

The Evolution of the Disaster Management Policy in India: With reference to the Structure and the Functions of the National Disaster Management Authority

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1. Introduction

The Indian sub-continent is susceptible, in varying degrees, to a large number of natural as well as man-made disasters and calamities. Of the total land area in India over 58.6% of the landmass is exposed to earthquakes of moderate to very high intensity and 12 % of land is subjected to floods and river erosion. Out of the 7516 km long coastline, almost 5700 km is prone to cyclones and tsunamis; 68 % of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches. Among the thirty six State and Union Territories, twenty eight are disaster prone. In the course of the last thirty years the country has been hit by four hundred and thirty one major disasters resulting in enormous loss of life and property. Besides, the high level of vulnerability to different types of natural disasters, threat of industrial accidents and susceptibility to other man-made disasters including chemical, biological, radiological and nuclear threats augment the scope and importance of studies pertaining to disaster management. Among various natural hazards, the earth quakes, landslides, floods and cyclones are the major disasters adversely affecting very large areas and population in India. The natural disasters are due to the geographical origin and the climatic origin. The earth quakes, volcanic eruptions and landslides are occurred due to geographical origin. On the other hand, due to climatic origin, drought, flood, cyclone, locust and forest fire are occurred. Though it may not be feasible to control nature and to stop the development of natural phenomena, the efforts could be made to avoid disaster related damages and alleviate their effects on human lives, infrastructure and property.ⁱ In times of natural disaster those were entrusted with the disaster management had come in for severe criticism as the expectations of the victims were high and they demanded immediate response. Hence, there should be machinery at the federal and state levels, for immediate rescue operation, instead of trying to organize ourselves to the emerging situations.ⁱⁱ The super cyclone in Orissa in October, 1999 and the Bhuj earthquake in Gujarat in January, 2001 underscored the need to adopt a multi dimensional endeavour involving diverse scientific, engineering, financial and social processes; the need to adopt multi disciplinary and multi sectoral approach and incorporation of risk reduction in the developmental plans and strategies. In view of this, the Government of India initiated a series of measures, inter alia, bringing about a paradigm shift in the overall approach to disaster management, from the hitherto relief – centric outlook to a holistic perspective. Disaster management occupies an important place in this country's policy framework as it is the poor and the under-privileged who are worst affected on account of calamities/disasters. The disaster management in India assumed greater importance after the occurrence of the December 2004 Tsunami. It led to the enactment of the

Disaster Management Act, 2005 which resulted to the formation of the National Disaster Management Authority (NDMA).ⁱⁱⁱ In this research paper an attempt is made to sketch the evolution, structure and functions of the National Disaster Management Authority in a historical perspective.

2. Evolution of the Disaster Management Policy in India

Disaster Management in India has evolved from an activity based setup to a practical institutionalised structure, from a single faculty domain to a multi-stakeholder setup and from a relief based approach to a multi-dimensional pro-active holistic approach for reducing risk. The beginnings of an institutional structure for disaster management can be traced to the British period following the series of disasters such as famines of 1900, 1905, 1907 and 1943 and the Bihar-Nepal earthquake of 1937. During the British administration, relief departments were set up for undertaking emergency works during disasters. In the post-Independence India, the task for managing disasters had continued to rest with the Relief Commissioners in each state, who functioned under the Central Relief Commissioner, with their role limited to delegation of relief material and money in the affected areas. Until this stage, the disaster management structure was activity based, functioning under the Relief Departments.^{iv} A permanent and institutionalised setup began in the decade of 1990s with the setup of a Disaster Management Cell under the Ministry of Agriculture, following the declaration of the decade of 1990 as the "International Decade for Natural Disaster Risk Reduction" (IDNDR) by the United Nation General Assembly.

Following the Latur Earthquake (1993) and Malpa Landslide (17th August, 1998), a High Powered Committee (HPC) on Disaster Management under the Chairmanship of Shri J.C. Pant, formerly Secretary to the Government of was constituted by the Department of Agriculture and Cooperation on 20th August, 1999 to review existing arrangements for preparedness and mitigation of natural disasters, recommend measures for strengthening organisational structures and to formulate a comprehensive modal plan for Natural Disaster Management at the National, State and District level. The High Powered Committee consisted of thirty-one members including the Chairman.^v HPC members were drawn from the Ministries, States, NGOs and experts from relevant fields. It was the first attempt in India towards evolving a systematic, comprehensive and holistic approach towards all disasters.^{vi} After a series of discussions the Committee submitted its report to the Government in October 2001.

The Committee graded the disasters are at three levels – District level, State level and National level. A District Level disaster was to be managed by the District Administration. A State Level disaster was within the capabilities of the State

Government to deal with disaster mitigation. A National Level disaster was requiring major direct intervention of the Central Government.^{vii} The Committee proposed to provide the Constitutional and Legal Context to the structure National Disaster Management. The Committee said that the subject of disaster management did not find mention in any of the three lists viz. Central, State and Concurrent, in the 7th Schedule of the Indian Constitution.^{viii} Keeping in view the importance that the field of disaster management, the Committee recommended that the subject would be included in the Union List and therefore Union Government would be entitled to pass a suitable legislation on disaster management^{ix}. For effective coordination the HPC recommended that a separate Ministry of Disaster Management might be created in a phased manner armed with appropriate instrumentalities at the National level.^x The Committee pointed out that in keeping with the federal structure of the country, the primary responsibility of managing a disaster should lie with the state government. The role of the Central Government was supportive in terms of supplementation of physical and financial resources.^{xi} The Committee recommended for the establishment of a separate Department of Disaster Management and Mitigation at the state level on the lines of the pattern at the national level.^{xii} The district administration would be the focal point for implementation of all government plans and activities. The actual day-to-day function of administering relief was the responsibility of the Collector/District Magistrate/Deputy Commissioner who would exercise co-ordination and supervisory powers over all departments at the district level.^{xiii} In the event of shortage of funds, the District Collector was also empowered to draw money from the district treasury under the emergency powers vested in him. The district administration is also required to prepare an advance Contingency Plan based upon the type of disaster likely to affect the district.^{xiv} Thus the HPC felt that the basic responsibility for undertaking rescue, relief and rehabilitation measures in the event of natural disasters was that of the concerned State Governments. The role of the Central Government was a supportive. The Department of Agriculture and Cooperation (DAC) is the nodal Department in Government of India for natural disaster management.^{xv}

The HPC has prepared a "National Calamity Management Act". The proposed Act envisages the formation of a 'National Centre for Calamity Management' for the purpose of effective management of disasters arising out of calamities. The Act aims at ensuring efficiency and effective management of natural and other calamities, for achieving greater coordination and responsiveness with respect to prevention and mitigation of disasters as also to provide better relief and rehabilitation of victims of disasters. It has been circulated to all States as well as all the concerned ministries of Government of India for their comments.^{xvi} Another important recommendation of the HPC was to prepare a Disaster Management Plans. It was felt that each Ministry, Department and Organisation at national level should formulate comprehensive disaster management plans that should link to the national plan. Each State to develop integrated "all hazard" disaster management plans on priority, which too must be practiced and updated periodically. Even at the district level District Disaster Management Plans should be prepared linked to the state and national plans, practiced and

updated from time to time. Thus in order to integrate disaster management consistently it proposed for the disaster planning at the National, State, District Levels.^{xvii} Disaster Management Plans at all levels should have medical assistant teams, mobile hospitals, epidemic prevention measures, trauma counseling etc. Nurses and Paramedics should be specially incorporated in the medical plans.^{xviii} An important resolution of the committee was that at least 10% of the plan funds at the national, state and district levels should be earmarked and apportioned for schemes, which specifically address prevention, reduction, preparedness and mitigation of disasters.^{xix}

The Scientific and Technology knowledge could be utilised for Forecasting, Warning and Alert Systems before the disasters actually strike, so that it could help to initiate preparatory response and trigger the decision making process.^{xx} Early warning systems for different disasters should be in place so that the concerned administrative machinery and communities can initiate appropriate actions to minimise loss of life and property.^{xxi} There was a need to improve communication links, forecasting, control rooms, by modernising the existing facilities.^{xxii} Develop infrastructure for BSL3 and BSL4 laboratory support within the country through Surveillance and rapid response activities by the State Health Authorities for facing the Biologically related Disasters.^{xxiii} A National Institute for Disaster Management was to be established as a centre of excellence for creating knowledge and dissemination of training and the capacity building.^{xxiv} The Paramilitary Forces, Police Organizations, Fire Services, Civil Defence, Home Guards, the Territorial Army, NCC, Boy Scouts and the Girls Guides, National Service Scheme NYKs, Youth Clubs and Mahila Mandals,^{xxv} Aanganwadi workers, NGOs, Panchayat Raj and Urban local bodies could be utilised for creating mass movement to play a significant role in the disaster related management. The local cultural groups need to be mobilised in order to educate people on how to cope with disasters.^{xxvi} The HPC felt that collaboration between SAARC and other countries especially neighbouring countries with respect to flood management, cyclone and monsoon forecasting would go a long way in managing disasters holistically, especially in terms of pooling of resources and expertise.^{xxvii}

A National Disaster Knowledge Network to be established to cover natural, manmade and biological disasters in all their varied dimensions.^{xxviii} The training institutes must focus building up of human resources especially to improve disaster awareness, safety and capabilities.^{xxix} In the school and colleges including all the technical colleges, medical colleges, paramedic and nursing training institutions curricula to be included Disaster education and awareness.^{xxx} Drills and Mock drills should be a primary training ground for emergency management.^{xxxi} Relief and rescue measures could be formulated on the lines of the one presented by the **SUMA model** launched as a collective effort of Latin American countries in order to improve the administration of supplies in the aftermath of a disaster situation. It provides a solution to problems associated with the arrival of unsolicited supplies, distribution of relief material and assistance as the situation warrants.^{xxxii} Therefore due consideration should be given to

protection of Human Rights during the relief operations.^{xxxiii} Information centres to be established at pre-designated locations for giving details of the disaster and answering public queries etc. Telephone numbers of all such information centres should be given wide publicity in electronic media.^{xxxiv} The margin money so provided for each of the States was duly taken into account while working out the forecast of expenditure for each of the states. The policy and arrangements for meeting relief expenditure were, by and large based on the recommendations of successive Finance Commissions.^{xxxv} Hence for the first time High Powered Committee on the Disaster Management in its report recommended to introduce a disaster management policy by including the central and state governments and the district administration.

The Planning Commission and the Financial Commission had detailed discussion on the issues connected with the disaster management in India. The Tenth Five Year for the first time in Indian policy making had a detailed chapter on the Disaster Management.^{xxxvi} The Eleventh Planning Commission (PF XI) submitted its report in 2000, decided that in India, the financing of disaster relief was an important aspect of federal fiscal relations. The coping capacity of a majority of the states to deal with disasters on their own is inadequate. This was a fact that the poorer states were often the most disaster prone. As a result the financing of disaster relief had come to be firmly accepted as a joint endeavour of the Central and State Governments.^{xxxvii} The Second Finance Commission (FC-II; submitted its report in 1957), while assessing the revenue expenditure of the states, acknowledged that financing expenditure on relief was an unforeseen item that affected their finances in a significant manner. It initiated the 'margin money scheme' which envisaged setting apart specific amounts by states in order to meet the expenditure on disaster calamities relief measures. The state-wise amounts were based on the average expenditure on relief in the past decade. The Commission also advised that the amounts be kept in a fund and invested in marketable government securities so as to be available for relief expenditure without putting undue pressure on the states' finances.^{xxxviii}

The Ninth Finance Commission (FC-IX) which submitted report in 1990, examined the then existing scheme of margin money and acknowledged the need for replacing the existing arrangements of financing relief expenditure involving the provision of margin money.^{xxxix} It recommended the establishment of a Calamity Relief Fund (CRF) for each state, the size of which was decided on the basis of the average of the actual ceiling of expenditure approved for a state over a 10-year period ending 1988-89. Of which, 75 per cent of the fund was to be contributed by the Centre and 25 per cent by the states. The fund was maintained in the public account of the state. The fund was administered by a State Level Committee (SLC) headed by the Chief Secretary of the state. The Ministry of Home Affairs was the nodal Ministry for overseeing the relief operations for all natural calamities, other than drought, hailstorm and pest attack, for which the Department of Agriculture and Cooperation was the nodal department.^{xl} The CRF has been set up in each State as per the recommendations of the Eleventh Finance Commission.^{xli} The

Central Government has released Rs. 12,208 crore under the CRF in the four-year period 2005-09 against the Rs. 12,547 crore share recommended by FC-XII for the same period. The Ministry of Home Affairs had issued detailed guidelines on the items and norms of expenditure for assistance from the CRF.^{xlii} The Tenth Finance Commission (FC-X) submitting its report in 1995 recommended putting in place certain operational arrangements for the CRF. It also recommended the setting up of a National Fund for Calamity Relief (NFCR) with Rs. 700 crore to assist any state affected by a calamity of rare severity. Management of this fund was to be under a National Calamity Relief Committee chaired by the Union Minister for Agriculture. Both the Centre and the states would contribute to this fund on the basis of 75:25. The objective of this fund was to create a sense of 'national solidarity in a common endeavour which would then abide beyond the period of distress.'^{xliii}

FC-XI continued with the prevailing system of the Calamity Relief Fund, while further refining the administrative arrangements in this respect. It also reviewed the functioning of the National Fund for Calamity Relief and found that not only had the entire corpus of the fund been exhausted in three years, but also that it had failed to make adequate funds available for meeting the requirements of calamities of rare severity. Hence, the FC-XI recommended the setting up of a National Calamity Contingency Fund (NCCF) with an initial corpus of Rs. 500 crore which was to be replenished through the National Calamity Contingent Duty imposed on cigarettes, pan masala, beedis, other tobacco products and cellular phones. It was to be maintained in the public account of the Government of India and administered by a high level committee comprising the Agriculture Minister, Home Minister, Finance Minister, and the Deputy Chairman of the Planning Commission. The assistance from the NCCF is only for immediate relief and rehabilitation and not for any reconstruction of assets or restoration of damaged infrastructure. The Central Government had created this fund. Over the period 2005-09, the Central Government had released Rs. 7677 crore to states for various calamities.^{xliiv} The Twelfth Finance Commission (TFC) was appointed by President on 1st November 2002 under the Chairmanship of Dr. C. Rangarajan which proposed for strengthening the disaster management policy of India. It observed that the CRF scheme had, by and large, fulfilled the objective of meeting the immediate relief needs of the states.^{xli v} Hence, the TFC recommended continuation of the scheme of NCCF in its existing form with core corpus of Rs.500 crore. The TFC observed that it found considerable justification in widening the list of natural calamity, as applicable at present, might be expanded to cover landslides, avalanches, cloud burst and pest attacks. The Center might continue to make allocation of food grains to the needy States as a relief measure, but a transparent policy in this regard is required to be put in place. It also suggested that a committee consisting of scientists, flood control specialists and other experts be set up to study and map the hazards to which several States were subject to. It recommended that the provision for disaster preparedness and mitigation needs to be built into the State plans, and not as a part of calamity relief.^{xli vi} In the federal set up of India, the basic responsibility for undertaking rescue, relief and rehabilitation measures in the event of a disaster was that of the State Government concerned. At the State level, response, relief and

rehabilitation were to be handled by Departments of Relief & Rehabilitation. The State Crisis Management Committee to be set up under the Chairmanship of Chief Secretary who would be the highest executive functionary in the State. All the concerned Departments and organisations of the State and Central Government Departments located in the State were represented in this Committee.^{xlvii} Thus the TFC opined that the State Governments should have more responsibility in the disaster management. With the enactment of the Disaster Management Act in 2005 and consequent changes in the design and structure of disaster management, the FC-XIII (submitted report in 2009) recommended the merger and transfer of NCCF balances, as on 31 March 2010, to the National Disaster Response Fund (NDRF) which was accepted and notified by the Union Government. On the same lines, the CRF has been renamed as State Disaster Response Fund (SDRF) by 13th Finance Commission. On 1 April 2010, based on the recommendations of the FC-XIII, the available balances in the CRF were merged with the SDRF.^{xlviii}

A review of the disaster management mechanism was carried out by the Government of India after the occurrence of the 2001 Gujarat earthquake, also known as the Bhuj earthquake, occurred on 26 January, India's 51st Republic Day, at 08:46 AM IST and lasted for over 2 minutes which was accounted for 13805 deaths. The epicentre was about 9 km south-southwest of the village of Chobari in Bhachau Taluka of Kutch District of Gujarat. It was noted that there was need for building up holistic capabilities for disaster management – so as to be able to handle both natural and man-made disasters. Accordingly the Government of India decided that the subject of Disaster Management be transferred from the Ministry of Agriculture to the Ministry of Home Affairs (excluding drought and epidemics and those emergencies/disasters which were specifically allotted to other Ministries). The Government (Allocation of Business) Rules, 1961 were accordingly amended in February, 2002. The actual transfer of work took place in June 2002. The Disaster Management Division that was shifted under the Ministry of Home Affairs was headed by a Joint Secretary (DM).^{xlix} Thus shifting from relief to response mode, disaster management in India started to address the issues of early warning systems, forecasting and monitoring setup for various weather related hazards.¹

3. An Enactment of the Disaster Management Act, 2005

A comprehensive disaster management plan was evolved after the Indian Ocean Tsunami of December, 2004. The Disaster Management Act was enacted by the Parliament of India on 23rd December 2005, (ACT NO. 53 OF 2005). Disaster Management Act, 2005 defines “disaster” as catastrophe, mishap, calamity or grave occurrence in area, arising from natural and human-induced 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 in of such a natural or magnitude as to be beyond coping capacity of the community of the affected areas disaster caused by floods, cyclones, landslides, tidal waves etc. are considered a natural disaster and those caused by chemical, industrial, transport related accidents, mass congregation and security related threats including terrorism are classified as human-induced disaster

nationally and internationally”.ⁱⁱ It provided for the establishment of National Disaster Management Authority, consists of the Prime Minister of India as the Chairperson and other members, not exceeding nine, as may be prescribed by the Central Government. The Prime Minister nominates the other members. One of the members nominated to be the Vice-Chairperson of the National Authority with the status of the Cabinet Minister and other members are with the status of the Ministers of the State. The tenure of the members of NDMA is restricted to a maximum of five years or 65 years of age. The Chairperson shall preside over the meetings of the National Authority. If the Chairperson is unable to attend any meeting of the National Authority, the Vice-Chairperson shall preside over the meeting. Important responsibility of the National Disaster Management Authority are laying down the policies, plans and guidelines for disaster management for ensuring timely and effective response to disaster. The National Authority may constitute an advisory committee consisting of experts in the field of disaster management and having practical experience of disaster management at the national, State or district level to make recommendations on different aspects of disaster management.ⁱⁱⁱ The Central Government shall, constitute a National Executive Committee to assist the National Authority in the performance of its functions. The National Executive Committee shall consist of the Secretary to the Government of India in charge of the Ministry or Department of the Central Government having administrative control of the disaster management, shall be Chairperson, *ex officio*. The Secretaries to the Government of India in the Ministries or Departments having administrative control of the agriculture, atomic energy, defence, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, telecommunication, urban development, water resources and the Chief of the Integrated Defence Staff of the Chiefs of Staff Committee, *ex officio* of the National Executive Committee. The National Executive Committee shall assist the National Authority in the discharge of its functions and for implementing its policies and plans for the purpose of disaster management in the country.ⁱⁱⁱ It shall prepare a plan for disaster management for the whole of the country to be called the National Plan in consultation with the State Governments and expert bodies or organisations in the field of disaster management to be approved by the National Authority. The National Plan shall include measures to be taken for the prevention of disasters, or the mitigation measures in the development plans.^{iv}

Every State Government shall, establish a State Disaster Management Authority for the State. A State Authority shall consist of the Chairperson and such number of other members, not exceeding nine, as may be prescribed by the State Government. The Chief Minister of the State, shall be the Chairperson, *ex officio* and other members, not exceeding eight, to be nominated by the Chairperson of the State Authority. The Chairperson of the State Authority may designate one of the members nominated to be the Vice-Chairperson of the State Authority. The Chairperson of the State Executive Committee shall be the Chief Executive Officer of the State Authority, *ex officio*. The Lieutenant Governor of the Union territory of Delhi shall be the Chairperson and the Chief Minister shall be the Vice-Chairperson of the State Authority of Delhi. In the case of other Union territories having

Legislative Assembly, the Chief Minister shall be the Chairperson of the Authority and in case of other Union territories, the Lieutenant Governor or the Administrator shall be the Chairperson of that Authority. The Chairperson of the State Authority shall preside over the meetings of the State Authority.^{lv} The State Authority shall have the responsibility for laying down policies and plans for disaster management in the State.

The State Government shall, constitute a State Executive Committee with Chief Secretary as the Chairperson; *ex-officio* to assist the State Authority in the performance of its functions and to coordinate action in accordance with the guidelines laid down by the State Authority and ensure the compliance of directions issued by the State Government under this Act. The State Executive Committee shall have the responsibility for implementing the National Plan and State Plan and act as the coordinating and monitoring body for management of disaster in the State. The State Plan shall be prepared by the State Executive Committee in consultation with local authorities, district authorities and the people's representatives, as per the guidelines lay down by the National Authority.^{lvi} Every State Government shall establish a District Disaster Management Authority for every district in the State. The District Authority shall consist of the Chairperson and such other members, not exceeding seven, as may be prescribed by the State Government. The Collector or District Magistrate or Deputy Commissioner shall be Chairperson, *ex officio*. The District Authority may take such measures for the prevention or mitigation of disaster, or to effectively respond to it in the district level.^{lvii}

The Central Government shall constitute an institute called the National Institute of Disaster Management for planning and promoting training and research in the area of disaster management, documentation and development of national level information base relating to disaster management policies, prevention mechanisms and mitigation measures. It shall provide assistance to the State Governments and State training institutes for providing training for capacity-building of stakeholders, Government functionaries, civil society members, corporate sector and people's elected representatives.^{lviii} There shall be constituted a National Disaster Response Force for the purpose of specialist response to a threatening disaster situation or disaster. The general superintendence, direction and control of the Force shall be exercised by the National Authority and the command and supervision of the Force shall vest in an officer to be appointed by the Central Government as the Director General of the National Disaster Response Force.^{lix} The Central Government may constitute a fund to be called the National Disaster Response Fund for meeting any threatening disaster situation or disaster. It shall be credited to the account of the Central Government, after due appropriation made by Parliament by law in this regard. The Central Government shall constitute the National Disaster Mitigation Fund for projects exclusively for the purpose of mitigation and there shall be credited of the Central Government.^{lx} Every Ministry or Department of the Government of India shall make provisions, in its annual budget, for funds for the purposes of carrying out the activities and programmes set out in its disaster management plan. The State Government shall,

constitute the State Disaster Response Fund and the State Disaster Mitigation Fund in the state level. It shall establish the District Disaster Response Fund and the District Disaster Mitigation Fund in the district level.^{lxi} Thus the Disaster Management Policy in India was evolved through a series of discussions and exercises.

4. The Structure and Composition of the National Disaster Management Authority

The NDMA was initially constituted on May 30, 2005 under the Chairmanship of the Prime Minister by an executive order.^{lxii} The National Disaster Management Authority was formally constituted in accordance with Section-3(1) of the Disaster Management Act on 27th September, 2006 with Prime Minister as its Chairperson and a maximum of nine other members.^{lxiii} The nodal ministries, as identified for different disaster types of function remained under the overall guidance of the Ministry of Home Affairs. It assists the National Crisis Management Committee and guides State Governments in deployment of forces and in coordinating with other agencies.^{lxiv} Dr. Manmohan Singh, then Prime Minister as the Chairperson nominated the following eight persons as the members. General N.C. Vij, PVSM, UYSM, AVSM (Retd.) was nominated as the Vice – Chairman and K.M. Singh, M. Shashidhar Reddy, Lt.Gen (Retd), J.R. Bharadwaj, Dr. Mohan Kanda, Dr. Vinod Chandra Menon, B. Bhattacharjee and Smt. P. Jyoti Rao as Members of the Committee.^{lxv} A few members were appointed in 2005 got reappointment after the completion of their five year tenure. M.Shashidhar Reddy who had been appointed as a member of the National Disaster Management Authority in 2005 was promoted as the Vice-Chairman when the Committee was reconstituted in December 2010. K.M Singh, K.N. Shrivastava, Maj Gen (retd) J.K. Bansal, Bhattacharjee, K. Salim Ali, R.K. Jain, Dr. D.N. Sharma and Kamal Kishore were nominated as the Members.^{lxvi} Thus the members of the National Disaster Management Authority were increased to nine in 2010 but its strength was eight in 2005.

A major change took place in the structure of the NDMA after Narendra Modi took oath as the Prime Minister of India on 26th May 2014. The Prime Minister decided that the politicians and the retired bureaucrats with no disaster management should not be included in the NDMA. Further, it was decided that the NDMA should be reconstituted with four or five members with the technical knowledge who could help the government in disaster mitigation and rescue efforts^{lxvii}. M. Shashidhar Reddy, the Vice-Chairman and other five of the members K.M. Singh, formerly CISF Director General; K.N. Shrivastava, formerly Civil Aviation Secretary; J.K. Bansal, Major General (Retd); B. Bhattacharjee, formerly Director of Bhabha Atomic Research Centre; and K. Salim Ali, formerly CBI Special director were asked to quit their posts in the wake of changing decision of the government.^{lxviii} They resigned from the posts in June 2014. The Home Ministry decided to appoint the members of the NDMA, through invited applications from the subject experts who had administrative, superintendence and management experience of disaster situation, mitigation efforts and similar knowledge.^{lxix} The government received eighty-two applications from the subject experts. When the NDMA Committee was reconstituted in December 2014, for the first time its Chairperson Narendra

Modi appointed Kamal Kishore, a disaster reduction expert at the United Nations Development Programme; Lt. Gen. (Retd.) N.C. Marwah, R.K Jain, an IAS (Retd) and Dr. D.N Sharma, Director of Health, Safety and Environment Group at Bhabha Atomic Research Centre as members from the applicants.^{lxx} Hence, the members of the NDMA were reduced to four.^{lxxi}

Thus among the members Kamal Kishore is the Newyork based adviser on disaster reduction and recovery at the UNDP and has been handling crisis prevention. DN Sharma has been associated with NDMA for several years, helping the body for drafting guidelines for safety in radiation-related areas. Lt. Gen. (Retd) M.C. Marwah was the chief of integrated Defence Staff to the Chairman, and Chief of the staff committee prior to his retirement^{lxxii}. When the NDMA Committee was reconstituted in 2014, no member was appointed as the Vice-Chairman. The position of the Vice-Chairman and Members of the Committee were downgraded. The post of Vice-Chairman, which had enjoyed the Cabinet Minister rank previously, was reduced to Cabinet Secretary Level. Likewise, members of the NDMA who had enjoyed the rank of the Union Minister of State level were reduced to the status of the Secretary of the Union Government.^{lxxiii} M. Shashidhar Reddy, the former Vice-Chairman of the NDMA who resigned the post in June 2014 said that if the Vice-Chairman with the rank of Cabinet Minister Status went to the state he would be easily met the Chief Minister easier than one with Cabinet Secretary Level status went for the purpose and discussed the issues related to disaster management. Hence, the higher level of the status of the Vice-Chairman, would add prestige to NDMA with regards to protocol issue.^{lxxiv} Thus, as the disaster management is a continuous work, the disaster preparedness in the country will take larger responsibility and coordination of the several agencies. Therefore, higher rank of the Vice-Chairman and other members will help for coordinated disaster preparedness.

5. Functions of the National Disaster Management Authority

1. Co-ordination with the National Executive Committee (NEC)

The National Executive Committee comprises the Union Home Secretary as Chairperson, and the Secretaries to the Government of India in the Ministries/Departments of Agriculture, Atomic Energy, Defence, Drinking Water Supply, Environment and Forests, Finance (Expenditure), Health, Power, Rural Development, Science & Technology, Space, Telecommunications, Urban Development, Water Resources and the Chief of the Integrated Defence Staff of the Chiefs of Staff Committee as members. Secretaries in the Ministry of External Affairs, Earth Sciences, Human Resource Development, Mines, Shipping, Road Transport & Highways, and the National Disaster Management Authority are the special invitees to the meetings of the National Executive Committee. It is the executive committee of the National Disaster Management Authority, is mandated to assist the latter in the discharge of its functions and also ensure compliance of the directions issued by the Central Government. It is to coordinate the response in the event of any threatening disaster situation or disaster. It would prepare the National Plan for Disaster Management based on the National Policy on Disaster Management. Further it monitored the implementation of guidelines issued by National Disaster

Management Authority. It would also perform such other functions as might be prescribed by the Central Government in consultation with the National Disaster Management Authority.

2. Vice-Chairperson as the Special Invitee of the High Level Committee (HLC)

In the case of calamities of severe nature, Inter-Ministerial Central Teams are deputed to the affected States for assessment of damage caused by the calamity and the amount of relief assistance required. The Inter-Ministerial Group (IMG), headed by the Union Home Secretary, scrutinised the assessment made by the Central Teams and recommended the quantum of assistance to be provided to the States from the National Calamity Contingency Fund (NCCF). However, assessment of damages by IMG in respect of drought, hailstorm and pest attack would continue to be headed by the Secretary, Ministry of Agriculture and Cooperation. The HLC comprising the Finance Minister as Chairman and the Home Minister, Agriculture Minister, and Deputy Chairman of the Planning Commission as members approves the Central assistance to be provided to the affected States based on the recommendations of the IMG. The constitution and composition of HLC would vary from time to time. The Vice Chairman, NDMA is a special invitee to the HLC.^{lxxv}

3. Control over National Institute of Disaster Management (NIDM)

The National Institute of Disaster Management, in partnership with other research institutions exercises the major responsibilities of providing training and capacity building, and undertaking research and documentation of the matters concerning to disaster management. It would maintain network with other knowledge based institutions and function within the broad policies and guidelines laid down by the NDMA. It would organize training of trainers, Disaster Management officials and other stakeholders. The NIDM would strive to emerge as a "Centre of Excellence" in the field of Disaster Management. The Union Home Minister is the President of the Institute. It was constituted on 23rd February, 2007 under the Disaster management Act, and has a general body of forty two members comprising of secretaries of various ministries, departments of the Union Government and heads of national level scientific, research and technical organizations. In terms of Section 42(4) of the Disaster Management Act, 2005 vide order dated 3rd May, 2007, the Government also constituted a 14 member Governing Body with Vice-Chairman of the NDMA as its Chairperson and Union Home Secretary as Vice-Chairperson. Within a short period, the Institute has emerged as one of the key institutions of disaster management working in tandem with the NDMA, central, state and local governments and various other stakeholders to make a disaster-resilient India.^{lxxvi} It is located centrally at the Indraprastha Estate on the Mahatma Gandhi Road, New Delhi within the campus of Indian Institute of Public Administration (IIPA).

The Institute supports Disaster Management centres setup in the Administrative Training Institutes of the states and the Union Territories. At present there are thirty such centres located mainly in state capitals. Six of these centres are being developed as centres of Excellence in the field of Disaster Management. The Institute also hosts the SAARC Disaster Management Centre (SDMC) which has jurisdiction over eight

member state of the South Asian Association of Regional Cooperation namely Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. The centre has developed a Regional Framework on Disaster Management in South Asia and further facilitated development of as many as nine different road maps on different aspects of disaster risk reduction in South Asia, based on which a series of projects have been taken up to enhance regional cooperation on disaster management.^{lxxvii}

4. Facilitate Training Programme to the National Disaster Response Force (NDRF)

Two successive national calamities - Orissa super cyclone 1999 and Gujarat earthquake 2001 brought about the realisation that India needed a specialist response mechanism at the national level to effectively respond to such disasters. In pursuance of this realisation, the Ministry of Home Affairs constituted a Steering Committee in 2003 under the chairmanship of the Union Home Secretary with four Director Generals of Central Para-military forces as members. The Steering Committee's recommendation led to the landmark decision of converting two battalions each of Border Security Force (BSF), Central Reserve Police Force (CRPF), Central Industrial Security Force (CISF), Indo-Tibetan Border Police and Sashatra Seema Bal (SSB) as Disaster Management Battalions. During the initial years between 2003 and 2005, the grandiose vision of R.K. Singh, Joint Secretary (Disaster Management), Ministry of Home Affairs contributed significantly towards laying the foundation of a truly Professional National Disaster Response Force in the country. This vision delineated a structured programme of equipping and training of these battalions as per the international standard.

The formation of NDMA in 2005 provided the much needed impetus to establish the National Disaster Response Force (NDRF) as a truly specialist force for disaster management. The Union Home Secretary held a meeting with the NDMA and Directors General of Police of Central Para-military forces on 16 January 2006. It led to issuance of the landmark order of Ministry of Home Affairs dated 19 January 2006 approving Conversion/Upgradation of eight Battalions of Central Para-military forces in to National Disaster Response Force. Henceforth, 19th January is observed as the formation day of NDRF.^{lxxviii} In 2011 two Battalions were added to the NDRF and subsequently two Battalions were upgraded in 2015. Hence, presently the NDRF consists of 12 Battalions, each has 1149 personnel. Further the Government of India in the way of notification on 14th February 2008 making NDRF a deputations' force dedicated for disaster response duties only under the Unified Command of Director General of Police (DGP), NDRF. On 6th February 2009, Shri. R. K. Bhatia was appointed as the first Director General of Police of the NDRF. It is calculated to reduce the deployment of the Armed forces. However, armed forces would be deployed only when the situation is beyond the coping capacity of state Government and NDRF. Thereafter the NDRF has done yeoman services during the disasters in India and abroad.^{lxxix}

Training being the most important aspect of any professional force, a major initiative of the NDMA was the finalisation and publication of a "Training Regime Report on Disaster Response". This report identified sixteen different

types of training courses in disaster response for NDRF, State Disaster Response Force and other stakeholders. As a sequel to the vision to train the NDRF as a specialist force as per international standards, the trainers of the force acquired training under the aegis of some of the best known institutions, namely ADPC Bangkok; USAID PEER Programme, Swiss Development Corporation, Bern; Advance search and Rescue Training Centre, Florida; Civil Defence Academy, Singapore; DRDE Gwalior; CME Pune and BARC, Mumbai.^{lxxx} The twelve battalions of NDRF consist of 216 specialised teams trained in various types of natural, manmade and non-natural disasters. Seventy-two of such teams are designed to cater to the Chemical, Biological, Radiological and Nuclear (CBRN) calamities besides the natural calamities. The NDRF provided specialist response training to the Police, State Disaster Response Force (SDRF), Fire and Medical Services, Home Guards and Youth Organizations such as NCC, NSS and NYKS whenever required.^{lxxxi} Trained by the NDRF, the State Disaster Response Force in Tamil Nadu comprising the personnel of the Tamil Nadu Commando Force of the Tamil Nadu Police, embarked on a mission to impart training in disaster management to select batch of police personnel serving in the coastal districts of Tamil Nadu in the month of October 2016. A four member team from SDRF mandated to train a select band of 70 police personnel of Thanjavur, Tiruvarur, Nagapattinam and Pudukkottai districts at Commando Barracks located within the Tiruchirappalli District Armed Reserved ground. As per the news reported in *the Hindu*, dated 25th October, 2016 the team trained the first batch of police personnel of Nagapattinam and Tiruvarur districts. Another team was simultaneously imparting training to the police personnel of the south zone in Tamil Nadu serving in Ramanathapuram, Tirunelveli, Thoothukudi and Kanyakumari districts.^{lxxxii}

5. Procurement of Equipment

The first major challenge towards effective operation of NDRF was procurement of 334 items of equipment for which Union Cabinet had already approved a budget of Rs. 300 crores. The Procurement Division of Ministry of Home Affairs and the Directors General of Police were not willing to take up the responsibility of procuring equipment. Hence, the NDMA constituted a Specification Committee with Major General K. Mukherjee (Retd.) as the technical expert to finalise the specification of 334 equipments in A.D. 2007. In a meticulously carried out exercise, this Committee shortlisted 310 equipments under two heads, namely low value and high value. While the responsibility for procuring all the low value items were assigned to respective Central Paramilitary forces, the procuring high value items were distributed amongst the four specified Central Paramilitary forces, for the eight NDRF Battalions.^{lxxxiii} NDMA has the power to authorise the departments or authorities concerned, to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation or disaster.

6. Formulating the Guidelines

The NDMA formulated guidelines and facilitated training and preparedness activities for cross-cutting themes like medical preparedness, psycho-social care and trauma, community based disaster preparedness, information and communication technology, training, preparedness and

awareness generation for natural and man-made disaster in partnership with the stakeholders concerned. The following were the important guidelines issued by the NDMA.⁽¹⁾ The Management of Chemical Disaster, April 2007.^{lxxxiv} (2) Management of Earthquakes, April 2007.^{lxxxv} (3) Management of Floods, January 2008.^{lxxxvi} (4) Management of Cyclones.^{lxxxvii} (5) Management of Biological Disasters, July 2008. (6) Management of Nuclear and Radiological Emergencies, February 2009.^{lxxxviii} (7) Management of Chemical (Terrorism) Disasters, June 2009.^{lxxxix} (8) Management of Landslides and Snow Avalanches, June 2009. (9) National Policy on Disaster Management, October 2009. (10) Management of Tsunamis, August 2010.^{xc} (11) Management of Urban Flooding, September 2010.^{xcii} (12) Management of Drought, September 2010.^{xciii} (13) Guidelines for Seismic Retrofitting of Deficient Buildings and Structures, June 2014.^{xciii} (14) Guidelines on Management of Hospital Safety, February 2016. (15) Guidelines on Management of School Safety Policy, February 2016.^{xciv} (16) Disaster Response Training at the Centre and States. (17) Management of Dead in the aftermath of Disaster. (18) Capacity Building in Disaster Management for Government Officers and Representative of Panchayat Raj Institution and Urban District Level. (19) Handbook for Training and Capacity Building of Civil Defence and Sister Organisation (Part I & Part II).^{xcv} The guidelines issued by the NDMA, are very useful for personnel and civil community involved in the disaster management.

7. Community Capacity Building and Public Awareness Programme:

As community is the "first Responder", and the Community capacity building and public awareness programme in the states have always been high on priority of NDMA and NDRF. During the period from 2006 to 2014, NDRF personnel have trained and sensitised about 30,50,000 people under these programme. The target groups were villagers, local people, school children, college students and volunteers selected by the state administration. NDRF battalions in association with the various stakeholders also regularly organised mock exercises on Industrial Disasters, Urban Flooding, Cyclones, Earthquake and Train Accident in different parts of the country. Till the end of December, 2014 the NDMA/NDRF have organised about 367 such mock exercises.^{xcvi} In 2016, NDMA has successfully implemented a pilot project on strengthening capacities of the medical and paramedical fraternity in advanced trauma life support for three states such as Assam, Andhra Pradesh and Bihar. Based on the successful completion of the above programme, the NDMA decided to implement such programme in ten more multi hazard prone states of India namely Himachal Pradesh, Jharkhand, Jammu and Kashmir, Maharashtra, Odisha, Sikkim, Rajasthan, Tamilnadu, UP and NCTO of Delhi. The project aims to develop a dedicated team of doctors, nurses and paramedics for trauma life support in these states. The total project outlay was of Rs.4,32,80,000 and would be implemented in 31 months.^{xcvii} The NDMA launched regular public awareness initiatives through electronic and print media. In 2014-15, Video spots on flood, earthquake and safety kits were telecasted in 920 cinema halls of 9 states, 947 cinema halls of 22 states and 973 cinema halls of 10 states respectively through digital cinema. Similarly safety kit awareness campaign was also run

on All India Rail Sam Park, 139 Railway Enquiry and IVR for two months in all the 4 zones of Railways in regional languages.^{xcviii}

8. Supervising and Participatory Activities

The National Disaster Response Force Commandant's conference was held at the headquarters of the NDMA, New Delhi on 29-30 May 2007. The conference finalised many issues regarding deployment, community capacity building, Regional Response Centre (RRC) and uniforms of the NDRF. Workshop for the Communication Officers of the NDRF was held on 10th September 2007, at the headquarters of the NDMA to discuss and finalise the various communication related issues of NDRF Battalions. The NDMA organised the visit of commandants of NDRF Battalions to Para Brigade, Agra on 1st June 2007 to get a detailed briefing and demo on heli-slithening exercise.^{xcix} The government of India has taken the lead to organize a joint exercise on disaster management in the region by SAARC nations. The South Asian Annual Disaster Management Exercise (SAADMEx) is being jointly conducted by Ministry of Home Affairs, Ministry of Environment Affairs, NDMA, NDRF, and National Institute of Disaster Management. The main focus "SAADMEx-2015" tried to test inter-governmental coordination strategy, create synergy and synchronize efforts to institutionalise regional cooperation on disaster response among the SAARC member countries. NDMA organised brain storming session on 29 June 2015 at NDMA Bhawan with representatives of various international and national, non-governmental and community based organisations in India to take toward the DRR agenda.^c

The NDMA participated at the international disaster risk reduction programme. Smt. Neelkamal Darbari, former Joint Secretary of NDMA attended fiftieth session of the Programming Committee of SAARC at Islamabad, Pakistan on 8-9 July 2015. Maj. Gen. Anurag Gupta, Advisor-operations of NDMA attended PEER Strategic Planning Workshop from 21-23 July 2015 in Kathmandu, Nepal. Smt. Aastha Khatwani, Financial advisor, NDMA participated at the Global Seminar on Disaster Risk Financing, held on 17-18 September, 2015 in Kuala Lumpur, Malaysia. R.K. Jain, Member Secretary NDMA chaired the South Asia Policy Dialogue on Child-centered DRR in Kathmandu, Nepal on 17-18 September, 2015.^{ci} From its inception it has supervised all the post disaster activities in India and abroad in which the NDRF was engaged.

6. Conclusion

The National Disaster Management Authority plays an important role in the area of disaster management in India. The concerned ministries related to disaster management activities have come out with their own policy, plan and regulatory mechanisms for management of disasters pertaining to their domains or are at different stages of its formulations. It is hoped that by going through the details of available plan, policy and guidelines and other information the ministries, states and stakeholders would get necessary inputs and guidance to use them and come up with effective and implementable plans at their level. Effective planning and focus on prevention and mitigation would greatly help in ensuring that the hazards do not transform itself into disasters and the coping capacities of the vulnerable population is greatly increased. It would again need systematic planning and coordination to ensure that the

Disaster Risk Reduction is constantly promoted and mainstreamed in the regular programme of each department. Therefore there is a need to ensure efficient inter-departmental coordination. Recovery - early recovery, long term recovery

and lasting recovery, reconstruction and rehabilitation are critical phases of Disaster Management cycle. In spite of these difficulties, the NDMA continues to undertake commendable works in the area of Disaster Management.

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