India’s Nuclear Disaster Management Mechanism: An Assessment

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The assertive statement made in the official version of India’s nuclear doctrine that an appropriate disaster control system shall be developed to deal with potential accidents is open to debate. Given India’s extremely dismal record in disaster management from the super cyclone of 1999 in Orissa to the 2001 earthquake in Gujarat, it is indeed doubtful if India, at present, has anything even close to the capabilities of managing a nuclear disaster, should it occur either from a nuclear first strike or from a retaliatory strike by the adversary.

In a chilling report published by Britain based NEW SCIENTSTS in 2002, it was reported that a massive loss of men and materials would occur should a nuclear exchange take place between India and Pakistan. As per this report, at least 2.9 million people would be killed and another 1.4 million severely injured. This assessment is based on likely impact caused by ten Hiroshima type bombs dropped on five mega cities in India (Bangaluru, Mumbai, Kolkata, New Delhi, Chennai) and five large cities in Pakistan (Karachi, Lahore, Faisalabad, Islamabad, Rawalpindi). Estimated casualties from India side were 1.5 million dead and 900,000 injured. And, in Pakistan, 1.2 million dead and 600,000 injured. If the bomb explodes on the ground instead of in mid air, resulting radioactive dust could kill more people. Due to prevailing winds from west to east, India is likely to incur more casualties than Pakistan. This is, as per this report, just ten bombs, which is 1/10th of estimated nuclear arsenal both countries are believed to possess. Another report published in the same year provided even a scarier picture. The important findings from this simulated study indicated that possible nuclear exchange between India and Pakistan could kill up to 12 million people at one stroke plus injury up to 7 million. Even a so-called 'limited war' would have cataclysmic effect overwhelming medical facilities available across Asia and requiring vast foreign assistance to battle radioactive contamination, famine and disease. More deaths are likely to occur later caused by urban fires, ignited by the heat of a nuclear exchange, deaths from longer term radiation, or the disease and starvation expected to spread.

What has been India’s readiness and preparedness in tackling possible catastrophe of such magnitude? Towards this objective, the Government of India, in recognition of the
enormous importance of Disaster Management as a top national priority, set up a High-Powered Committee in August 1999 for making recommendations on the preparation of Disaster Management plans and to make suggestions for effective mitigation mechanisms. The Tenth Five-Year Plan Document also had included, for the first time, a comprehensive chapter on various nuances of Disaster Management. India constituted a National Disaster Management Authority (NDMA) soon after the Tsunami struck the coastal areas of the country in December 2004. On 23 December 2005, the Government of India enacted the Disaster Management Act, which led to the creation of the National Disaster Management Authority (NDMA), for heralding a broad and integrated approach to Disaster Management in India.

NDMA, in its official website, has outlined the following responsibilities:

- Lay down specific policies on disaster management;
- Approve a concrete National Plan;
- Approve plans prepared by various Ministries or Departments of the Government of India in accordance with the National Plan;
- Lay down guidelines to be followed by the State Authorities in drawing up the State Plan as per local and regional needs and in consonance with the central government;
- Lay down guidelines to be followed by the different Ministries or Departments of the Government of India for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
- Coordinate the enforcement and implementation of the policy guidelines and plan for disaster management;
- Recommend provision of designated funds for the purpose of mitigation;
- Provide such support to other countries affected by major disasters as may be determined by the Central Government;
- Take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with the looming disaster situation or disaster as it may consider necessary.

Acting under NDMA’s directive, India's Union Home Ministry is raising eight battalions to tackle natural disasters and combat nuclear, biological and chemical warfare. Each battalion will provide eighteen self-contained specialist search and rescue teams of forty five personnel each including engineers, technicians, electricians, dog squads and medical/paramedics. The total strength of each battalion will be approximately 1,158. As per this directive, the National Emergency Response Force battalions will be deployed in strategic locations under the supervision of the director-general of civil defense. These NDRF battalions are located at nine different locations in the country based on the vulnerability profile to cut down considerably the response time for their deployment. During the preparedness period in a threatening disaster situation, proactive deployment of these forces will be carried out by the NDMA in consultation with state authorities. It would be a special force like the Rapid Action Force to be under the overall control of Central Reserve Police Force. The Bhabha Atomic Research Centre will train select
officers of the Central Industrial Security Force (CISF) and the Indo-Tibetan Border Force (ITBF) on responding to nuclear disasters, and these officers will in turn train their subordinates in disaster management. Four battalions will gain expertise only in nuclear, biological and chemical warfare. Capsules on disaster management are being included in the training schedules of all central para-military forces, the Indian Administrative Service, the Indian Police Service, The Indian Foreign Service and State Police Forces so that government officers are well equipped with the basic technical knowledge on how to respond in cases of emergency.

In view of the possibilities of nuclear related materials falling in the hands of the terrorists that can be used in the form of Radiological Dispersal Device (RDD), and development of crude form of “dirty bomb”, workshops on Nuclear Disaster Management are needed to be organized by National Disaster Management Authority with greater frequency for prevention, mitigation & preparedness and response at site and at hospital, rehabilitation, recovery and research. There are also need for seeking the input of specialists to delineate the threats, solutions, the technological procedures and to gain useful insights on counter terrorist operations, de-contamination, early detection, critical infrastructure protection, reconnaissance, protection, crisis management and emergency monitoring system.

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