

General Article

DISASTER MANAGEMENT TO ACHIEVE SUSTAINABLE HAZARD MITIGATION: AN INDIAN PERSPECTIVE

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ABSTRACT

Disasters - natural or human-made are common throughout the world. Disasters continue to occur without warning and are perceived to be on an increase in their magnitude, complexity, frequency and economic impact. India due to its geo-climatic and socio-economic condition is prone to various disasters. During the last thirty years' time span the country has been hit by 431 disasters resulting into enormous loss to life and property. The situation in India is not better since 55 per cent of India's landmass is prone to earthquakes; 68 per cent is vulnerable to drought; 12 per cent to floods; and 8 per cent to cyclones apart from the heat waves, and severe storms. Nonetheless, the approach of combating disasters within a policy framework is of recent origin in India. Despite the need to build up capabilities to meet the challenges of disasters, the thrust has unfortunately been on alleviation and relief. To combat with weaknesses observed in earlier disasters, steps mentioned in the disaster management policy need to be made reality and strict implementation of Disaster Management Act must be ensured.

Key Words: *Disaster Management, Policy, Preparedness, Mitigation and Resilience*

INTRODUCTION

Disasters - natural or human-made are common throughout the world. Disasters continue to occur without warning and are perceived to be on an increase in their magnitude, complexity, frequency and economic impact. Hazards pose threats to people and assume serious proportions in the under developed countries with dense population. During the second half of the 20th century, more than 200 worst natural disasters occurred in the different parts of the world and claimed lives of around 1.4 million people. Losses due to natural disasters are 20 times greater (as % of GDP) in the developing countries than in industrialized one. Asia tops the list of casualties due to natural disasters in a report of regional distribution of disasters prepared by Centre for Research on Epidemiology of Disaster. The vulnerability of mankind to disasters of various types has increased considerably all over the world. It has posed new and unconventional challenges to the nations and even compelled the policymakers to redefine the concept of security. In such an evolving environment, the concept of disaster management has gained much significance. After Japan was hit by the tsunami on March 11, 2011 followed by the nuclear disaster at the Fukushima Nuclear Power Plant that resulted in the loss of valuable lives and destruction of infrastructure, disaster management is being discussed worldwide (Shivananda and Gautam, 2012).

India due to its geo-climatic and socio-economic condition is prone to various disasters. During the last thirty years' time span the country has been hit by 431 disasters resulting into enormous loss to life and property. According to the Prevention Web statistics, 143039 people were killed and about 150 crore were affected by various disasters in the country during these three decades. The disasters caused huge loss to property and other infrastructures costing more than US \$ 4800 crore. In India, the cyclone which occurred on 25th November, 1839 had a death toll of three lakh people. The Bhuj earthquake of 2001 in Gujarat and the Super Cyclone of Orissa on 29th October, 1999 are still fresh in the memory of most Indians. The most recent natural disaster of a cloud burst resulting in flash floods and mudflow in Leh and surrounding areas in the early hours of 6th August, 2010, caused severe damage in terms of human lives as well as property. There was a reported death toll of 196 persons, 65 missing persons, 3,661 damaged

General Article

houses and 27,350 hectares of affected crop area. Floods, earthquakes, cyclones, hailstorms, etc. are the most frequently occurring disasters in India (De *et al.*, 2005).

The situation in India is not better since 55 per cent of India's landmass is prone to earthquakes; 68 per cent is vulnerable to drought; 12 per cent to floods; and 8 per cent to cyclones apart from the heat waves, and severe storms (The Gazette of India, Disaster Management Act, 2005). Nonetheless, the approach of combating disasters within a policy framework is of recent origin in India. In the past, when disaster struck, the department of relief and rehabilitation of the Union Ministry of Agriculture was given the charge of providing relief material (State Level Programmes for Strengthening Disaster Management in India, 2011). Its approach had primarily remained post-disaster management centric. The Government of India – United Nations Development Programme (GOI-UNDP) Disaster Risk Management programme is a national initiative to reduce vulnerabilities of communities in some of the most hazard prone districts (169 cities and 17 states) of India (Vadivel and Rav, 2010).

DISASTER MANAGEMENT ACT

However, with the enactment of the Disaster Management Act of 2005, there has been a paradigm shift from response and relief to mitigation and preparedness. The Disaster Management Act enacted on December 23, 2005 empowers the setting up of an effective disaster management system that extends across the whole of India (Public policy towards natural disasters in India, 2009). The Disaster Management Policy of India was framed in 2009 on the basis of this Act. The Government of India claimed to have established institutional and policy mechanisms for response, relief, and rehabilitation. The orientation for handling disaster situations was also changed from relief-centric to a holistic, multi-dimensional, and multi-disciplinary approach involving diverse scientific, engineering, social, and financial processes. It encompasses the entire scope of disaster management activities, i.e., prevention, mitigation, preparedness, response, relief, and rehabilitation (Disaster Management in India- A Status Report; 2004). Further, the Disaster Management Act of 2005 provides for the constitution of the following institutions at national, state and district levels: i) The National Disaster Management Authority (NDMA) at the centre chaired by the Prime Minister is responsible for laying down the national policies, plans and guidelines for disaster management. ii) The State Disaster Management Authorities (SDMA) for formulating policies and plans for disaster management in the states. iii) District Disaster Management Authorities (DDMA) for planning, coordinating, and establishing systems for disaster management at the district level in accordance with the guidelines laid down by the national and state authorities (Public policy towards natural disasters in India, 2009).

However, except for the NDMA, even after six years of the enactment of the Disaster Management Act, SDMAs are yet to be established all over the country and made operational. In some states, the department for disaster management is the changed name of the department of relief and rehabilitation, home guards and emergency fire services with ad hoc personnel. They prepare and respond to disasters as and when the situation arises. Concurrently, the National Institute of Disaster Management (NIDM) at New Delhi was established after the upgradation of the National Centre for Disaster Management. It focuses on human resource development, capacity building, training, research, documentation, and policy advocacy in the field of disaster management. Besides, this, 10 battalions of National Disaster Response Force (NDRF) comprising 144 specialised teams have been trained for various types of natural and man-made disasters. Four battalions have been specially set up for handling radiological, nuclear, biological, and chemical disasters. But, considering the extent of India's hazardous environment and the escalating uneven trend in the occurrence of disasters, the present capability of the civil administration for combating disasters remain inadequate. As a result, the civil authorities rely on the armed forces for major emergency responses. It was observed in the Sikkim earthquake of September 2011 that the state and the central authorities along with the NDRF had fallen short in terms of personnel and logistic

General Article

backup, and the armed forces—primarily the army—was called out for response and relief operations (Shivananda and Gautam, 2012).

WEAKNESSES IN IMPLEMENTATION

It is only after a disaster strikes that the wheels of the government, both at the centre and at the states, move and that too slowly. Despite the need to build up capabilities to meet the challenges of disasters, the thrust has unfortunately been on alleviation and relief. Even the relief has not been quick and adequate, as few disasters such as Orissa super cyclone, Tsunami of 2004, Gujarat earthquake and many recent experiences has shown. India's response to and tackling of these major disasters has thrown up the following weaknesses in disaster management efforts (Kaul *et al.*, 2012).

Inadequate early warning system

Lack of pre-disaster preparedness

Inadequate and slow relief

Lack of co-ordination among central government, state governments, international agencies, NGOs and private sector

Slow rehabilitation and reconstruction

Poor management of finances for post-disaster relief

Symbolism rather than relief

No instruction for pre-seismic period

CONCLUSION

Government has the responsibility to plan on issues, strategy, etc. for ensuring wellbeing of citizens. Likewise India has the responsibility to plan for wellbeing of its various stake holders. It should be made mandatory that all disaster management plans need to be consulted with the local area society for disaster management and mitigation. Good social responsibility depends on the local administration in getting the cooperation and an involvement of a large number of citizens, local disaster group and NGOs involved in disaster areas. Self-help technology is given a go by in the time of calamity. Spreading misinformation to the public leads to mishaps as such it should be seriously stopped; for that sake stringent punitive action need to spell out clearly to create a fear in the minds of miscreants of rumour mill owners. Capacity building and preparedness at the community and local administration level need to further geared up. Participation of local community is important in Disaster Management. At least 5 per cent of the Disaster Management budget needs to be kept for training local communities to cope with natural calamities. A system need to be developed to channelize the participation of local communities through Non-Governmental Organisations participations in Disaster related activities.

Instead of diverting financing through budget reallocation from on-going projects in order to finance recovery and reconstruction efforts, proactive mechanisms are sought to reduce the economic costs and impacts of disasters, improve response capacity, decrease vulnerability and improve communities' resilience to disasters. Orphanages, Schools, Hospitals, Police stations, Fire stations, other system centres' of early warning, etc., need to be financially supported by the NDMA. Efforts should be made for using the expertise of the armed forces for bolstering the capacity of the civil authorities, including the disaster response forces. It would enable the latter to achieve self-reliance and thus reduce their dependence on the armed forces. Enhancing capability for risk reduction in urban as well as rural areas and having suitable legislative and regulatory mechanisms to promote safe buildings should be encouraged as part of the civil-military relations programme. To combat with weaknesses observed in earlier disasters, steps mentioned in the disaster management policy need to be made reality and strict implementation of Disaster Management Act must be ensured.

General Article

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