Disaster Management Law: The Indian Experience

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Abstract—"Mother Nature" has bestowed kindness and affection on humans and other living creatures, at the same time seems to have cursed humanity in the form of killer earthquakes, deadly volcanoes, devastating floods, deracinating cyclones, crushing tsunamis, which ‘unkind acts’ and ‘natural disasters’, have impacted the earth and have made its dependents vulnerable to many life threatening risks. Human civilization, since times immemorial, has seen countless such natural disasters; the most worrying factor has been their disastrous impact on the underdeveloped and developing nations particularly on the nation’s economic, social and cultural life. India, is one of the nations that has been vulnerable to natural disasters because of its distinctive geo-climatic conditions; man-made disasters have further compounded the miseries, as those affected are mainly poor, labour class, rural masses, women and children and the loss of shelter, food, health, job et al results in large-scale violation of human rights and constitutional rights.

To meet the exigencies of such disastrous situations, and to minimize and if possible, control their adverse effects, disaster management has become a basic necessity, with its success depending mainly on the laws that are framed to manage such disasters. This paper concentrates mainly on natural disasters; it asserts the need for elasticity in the disaster management law, as the law though it appears to be concrete, is very rigid and does not assure accountability and transparency of the administrators during the relief and recovery activities.

Keywords—disaster management, law, natural disaster, relief.

I. INTRODUCTION

Disasters have a colossal impact on humans, environment and economy throughout the globe. In the year 2011 alone, natural disasters have killed more than 31,331 people and have claimed more than 244.7 million victims worldwide and economic damages were estimated at around US$ 366.1 billion.\(^1\) The word ‘Disaster’ is derived from the Middle French ‘désastre’ and from the Old Italian disastro, which in turn comes from the Greek pejorative prefix δασ-, (δυς) “bad”+ ἄστρον (“star”).\(^2\) The root of the word disaster (“bad star” in Greek and Latin) comes from an astrological theme in which the ancients used to refer to the destruction or reconstruction of a star as a disaster.\(^3\) Disaster is an incident or series of incidents that give rise to casualties and damage or loss of human life and property, ecosystem, infrastructures, essential services or means of livelihood on a scale, beyond the normal capacity of the affected community to cope with. Disaster may also be explained as a "catastrophic situation in which the normal pattern of life or eco-system has been disrupted and extra-ordinary emergency interventions are required to save and preserve lives and or the environment".\(^4\) The United Nations defines disaster as “the occurrence of sudden or major misfortune which disrupts the basic fabric and normal functioning of the society or community”.\(^5\) The Indian Disaster Management Act, 2005 defines disaster as “a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area”.\(^6\) The top five countries that have been most frequently hit by natural disasters over the last decade are China, the United States of America, the Philippines, India and Indonesia. The worrisome aspects of these facts are, except USA all other countries are classified as low-income economies according to a World Bank classification;\(^7\) Asian and African continent, considered as being backward continents, have suffered most by these major natural disasters; in the year 2012, 65.5% of global disaster victims belonged to Asia and 30.4% belonged to Africa.\(^8\) The nations, with limited resources and concentrations of people with ever increasing population and poverty levels have increased the risk of disasters and have multiplied their consequences when they occur.\(^9\).

Many regions in India are highly vulnerable to natural and other disasters on account of geological conditions. About 60% of the landmass is susceptible to earthquakes (55 per cent of the total area is in Seismic Zones III - V, vulnerable to earthquakes of moderate to very high intensity; the Sub-Himalayan/Western Ghats are vulnerable to landslides and avalanches; over 40 million hectares (12 per cent of land) are prone to floods and river erosion; of the nearly7500 kilometers long coastline, approximately 5700 kilometers is prone to cyclones (coastal states, particularly on the East Coast and Gujarat in the West, are vulnerable to cyclones) and 68% of

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net sown area is vulnerable to drought. To meet the exigencies of disaster situations, Disaster Management (DM) has become an obligation of every state machinery; India enacted its DM Law in the year 2005.

II. DISASTER MANAGEMENT: A CONCEPTUAL ANALYSIS

The declaration of the International Decade (1990-2000) for Natural Disaster Reduction (IDNDR) by the United Nations in 1989 was a major step towards global action on reduction of occurrences of such disasters and for minimisation of the adverse impacts of such hazards to the maximum level through concreted DM, the most striking focus being, the paradigm shift in the concept of DM from post-disaster rescue, relief and reconstruction, to adopting a pre-disaster pro-active approach. Adding to the IDNDR, the Earth Summit in 1992 stressed the importance of scientific, technical planning to reduce the human, environmental and economic losses substantially. The World Health Organisation (WHO) report, 1992, also highlighted the key activities of coping with disasters as essentially ‘national preparedness, preventive and mitigative measures’. The Yokohama strategy and plan of action for a safer world, which was attended by UN member states, non-governmental organizations, the scientific, business and industrial community, affirmed that, disasters have mostly affected the poor and the socially excluded people in the developing countries, due to their higher degree of vulnerability to such situations; prevention, mitigation and preparedness are better than disaster response which is often carried out at a very high cost and yields only temporary relief, and that prevention contributes to lasting improvements in safety and is essential to integrated DM. In continuation of the Yokohama plan, the Hyogo conference provided the most inclusive outline for reducing the risks of natural disasters around the world. All these efforts, at the international level, have strongly asserted that disasters can be handled through proper DM and can reduce the impact on man, property and environment.

The concept of management has become broad and dynamic with the changing times. The environmentmatalists, sociologists, economist, administrators, behavioural scientists, legal experts and scientists look at management from different viewpoint. With different view points it can be asserted that it as an activity concerned with the orchestration of people, work and systems in the pursuit of organisational goals. DM is an applied and multidisciplinary area in which a wide range of issues from forecasting, warning, evacuation, search and rescue, relief, rehabilitation and resettlement are involved thus, needing men from administration, science and technology, legal experts, NGO’s and the communities and these roles and activities span the pre-disaster, disaster and post-DM. Effective DM, therefore involves the implementation of the four crucial sequential series of action (a) Pre-disaster planning: this stage covers a wide range of preventive and mitigation activities such as knowing where and when disasters will strike, construction of defensive engineering works, land use planning through measures like costal zone regualtions, building hazard resistant buildings, formulating, dissemination and maintenance of evacuation plans and the like before the event; (b) Preparedness: ‘Disaster preparedness is about managing the unknown, not a science but a social behavior that is responsive, predictive and imaginative’. This stage is considered to be very crucial, as it reflects the degree of alterness immediately before the onset of the disaster. The most crucial aspect in this stage is the effectiveness with which the public officials mobilise evacuation plan, prepare shelter homes with all required essential supplies for the evacuues and the victims; (c) Relief and assistance: this is followed immediately after the disaster has hit; it includes emergency rescue and medical aid for the victims, supplying them with basic necessities like, food, clothing, medicine and shelter and (d) Recovery and Reconstruction: this period stretches over a longer duration as it rebuilds and rehabilitates the lives and property of victims and helps an area return to normalcy after severe devastation. These four sequential series are not conclusive but are very decisive in successfully handling disasters; these series of actions are also complementary and supplementary to each other.

III. DISASTER MANAGEMENT AND LAW IN INDIA

It is a known fact, that disasters combine two important elements- one, the hazards and the other, the vulnerable people; disaster agents (the hazards) affect vulnerable communities in such a manner that their lives are directly threatened or sufficient harm is caused to the community’s economic and social structure to undermine their ability to survive. In the early years, DM encompassed post-disaster activities comprising rescue and relief operations only; gradually, it has imbibed pre-disaster prevention and mitigation measures along with post-disaster long-term activities like rehabilitation and resettlement. The concept has evolved over a period of time along with various types of response measures adopted from time to time; in this regard, all analyses, related to disaster issues, have a striking chronological benchmark, viz., Pre-Bhopal gas disaster and Post-Bhopal gas disaster.

(A) Pre-Bhopal gas disaster: the outcome of the great famine of 1876-1878 was that the British India government brought in the Famine Relief Code in 1880.
which is considered as the world’s oldest disaster relief code, which provided details of the relief to be given by the government to the affected people.\(^\text{24}\) Even though there was a relief code, its actual implementation took place only after 1900. Relief departments were set up for emergencies during disasters. Such an activity-based setup with a reactive approach was functional only in the post disaster scenario. The policy was relief-oriented and activities included, designing relief activities and initializing food for work programmes; guiding principles of relief were communicated to the provisional governments which clearly indicated sources of finance and laid down detailed instructions. The series of famines in 1896-97,\(^\text{25}\) 1900,\(^\text{26}\) 1905,\(^\text{27}\) and the great Bengal famine\(^\text{28}\) in 1943 however showed the utter inadequacy of the disaster relief mechanism. In the Post Independent years, it appears that the union of India\(^\text{29}\) rigidly centralized the relief policy and assisted the state governments through various situation based relief schemes.\(^\text{30}\) The union ministry of Agriculture and Animal Husbandry was made responsible for relief works during disasters and its basic criterion was to intervene and assess the losses and damages accrued on cultivable land, but the task of managing disasters continued with the Relief Commissioners of each state under the supervision of a Central Relief Commissioner to handle relief material and finance in the affected areas.

(B) Post-Bhopal gas disaster: the Bhopal gas disaster\(^\text{31}\) is considered to be one of the worst industrial (man-made) disasters in human history; it affected more than half a million people, killed over 3,000 and rendered more than 10,000 permanently disabled;\(^\text{32}\) in addition, thousands of cattle were affected, nearly poisonous water, pollution of surrounding air for miles led to choking and breathlessness and this, coupled with other long lasting disastrous effects. The disaster brought in sharp focus the shortcomings of the DM system and policies, but the actions were ‘passive’; the only positive outcome was the enactment of Environment Protection Act 1986 which provided a strong environment legislation that aimed at mitigating environment pollution, protection and improvement of human environment and the prevention of hazards to human beings, other living creatures, plants and property.\(^\text{33}\) The major ‘pathbreaking’ events during the 1980-90’s were the proactive and landmark judgements of the Supreme Court of India, matters concerning environment protection and conservation and the right to a pollution-free environment.\(^\text{34}\) All these judgments had a restricted view, as they were concerned mainly with matters connected with man made disasters; never-the-less they had a positive impact on realising the need for pollution control and sustainable development. The IDNDR efforts and some of the major disasters, like the Orissa super cyclone\(^\text{35}\) in 1999, Gujarat earthquake\(^\text{36}\) in 2001, the Indian Ocean tsunami\(^\text{37}\) in 2004, forced the central government to bring a comprehensive centralised disaster management legislation that paved the way for the Disaster Management Act (DMA) 2005; the act has put in place the necessary institutional mechanism for drawing up and supervising the implementation of DM plans, ensuring adequate action by various government machinery for preventing and mitigating the adverse effects of disasters and the task of coordination and prompt response to any disaster situation. The DMA provides for the establishment of a National Disaster Management Authority (NDMA)\(^\text{38}\) headed by the Hon’ble Prime Minister and assisted by a National Executive Committee (NEC);\(^\text{39}\) the primary function of the NDMA is to lay down policies and plans and issue guidelines on disaster management; State Disaster Management Authorities (SDMAs)\(^\text{40}\) are headed by Chief Ministers, and District Disaster Management Authorities (DDMAs)\(^\text{41}\) are headed by district collectors/ magistrates/commissioners; there is also provision of specific roles to local bodies\(^\text{42}\) in DM. Under its aegis, the National Institute of Disaster Management (NIDM),\(^\text{43}\) has been formed for training, research and comprehensive human resource development plan covering all aspects of DM; the National Disaster Response Force (NDRF)\(^\text{44}\) has been set up as a ‘specialist response’ to any threatening disaster situation or disaster. The Act further contains provisions for financial mechanisms such as creation of funds for response, National Disaster Mitigation Fund (NDMF) and similar funds at the state and district levels for the purpose of disaster management.\(^\text{45}\)

(C) Post Disaster Management Act: in 2009 the central government approved the National Policy on Disaster management (NPDM) which lays down a comprehensive document on every aspect of holistic management of disasters in the country. The themes, underpinning the policy, include community based DM, consolidation of past initiatives and best practices and cooperation with agencies at the National and International levels with multi-sectoral synergy; it also intends to promote a culture of prevention, preparedness and resilience through knowledge, innovation and education. It encourages environmental sustainability

\[\text{http://dx.doi.org/10.15242/ICEHM.ED0814038}\]
and seeks streamlining of DM into the developmental planning process at all levels for disaster prevention, mitigation, preparedness and response as it ensures sufficient budgeting for disaster mitigation activities in all ministries and departments. The figure below, summarizes the DM in terms of its response mechanism; the NCRM is the apex decision making body in the aftermath of a disaster, while the Crisis Management Group (CMG)/Ministry of Home Affairs (MHA) and the NDMA are responsible for the deployment of the NDRF, they also coordinate with the state governments and deploy the CAPF. The nodal agency in the state government provides support to the district administration which is responsible for the on-site management of the disaster.

The incidence shook the nation’s consciousness as to the preparedness of the government machinery in handling disaster situations and how they failed in protecting the basic rights of the victims. The Uttarkhand incidence brought into sharp focus, the DM and NPDM failures. The Comptroller and Auditor General of India (CAG), in his report, has clearly identified the shortcomings in DM and has given vital suggestions to prepare a comprehensive national plan for DM; fixing roles and responsibilities of MHA, NEC and NDMA; early completion of projects under taken by the NDMA; equipping the Meteorological department, space department with updated scientific tools and technology and to ensure the national database for emergency management to be operationalised at the earliest.

IV.  THE WAY FORWARD

Combating disasters within a policy framework is still in its early stages in India. The DMA is a paradigm shift from reaction to mitigation and preparedness to disaster situations; the assertions made in the NDPM needs to be carried out with much better coordination, planning, forecast and political commitment, which can definitely fix accountability and bring in transparency among all those involved in DM; this would positively ensure the desired results, which would ultimately provide relief to the victims of disaster and protect their rights as enshrined in Indian Constitution, as desired by Supreme Court and according to the expectations of International instruments. The country needs a proactive DM, for which the following suggestions are made; this may perhaps, to a certain extent, serve the purpose of making DM a realistic and inclusive tool to mitigate disasters and their ill effects.

(a) The DMA should mandate the need for the role of experts- technical, environmental and societal, in the disaster action plans and bodies; as of now it is mainly ‘bureaucratic’ with general administrators lacking expertise on disaster related issues.

(b) In all developmental plans, mainly through (the Five Year Plans) DM should be a priority area, as it gives a well planned preparedness for any eventual disaster situation; this can go a long way in minimizing the number of affected victims and reduce the overall costs of relief assistance.

(c) As many of the disasters recur, the DMA should initiate separate disaster recurring funds unconnected with the National Disaster Response Fund and State Disaster Response Fund.

(d) Even though there are provisions of penalties for offences in DMA they appear to be a farce. These need to be amended by fixing appropriate responsibilities with mandatory penalties to concerned authorities, both political and bureaucratic; this will lead to transparency and accountability in their actions and reactions.

(e) Community-inclusive disaster sensitization, preparedness, should be given top priority in order to counter disasters; this can be achieved primarily by inculcating DM education in schools, appropriate higher educational institutions and NGOs; these will become harbingers of important messages to homes and communities and will go a long way in making the present and future generations a knowledgeable community helping prevent hazards from becoming disasters.

REFERENCES


[3] Ibid.


[6] Disaster Management Act, 2005, Sec 2(d)


The Great Famine of 1876-1878, also known as the South India Famine, spread from Southern India to Central and Northern parts of India. It covered an area of 670,000 square kilometers and affected 58.5 million people. A.P.Barnabas, "Development, Disasters and Displacement: An Appraisal of Policy for Resettlement", Vol.63, pp.327-328.


The Great Famine of 1876-1878, also known as the South India Famine, spread from Southern India to Central and Northern parts of India. It covered an area of 670,000 square kilometers and affected 58.5 million people. In the aftermath of the famine about 5.5 million people died of starvation. The Cambridge Economic History of India, Vol.2 Chapter V- Population (1757-1947), (Cambridge: Cambridge University Press, 1983), pp.463-532.


Indian famine of 1896-1897 covered almost whole of India and resulted in the death of about 8 million people. The Indian famine of 1896-1897 was followed in quick succession by the Indian famine of 1899-1900 estimated to have caused death of 1.25 million to 10 million people.

In Bombay province, which killed more than 2.5 lakh.

India experienced the second Bengal famine of 1943 (first in 1769-70). The British colonial government imposed wartime censorship on the Bengal famine of 1943 in which over 2,000,000 died, to avoid pressure to divert resources from the war effort. Estimates are that out of Bengal's 60.3 million population between 1.5 and 4 million people died of starvation, malnutrition and disease.

The subject of disaster management does not find any specific mention in any of the three lists (Union, State and Concurrent Lists) in the Seventh Schedule of Indian Constitution, where subjects under the Central and State Governments as also subjects that come under both are specified. However, the Ministry of Home Affairs of the Central Government, which is the nodal Ministry for disaster management, seems to endorse the opinion that “disaster management is deemed to be a State subject. Disaster Management in India, Ministry of Home Affairs, Govt. of India (2002), pp.67-68 http://www.unisdr.org/2005/mdgsc-dr/national-reports/India-report.pdf assessed on 23rd May 2014.


On October 29, 1999, a super cyclone, with a wind speed of 300 mph had struck Odisha making it probably the greatest cyclonic disaster ever recorded in the last century, accompanied by torrential rain as a tidal surge of about 7 to 10 meter sweep more than 20 km inland. While the official death toll was 9,885 people, unofficial sources estimated the toll to be above 50,000. At least 13 million people, including 3.3 million children, 5 million women and nearly 3.5 million elderly people were affected and 3,15,886 head of cattle was lost http://www.hindustantimes.com/india-news/revisiting-the-super-cyclone-that-hit-odisha-in-1999/article1-1134192.aspx assessed on 30th May, 2014.

On 26th January 2001 when India was celebrating its republic day, in one of the worst earthquakes not experienced in the country during the last 139 years, saw at least 20,005 people killed, 166,836 injured, approximately 339,000 buildings destroyed and 783,000 damaged in the Bhuj-Ahmadabad-Rajkot area and other parts of Gujarat. http://pib.nic.in/archive/others/earthquake.html http://earthquake.usgs.gov/eqarchives/year/2001/ assessed on 30th May 2014; a high powered Committee under the Chairmanship Mr. J.C. Pant, Secretary, Ministry of Agriculture was constituted for drawing up a systematic, comprehensive and holistic approach towards disasters consequently, the disaster management division was shifted under the Ministry of Home Affairs in 2002 vide Cabinet Secretariat’s Notification No. DOC.CD-108/2002 dated 27/02/2002 and a hierarchica lstructure for disaster management evolved in India. Disaster Management in India, Ministry of Home Affairs, Government of India, 2011, p.55.

The December 26, 2004 earthquake of magnitude 9.3 on the Richter scale, off the coast of Sumatra in the Indonesian archipelago generated a tsunami that affected nearly 2.260 kilometers of the mainland coastline of Tamil Nadu, Kerala, Andhra Pradesh and Pondicherry, as well as the Andaman and Nicobar Islands, with tidal waves up to 10 meters high penetrating up to 3 kilometers inland. This tsunami took at least 10,749 lives, and resulted in 5,640 persons missing. It affected more than 2.79 million people across 1,089 villages. It is estimated that 11,827 hectares of crops were damaged, about 300,000 fisher folk have lost their livelihoods; Sheth Srinidhi Sanyal, b Arvind Iaiswal,c and Prathibha Gandhi, Effects of the December 2004 Indian Ocean Tsunami on the Indian Mainland, Earthquake Spectra, Volume 22, No. S3, June 2006, pp. 435–473 . training.fema.gov/.../Comparative%20EM%20Book %20-%20Chapter%2; http://academic.evergreen.edu/r/grossmaz /cramberd/ assessed on 30th May 2014.

Disaster Management Act 2005,Sec-3
[40] Ibid., Sec-14, is responsible for laying down the policies for disaster management in the state, formulating a state plan for disaster management and laying down guidelines for disaster management.

[41] Ibid., Sec-25, acts as the planning, coordinating and implementing body for disaster management at the district level.

[42] Ibid., Sec-41, to work under the DDMA’s, to be prepared to carry out relief work by trained officials during disaster situation.

[43] Ibid., Sec-42

[44] Ibid., Sec-44

[45] Ibid, Sec-46-50

[46] Disaster Management in India, p.22
http://socialissuesindia.wordpress.com/ assessed on 20th May 2014.


[48] The rainfall on 15 June lead to flash floods, as rains continued till 18th June, according to figures provided by the Uttarakhand government, more than 5,700 people were presumed dead but other estimates that more than 20,000 were dead and nearly 70,000 were rendered homeless and displaced. It is considered to be one of the toughest rescue operations considering the hilly terrains.


[50] The National plan for DM has not been formulated even after six year of enactment of DMA.