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Thinking Beyond Traditional Securityin Nuclear South Asia

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Abstract: Traditionally, the security calculus revolves around the military security. This realistic notion of strengthening the military security has driven many nations very hard-core military developments, including nuclear weapon programmes. The advent of nuclear weapon has brought about sweeping changes in the security calculus. However, today, the security concerns have gone beyond traditional security concepts, encompassing various security issues. Nuclear weapon developmental activities involve various threats during uranium mining to milling, processing, enrichment, and fuel fabrication, to atomic reactor operations and radioactive waste dumping. The nuclear power generation causes many human rights violations. The nuclear catastrophe Fukushima is the clear illustration of the issue. In South Asia, the nuclear development by India and Pakistan has been viewed as a major human security issue in India. From the perception of Critical Security Studies, security is to be thought beyond traditional military security concepts.

Keywords: Nuclear programme, Traditional security, Human security,Nuclear South Asia and Critical security studies

I. INTRODUCTION

Nuclear weapon, 'the absolute weapon' as denoted by Kenneth Waltz, has created a new history of war and peace. Under both these conditions-war and peace, human security is severely threatened. Nuclear weapon has brought about a paradigm shift in the security perceptions, with deep security dilemma arising out of fear and uncertainty. Nuclear weapon was revealed to the whole world with the two events, Hiroshima and Nagasaki. The annihilating power of the weapon was promising for nations that it would act as a better weapon of deterrence. However, the security is to be framed beyond this military security. Nuclearisation of South Asia, with India and Pakistan attaining nuclear weapon capability, has brought different security predicament to the region. Under the given security complexities, the nuclear weapon programme either quadrupled the existing security challenges or produced new security issues.The crux of the paper is how traditional security should be altered to better protection human rights.

Security Issues in South Asia: Traditional and Non-Traditional Notions

It would be easy to frame the geographical stretch of South Asia in a smaller unit of SAARC. However, considering the inalienable role of China and Afghanistan in the security arena, these two nations shall be placed in the South Asian Regional outfit. South Asia the Asian sub-region is known for its diverse and distinct culture, as well as the economic and political turmoil. The nations in South Asia have been engaged in domestic turmoil, civil and military strife, inter-state border disputes and migration that snow balled into conflicts and wars in the region (Malviya; 2007: 83). Many of the internal security problems of these states are trans-national in nature. The South Asian States encounter a host of traditional and non-traditional security issues that emanates from their domestic insecurities such as internal strife, political instability, lack of civil society, communal, ethnic, racial and regional aberrations.

South Asia is increasingly referred to as the most volatile area of the world, as the epicentre, the 'new locus' of terrorism, as the venue of a resource – sapping and futile arms race and of a possible and devastating nuclear confrontation (Vijaykumar; 2009:74). A number of terrorist attacks have taken place in this region. South Asia is a fertile land for terrorism and terrorist activities. It is in fact the culprit as well as the victim of many terrorising events. The state sponsored terrorism helps Pakistan to challenge the Indian strength without involving greater efforts. There is no exception that, almost all the countries of this region have been facing the dreadful deeds of the militants. LTTE in Sri-Lanka, ULFA, Maoist and Naxalites in India, Maoists in Nepal and a number of terrorist groups operating in Pakistan, show that this region is highly vulnerable to militant threat. South Asia has dealt with conflict-generating terrorism for more than 20 years.

Human Security concerns go beyond these security issues adding insecurities such as economic insecurity, food insecurity, health insecurity, environmental insecurity, personal insecurity, community

insecurity and political insecurity to the traditional security fears. Terrorist attacks, civil war, ethnic violence, epidemics, and sudden economic crises all are parts human security notion. Infact, the idea of human security is people-centred, it is not state centred and goes beyond traditional military security to defend external aggression.

Economically, the South Asian states are regarded as developing or underdeveloped. However international political analogy depicts that the South Asian nations are weak, failing or failed. The crises situation in the South Asian region is further extended with the socio-economic backwardness of the region. South Asia accounts for nearly 22% of the world's population but in terms of per capita income, it is the poorest region of the world. It produces only 1.3 per cent of the world's income (Saber; 2004). When compared with the other economies, the South Asian economy looks really pale. Low economic growth rate, poverty and indebtedness are common in the South Asian nations (Williamson; 2003). Unemployment as well as underemployment are major problems in the region. The labour force in the informal sectors mentally and physically harassed and they are unable to enjoy their human rights. The rise in the food prices adversely affects the region and puts millions of people in starvation. Towards the end of the last decade, the Asian Development Bank has estimated that a 10% rise in price of food staples like rice and wheat could push almost 30 million more Indians, nearly 4 million more Bangladeshis, and 3.5 million Pakistanis into extreme poverty, below the $1.25-a-day income mark.

Nuclear South Asia

The Security Environment of South Asia was redrawn by the nuclear tests conducted by India and Pakistan. The nuclear tests conducted by India and Pakistan in May 1998 bought an 'equilibrium change' rather than a radical transformation of the existing regional strategic environment (Tellis; 2003: 19). "*On May 11 and 13, 1998, India conducted a series of five nuclear tests. On May 30 and 31" Pakistan followed it by six tests of its own* (Ganguly; 1999: 45). This may provide a numerical parity in the nuclear explosions conducted by these states. Both of them conducted six nuclear tests each. Many scholars had argued that the South Asian security is found to be at its worse with its nuclearisation. On the contrary, many considered it as a security shift which would be beneficial to the South Asian security environment To them, the presence of nuclear weapons in South Asia threatens to make regional conflict catastrophically costly. Further, the subcontinent remains volatile, with recent violence ranging from a Pakistan-supported guerrilla war in Indian Kashmir that invites military exchanges between Indian and Pakistani armed forces (Kapur; 2005). The acquisition of the nuclear weapons in the 'childhood' by these two nations still escalates the risk.

There was a large volume of articles and scholarly opinion that expressed the danger of nuclear weapon in South Asia. They viewed that any kind of confrontation between India and Pakistan will lead to a nuclear war. The continued enmity between these two nations further escalated the possibility of the nuclear war. South Asia that had witnessed three wars between India and Pakistan is the most likely area of the world to explode and wage a nuclear war in the near future (Malhotra; 1997: 91). Although a major conflict in South Asia is unlikely in the present circumstances, this is one area of the world with the potential for a nuclear exchange between states (India and Paksitan) and such a development would have devastating consequences in the region as well as to the whole world (Raphel; 1995: 222).

Like in the case, other nuclear weapon states, Pakistan also began its nuclear programme for peaceful purposes. The beginning of Pakistan's nuclear programme could be traced back to 1954 with the establishment of High Tension and nuclear Research Laboratory for providing research facilities to students (Rajain: 2006: 281). A very visible fact about the clandestine nuclear weapon programme is that civilian nuclear programme was the shield that covered the weapon programme in these two nations.

An active clandestine nuclear weapon programme was begun by Pakistan after the defeat in the 1971 war with India. Immediately after the Indian tests in 1998, Prime Minister Nawaz Sharif chaired a meeting of the Defence Committee of Cabinet to evaluate the security situations. On 28th May at 3.16 p.m the chief scientific officer Muhammad Arshad pushed the button stating "All praise be to Allah" and Pakistan unveiled the curtains of nuclear opacity (Katyal; 2002: 213). The test was conducted at the place called 'ground zero'. The first test named Chagai – I was conducted at 10:16:15.8, 28 May 1998 at Ras Kosh Mountains, Chagai district in the Baluchistan Province 28.79º N and 64.94º E. It was a multiple device test in an underground horizontal tunnel of 1000m length. The test yield was assessed approximately 9 Kt though chained yields range from 18 Kt. to 40 Kt. The second test named Kaharan – I was held at 6:55, 30

May 1998 at Kharan in Chagai district, Baluchistan Province 28.43 º N and 63.86 º E (Katyal; 2002). Pakistan conducted its sixth nuclear test at Kharan, a flat desert valley 150 kms to the South of the Ras Koh Hills. This was a miniaturized device giving a yield which was 60 per cent of the first test. With first five tests Pakistan had equalized the Indian tests in 1998. However, it conducted one more. Either it wanted to go beyond the parity or it was to equalise with the entire Indian test including the first Indian test of 1974.

The history of India nuclear programme could be traced form the pre-independent era in 1944.The Indian peace nuclear programme began for the constructive purpose. However, this peaceful nuclear programme was the base for the weapon programme. It was the Indo China war in 1962 the give impetus to the Indian nuclear weapon programme. India conducted its first test called Smiling Budha in 1974 and five more tests in 1998. India also has developed sufficient missile system for the delivery the nuclear arsenals.The plutonium for India's nuclear arsenal is most likely obtained from two research reactors: the 40 MWt CIRUS and the 100 MWt, which began operations in 1963 and 1988, respectively. Depending on the capacity factor and operating availability, the CIRUS reactor was estimated to produce 4 to 7 kg of weapons-grade plutonium annually; the corresponding figure for the Dhruva reactor is 11 to 18 kg. The CIRUS reactor was decommissioned in 2010 under the separation plan of the U.S.-India nuclear cooperation agreement. The irradiated fuel from the reactors is reprocessed at the Plutonium Reprocessing Plant in Trombay, which has a capacity of roughly 50 tons of spent nuclear fuel per year. India is building six fast breeder reactors, which will increase plutonium production capacity available for weapons-use. The first prototype fast-breeder reactor at Kudankulam did not meet its September 2015 deadline to start commercial operation due to technological issues.

Nuclear Weapon and the Human Security Issues

a) Nuclear War

Nuclear war is a high scale war which involves the use of the nuclear arsenal. Since this is expected to happen towards the culmination of a conventional war, it is also known as total war. The use of nuclear bombs towards the end of the Second Wold War by the US transformed it into a nuclear war. This is the only nuclear war taken place in the world. There were a few circumstances that might have lead to a nuclear war- The Cuban crises in 1957 and the Kargil Crisis in 1999 were the two confrontations those were close to a nuclear war. The severity of the nuclear war could be very clearly understood from the II world War.United States' decision to flatten Hiroshima and Nagasaki in 1945 resulted in the immediate deaths of around 1,20,000 people and more over time, because of the nuclear radiation. The first event occurred on the morning of August 6, 1945, when America dropped a uranium gun-type device code-named "Little Boy" on the Japanese city of Hiroshima. The second event occurred three days later when, again, it dropped a plutonium implosion-type device code-named "Fat Man" on the city of Nagasaki. Two nuclear weapons have been exploded in the history of warfare, both by the United States during the World War II. The second event occurred three days later when, again, it dropped a plutonium implosion-type device code-named "Fat Man" on the city of Nagasaki.

b) Nuclear Accidents

Since 1952 the Ontario nuclear accident in Canada, over hundred nuclear accidents of different degrees have occurred in the world. “One of the worst nuclear accidents to date was the Chernobyl disaster which occurred in 1986 in Ukraine…. Benjamin K. Sovacool has reported that worldwide there have been 99 accidents at nuclear power plants from 1952 to 2009 (defined as incidents that either resulted in the loss of human life or more than US$50,000 of property damage, the amount the US federal government uses to define major energy accidents that must be reported), totaling US$20.5 billion in property damages” (West Bengal Disaster Management & Civil Defence Department).The table below represents the approximate number of nuclear accidents taken place in each country.

Table. 1

Sl. No.	Country	No of Accidents
1	United States of America	48
2	Japan	19
3	France	12
4	Canada	10
5	Britain	6
6	India	6
7	Germany	3
8	Russia	3
9	Ukraine	2
10	South korea	1
11	Pakistan	1

(Source: DiaNuke.org 2011, IEER ;2012, Pedraza Jorge Morales; 2013)

Considering the intensity of the nuclear accident the International Atomic Energy Commission introduced International Nuclear and Radiological Event Scale (INES) in 1990. Accordingly, the scale 4 and above is considered to be nuclear accident whereas below 4 scale are regarded as nuclear incidents. Impact on people, environment and the radiological effects are considered for scaling the accidents.

c. Environmental Hazards and Health Issues

While the danger of loss of life and property may be confined to the region, the environmental impact is to be analysed globally. In fact, it is transcontinental. Environmental problems start from the first stage of the nuclear development (mining of the nuclear materials) to the nuclear tests to prove the capability. Mining and processing of nuclear materials emits radioactive particles. Radioactive particles fall to the atmosphere as a result of nuclear explosion, it may take place even in nuclear tests. Health issue associated with emission and spread of radioactive particles is to be addressed here. Both in animals and human beings, these radioactive particles cause genetic disorders, reproductive complications and cancer. "*Children and adolescents are more sensitive to the cancer-causing effects of ionizing radiation than adults because their bodies are still growing and developing. In addition, children and adolescents usually have more years of life following radiation exposure during which cancer may develop"*(National Cancer Institute; 2011). Somescholars perceive that the nuclear programmes even cause psychological disorder in human beings.*For a number of reasons, it has been argued that both normal operations and accidents pose psychological risks to workers and members of the public* (Pedraza Jorge Morales; 2013).

d. Nuclear Terrorism

It is irrational to discard the idea of nuclear terrorism as a myth and to avoid the safety measures. Terrorists would have attained nuclear capability if coherent safety and security measures were not ensured to nuclear weapons and materials. In a larger perception, it is not sheer the use of nuclear weapon by the terrorist that leads to nuclear terrorism, but even the threat that they can inflict by simply processing nuclear materials and arsenals could intimidate security. Still a conventional attack on the nuclear reactors, reprocessing plants by the terrorists can also lead to catastrophic nuclear terrorism. The September 11 terrorist attack on WTC and Pentagon gave strong support to the argument that the terrorist groups could make conventional strikes on the nuclear sites. Though nuclear terrorism virtually has not taken place, the possibility of nuclear terrorism can't be discarded. It is under this context that the United Nation Organization adopted an international treaty against nuclear terrorism in April 2005.The question

why South Asia could be the centre of nuclear terrorism is to be considered here. Political instability, poor command control system, Pakistan link with the terrorist and the state sponsored terrorism by Pakistan especially against India are certain conditions that suggests that the threat of nuclear terrorism primarily originates in the region.

e. Nuclear insecurity in South Asia

Under the South Asian scene, the nuclear risk is to be connected to overpopulation, technological barriers, presence of non-state actors, frequent confrontations and poor economic condition. Under the above conditions various nuclear threats like nuclear accidents, nuclear war and nuclear terrorism. All the issues related to the process of nuclear weapon development such as emission of radioactive particles and other environmental problems have been found in the region. Three nuclear accidents have already taken place in the region, one in Pakistan and six in India. The following table represents it.

Table.2

Year	Plant	Problem
1987	Kalpakkam	Accident in the reactor core causing two- year shutdown
1989	Tarapur	Leakage of radioactive iodine
1992	Tarapur	Malfunctioning of tube causing emission of radioactive particle
1993	Narora	Damage of heavy water reactor and meltdown
1995	Rajasthan	Leaking of radioactive helium and year shutdown
2002	Kalpakkam	Leaking radioactive sodium
2011	Karachi	Leakage of heavy water and isolation of the area

(Source: DiaNuke.org 2011, IEER ;2012, Pedraza Jorge Morales; 2013)

Transforming traditional security to human security: the critical approach

Critical security studies look into the problems and prospects of security in wider spectrum, encompassing societal, political, ethical, environmental and such other human concerns. It contains different branches like feminist security studies, human security studies, green security, post structural security studies and post colonial security studies.'Critical security studies' is a broad subject that encompasses a range of approaches and analyses drawing on elements of Marxism, Feminism, Critical Theory, Critical Constructivism and Post-Structuralism (Krause and Williams; 1997).

Nuclear weapon security has been redrawn by the critical security analysts. The overemphasis of the deterrence has been challenged by the critical security scholars. Critics reject the traditional approaches that stand for the nuclear weapon construction as advised by the realist and at the same time question the advocates of counter proliferation; for they are over emphasising on the devastating power of nuclear weapon (Pelopedas; 2010). The desirability and possibility of eliminating nuclear weapon place greater ambivalence in the nuclear non-proliferation regime (Gallagher; 2011:431). In Muller's point of view, whatever their impact on activist rhetoric, strategic theorizing, defense budgets and political posturing, nuclear weapons have been a substantial waste of money and effort, do not seem to have been terribly appealing to most States that do not have them, are out of reach for terrorists, and are unlikely to materially shape our future (Muller; 1988).

There is a great shift from the traditional view of treating state as the only referent object of security in the critical approaches. Conversely, there are non-state centric forms of engagements. Security in critical terms is the realization of basic needs and the minimisation of dangers (Browning & Donald; 2011: 236). Welsh school of critical security studies find security as emancipation. Some key elements of Welsh School thinking are that 'emancipation' should be the primary purpose of CSS, and that research is a form of political practice with normative elements. The three tenants of security according to this school are:- recognition of individual as ultimate referent of security; encompassing on the political underpinning and

implication of security praxis; and a normative commitment towards emancipatory transformation (Williams and Peoples; 2010: 192). Critical approaches challenge and disrupt the existing and familiar perspectives, and explore new perspectives and insights about security. Traditional approaches to security studies analyse the security as the study of the threat and use of force by and between states (Walt; 1991). Conversely, critical approaches ultimately serve to point to the normative preferences inherent in such choices and the political implications following from such choices (Browning & Donald; 2011: 238).

II. CONCLUSION

The two nuclear weapon states in the region India and Pakistan have provided various rights to their people as well as established human rights protection system. However, for the quest for national security and prestige, they have to compromise the rights of the people. The question to be raised here is about the position of non-nuclear weapon states. The nuclear weapon has crosses-boarder effect. Looking from another angle, especially the environmental impact, India and Pakistan are building up their national security at cost of human rights of the people of other countries of the region. Policy makers of these nations must redraw security incorporating human security concerns. Framing security beyond this military realm would help the people of the region to enjoy their human rights effectively.

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