National CBRN Centre Of Exellence

Excellence is never an accident. It is always the result of high intention, sincere effort, and intelligent execution; it represents the wise choice of many alternatives - choice, not chance, determines your destiny.

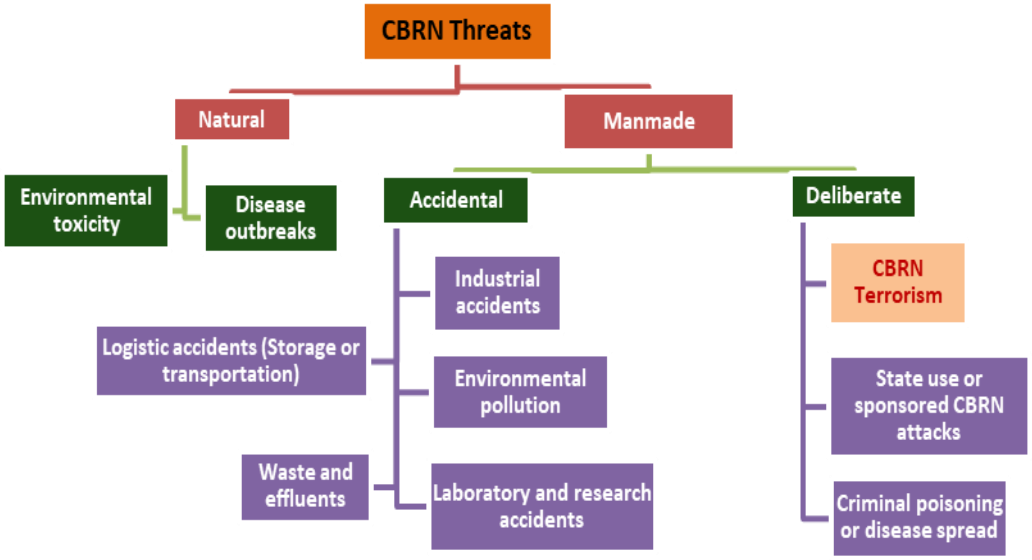
Aristotle

Introduction

Chemical, Biological, Radiological and Nuclear (CBRN) security is a matter of grave concern for many nations today. CBRN security in India is still in its early stages. There is a need to look at it from a broader perspective of internal and regional security challenges that manifest in the form of CBRN terrorism, among others. The current Covid 19 crisis has highlighted many lessons which need serious thought and concerted action on part of the Government (security, medical and research agencies) and other stakeholders. There is a need for focussed research and strategic thought on CBRN matters.

CBRN Threat Matrix

India has already seen the Bhopal gas tragedy, the radiation incident at Delhi and the many biological threats like Swine Flu, Dengue, Bird Flu, Plague and now Covid19. Rapid industrialisation, huge amount of toxic chemical trade, ineffective site security and vulnerable supply chains have all led to proliferation and smuggling of such dangerous materials. A terrorist attack with CBRN materials, could inflict large casualties and response forces could get overwhelmed unless proper planning and preparations are made. Preparing the nation to address CBRN threats is a formidable challenge. CBRN Threats can be summarised as under :



The Need for a CBRN Centre of Excellence

Present Environment. The Indian CBRN initiative began before independence and was primarily focussed on Nuclear research at BARC and later at TIFR. The Army has an elaborate training setup at the Faculty of CBRN Protection at College of Military Engineering (CME) Pune since early eighties. The Faculty undertakes studies, user trials and develops training protocols for CBRN aspects for the Army and the Air Force. The Navy has its own NBCD school at INS Shivaji, Lonavla for training of crews and officers on NBCD and Fire fighting aspects.

The DRDO has been developing CBRN technologies for nearly four decades now. In 2010, the Government approved a consolidated CBRN Defence Technology Programme covering 36 key CBRN projects. Today there are ten laboratories of the DRDO engaged in developing various category of CBRN equipment for the Armed Forces.

The Government enacted the Disaster Management Act 2005, which established the National Disaster Management Authority (NDMA), headed by the Prime Minister, and the State Disaster Management Authorities (SDMAs) supervised by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

The NDMA is mandated to deal with all types of disasters, natural and man-made (including CBRN disasters), issues guidelines and conducts training and awareness workshops. In addition, the Government has earmarked nodal ministries for CBRN disasters and incidents (who also run their own programmes) as under :

⇒ Biological Disasters - Ministry of Health and Family Welfare

⇒ Chemical Disasters - Ministry of Environment, Forests & Climate Change

⇒ Radiological and Nuclear Disasters - Atomic Energy Commission

Since the need for Para military and NDRF to train for CBRN has emerged, limited training has begun at respective Paramilitary training centers and especially at the National Industrial Security Academy (NISA), Hyderabad.

NDRF CBRN Team training drill

India is signatory to a number of international conventions concerning CBRN aspects and there is a need to develop a comprehensive

domestic response and operational protocols to match our obligations under these conventions. India has also joined many protocols and agreements towards effective non proliferation, CBRN counter terrorism, strategic trade control of dual use goods and hazardous waste management.

The Need for a CBRN Centre of Excellence. Apart from the Armed Forces, there are many public and private agencies that are stakeholders in the CBRN risk mitigation paradigm. These are :-

- Government
    - ◊ Intelligence Agencies
    - ◊ Disaster Management – NDRF, SDRF
    - ◊ Ministries (and supporting agencies and organisations)
        - ♦ Home (Internal Security, Police and PMF)
        - ♦ External Affairs (Customs, Dual use and Strategic Trade)
        - ♦ Chemicals and Fertilizers
        - ♦ Industries, Trade and Commerce
        - ♦ Environment and Forests
        - ♦ Law
        - ♦ Health – Hospitals, Healthcare
        - ♦ Water resources
        - ♦ Science and Technology (all laboratories)
        - ♦ Transport (aviation, shipping and land based)
        - ♦ Customs and Border Control
- Nuclear power plants
- Industry – factories, companies and wholesalers
- Logistic agencies (storage and transport),
- Waste management and civic services agencies
- Medical and Health Care – Public and Private
- Civic Bodies and NGOs
- Citizen
    - ◊ Working Class
    - ◊ Small businesses
- Students
- Media

CBRN Training and awareness is therefore needed for many stakeholder agencies other than the Armed Forces. It seeks to ask, who looks after a common CBRN training program, standardising procedures, developing common protocols and establishing National system of best practices and standards. Customs, Police, Special Police Commandos and Teams, Para Military Forces, Border Security forces, Inspectors and auditors for Chemical, Pharma, Fertilizers industries and even intelligence agencies and private security agencies need to be given basic understanding of CBRN threats and response training. Similarly, officials and technicians from various Public enterprises that are engaged in CBRN related work, National laboratories, environmental agencies and waste management agencies all need CBRN training. Local Municipal workforce handling sewage, garbage and debris are stakeholders too.

There is also the need to generate and enhance CBRN awareness at all levels. Dedicated promotional awareness programmes need to be conducted. Workshops, seminars, conferences and demonstrative events need to be organised. **An independent National CBRN Centre of Excellence (NCBRN CoE) is the answer.** Of course it should work in close liaison with the NDMA, DRDO and stakeholder ministries to optimally coordinate and develop a common platform of training and information protocol. Such an independent CoE would also be ideally suited to undertake regional and global collaboration with other CBRN CsoE, training institutions and universities for sharing of concepts, best practices and building mutual cooperation. There are many such establishments in Europe and SE Asia.

Given the vast numbers of CBRN stakeholders and the security concerns, it is not feasible or recommended to use Armed Forces CBRN training facilities for regular purposes. There are many stakeholders in the CBRN risk mitigation process and training and integrating these is a huge task. The NCBRN CoE should aim to :

- Establish **National system of best practices and standards**
- **Common platform** of understanding CBRN threats,
- **Common operational protocol** for a unified Incident Command system.
- Common **graded and certified CBRN training program,**
- **Standardising response procedures and protocols**

There is also the need to match our procedures and mitigation drills with regional and international best practices. This is essential in a situation where we provide aid to our regional and international partners (as obliged under the CWC and BTWC) and in case we operate in a multi-national team for response either in India or elsewhere. Such international training may not be advisable at the CME or INS Shivaji due to security concerns. The proposed NCBRN CoE shall be structured to meet such common requirements of wide spectrum of stakeholders.

Joint Exercise for maintaining operational readiness

CBRN Centre of Excellence

CoE is a team, a shared facility or an entity that provides leadership, best practices, research, support and/or training for a focus area. CBRN Centre of Excellence represents a national point of reference in the planning of the development of National, Regional and broader International significance. The number of stakeholders that need to be made aware and trained in basic and advanced CBRN risk mitigation measures is huge. Today we need greater collaboration of private players, independent CBRN experts and technologically advanced infrastructure for training and equipping our CBRN teams. This can best be met by a comprehensive structured centre that can be an expert body and think tank on CBRN matters not only for

the country but also for the Asia Pacific region.

The NCBRN CoE would provide expert support in advising, teaching and research by instituting :

- Team of experts to provide independent advice on CBRN matters and policy development for the Government of India and other enterprises.
- Repository of CBRN laws, manuals, books, regulations, best practices and guidelines.
- Be the National Think Tank on matters CBRN.
- Provide research and academic facility for new researchers.
- In-house training facility for training the Trainers in CBRN response.
- Provide CBRN security audit facilities for critical infrastructure and key installations.
- Be the National liaison on CBRN risk mitigation matters with similar CBRN centres of excellence and institutions of the region and other nations.
- Position the NCBRN CoE as a leader engaged in teaching, learning, and research in CBRN risk mitigation and incident management fields.

The NCBRN CoE is designed as the think tank for India on CBRN matters; as the primary focal point on the subject. CBRN is a National security subject and as such the NCBRN CoE needs to be directly under the patronage of the PMO. To be able to deliver effectively, it needs to be :

- Approved by the Parliament as an Institution of National Importance
- Free of bureaucratic control (hence directly under PMO)
- Have a dedicated space suitably located for its functioning

Sufficient funds be allocated by stakeholder ministries (MHA, MoEFCC, MoHFW, Ministry of Commerce and Industry, Ministry of Chemicals and Fertilizers, Ministry of Science and Technology and Ministry of Finance)

Have a select pool of experts from various fields, technicians and researchers on permanent, adjunct and visiting modes to be able to get optimal expertise and support for the NCBRN CoE.

Conclusion

CBRN threats are not restricted to an area or community. They affect all and hence a comprehensive mechanism of awareness generation and capability development needs to be adopted. While CBRN risk mitigation stakeholders are from all walks of life, its control and coordination needs to be centrally maintained to ensure a common platform and compatibility of response procedures. The National CBRN CoE will be a showcase for the region and would undertake exchange of best practices and sharing of procedures, SOPs and drills for any coordinated regional response. The National CBRN CoE is long overdue and it is in National interest that we institute this at the earliest.

About the Author:
***Col Ram Athavale, PhD** has been a Key Adviser to the Government of India (MoD and MHA) on CBRN Security. He has been a Key CBRN Expert for the EU CBRN Risk Mitigation Centres of Excellence initiative in Eastern and Central Africa. A Visiting Faculty at select Indian and overseas universities, prolific writer and a speaker in international seminars and conferences on CBRN subjects, he holds PhD in CBRN Security and Incident Management. He has recently authored a pioneering book titled "Toxic Portents" on 'CBRN Incident Management in India'. Presently he is a freelance CBRN Security and Risk Mitigation Consultant based at Pune, India. His website www.chebiran.com has more details.*