as a way to enhance its global standing as an advanced nuclear weapon state with a large modern nuclear inventory. Such a

scenario will disturb the strategic balance within the region and prompt Pakistan to accelerate the development of its nuclear arsenal and conduct more tests.

Due to confidentiality, no data is available on the actual cost of India or Pakistan's nuclear weapons programme. However, according to the Bulletin of Atomic Scientist report, Pakistan's stockpiles are the "world fastest growing nuclear stockpile."⁷³ It was further highlighted that Pakistan has enhanced its production of fissile material and is developing and deploying additional delivery systems.⁷⁴ Similar is the case with India, which is also investing more on its nuclear weapons programme and on modernisation of its conventional weapons capability. According to the Institute for Science and International Security (ISIS) report, India has expanded, almost to double, the ability to produce enriched uranium for its nuclear weapons programme.⁷⁵ Such an expansion will also bring a heavy burden of responsibility for safety and security and questions pertaining to issues of command and control of these assets, all of which require mammoth financial resources.

Conclusion

These trends indicate that India and Pakistan are dangerously indulged in the "more may be better" syndrome without realising that modernising and maintaining an advanced nuclear arsenal is a costly business. The situation is particularly troubling for a country like Pakistan, which finds itself ensnared in a myriad of internal and external security crises. However, Pakistan should bear in mind that it will have to pay a heavy price for any future nuclear tests because its nuclear weapons programme remains a constant irritant for the international community. Pakistan should weigh the cost benefit analysis before conducting any more nuclear tests even if India does so in the future. Although the option to conduct more nuclear tests is present in an event to safeguard national security interest, India and Pakistan should focus on settling deep-rooted issues so that there is no need to conduct any further tests. Both countries have enough nuclear weapons to fulfil their deterrent value. Indulging in any new nuclear arms race will be detrimental. The "more may be better" scenario will only cripple the economy of both countries and eventually the masses will suffer from the high tag price of maintaining a nuclear as well conventional arms race. For India and Pakistan, as well as the other major nuclear powers, it is time to reduce a reliance on nuclear weapons and move towards elimination. Therefore:

- All nuclear weapons states should practically demonstrate a renewed commitment to achieve nuclear disarmament in a reasonable time frame

- A balanced approach is required to invest more on social economic development without compromising Pakistan's vital national security interests
- A transparent, balanced and effective regional initiative to maintain symmetry in conventional armament is required to address the issue of regional disarmament initiatives
- An "equal security for all states" approach based on 'non-discrimination' is required to address the questions of nuclear arms control and global disarmament
- International organisations like the UN should be strengthened in such a way that they promote equal security for all states and peaceful nuclear energy
- Solution of deep rooted disputes between India and Pakistan to reduce the reliance on nuclear weapons and their costly future development and modernisation
- The NPT, CTBT, and FMCT should be strengthened and concluded on the basis of non-discrimination; address legitimate concerns of all states; accommodate present realities and become a real and practical foundation for Global Zero
- P-5 should play a leading role to put a limit on existing and future nuclear weapons stockpiles, followed by a comprehensive ban on nuclear testing and move towards comprehensive global disarmament

In the absence of an absolute security guarantee and in the presence of new nuclear realities, it would be unfair to demand Pakistan to limit its nuclear weapons programme and capabilities. Furthermore, a real and practical step from key nuclear players remains missing to reduce the dangers of nuclear weapons. At this point, signing the CTBT will not serve Pakistan's interests when a long list of states do not want to become a part of the CTBT. Even advanced nuclear states like the U.S that has conducted thousands of nuclear tests, still feel insecure and do not want to ratify the treaty.

Therefore, a renewed international commitment from major nuclear weapon states is required to limit and eventually embark on nuclear disarmament by honouring equal security for all states. The overall purpose of the CTBT cannot be achieved in the presence of mistrust, discrimination, and double standards. A renewed and serious regional and global cooperation is required to promote peace and harmony amongst hostile states. Moreover, India and Pakistan should move from traditional hostility towards cooperation to promote peace and prosperity within the region.

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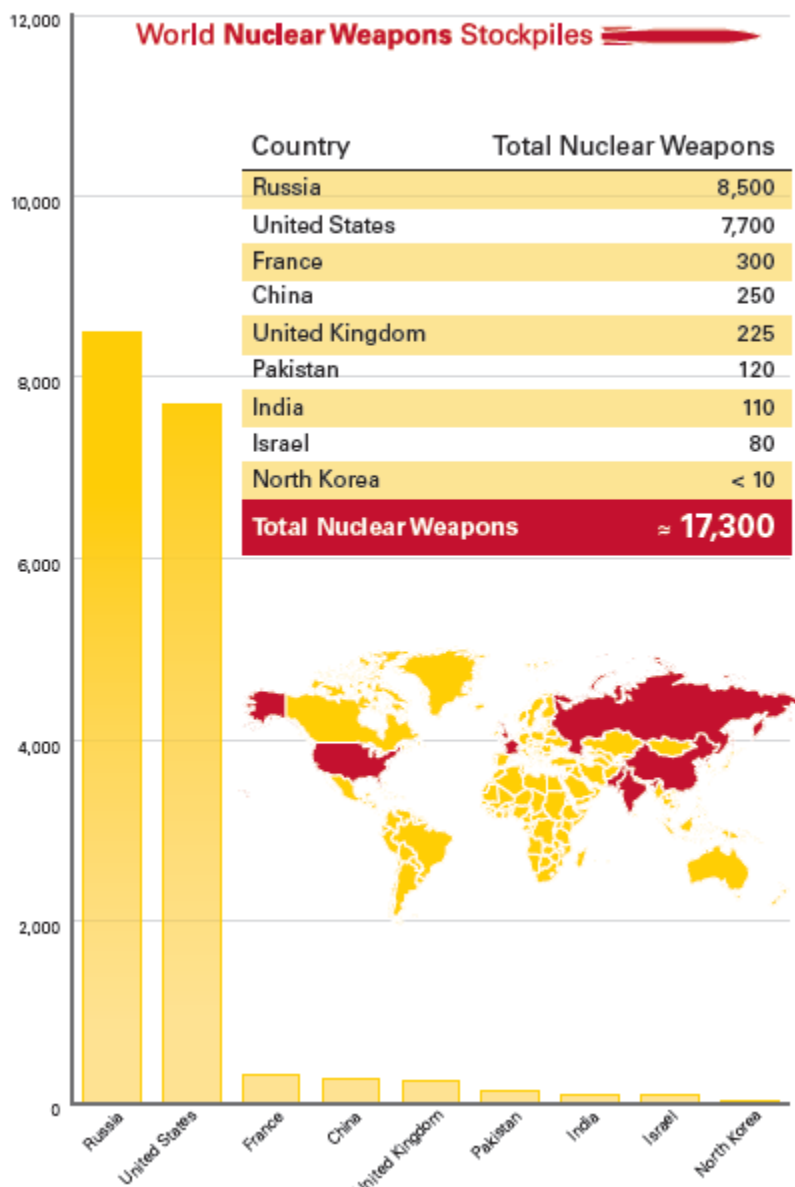
For Pakistan, there is an urgent need to address the current challenges the nation faces in the form of economic instability, a crippled energy sector, growing terrorism, internal insecurity, abject poverty, and related socioeconomic development issues. A responsible nuclear state requires a responsible and strong sovereign nation.

Table: 1 (Nuclear Testing Tally)

Year	United States	USSR/Russia	United Kingdom	France	China	India	Pakistan	North Korea	Total
1945	1								1
1946	2								2
1947	0								0
1948	3								3
1949	0	1							1
1950	0	0							0
1951	16	2							18
1952	10	0	1						11
1953	11	5	2						18
1954	6	10	0						16
1955	18	6	0						24
1956	18	9	6						33
1957	32	16	7						55
1958	77	34	5						116
1959	0	0	0						0
1960	0	0	0	3					3
1961	10	59	0	2					71
1962	96	79	2	1					178
1963	47	0	0	3					50
1964	45	9	2	3	1				60
1965	38	14	1	4	1				58
1966	48	18	0	7	3				76
1967	42	17	0	3	2				64
1968	56	17	0	5	1				79
1969	46	19	0	0	2				67
1970	39	16	0	8	1				64
1971	24	23	0	5	1				53
1972	27	24	0	4	2				57
1973	24	17	0	6	1				48
1974	22	21	1	9	1	1			55
1975	22	19	0	2	1	0			44
1976	20	21	1	5	4	0			51
1977	20	24	0	9	1	0			54
1978	19	31	2	11	3	0			66
1979	15	31	1	10	1	0			58
1980	14	24	3	12	1	0			54
1981	16	21	1	12	0	0			50
1982	18	19	1	10	1	0			49
1983	18	25	1	9	2	0			55
1984	18	27	2	8	2	0			57
1985	17	10	1	8	0	0			36
1986	14	0	1	8	0	0			23
1987	14	23	1	8	1	0			47
1988	15	16	0	8	1	0			40
1989	11	7	1	9	0	0			28
1990	8	1	1	6	2	0			18
1991	7	0	1	6	0	0			14
1992	6	0	0	0	2	0			8
1993	0	0	0	0	1	0			1
1994	0	0	0	0	2	0			2
1995	0	0	0	5	2	0			7
1996	0	0	0	1	2	0			3
1997	0	0	0	0	0	0			0
1998	0	0	0	0	0	2	2		4
1999-2005	0	0	0	0	0	0	0		0
2006	0	0	0	0	0	0	0	1	1
2007-2008	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	1	1
2010	0	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	1	0
Total	1,030	715	45	210	45	3	2	3	2,053

Source: Arms Control Association, February 2013,
www.armscontrol.org/factsheets/nucleartestally

Table: 2



Source: World Nuclear Stockpile Report, *Ploughshares Fund*, Updated 14 November, 2013, <http://ploughshares.org/sites/default/files/resources/Stockpile-Report-111413.pdf>

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