

## NBC threats and India's Preparedness

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### Summary

With new developments in the field of science and technology it is becoming very tough for countries to change the level of security preparedness. It is also becoming increasingly difficult for a country to undertake correct threat assessment. While the state's security is relatively assured with the obsolescence of major wars, the non-state actors are found using innovative techniques to spread the divisive politics.

The bombing of Hiroshima and Nagasaki had come as a major surprise to the international community primarily because the massive destructive capacity of the atom was only fictional before then. Today, with technological development outpacing security preparedness, it is becoming increasingly difficult for a country to undertake correct threat assessment. While the state's security is relatively assured with the obsolescence of major wars, the non-state actors are found using innovative techniques to spread the divisive politics. It is a well known fact that in the past terrorist groups have tried to access and used in some cases the nuclear, biological or chemical (NBC) means to spread terror.

Even as the War on Terror enters its decisive stage, the threat of weapons of mass destruction (WMD) proliferation by terrorist organisations is a major challenge for the international community; there is a need to tackle this issue jointly. India shares global concern on nuclear terrorism and clandestine proliferation, which pose serious threat to international security.<sup>1</sup> In addition to nuclear, India faces major concerns with respect to chemical and biological weapons too.

The threats from chemical and biological weapons are real; these weapons have been used in the past and the degree of damage which they have unleashed is serious. As the largest country in South Asia, India faces an important question of preparedness against these threats. On being asked about India's preparedness to face Nuclear, Biological and Chemical (NBC) attacks, Defence Minister of India replied in the Parliament that India has Quick Reaction Medical Teams to counter asymmetric warfare scenario like NBC attack.<sup>2</sup> In this context, this article seeks to explain the issues related to the WMD threats.

## Threat Assessment

In the keynote address at a National Export Control Seminar at Institute for Defence Studies and Analysis (IDSA) on 18<sup>th</sup> April, 2012 Foreign Secretary Ranjan Mathai mentioned that 'the danger of terrorists gaining access to WMDs is a facet to this grave threat'.<sup>3</sup> Any WMD attack may not have a major impact at the initial stage, however the long term effects of this can be quite harmful. With the global economic system being increasingly dependent on supply chains, it can have a cascading impact on productivity if transportation networks were to be disrupted.

The Non-state actors either independently or in collusion with state adversaries can use a proxy. As per *International Atomic Energy Agency's (IAEA) report*, there have been nearly 300 attempted smuggling incidents of NBC materials during the last decade.<sup>4</sup> An explicit war may be a distant possibility but the threat of non-state actors' unleashing a foray of chemical and biological weapons can definitely wreak havoc. Rogue states and regimes out of the CWC and BTWC need to be brought into the global preventive frameworks. The most recent reference to the possible usage of 'dirty bomb' was in the wikileaks reports which said that the al-Qaeda was likely to achieve faster results while developing the dirty weapons, for possible use against British troops in Afghanistan.<sup>5</sup>

Globalisation and NBC Threat remains an important areas of concern. Establishment of competent national strategic trade control system for the purposes of preventing the spread of WMDs and dual use technologies that facilitate their development is an important requirement.<sup>6</sup> Urgent efforts must be undertaken to develop norms that facilitate these control mechanisms without necessarily hampering the global economic engagement.

## India's Options

In the report submitted by India at Seoul Summit it was mentioned that India had invited the Operational Safety Review Team of the IAEA to assist in its own safety review and audit. India is party to the Convention on the Physical Protection of Nuclear Materials. It also supports the implementation of the UNSC Resolution 1540 and its extension, Resolution 1977 which aims to prevent terrorists gaining attention to the WMDs. India is also a participant in the IAEA's Illicit Trafficking Database (ITDB) which disseminates information on confirmed reports about illicit trafficking and other unauthorized activities.<sup>7</sup>

### **National Policies:**

With the aim of combating the threat the Defence Research and Development Organisation (DRDO) came out with a next generation radiological defence equipments to counter the threat of 'Dirty Bomb' in the beginning of 2012 .<sup>8</sup> These equipments, worth Rs 1,200 crore have been developed by the DRDO in collaboration with the Ministry of Home Affairs. The deterrence against NBC can be achieved from a range of equipment and technology including detectors and reconnaissance vehicles along with other equipments like nanotechnology based sensors, micro UAVs, dosimeters which can measure an individual's or an object's exposure to hazardous exposure in the environment, also Portable gas chromatographs which is used for testing the purity of a particular substance, and roentgen meters which is used for measuring the cumulative quantity of x-rays or  $\alpha$ -rays. Besides, there are also advanced inflatable shelters which can withstand water threats and ward off solid NBC agents for at least 48 hours.<sup>9</sup>

The DRDO Project works on the public-private partnership model and around 85 per cent of the NBC defence inventory is developed for the Indian Armed Forces. It is also important to note that the Indian Navy has set up a NBC defence training facility to develop the skills of its personnel in fighting such attacks during conventional wars or terror strikes.<sup>10</sup>

## Roadmap

- Stakeholder engagement is an important process that needs constant attention; it is important to engage various non-governmental agencies, organisations and individuals towards building an architecture of security. A successful system requires close working relationships between government ministries, national agencies and the industry.
- The private sector can play an important role in strengthening the security system in the country. For example, the Terminal 3 of Indira Gandhi International Airport (IGIA) has installed an impressive list of security equipments procured from private manufactures.<sup>11</sup>
- Effective and quick response system as well as coordination in case of an accident or attack is critically important. Training and education aimed at this objective can help in important ways. The National Disaster Management Authority of India (NDMA) has mandated constitution of National Disaster Relief Force (NDRF) which comprises of eight battalions at eight different locations. NDRF conducts regular training for other security forces like Border Security Forces (BSF), Central Reserve Police Force (CRPF),

Central Industrial Security Forces (CISF) and Indo-Tibetan Border Police (ITBP). The NDRF NBC combat team consist of 300 personnel i.e. 75 personnel each.<sup>12</sup>

- Also, there is an urgent need for enhancing the technical capabilities in the field of inspection and detection of nuclear, chemical and biological materials at the borders. Further, establishing a team capable of launching NBC shelters for the forces at the borders will be helpful.
- Community preparedness needs to be encouraged through sensitising and there is a need to define the role of public, private and corporate sectors for their active participation during disasters and otherwise. Further, each state government should come out with the Disaster Management (DM) Plan and it should be implemented on the guidelines of NDMA.<sup>13</sup>

Even as the cross-border security threats and internal security remain the country's primary concern, NBC threats also have destructive potential. The Indian security establishment Forces has an important security mandate in this respect. However, attention to detail, planning and inter-agency coordination can help in many ways to achieve the object of national security against NBC weapons.

## Endnotes:

<sup>1</sup> The Indian Prime Minister Dr. Manmohan Singh's Speech at the Plenary of Seoul Nuclear Security Summit , March 27, 2012 <http://pminindia.nic.in/press-details.php?nodeid=1403>

<sup>2</sup> Press Information Bureau, Government of India, Ministry Of Defence, December 12, 2011 <http://www.pib.nic.in/newsite/erelease.aspx?relid=78426>

- <sup>3</sup> Keynote Address by Foreign Secretary Sh. Ranjan Mathai at Institute For Defence Studies and Analysis (IDSA) April 18 2012 <http://www.idsa.in/event/KeynoteAddressbyForeignSecretaryShriRanjanMathai>
- <sup>4</sup> Paper Series : Measures to Prevent , Intercept and Respond to Illicit Uses of Nuclear Material and Radioactive Sources...Historical Evidence of Terrorist Incidents or Threats which have Involved Nuclear or Radiological Material, and Forecasts about the Future. Page no.40, [http://www-pub.iaea.org/mtcd/publications/pdf/csp-12-p\\_web.pdf](http://www-pub.iaea.org/mtcd/publications/pdf/csp-12-p_web.pdf)
- <sup>5</sup> The Telegraph, 02 Feb 2011, WikiLeaks: al-Qaeda 'is planning a dirty bomb' , <http://www.telegraph.co.uk/news/worldnews/wikileaks/8296956/WikiLeaks-al-Qaeda-is-planning-a-dirty-bomb.html>
- <sup>6</sup> Carnegie Endowment for International Peace; Policy Outlook; "Preventing WMD Proliferation:- Myths and Realities of Strategic Trade Controls by Togzhan Kassenova; January 25, 2012.
- <sup>7</sup> Nuclear Security Summit, Seoul, March 2012, Information on National Progress of Participating States, National Progress Report India.
- <sup>8</sup> DRDO works on next-generation radiological defence equipment, January 3, 2012 [http://articles.timesofindia.indiatimes.com/2012-01-03/india/30584385\\_1\\_nbc-defence-defence-equipment-drdo-chief-controller](http://articles.timesofindia.indiatimes.com/2012-01-03/india/30584385_1_nbc-defence-defence-equipment-drdo-chief-controller)
- <sup>9</sup> DRDO builds defence against dirty bombs, January 3, 2012 [http://articles.timesofindia.indiatimes.com/2012-01-03/india/30584152\\_1\\_nbc-reconnaissance-vehicles-defence-equipment-drdo](http://articles.timesofindia.indiatimes.com/2012-01-03/india/30584152_1_nbc-reconnaissance-vehicles-defence-equipment-drdo)
- <sup>10</sup> Ibid [http://www.smithsdetection.com/1025\\_5446.php](http://www.smithsdetection.com/1025_5446.php)
- <sup>11</sup> Smiths Detection Equips Delhi's New Airport Terminal, New Delhi, India, August 19. 2010 [http://www.smithsdetection.com/1025\\_5446.php](http://www.smithsdetection.com/1025_5446.php)
- <sup>12</sup> NDRF NEWS; Newsletter of the National Disaster Response Force, India
- <sup>13</sup> National Disaster Management Guidelines—Management of Nuclear and Radiological Emergencies, 2009. A publication of the National Disaster Management Authority, Government of India.