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NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)

Government of India

NDMA Bhawan, A1, Safdarjung Enclave

New Delhi-110 029.

National Disaster Management Authority Annual Report

2011-12



National Disaster Management Authority
Government of India



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ABBREVIATIONS

AERB	Atomic Energy Regulatory Board
AEC	Atomic Energy Commission
ARC	Administrative Reforms Commission
ARMVs	Accident Relief Medical Vans
CBDRM	Community Based Disaster Risk Management
CBOs	Community Based Organization
CBRN	Chemical, Biological, Radiological and Nuclear
CCEA	Cabinet Committee on Economic Affairs
CD	Civil Defence
CDM	Chemical Disaster Management
CME	College of Military Engineering
CPMFs	Central Para Military Forces
CRF	Calamity Relief Fund
CSCs	Community Service Centres
CSSR	Collapsed Structure Search and Rescue
DM	Disaster Management
DPR	Detailed Project Report
DRDE	Defence Research and Development Establishment
DRDO	Defence Research and Development Organization
EFC	Expenditure Finance Committee
EOCs	Emergency Operations Centres
EoI	Expression of Interest
EPZ	Emergency Planning Zone
ERCs	Emergency Response Centres
EW	Early Warning
FICCI	Federation of Indian Chambers of Commerce and Industry
GIS	Geographic Information System
GoI	Government of India
GSDMA	Gujarat State Disaster Management Authority
HAZCHEM	Hazardous Chemical
HPC	High Powered Committee
IAN	Integrated Ambulance Network
ICP	Incident Command Post
IEC	Information, Education and Communication
IMC	Inter Ministerial Committee
IMD	India Meteorological Department
INSARAG	International Search and Rescue Advisory Group
INTACH	Indian National Trust for Art and Cultural Heritage
IRS	Incident Response System

IRT	Incident Response Team
IT	Information Technology
MAH	Major Accident Hazard
MFR	Medical First Responder
MHA	Ministry of Home Affairs
MoD	Ministry of Defence
MoHRD	Ministry of Human Resource Development
MoU	Memorandum of Understanding
MPMCM	Medical Preparedness and Mass Casualty Management
NCCF	National Calamity Contingency Fund
NCCM	National Crisis Management Committee
NCRMP	National Cyclone Risk Mitigation Project
NDCN	National Disaster Communication Network
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NDCI	National Disaster Communication Infrastructure
NEC	National Executive Committee
NERMP	National Earthquake Risk Mitigation Project
NFRMP	National Flood Risk Mitigation Project
NGOs	Non-Governmental Organizations
NIDM	National Institute of Disaster Management
NLRMP	National Landslide Risk Mitigation Project
NSA	National Security Advisor
OFC	Optical Fiber Cable
PIB	Public Investment Board
PPP	Public Private Partnership
PRIs	Panchayati Raj Institutions
PSSMHS	Psycho-Social Support and Mental Health Services
PTSD	Post-Traumatic Stress Disorder
R&D	Research and Development
RFP	Request for Proposal
S&T	Science and Technology
SDMA	State Disaster Management Authority
SDRF	State Disaster Response Force
ULBs	Urban Local Bodies
UMHP	Urban Mental Health Programme
USAID	United States Agency for International Development
UTs	Union Territories
WG	Working Group

1

INTRODUCTION

Vulnerability Profile

1.1 India is vulnerable, in varying degrees, to a large number of disasters. More than 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12 per cent) of its land is prone to floods and river erosion; close to 5,700 kms, out of the 7,516 kms long coastline is prone to cyclones and tsunamis; 68 per cent of its cultivable area is vulnerable to droughts; and, its hilly areas are at risk from landslides and avalanches. Moreover, India is also vulnerable to Chemical, Biological, Radiological and Nuclear (CBRN) emergencies and other man-made disasters. The Radiological accident at Mayapuri, New Delhi and Cloud Burst at Leh were the grim reminders of the vulnerabilities of the country to such disasters.

1.2 Disaster risks in India are further compounded by increasing vulnerabilities related to changing demographic and socio-economic conditions, unplanned urbanization, development within high-risk zones, environmental degradation, climate change, geological hazards, epidemics and pandemics. Clearly, all these contribute to a situation where disasters seriously threaten India's economy, its population and sustainable development.

Genesis of NDMA

1.3 The Government of India (GoI), in recognition of the importance of Disaster Management (DM) as a national priority, had set up a High Powered Committee (HPC) in August 1999 and also a National Committee on Disaster Management in 2001 after the Gujarat Earthquake to make recommendations on the preparation of DM Plans and to suggest effective mitigation mechanisms. However, after the Indian Ocean Tsunami, the GoI took a defining step in the legislative history of the country, through an Act of Parliament, by creating the

National Disaster Management Authority (NDMA), headed by the Prime Minister, to spearhead and implement a holistic and integrated approach to DM in India.

Constitution of NDMA

1.4 NDMA was constituted on 30 May 2005 by an executive order of the GoI. Subsequently, the Disaster Management Act, 2005 was enacted on 23 December 2005 and the Authority was notified on 27 September 2006 under the provisions of the Disaster Management Act, 2005.

Composition of NDMA

1.5 The NDMA is headed by the Hon'ble Prime Minister Dr. Manmohan Singh and the Vice Chairman of the NDMA is Shri M Shashidhar Reddy, MLA along with eight other Members. The Vice Chairperson of the Authority has the status of Union Cabinet Minister and the Members of the Authority have the status of Union Ministers of State.

1.6 The following are the current Members who have joined NDMA as follows:

- a) Shri M Shashidhar Reddy – 05 October 2005.
- b) Smt P Jyoti Rao, Member – 14 Aug 2006.
- c) Shri B Bhattacharjee, Member – 21 Aug 2006.
- d) Shri J K Sinha, Member – 18 April 2007.
- e) Maj Gen (Dr) J K Bansal – 06 October 2010.
- f) Shri T Nandakumar – 08 October 2010.
- g) Dr. Muzaffar Ahmad – 10 December 2010.
- h) Shri K M Singh – 14 December 2011.
- i) Prof Harsh K Gupta – 23 December 2011.

1.7 Shri M Shashidhar Reddy completed his five years tenure on 04 October 2010 and was nominated as Member of the NDMA on 06 October 2010. He assumed the charge of the office of Member, NDMA on 11 October 2010. He was subsequently elevated as the Vice Chairman of the NDMA on 16 December 2010.

Overview

1.8 In the years gone by, the NDMA has been able to establish an institutional mechanism for disaster Management at the National level to usher in a paradigm shift from relief centric to holistic approach laying greater emphasis on prevention, preparedness and mitigation. One of the important achievements of NDMA has been the release of many guidelines covering disaster specific, thematic and cross cutting issues. The approach of NDMA has been of transition from linear and incremental improvements to regime of structural reforms and systemic changes. NDMA has functioned more as a facilitator rather than being an authority extending its support to other stakeholders to create an

enabling environment for strengthening resilience in the country. The NDMA has also provided much needed impetus to establish National Disaster Response Force (NDRF) as a truly specialist force for disaster response and has accorded highest priority to ensure that it is trained and equipped as per international standards.

Responsibilities of Members of NDMA

1.9 The disaster specific domains have been assigned to the Members of the NDMA on the basis of their expertise in the subject. The Vice Chairman and Members of the NDMA are supported by the subject Specialists and Senior Research Officers to perform their functions. These domains are:

S. No.	Name of the Member	Domains	Additional domain of subjects
1.	Shri B.Bhattacharjee	(i) Nuclear & Radiological Emergencies (ii) Forecasting & Early Warning (iii) GIS based Information System for DM (iv) IT and Communication (v) Microzonation (vi) Climate Change/ Global Warming	(i) West Bengal, (ii) Orissa, (iii) Andaman & Nicobar Islands
2.	Shri K.M. Singh	(i) NDRF (ii) State Disaster Response Force (SDRF)	(i) North East States including Sikkim
3.	Smt. P. Jyoti Rao	(i) Community Preparedness (ii) Education Curricula (iii) Minimum Standards of Relief	
4.	Shri T.Nandakumar	(i) National Policy & Plans (ii) Drought (iii) Risk Transfer (Insurance) (iv) Disaster Risk Reduction (v) Coordination with U.N. Agencies (other international/bilateral agencies) (vi) New Initiatives	(i) Bihar, (ii) Jharkhand, (iii) Kerala, (iv) Lakshadweep
5.	Maj. Gen. (Dr.) J. K. Bansal (Retd)	(i) CBRN (Terrorism aspects) (ii) Psycho-Social Care	(i) Madhya Pradesh (ii) Rajasthan, (iii) Chhattisgarh

S. No.	Name of the Member	Domains	Additional domain of subjects
6.	Dr. Muzaffar Ahmad	(i) Medical Preparedness (ii) Chemical Industrial Disaster Management (iii) Community Based Disaster Management (CBDM) (iv) NGOs	(i) Jammu & Kashmir, (ii) Andhra Pradesh, (iii) Tamil Nadu, (iv) Puducherry
7.	Prof Harsh K Gupta	(i) Earthquakes and (ii) Tsunami	(i) Uttar Pradesh, (ii) Maharashtra, (iii) Goa
8.	Shri J.K. Sinha	(i) Civil Defence (ii) Fire Services (iii) Incident Response System (iv) NCC, NSS, NYKS (v) Mock Drills/ Exercises	(i) Karnataka, (ii) Gujarat, (iii) Dadra and Nagar Haveli (iv) Daman & Diu

NDMA Secretariat

1.10 The organizational structure of the NDMA was approved by the Union Cabinet in May 2008. The Secretariat is headed by a Secretary with five Joint Secretaries/ Advisors including one Financial Advisor. There are ten Joint Advisors (Director level) and fourteen Assistant Advisors (Under Secretary level) along with

supporting staff. Disaster being a specialized subject, it has also been ensured that expertise of Specialists is available on contractual basis. The organization is also supported by a number of Senior Research Officers. The detailed organization of the NDMA Secretariat is being discussed in a separate Chapter on 'Administration and Finance'.



2

FUNCTIONS AND OBJECTIVES

Functions of NDMA

2.1 The NDMA, as the Apex Body for DM in India, has the responsibility of laying down the policies, plans and guidelines for ensuring timely and effective response to disasters. Its statutory functions include the responsibility to:

- (a) lay down policies on DM;
- (b) approve the national plan and the plans prepared by the ministries / departments of the GoI in accordance with the national plan;
- (c) lay down guidelines to be followed by the state authorities in drawing up the state plan;
- (d) lay down guidelines to be followed by the different ministries / departments of the GoI for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
- (e) coordinate the enforcement and implementation of the policy and plan for DM;
- (f) recommend provision of funds for the purpose of mitigation;
- (g) provide such support to other countries affected by major disasters as may be determined by the central government;
- (h) take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with threatening disaster situation or disaster as it may consider necessary;
- (i) lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management (NIDM);
- (j) exercise general superintendence, direction and control of the National Disaster Response Force (NDRF), constituted under the Act, for the purpose of specialist response to a threatening disaster situation or disaster;
- (k) authorize the concerned department or authority to make emergency procurement of provisions or materials for rescue and relief in threatening disaster situation or disaster;
- (l) recommend guidelines for the minimum standards of relief to be provided to the persons affected by disasters.

2.2 The NDMA is mandated to deal with all types of disasters, natural or man-made. Whereas, such other emergencies including those requiring close involvement of the security forces and/ or intelligence agencies such as terrorism (counter-insurgency), law and order situation, serial bomb blasts, hijacking, air accidents, CBRN weapon systems, mine disasters, ports and harbour emergencies, forest fires, oil field fires and oil spills will continue to be handled by the extant mechanism, i.e., National Crisis Management Committee (NCCM).

2.3 NDMA shall, however, formulate guidelines, facilitate training and preparedness activities in respect of CBRN emergencies. Cross cutting themes like medical preparedness,

psycho-social care and trauma, community based disaster preparedness, information & communication technology, training, preparedness, awareness generation etc. for natural and man-made disasters will also engage the attention of NDMA in partnership with the stakeholders concerned. Resources available with the disaster management authorities at all levels, which are capable of discharging

emergency support functions, will be made available to the nodal Ministries/ Agencies dealing with the emergencies at times of impending disaster/ disasters.

Vision of NDMA

2.4 Flowing from the mandate of NDMA and the National Policy on Disaster Management the vision is:

“To build a safe and disaster resilient India by developing a holistic, proactive, multi-disaster oriented and technology driven strategy through a culture of prevention, mitigation, preparedness and response”.

Objectives of NDMA

2.5 The objectives of the NDMA are:

- (a) Promoting a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education.
- (b) Encouraging mitigation measures based on technology, traditional wisdom and environmental sustainability.
- (c) Mainstreaming disaster management into the developmental planning process.
- (d) Establishing institutional and techno-legal frameworks to create an enabling regulatory environment and a compliance regime.
- (e) Ensuring efficient mechanism for identification, assessment and monitoring of disaster risks.
- (f) Developing contemporary forecasting and early warning systems backed by responsive and fail-safe communication with information technology support.
- (g) Ensuring efficient response and relief with a caring approach towards the needs of the vulnerable sections of the society.
- (h) Undertaking reconstruction as an opportunity to build disaster resilient structures and habitat for ensuring safer living.
- (i) Promoting a productive and proactive partnership with the media for disaster management.

3

LANDMARK EVENTS

Introduction

3.1 The activities of the NDMA which drew national and international attention are given in the succeeding paragraphs. These particularly pertain to the significant activities during the year, responses to major disasters, achievements of the NDMA and visits of the various dignitaries.

Special Meeting of NDMA with Hon'ble Prime Minister and Chairman, National Disaster Management Authority

3.2 Hon'ble Prime Minister and Chairman, National Disaster Management Authority reviewed the disaster preparedness in the country on 01 June 2011 in the wake of triple disasters (earthquake followed by tsunami and nuclear emergency) in Japan on 11 March 2011. Earlier, Hon'ble Prime Minister had reviewed the safety measures being undertaken by DAE, AERB, BARC and NPCIL in respect of the nuclear facilities in the country and directed DAE and AERB to upgrade the safety measures in the light of the Fukushima experience and look at Beyond Design Basis Accident.

3.3 During the meeting, Vice Chairman of NDMA informed that NDMA is focused on the preparedness to deal with nuclear and radiological emergencies. In India, there was no accident in any of the nuclear facilities in the past. However, there have been incidents of radiation emergency, including the one at Mayapuri, New Delhi in April 2010 in which one person died. It has been reported that only 50 people from different parts of the country (outside DAE facility) suffered in these incidents due to exposure to radiation mostly from orphan sources. It was highlighted that it is the orphan sources and other radiological accidents which are of greater concern as they have resulted in

exposure to different degrees to people at various centers in the work in the past.

3.4 For radiological emergencies post Mayapuri incident, NDMA was asked to suggest measures for prevention, detection and response to radiation emergencies. NDMA's recommendations were accepted by the Committee of Secretaries in October 2010. Based on these and the various guidelines brought out by NDMA, the Ministry of Health and Family Welfare (MoH&FW) was identified as the nodal ministry for this purpose. MoH&FW was asked to constitute a Task Force which came out with a road map covering assessment of the capacities and action plan for enhanced medical preparedness in the country to deal with nuclear and radiological emergencies. They have come out with a clear road map covering assessment of the capacities in the country, human resource development to handle radiation injuries, pre-positioning, quick response medical team in areas likely to be exposed, exposure of existing health facilities in districts, strengthening of central government and state government hospitals in six metros and vicinities of other vulnerable districts, upgrade and equip one hospital in each district, establish a centre of excellence at Safdarjung hospital, New Delhi besides various centres for tertiary level medical management and research in different parts of the country, stock piling of drugs and equipment, awareness generation among medical functionaries and general public on prevention and protection, psycho-social care, strengthening of ongoing research programmes and other measures. Hon'ble Prime Minister has directed that these are to be fast tracked.

3.5 Hon'ble Prime Minister also reviewed Earthquake and Tsunami preparedness and highlighted various issues in this regard. He



Hon'ble Prime Minister and Chairman, National Disaster Management Authority, Dr. Manmohan Singh, with Union Agriculture Minister, Union Home Minister, Deputy Chairman, Planning Commission, Vice Chairman, NDMA and Members of NDMA

appreciated the work done by NDMA and wanted that the Guidelines brought out are to be translated into action plans by the Ministries/Departments at the Centre and also the State Governments and directed the NDMA to proactively pursue this.

3.6 The meeting was also attended by Shri Sharad Pawar, Hon'ble Union Minister for Agriculture, Shri P Chidambaram, Hon'ble Union Home Minister, Shri Montek Singh Ahluwalia, Deputy Chairman, Planning Commission, Members of National Disaster Management Authority and other Officials from various Ministries of Government of India.

Remembering the Victims of the Great East Japan Earthquake on the First Anniversary, New Delhi

3.7 NDMA put together two teams of NDRF in readiness to fly out to Japan as and when requisitioned, immediately after the triple disaster in March 2011. Finally a 46 Members team led by Commandant Alok Avasthy went to Japan on 27 March and returned to India on 7 April 2011. The team was of immense help to Japan in searching for missing persons, clearing debris and recovering lost belongings.



3.8 His Excellency Ambassador Saiki of Japan, invited Shri M Shashidhar Reddy, Hon'ble Vice Chairman of the National Disaster Management Authority for remembering the victims of the Great East Japan Earthquake on its first anniversary on 11 March 2012.

Search & Rescue Operation by NDRF Team in Japan

3.9 A 46 member team of National Disaster Response Force under the leadership of Contingent Commander Shri Alok Avasthy, Commandant, NDRF, left for Tokyo on 27 March 2011 to conduct search & rescue operations in the aftermath of the 11 March 2011 Earthquake followed by Tsunami in Japan. The

team returned from Japan on 08 April 2011 after a successful operation. This was the first ever overseas operation of a NDRF Team since their operationalization in 2006.

3.10 The NDRF team worked with dedication and professionalism in Onagawa, Japan. They recovered 07 dead bodies during search & rescue operations. Bodies were treated with lot of respect and two minute silence was observed by the team members, which was highly appreciated by the Japanese people. In addition, Japanese currency equivalent to Rs. 3 Crores and other jewellerys were recovered and handed over to local Police.



3.11 After the completion of the operations the NDRF team was felicitated by Japan's Ex-Prime Minister Mr. Mori and other members of the External Affairs Ministry. Ambassador of Japan in India had personally welcomed this team after their return from Japan at the New Delhi Airport. It clearly shows the value and admiration of the work of this team in Japan.

Meeting of the Parliamentary Forum on Disaster Management

3.12 The Speaker, Lok Sabha in consultation with the Chairman, Rajya Sabha has constituted the Parliamentary Forum on Disaster Management with the broad aim and objective to identify and discuss the problems relating to Disaster Management and to equip the Members of Parliament with the information and knowledge thereto for making them aware of the seriousness of the issues involved and enabling

them to adopt a result oriented approach towards this critical issue. Dr. Shashi Tharoor, MP is Member-Convener of the Forum.

3.13 A meeting of the Parliamentary Forum on Disaster Management was held on 22 March 2012 in Committee Room of Parliament Library Building, New Delhi, under the Chairmanship of Dr. Shashi Tharoor, Member – Convener of the Forum. In the meeting, Shri M. Shashidhar Reddy, Vice-Chairman, NDMA made a comprehensive presentation about Disaster Management in India. He particularly highlighted the issue of mainstreaming Disaster Management into developmental plan. Shri

Reddy also informed that NDMA is working towards a paradigm shift from a rescue and relief centric approach to a holistic approach covering all phases of disaster management, including prevention, preparedness and mitigation.

3.14 NDMA had also suggested inclusion of disaster mitigation and preparedness in the MPLADS guidelines keeping in mind the background of growing intensity and frequency of disasters. The Ministry of Statistics and Programme Implementation has agreed to NDMA's suggestions and has since issued Reform Circular No.12 on 23 November 2011, modifying the MPLADS guidelines.

3.15 With these amendments, Government has now allowed the funding of Disaster Management interventions to cover man-made disasters in addition to the natural calamities under MPLADS. The scope under natural

calamities has also been expanded to cover fire, hailstorm, avalanche, cloud burst, pest attack and landslides in addition to floods, cyclones, tsunami, earthquake, tornado and drought which were covered earlier. So far, such works could be undertaken only in the areas affected by calamities. The modified Guidelines now permit implementation of works even in the areas which are prone to calamities. This means that MPLADS can now be used to take up mitigation works also.

3.16 With the inclusion of man-made calamities, projects under MPLADS can now be undertaken even in areas prone to or affected by the calamities like fire, chemical, biological and radiological hazards.

3.17 Earlier, common shelters could be constructed only for old and handicapped under the Guidelines. The Modified Guidelines make it possible for MPs to undertake construction of shelters for all the Cyclone and Flood prone areas. Further, the Guidelines now permit undertaking Retrofitting of essential life line buildings, viz. Government Hospitals, Government Schools and public buildings to be used as shelters in an emergency. The modified Guidelines also permit undertaking works for Early Warning Systems for effective disaster mitigation.

3.18 The NDMA has written to all Members of Parliament of Lok Sabha and Rajya Sabha for identifying critical interventions required for disaster management in their constituency. In addition to this, NDMA is also separately writing to the District Magistrates to share the district hazard vulnerability map and district disaster management plan with the local Members of Parliament, sensitize the Members of Parliament in their district in this regard and assist them to use this scheme effectively for disaster risk reduction.

Meeting of Shri Manish Gupta, Hon'ble Minister for Planning and Development, Government of West Bengal with Vice Chairman, NDMA on 21 June 2011

3.19 Shri Manish Gupta, Hon'ble Minister for Planning and Development, Government of West Bengal, visited National Disaster Management Authority on 21 June 2011. Shri Manish Gupta discussed with Shri M Shashidhar Reddy, Vice Chairman, National Disaster Management Authority, various issues related to challenges and initiatives for disaster management in West Bengal. Shri Reddy assured full support of the NDMA to the State Government for better disaster preparedness and in the mainstreaming of disaster in the development process.

3.20 Shri Reddy also informed that National Disaster Management Authority (NDMA) is constructing 50 Multipurpose Cyclone Shelters in three cyclone prone coastal districts of West Bengal, namely, South 24 Parganas, North 24 Parganas and East Medinipur districts at an estimated cost of Rs. 138.65 Crore funded from the Prime Minister's National Relief Fund.

3.21 NDMA has signed MOUs with M/s. Engineering Projects (India) Limited, New Delhi, who have been assigned construction of 35 cyclone shelters; 20 in North 24 Parganas and 15 in Purba Medinipur and with M/s. Hindustan Steelworks Construction Limited, Kolkata, who are constructing 15 cyclone shelters in South 24 Parganas. Being Multipurpose Cyclone Shelters, these will be used for other purposes during normal times.



3.22 The appraisal documents of Government of West Bengal for the NCRMP Project viz. Investment Proposal for construction of 150 cyclone shelters including the approach roads at

a total cost of Rs. 617.98 crore, are being forwarded to the World Bank with a request for early appraisal so that West Bengal joins the Project at the earliest possible.

Meeting of Shri Thiruvanchoor Radhakrishnan, Hon'ble Minister for Revenue and Disaster Management, Government of Kerala with Vice-Chairman, NDMA

3.23 Shri Thiruvanchoor Radhakrishnan, Hon'ble Minister for Revenue and Disaster Management, Government of Kerala called on Shri M Shashidhar Reddy, Vice Chairman, National Disaster Management Authority on 21 June, 2011 and discussed various issues related to challenges and initiatives for disaster management in Kerala. Shri Radhakrishnan raised the issue of increasing the amount of financial assistance being provided under the Calamity Relief Fund norms. He also requested that deaths due to snake-bites which are common during the monsoon season in Kerala should also be made eligible for payment of any ex-gratia assistance to the families under CRF norms.

3.24 West Bengal, Gujarat, Maharashtra and Kerala are proposed to be included in Phase-II of the National Cyclone Risk Mitigation Project. Shri Reddy informed that the Investment Proposal for construction of 40 cyclone shelters in 9 coastal districts with an estimated cost of Rs. 220 crore under the NCRMP was forwarded to the World Bank for appraisal.



3.25 Shri Radhakrishnan apprised the Vice-Chairman, NDMA that the Government of Kerala has since forwarded the clarifications on the comments made by the World Bank. Shri Reddy informed that the same are under examination for being forwarded to the World Bank.

3.26 NDMA is taking action to construct three Multipurpose Cyclone Shelters in Kozhikode and Kannur districts with funding out of the Prime Minister's National Relief Fund at an estimated total cost of Rs. 4.87 crore for the three cyclone shelters.

One Day Workshop on Disaster Preparedness and Road Map in Jammu and Kashmir

3.27 Jammu and Kashmir State is highly vulnerable to earthquakes falling in seismic zones IV & V with entire Srinagar, Baramullah, Kupwara, Budgam and Pulwama districts in Zone V. The State Government should be better prepared to earthquakes. This is particularly more important as the earthquakes occur without any early warning. To highlight the importance of preparedness, a One Day Workshop on Disaster Preparedness and Road Map in Jammu & Kashmir was organized in Srinagar on 28 July 2011. Shri M. Shashidhar Reddy, Vice Chairman, NDMA inaugurated this Workshop.

3.28 NDMA urged the State Government to come up with the State and district disaster management plans. He also asked the State Government to establish the State Disaster Response Force in the State so that the Disaster Response Force could be locally deployed at very short notice to deal with disasters. NDMA offered all help for training the State Disaster Response Force by the National Disaster Response Force and assured all the cooperation and assistance to the State for preparation of the State and District Disaster Management Plans. Two districts of Jammu & Kashmir namely Leh and Kupwara have also been included in the demonstrative School Safety Project.

3.29 Shri Omar Abdulla, Hon'ble Chief Minister of Jammu and Kashmir was the Chief

Guest at the inaugural session. Members of NDMA Dr. Muzaffar Ahmad, and Shri T. Nanda Kumar, Deputy Chief Minister, State Ministers, Officials from several departments and NDMA and experts from IMD, NRSC, SASE and others participated in the workshop.

Review Meeting regarding Mock Exercises on Nuclear Emergency Off-Site Plans 19 August 2011

3.30 After the special meeting of the National Disaster Management Authority (NDMA) chaired by Hon'ble Prime Minister to review India's preparedness to deal with the disasters in the wake of Japanese experience, NDMA took up the task of conducting special mock exercises covering all the Nuclear Facilities in the six States of the Country. Nuclear powers plants in six States namely Tarapur (Maharashtra), Kalpakkam (Tamilnadu), Narora (Uttar Pradesh), Kaiga (Karnataka), Kakrapar (Gujarat) and Rawatbhata, Chittorgarh District (Rajasthan) were covered in two months. The exercises conducted were found to be extremely useful to the Plant Authorities and the respective State / District stakeholders in identifying the gaps in the existing offsite emergency plan which gave an opportunity to contemplate the necessary steps to cover them besides delineating the roles and responsibilities of all the stakeholders and bring about clarity about the roles of the district administration in carrying out the off-site emergency planning.

3.31 At the end of the Mock Exercises, a review meeting of these mock exercises was held at NDMA to discuss the lessons learnt and preparing comprehensive off-site plans for nuclear emergencies based on the geographical conditions of these sites / regions. There is a need to look at the developmental requirements of people living in the 16 km of Emergency Power Zones (EPZ) around Nuclear Power Plants said Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA, who attended all these exercises, sharing some of his experiences during this review meeting.

3.32 NDMA requested the Collectors of the six districts where these facilities are located to prepare developmental plans within 15 days particularly covering road connectivity, supply of electricity to the villages, general medical facilities, awareness generation, complete rehabilitation, clearance of Ministry of Environment and Forests for repair / construction/widening of roads and vehicle turning pad for evacuation etc. District Collectors were also asked to prepare a plan for generating employment and livelihood avenues in the Emergency Power Zone (EPZ). Better facilities in these areas will go a long way in instilling confidence in the minds of the people living in and around the nuclear facilities about the preparedness in the unlikely event of a nuclear emergency.

3.33 NDMA also constituted a Committee to prepare Guidelines for revising the existing off-site emergency plans. This Committee will be headed by Dr B. Bhattacharjee, Member, NDMA and will include Director BARC, Chairman AERB, CMD NPCIL and others. Another Committee to prepare a manual for conduct of Mock Exercises to carry out the off-site Nuclear Emergency Plans was also constituted by NDMA. This Committee will be headed by Shri J.K. Sinha, Member, NDMA with specialists/experts in the field from NDMA and other organizations.

3.34 It has been observed, there is a problem of doctors refusing to work in the surrounding areas of Kaiga and Rawatbhata Atomic Power Stations. NDMA asked Ministry of Health and Family Welfare to explore the possibility of ensuring the availability of doctors in the hospitals in these remote areas by looking at various options under the National Rural Health Mission. These will be a great boon to people living in and around these areas.

3.35 NDMA also called for massive awareness generation programme in a sustained manner to educate people and also called upon NPCIL officials to ensure transparency in the manner in which the plants are run.

Intervention / Initiatives for Flood Management and Prevention and Control of Japanese Encephalitis (JE) / Acute Encephalitis Syndrome (AES) in Uttar Pradesh

3.37 Floods are recurring disaster in Uttar Pradesh. As per National Commission on Floods, 23 per cent of the flood prone area of India is concentrated in Uttar Pradesh. Out of total losses due to flood in Uttar Pradesh, 60 per cent are concentrated in Eastern Uttar Pradesh. The history of flooding in Eastern UP casts a dark shadow. For generations, floods have ravaged the lives and livelihoods of the inhabitants of this area with unrelenting regularity.

Workshop on Flood Early Warning Framework in Gorakhpur, Uttar Pradesh on 06 August 2011

3.38 Taking note of the vulnerabilities of the area to the floods and health related problems, NDMA in coordination with the State Government of Uttar Pradesh organized a workshop in Eastern UP focusing on Azamgarh, Basti, Devipatan and Gorakhpur Divisions at Gorakhpur on 06 August 2011. The workshop was inaugurated by Shri M Shashidhar Reddy Vice Chairman NDMA. This programme was part of countrywide initiative which the NDMA has launched to identify critical areas from the point of view of disaster vulnerability and initiate mitigation measures in partnership with the states and other stakeholders to minimize the loss of lives and property. This workshop mainly focused on the following issues:

- Improved Flood Early Warning framework.
- Pilot Project on Strengthening Civil Defence.
- Issues related to Japanese Encephalitis.

3.39 The current trends show that we are witnessing greater flood problems in Eastern UP resulting towards higher degree of loss of lives



and livelihoods. To overcome this calamity, there is a need to adopt more proactive approach in management of floods rather than a reactive response to this disaster. To this end, scientists from Indian Space Research Organisation, India Metrological Department and Engineers from Central Water Commission familiarized the participants about flood forecasting and early warning systems and flood modeling. To galvanize the response mechanism, a presentation on Incident Response System and an exhibition by National Disaster Response Force were also organized.

3.40 It was for the first time that a Workshop on Flood Preparedness and Mitigation was organized at such a scale in Eastern Uttar



Pradesh. This initiative on part of the NDMA was highly applauded by the State officials. This initiative was also very well received by people's representatives and people from all walks of life, who were specially invited for interaction with Vice Chairman, NDMA.

3.41 On the health front, to fight the epidemic of Japanese Encephalitis, there is a need to

strengthen the surveillance, vaccination and public awareness programmes. According to a country wide survey, Uttar Pradesh is the worst affected State in the country. In the last five years against the average of 760 deaths per year in the entire country, Uttar Pradesh alone accounted for nearly 550 deaths per annum. Within Uttar Pradesh it is the Eastern UP which accounts for maximum fatalities. The districts of Gorakhpur, Maharajganj, Deoria, Kushinagar, Basti, Siddhartha Nagar and Sant Kabir Nagar are the worst affected. NDMA along with Director, National Vector Borne Disease Control Programme, Ministry of Health and Family Welfare, Government of India and representatives from the World Health Organization reviewed the Japanese Encephalitis programme.

3.42 Another unique feature of this workshop was the field visit by the Hon'ble Vice Chairman to the flood affected areas for around 40 KM of Banda on the afternoon of 5th August, where he interacted with local people. In the morning of 6th August, he along with Director, National Vector Borne Disease Control Programme and representative from World Health Organisation visited the BDR Medical College and Hospital and interacted with the patients of Japanese Encephalitis and reviewed the infrastructure at the Hospital for treatment of JE and AES cases.

3.43 Since community is the first responder, there is also a felt need to involve the community, people's representatives and Civil Defence establishment in the disaster management initiatives. It was proposed to strengthen the Civil Defence organization at Gorakhpur and launch a pilot project to revitalize and further train the Volunteers to generate awareness at the grass root level. The aim was to motivate other districts to adopt this organization.

3.44 The State Government was represented by Principal Secretary Revenue and Disaster Management along with officials from the Irrigation and Health Departments. Commissioners from Azamgarh, Basti,

Devipatan and Gorakhpur discussed the Challenges and Vulnerabilities of their specific jurisdictions with respective District Magistrates.

Vice Chairman & Member NDMA meet with Hon'ble Minister of Health & Family Welfare, GoI for Control and management of JE/AES

3.45 To apprise the initiatives taken to prevent and control the JE/AES in Eastern Uttar Pradesh by the NDMA, Shri M Shashidhar Reddy, Vice Chairman of the NDMA and Dr. Muzaffar Ahmad, Member, NDMA met Shri Ghulam Nabi Azad, Hon'ble Minister of Health & Family Welfare in September 2011. Issue with respect to initiating various actions by Ministry of Health for prevention and control of JE/ AES in Eastern Uttar Pradesh and need for a separate national programme was also discussed in this meeting.

Constitution of Group of Ministers

3.46 NDMA also took the matter with MoHFW / PMO expressing the concern of the problem / disease burden. PM constituted a Group of Ministers to suggest measures /recommendations for national programme for prevention and control of JE/AES wherein various Ministries-Health and Family Welfare, Women and Child Development, Rural Development Project for comprehensive multi-pronged plan for prevention and control of JE and AES in the country. This was followed by a review meeting on Prevention and Control of AE / JES on 18 October 2011 at Lucknow between Dr. Muzaffar Ahmad, Member, NDMA and Secretary and DG, Indian Council of Medical Research on the various initiatives that are required to be taken for effective control and management of JE/AES at Lucknow.

3.47 The constitution of GoM was initially approved by Prime Minister on 4 Nov 2011 and it included five Union Ministers namely Shri Ghulam Nabi Azad, Minister for Health and Family Welfare, Shri Kamal Nath, Minister for Urban Development, Shri Mukul Wasnik, Minister for Social Justice and Empowerment, Shri Jairam Ramesh, Minister for Rural

Development and Minister for Drinking Water and Sanitation and Smt Krishna Tirath, Minister of State (Independent Charge) for Women and Child Development. The GoM will evolve and suggest a multi-pronged strategy to deal with JE/AES.

3.48 Hon'ble Prime Minister also approved the inclusion of Shri M. Shashidhar Reddy, Vice Chairman, NDMA as a Special Invitee to the Group of Ministers (GoM) constituted on the issue of JE and AES. A memorandum to this effect has been issued on 15 Dec 2011 by the Cabinet Secretariat.

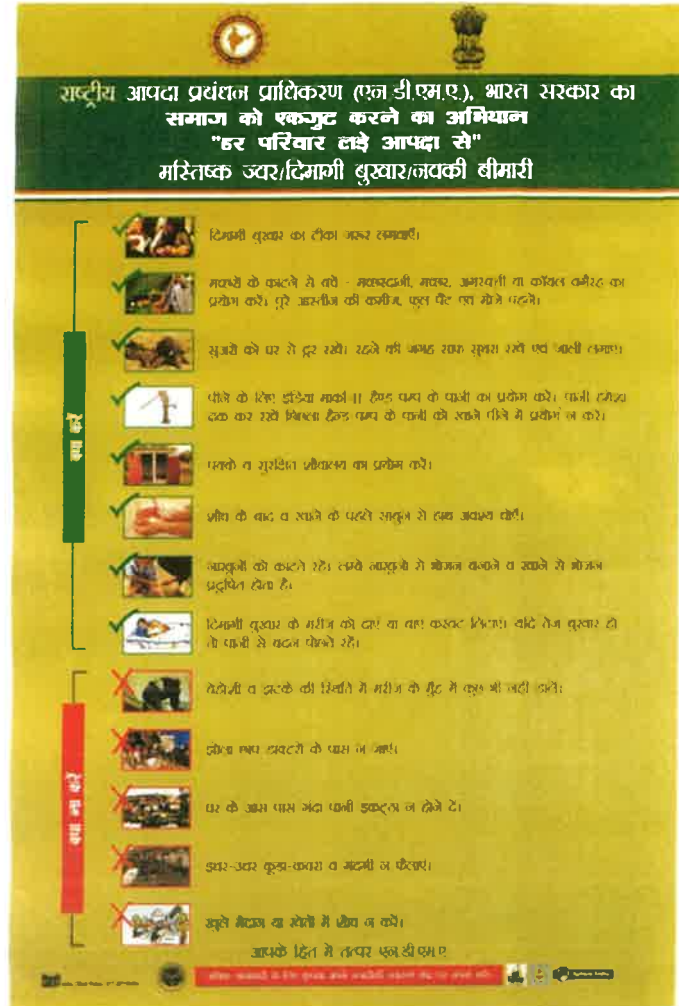
Social Mobilization Campaign in Eastern Uttar Pradesh

3.49 Several steps to prevent and control the JE/ AES in Eastern Uttar Pradesh were already initiated in the past in this region; however, it had very little impact. NDMA initiated a Social Mobilization Campaign with the slogan “*Har Parivar Ladega Aapada se*” to cover 14 districts in four divisions namely Gorakhpur, Basti, Azamgarh, and Devipatan.

3.50 First workshop on social mobilization for Master Trainers for District Gorakhpur was held at BRD Medical College on 22 and 23 November 2011. This was followed by Training of Master Trainers at all the District Headquarters of Eastern UP and Lakhimpur Kheri. The master trainers' in-turn conducted training on Block level for Health workers / AWW / NGOs etc.

3.51 As a part of this campaign, 4000 master trainers at block level and one lakh trainers consisting of health workers like ANMs, Accredited Social Health Activist (ASHA), State Health Workers besides Anganwadi workers and teachers have been trained. These people ultimately reached out to every household in these 14 districts to raise public awareness about measures to be taken by people to help themselves for control and prevention of JE/AES.

3.52 Multipronged approach adopted by



NDMA for prevention and control of JE/AES as summarized below:

- Capacity building of health staff by training of trainers and creation of pool of master trainers.
- Advocacy with the State Government Health Machinery on preventive and surveillance measures.
- Raising awareness at the community level.
- Mass mobilization and social awareness campaign for better sanitation and hygiene.
- Early reporting of cases and immunization.

3.53 NDMA supported the state to facilitate the trainings related with capacity building of health

staff at various levels in the state with respect to JE/AES. NDMA created relevant IEC material in the form of posters, leaflets and pamphlets capturing vital information on do's and don'ts related with prevention and control measures pertaining to JE/AES; for generating awareness and sensitization at the community level. This awareness material was sent to the different districts and was disseminated on ground by the local health machinery.

3.54 The most important feature of this Social Mobilization Campaign was its cost effectiveness. With just Rs. 5 lac per district, this Social Mobilization Campaign generated lot of awareness in the respective districts about the do's and don'ts for prevention and control of JE/AES.

Earthquake in Sikkim

3.55 A strong earthquake occurred in eastern Nepal near the Nepal – Sikkim border on 18 September 2011. Due to this earthquake a huge

number of houses were reported damaged, in addition to damage to other infrastructure.

3.56 Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, National Disaster Management Authority accompanied Shri P Chidambaram, Hon'ble Home Minister during his visit to the earthquake ravaged Sikkim on 22 September 2011. Hon'ble Home Minister undertook an aerial survey of North Sikkim and other parts of the State. He visited the Sikkim Manipal Hospital to meet the patients who are undergoing treatment there.

3.57 Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA accompanied Dr. Manmohan Singh, Hon'ble Prime Minister during his visit to the earthquake affected areas of Sikkim on 29 September 2011. Hon'ble Prime Minister undertook an aerial survey of North Sikkim and other parts of the State. He visited the Sikkim Manipal Hospital to meet the patients who were undergoing treatment there.



Shri M Shashidhar Reddy, Hon'ble Vice Chairman, NDMA along with Dr. Manmohan Singh, Hon'ble Prime Minister and Chairman, NDMA seen with a person injured in the earthquake during visit to STNM Hospital in Gangtok

3.58 Later on, a meeting took place at the Katoch Hall in the Libing Cantonment with the Chief Minister, Cabinet Ministers, MLAs, the State Government administration, representatives of the Army, NDRF and other armed forces. Hon'ble Vice Chairman, NDMA also attended this meeting. During the meeting, Hon'ble Prime Minister expressed sorrow at the devastation caused by the earthquake and conveyed his condolences to the bereaved families. He praised the work done by NDRF in Sikkim.

3.59 The Hon'ble Prime Minister announced the grant of Rs.1,000 cr. and assured that the Govt. of India and entire Nation will stand by the people of Sikkim.

3.60 Hon'ble Prime Minister also announced that a team of experts would be visiting Sikkim to assist the State Government in rebuilding the infrastructure. NDMA has constituted a national level Expert Committee to undertake Post-Earthquake Reconnaissance in the areas affected by the 18th September 2011 Earthquake epicentered around Sikkim-Nepal border. The Expert Committee will cover the affected areas of Sikkim, West Bengal and Bihar. The team will be visiting Sikkim shortly.

7th Formation Day of NDMA on 28 September 2011

3.61 To reaffirm its commitment to make India Disaster Resilient, NDMA observed its 7th Formation Day at NDMA Bhawan in New Delhi on 28 September 2011. On 28 September 2005, the foundation was laid for centre-staging the disaster management into the governance of the



country. Disaster Management concerns are institutionalized in the developmental process and the agenda is being reflected in the apex planning bodies at the National and State levels. The formation of NDMA was one of such efforts.

3.62 on this occasion, NDMA informed that the Government of Maharashtra has allocated the land for National Training Centre at Nagpur and it will start functioning soon.

3.63 The then Minister for Science & Technology and Earth Sciences Late Shri Vilasrao Deshmukh released the Newsletter of NDMA and acknowledged the work done by the former team and present team of the NDMA. He also appreciated the guidelines released so far by NDMA and emphasized the need of implementing these guidelines at the local level. He assured that the Ministry of Science & Technology & Earth Sciences will work in close collaboration with the NDMA.

3.64 On this occasion, Minister of State for Home Affairs Shri Mullappally Ramchandran unveiled the NDMA's Building Emergency Plan. Shri Ramchandran highly appreciated the work done by the Former Vice Chairman and Members of the Authority and assured all the support to NDMA in future.

International Conclave on Climate Change, 12 October 2011

3.65 Engineering Staff College of India organized an International Conclave of Climate Change during 12-14 October 2011 at Hyderabad. Speaking at the Inaugural Session,



Shri M Shashidhar Reddy highlighted the increasing vulnerabilities related to Climate Change. At this occasion, he said that in order to attain our developmental goals we need to grow at a fast pace for which energy remains an integral input. India's reliance on coal for more than half of its power capacity is an issue of great concern for energy security. Keeping this in view, India is seeking alternative renewable energy sources to meet the projected economic growth rate since these would be non-exhaustible as well as carbon free.

Fourth South-South Citizenry Based Development Academy on Child's Rights to Safety, New Delhi 28-30 November 2011

3.66 All India Disaster Management Institute organized Fourth South-South Citizenry Based Development Academy on Child's Rights to Safety in New Delhi during 28-30 November 2011. The focal theme of the conference was "Child's Rights to Safety – CBOs and Institutions Practicing Disaster Risk Reduction



through Promoting Rights of Children to Safety". At this occasion Shri M Shashidhar Reddy, Hon'ble Vice Chairman, NDMA addressed and appreciated the AIDMI's campaigns and other initiatives for Child's Rights.

Sensitization Workshop for MLAs of Government of Delhi, 22 December 2011

3.67 Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA called upon the MLAs from Delhi to play a crucial role in raising public



awareness by taking the message of disaster management to the people. Shri Reddy drew the attention of Delhi MLAs to the fact that Delhi falls in the Seismic Zone IV and therefore awareness about earthquake is extremely important. It was the first time that sensitization workshop for MLAs of Delhi was organized at Vidhan Sabha. Smt. Shiela Dikshit, Hon'ble Chief Minister, who was the Chief Guest, inaugurated the workshop. Shri Yoganand Shastri, Hon'ble Speaker, Dr. A.K. Walia, Minister for Revenue and Disaster Management, Shri P.K. Tripathi, Chief Secretary, and Shri Vijay Dev, Secretary, Revenue also addressed the gathering.

3.68 Delhi is a large city and being national capital, has its own significance. East Delhi is the most thickly populated part of the city with population density of over 37,000 persons per sq.km and some places like Chandni Chowk would have much higher density. People should be made aware of the danger of constructing unsafe buildings. There are Building Codes, Bye Laws and Rules. But we need to educate people about their importance.

3.69 Delhi is also very vulnerable to flooding and Sh. Reddy brought out that for the first time in the country NDMA has brought out the comprehensive document covering all aspects of Urban Flooding Disaster Management. To deal with floods, adequate number of rainfall gauges and real time monitoring is essential. This City which is spread over 1400 kms would require about 370 rainfall gauges while the proposal now is only to have around 50. NDMA called

upon the Municipal Authorities to take steps to establish this network combined with the Doppler Weather Radar recently installed at the Palam Airport; a combination of these would be very useful in managing floods.

3.70 NDMA welcomed the idea of Chief Minister Smt. Sheila Dikshit to make Delhi well prepared in the next 4-5 years and offered all help and assistance to the Government of Delhi to achieve this laudable objective. NDMA also offered to take up with Ministry of Home Affairs the issue of better coordination between the District Administration and Delhi Police to deal with disasters.

Vice Chairman, NDMA Visited IIS University, Jaipur

3.71 Delivering Key Note address at a National Seminar on Disaster Management organized by IIS University, Jaipur on 17 January 2012, Shri M. Shashidhar Reddy, Vice Chairman, National Disaster Management Authority called for greater public awareness which would be the key to successful disaster management. Referring to



earthquakes, he said that very often proper building codes are not followed in construction. So it is not only earthquakes, but poor standards of quality construction that lead to collapse of buildings.

3.72 Referring to 2006 flooding in Barmer district of Rajasthan Shri Reddy said that it was because of 575mm rainfall over a three day period while the average annual rainfall was 277 mm. Mumbai floods in 2005 was due to 944mm



rainfall in a 24 hour period. These are certainly some examples of manifestation of climate change.

VC, NDMA's Visit to Institute for Defence Studies and Analyses (IDSA)

3.73 The NDMA has been preparing for various kinds of emergencies like nuclear accidents, radiological terrorism and illegal use of tactical nuclear weapons said Shri M. Shashidhar Reddy, Vice Chairman, NDMA in his talk on 'Nuclear Disaster Management in India: Capabilities and Constraints', hosted jointly by the Institute for Defence Studies and Analyses (IDSA) and the Indian Pugwash Society, on 20 January 2012.

3.74 Shri Reddy said that the Indian public needs to be sensitized towards various nuclear as well as radiological emergencies that may arise, adding that the NDMA has learnt some valuable lessons after the Mayapuri incident reported in the national capital. He also commented on the industrial accidents in the nuclear power sectors, which amount to 0.04 per cent internationally.

3.75 The track record of the Department of Atomic Energy in India on issues of safety and security has been commendable. However, the Fukushima accident has offered India some valuable lessons for public safety. The NDMA is jointly working with the Department of Atomic Energy (DAE) on three level planning that includes 1.6 km Exclusion Zone, 5 km sterile zone and 16 km planning zone. Transparency regarding radiation leakage is paramount for addressing public concerns. Post Fukushima, the

NDMA is looking at enhanced preparedness. For successful mitigation of any nuclear emergency, it is important for the district and state level authorities to work together in an efficient manner.

Development of Infrastructure for Rehabilitation of Families in and around Kaiga Nuclear Plant – Discussion with a Delegation led by Shri Sitaram Yechury at NDMA on 25 January 2012

3.76 A delegation led by Shri Sitaram Yechury, MP and Member of CPM Polit bureau met Shri Reddy and presented a representation with a demand for rehabilitation of the people of 5 villages falling within 5 km radius around Kaiga Nuclear Plant. Shri Reddy explained that people living in the 1.6 km sterile zone have been rehabilitated and in the exclusion zone covering 5 km radius, there are restrictions on development but people are generally not rehabilitated. Shri Reddy explained that various steps are being taken for enhanced preparedness on the directions of the Hon'ble Prime Minister.

3.77 The delegation was also assured that while there would be no compromise as far as safety of the nuclear facilities issue is concerned, NDMA is committed to ensure better preparedness. Shri Reddy said “we shall look at sourcing funds from various ongoing programmes and schemes of Government of India and State Government before looking at means for meeting the gap in funding if any”. This could also be taken up with the Planning Commission in future. Shri Reddy felt that people in that area certainly deserve better infrastructure facilities besides health care,

education and livelihood opportunities. He also felt that such villages should get better power supply and people should ultimately have better life.

3.78 Shri Sitaram Yechury, MP appreciated the efforts of NDMA and hoped that it will result in better facilities being created. He also felt that if proper development is made the people will not ask for rehabilitation.



Discussion with a Delegation led by Shri Anand Vasant Asnotikar at NDMA on 27 January 2012

3.79 Shri Anand Vasant Asnotikar, Hon'ble Minister for Fisheries, Science & Technology, Govt. of Karnataka along with a delegation from Kaiga Nuclear Plant met Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA and discussed about the development of infrastructure in and around Kaiga Nuclear Plant on 27 January 2012 in NDMA Bhavan.

Meeting of Post-Earthquake Reconnaissance Team

3.80 As per Hon'ble Prime Minister's directive, NDMA constituted Post-Earthquake Reconnaissance Teams (PERTs) for earthquake affected Sikkim and North West Bengal areas vide OM No. 5-71/ 2011 – Mit dated 27.09.2011 and Om No. 5-83/ 2011 – Mit dated 04.11.2011 to assist the State Governments in rebuilding their infrastructure. These teams comprising experts from IITs and other practicing engineers, architects and geologists carried out reconnaissance of the earthquake affected areas of Sikkim and North West Bengal during



October and November 2011.

3.81 The PERT reconnaissance reports on Sikkim and North West Bengal were presented in a meeting held under the chairmanship of Hon'ble Vice Chairman, NDMA on 08 February 2012. The findings of PERT members for Sikkim covered major segments on the following:

- (i) Need for scientific and systematic earthquake damage assessment.
- (ii) Strategies for intermediate shelters and long-term reconstruction.
- (iii) Seismic retrofitting of existing structures and Buddhist Monasteries.
- (iv) Guidelines for future development.
- (v) Post-earthquake management, and
- (vi) Post-earthquake detailed investigation.

3.82 Similarly, for West Bengal, the findings covered the followings:

- (i) Addressing landslide risk mitigation issues.
- (ii) Scientifically sound post-earthquake damage assessment.
- (iii) Seismic retrofitting of life-line buildings, and
- (iv) Training of construction fraternity in earthquake resistant construction techniques.

3.83 The gist of the recommendations emanating from findings of the PERTs was circulated to all concerned including the Office of Hon'ble Prime Minister and the State Governments of Sikkim and West Bengal vide NDMA Letter No. 5-71/2011-Mit, dated 13 March 2012.

Mega Mock Drill on Earthquake Preparedness in Delhi

3.84 A Mega Mock Drill on Earthquake Preparedness was conducted by DDMA in close collaboration and guidance of NDMA in all the nine districts of Delhi on 15 February 2012 which was the biggest such effort ever in India. Delhi, the National Capital lies in seismic zone IV and therefore its vulnerability has been a



matter of great concern. While the country in general is well prepared to deal with disasters which come with some early warning, quick onset disasters without any early warning, like earthquakes is a challenge not only for us in the country but elsewhere in the world as well.



3.85 The Mega Mock Drill was the culmination of efforts undertaken after the PM's Special Meeting on 01 June 2011. It was a grand finale to the disaster preparedness campaign over the previous three months in Delhi. There were various activities conducted both at the local and the state level covering Schools, Colleges, RWAs, metros stations, malls, cinema halls, petrol stations etc.

3.86 Besides, for the first time, a Sensitization and Orientation Workshop was conducted for the Hon'ble Members of the Delhi Assembly on 22 Dec 2011. A similar workshop was also organized for the Hon'ble Judges of the Delhi High Court on 8 Feb 2012. These efforts were highly appreciated by everybody concerned.

3.87 There were two main objectives of this

Mega Drill. Firstly to generate greater public awareness about the vulnerability of Delhi to disasters with specific emphasis on earthquakes and steps to be taken by people to save themselves, their family and the community in the event of an earthquake. And also raise awareness that it is not earthquake that kills but it is the buildings that collapse and result in injury and death and therefore, the importance of constructing safe buildings, which comply with earthquake resistant norms. The second objective was to test the response capabilities of various agencies at the state and district levels and identify gaps.



3.88 More than the actual number of people who actually participated in this first ever drill; the fact that the entire population was made aware of Delhi's vulnerability and the need for preparedness is a matter of great satisfaction. This of course, is the first step and we are confident, in the course of the next few years that people of Delhi will participate in larger numbers and ultimately make Delhi better prepared.

3.89 Some of the important developments/ lessons learnt are as follows:-

- (i) The establishment of Delhi Disaster Response Force.
- (ii) Need for state-of-the-art emergency operation centres at the state and district level with redundancy.
- (iii) Common communication system for all the stakeholders.
- (iv) State-of-the-art equipment and systematic inventory of resources.
- (v) Need for adequate number of ambulances.

- (vi) Greater public awareness and sensitization of people for enhanced preparedness.

3.90 The NDMA in close collaboration with the DDMA is now planning for Delhi Emergency Exercise (DEMEX) to primarily focus on all aspects of medical preparedness.

Visit of a Seven Member Official Delegation from Madagascar to NDMA

3.91 A seven Member Official Delegation from Madagascar to India headed by Mr. Razakanaivo Mamy Nirina, Head of the Disaster Prevention and Emergency Management Unit, Prime Minister's Office (CPGU), Madagascar visited NDMA on 28 February, 2012. Shri M Shashidhar Reddy, Hon'ble Vice Chairman, NDMA informed the delegation that India has vastly improved its preparedness over the years to deal with disasters like Cyclone, Floods and Tsunami.

3.92 Shri Reddy cited the establishment of the Indian Ocean Tsunami Early Warning System at INCOIS, Hyderabad which is a state-of-the-art facility set up in 2007 after the 2004 Tsunami. There has been worldwide acknowledgement of the accuracy of the forecast by INCOIS.

3.93 The Delegation from Madagascar was on a Study tour to learn from Indian experience to deal with Cyclones and other natural disasters. The visit was held within the South-South Cooperation Framework and was part of the GFDRR through the World Bank, a funded program in Madagascar for mainstreaming climate risk and disaster into economic development.



4

POLICY, PLANS AND GUIDELINES

National Policy on Disaster Management

4.1 The National Policy on Disaster Management (released on 18 January 2010) portrays a paradigm shift from erstwhile 'Response-Centric' approach to the holistic management of disasters with emphasis on Prevention, Preparedness and Mitigation. The Policy document has been evolved in a participatory process taking on board relevant suggestions and recommendations of different stakeholders.

Highlights of the National Policy on Disaster Management

4.2 The National Policy on Disaster Management has endeavored to capture, in its essence, the vigorously enabling environment, which the body politic has put in place through an Act of Parliament. It heralds the onset of a different approach in dealing with disasters that have, in the past taken a heavy toll of lives and, properties and crippled the economic base of communities. It also illustrates realization of the fact that disasters not only cause a setback to economic and developmental growth, but also seriously affect the national security environment.

4.3 The central theme of this Policy document is the belief that a disaster resilient community, duly empowered by a newly created disaster management structure, working in cohesion multi-sectorally, will help realize the national vision. A holistic and integrated approach will be evolved towards disaster management with emphasis on building strategic partnerships at various levels. The themes underpinning the National Policy on Disaster Management are:

- (i) Community based disaster management, including last mile integration of the policy, plans and execution.
- (ii) Capacity development in all spheres.
- (iii) Consolidation of past initiatives and best practices.
- (iv) Cooperation with agencies at National and International levels.
- (v) Multi-sectoral synergy.

4.4 This policy document also encompasses institutional, legal and financial arrangements; disaster prevention, mitigation and preparedness, techno-legal regime; response, relief and rehabilitation, reconstruction and recovery, capacity development, knowledge management and research and development. It also focuses on the areas where action is needed and the institutional mechanism through which such action can be channelized.

4.5 The National Policy on Disaster Management also aims to bring in transparency and accountability in all aspects of disaster management through involvement of community, community based organizations, Panchayati Raj Institutions (PRIs), local bodies and civil society. National Policy on Disaster Management is a mother document on which the guidelines and plans at the National, State and District levels will be based.

National Plan

4.6 Section 11 of DM Act, 2005 provides that, 'There shall be drawn up a plan for Disaster Management for the whole of the Country to be called National Plan. The National Plan shall be prepared by the National Executive Committee

(NEC) having regard to the National Policy and in consultation with the State Governments and expert bodies or organizations in the field of Disaster Management to be approved by the National Authority'. After discussions within the NDMA and the NEC, it was decided that the National Plan would comprise three volumes as under:

- The National Response Plan spanning all the Central Ministries/ Departments and related agencies covering all types of disasters would be prepared by the MHA. An Inter Ministerial Central Team has already been formed by the NEC in the MHA to prepare this Plan.
- Mitigation and Preparedness Plan to be prepared by the various Central Ministries and Departments and other agencies covering specific disasters.
- The National Human Resource and Capacity Building Plan are to be prepared by National Institute of Disaster Management, addressing the Training and Capacity Building needs of several sectoral / thematic disciplines.

4.7 Guidelines and formats for formulation of these plans were deliberated upon in the NDMA and forwarded to the MHA, concerned Ministries/ Departments and the NIDM.

State Disaster Management Authorities

4.8 The State Governments are in the process

of setting up the State and District Disaster Management Authorities. The provisions of the DM Act, 2005 relevant to the States/ UTs have been in force w.e.f 01 August 2007. All 28 States and 7 Union Territories are reported to have constituted SDMAs as per the provisions of the DM Act, 2005. In some of the States Constitution of the District Disaster Management Authorities have not been completed.

State Disaster Management Plans (SDMPs)

4.9 A Disaster Management Plan is required to be prepared by each State/ UT in terms of Section 23 of the Disaster Management Act, 2005. The State Plan shall be prepared by the State Executive Committee (SEC), having regard to the guidelines laid down by the National Disaster Management Authority (NDMA), and after such consultation with local authorities, district authorities and the people's representatives as the SEC may deem fit. The State Plan shall be approved by the State Disaster Management Authority (SDMA). It shall be reviewed and updated annually. The NDMA issued the guidelines for preparation of State Disaster Management Plans in July 2007 in accordance with the Section 6 (2) (d) of the DM Act, 2005. Taking a proactive action, NDMA devised a "Scheme for Preparation of Disaster Management Plans" to provide financial support during financial year 2009-2010 to States/ UTs to enable them for preparation of their Disaster Management Plans indicated as below:

Category I (Assistance of Rs. 10,62,500/-)	Category II (Assistance of Rs. 8,62,500/-)
Aundla Pradesh, Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Kerala, Karnataka, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Sikkim, Tamil Nadu, Uttarakhand, Haryana, Uttar Pradesh, West Bengal, Delhi, Andaman & Nicobar, Puducherry	Chhattisgarh, Goa, Jharkhand, Madhya Pradesh, Punjab, Rajasthan, Tripura, Chandigarh, Daman & Diu, Dadra & Nagar Haveli, Lakshadweep

4.10 NDMA has been regularly following up with States/ UTs and has been offering advice through regular workshops, review meetings and video conferences on preparation of SDMPs. The States/ UTs are in different stages of preparation of plans.

National Consultation Workshop on Preparation of State Disaster Management Plan

4.11 A National Consultation Workshop on Preparation of State Disaster Management Plan was organized by the NDMA on 28-29 June 2011. Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA inaugurated this two day workshop.

4.12 Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA said that Disaster Management Plans are living documents that would require constant improvement and innovation as the States continue to deal with various disasters. He was delivering the inaugural address at the Two Day National Consultation Workshop on Preparation of State Disaster Management Plans at NDMA Bhawan, New Delhi. States/ UTs are in different stages of preparation of the DM Plans.

4.13 The aim of the workshop was to provide an opportunity to the States to share various measures taken by them for the preparation of SDMP and exchanging ideas and technical information thereby learn from each other in developing actionable SDMP.

4.14 Shri Reddy said that the National Executive Committee headed by the Union Home Secretary, to assist NDMA, has set up



three committees for National Response Plan, National Mitigation Plan and National Capacity Building Plan. State Plans must also address these issues in the planning process. The state DM Plans will ultimately have to evolve on these lines. NDMA guidelines on various disasters and cross-cutting themes should guide the states to prepare their plans in the best possible manner.

4.15 He emphasized that all stakeholders must play their part in preparation of these plans and the process must be institutionalized. A deadline of end of 2011 has been set for all the states to come up with their State DM Plans. Further district and city DM Plans will be prepared in due course.

4.16 Presentations were made in the workshop by Andhra Pradesh, Karnataka, Tamil Nadu, Jharkhand and West Bengal adopted and other aspects of SDMPs followed by comments of the experts on various aspects. This was followed up by open forum discussion to enable the states to share their opinions.

4.17 Members of NDMA, Senior Officers of NDMA, Senior Officers and Consultants from the States, experts from UNDP & UNDMT and other senior DM experts participated in the first day of the national consultation workshop.

Report of Working Group on Disaster Management for Twelfth Five Year Plan submitted on 27 October 2011

4.18 The Planning Commission, Government of India, vide their Order No. M-12016/03/2011-PAMD. dated the 06th April, 2011, constituted a Working Group on "Disaster Management", as a part of the formulation of the Twelfth Five Year Plan (2012-2017). The Terms of Reference (TOR), inter alia, included:

- i. To recommend measures to streamline existing institutional structure on disaster management in order to avoid multiplicity of structures keeping in view the provisions of the Disaster Management Act 2005;

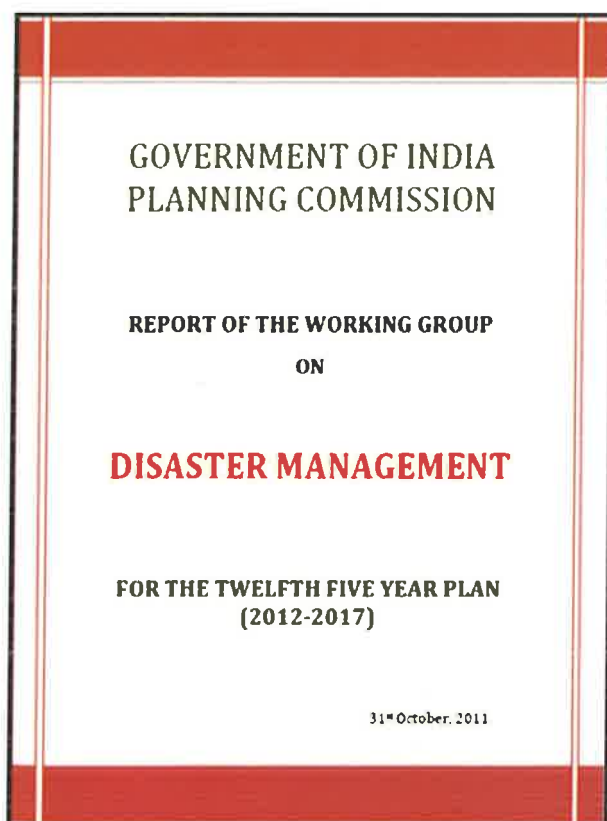
- ii. Review implementation of disaster management policy both manmade and natural disaster, towards disaster risk reduction, preparedness and mitigation at Centre and State levels and in the private sector. To incorporate multi hazard preparedness and mitigation measures in the disaster risk reduction and management framework;
- iii. To explore innovative ways and means for application of Science & Technology in disaster risk reduction
- iv. To draw a roadmap and policy framework to encourage public-private partnership and community participation (with specific focus on women, school children differently abled) in disaster management
- v. To assess integration of disaster management related concerns to be inbuilt into central sector and centrally sponsored schemes /projects
- vi. To suggest programmes for capacity building for disaster mitigation at Centre, State and district levels with

special reference to rural and urban areas with focus on educational institutions

- vii. To identify priority areas and projects along with financial resources particularly with respect to setting up of National Disaster Mitigation Fund to be undertaken through NDMA, Central Ministries and State Govts in an integrated manner during the 12th Plan period; and
- viii. To suggest policy measures and programmes for knowledge sharing, dissemination of information and for increasing public awareness.

4.19 The Group formed five Sub-Groups to address each of the eight terms of reference. The first Sub-Group, headed by Dr. Noor Mohammad, the then Secretary, NDMA, examined the issues at item (i) and (ii) above, the second Sub-Group, headed by Shri R. C. Jha, the then Member (RM), CWC and now Chairman CWC examined the issues at item (iii), the third Sub-Group, headed by Ms Janki Andharia, Professor & Chairman, Jamsetji Centre for Disaster Management, Tata Institute of Social Sciences examined the issues at item (iv), the fourth Sub-Group, headed by Shri Anil Sinha, Vice Chairman, Bihar State Disaster Management Authority examined the issues at item (vi) and (viii), the fifth Sub-Group, headed by the Chairman Working Group examined the issues at item (v) and (vii). Report of the Working Group was submitted to Planning Commission on October 27, 2011.

4.20 The Report takes note of the changing hazard profile of India in the context of recent global events and that investments are needed today for a safer tomorrow. It also highlights that prevention and mitigation are socially and economically more profitable investments than relief and rehabilitation. However, relief and rehabilitation in the aftermath of a disaster is equally important. The Report emphasizes that mainstreaming disaster risk reduction in



important central sector and centrally sponsored programmes is necessary for effective mitigation. The need for leveraging Science and Technology capabilities for effective disaster management particularly for setting up of early warning systems was also highlighted.

Guidelines

4.21 In order to translate the objectives into plans, the NDMA adopted a mission-mode approach involving a number of initiatives with the help of various institutions (administrative, academic, scientific and technical) operating at the national, state and local levels. As a policy, the central ministries, departments and states, have been involved in evolving the guidelines, besides all other stakeholders. These guidelines; based on specific disasters and themes (such as capacity development and public awareness) will provide the basis of preparation of plans. Preparation of these Guidelines took minimum 12 to 18 months, depending upon the complexity of the subject. The approach to formulation of guidelines comprised a 'nine-step' participatory and consultative process with stakeholders as shown in figure 4.1.

4.22 The process comprises:

- A quick review of the studies conducted, disaster-wise, of the actions/steps taken so far by various agencies, including the Central Ministries, States, Scientific and Technical Institutions etc.
- Identification of the residual agenda in terms of operational, administrative, financial and legal issues.
- The drawing up of a roadmap to the destination duly indicating milestones to facilitate easy monitoring.
- In terms of goals and objectives, screening down the destination is to be attained, in the short, as well as long term, duly prioritized as vital, essential and desirable.
- Four important questions were to be answered: i.e. What is to be done?, how it is to be done?, who will do it?, and by when?
- Putting in place an institutional

PROCESS OF FORMULATION OF GUIDELINES

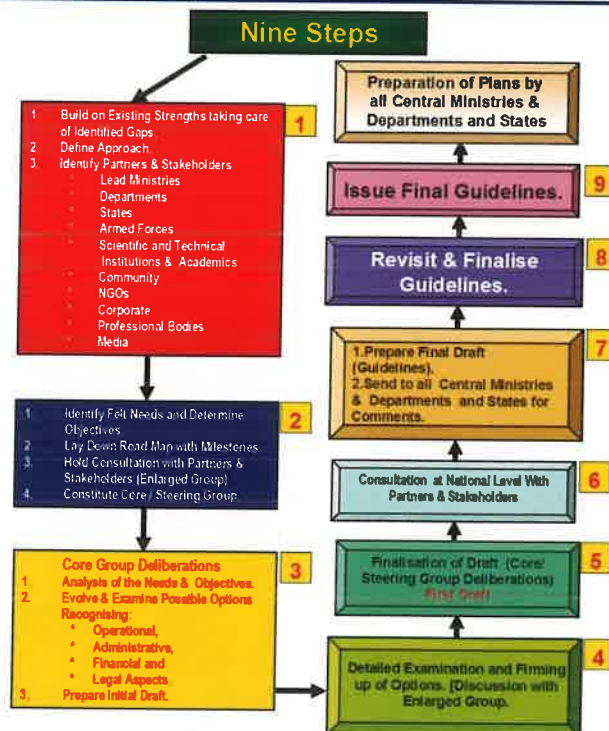


Figure 4.1

mechanism that oversees the operationalization of this roadmap.

Guidelines and other Reports Prepared and Released During 2011-12

4.23 Following guidelines and reports have been released during the period under report by the NDMA

- State Release of National Guidelines on Management of Urban Flooding – 14 April 2011.
- National Disaster Management Guidelines for Information and Communication System (NDMICS)

State Release of National Guidelines on Management of Urban Flooding

4.24 On 14 April 2011, during the Inaugural Session of “International Conference on Post-Earthquake Reconstruction – Lessons Learnt and Way Forward” at Ahmedabad, Hon’ble Chief Minister Shri Narendra Modi, did the ‘State Release’ of the National Guidelines on Management of Urban Flooding, formulated by the NDMA and released recently in Delhi. Shri Reddy said “urban flooding is significantly different from riverine flooding in the rural areas.” He informed that NDMA for the first time addressed urban flooding as a separate disaster, de-linking it from floods. This is the first ever document prepared in India to look at Urban Flood disaster management holistically and highlighted the salient action points. Shri Modi congratulated NDMA for this initiative.

Release of National Disaster Management Guidelines for Information and Communication System (NDMICS)

4.25 The Disaster Management Act, 2005 mandates the NDMA for preparing the guidelines on various issues. NDMA has so far prepared 16 guidelines on various disaster specific subjects and cross cutting issues. Every Ministry and Department of the Government of India and State Governments need to prepare their disaster management plans. NDMA has



also funded the States to prepare State Disaster Management Plans. Based on the guidelines, released by the NDMA which have been prepared with a participatory approach including all the Stakeholders, the National and State Plans should be prepared expeditiously.

4.26 Shri Sachin Pilot, Hon’ble Minister of State for Communication and Information Technology released the National Guidelines on National Disaster Management Information and Communication System (NDMICS) prepared by the National Disaster Management Authority on 15 February 2012 at NDMA Bhavan, Safdarjung Enclave, New Delhi.

4.27 In his address, Shri Pilot commended the efforts of NDMA in bringing forward these guidelines. Shri Pilot emphasized the need for implementation of these guidelines and said that it must reach to the last connected people in the country in their local language. He further expressed that the whole process of disaster management should be all inclusive and comprehensive in nature. “India needs to be



more prepared in tackling the outcomes of both natural and man-made disasters”, for this he appreciated the efforts of NDMA for holding mock drills and said that we need more and more mock drills for better preparedness and awareness. “Mock Drills should be a part of our routine”, he said.

4.28 Speaking at the occasion, Shri M Shashidhar Reddy, Hon’ble Vice Chairman, NDMA stressed that the holistic approach for Disaster Management calls for a “dedicated fail-proof communication system” to ensure seamless flow of value-added information products on GIS platform not only in the response phase but also for prevention, preparedness, mitigation and recovery, besides capacity building programmes. Shri Reddy informed that to achieve this, it is contemplated to establish National Disaster Management Information System (NDMIS) at the central level (with a disaster recovery system at a safe location) that would be coupled to a dedicated and fail-safe National Disaster Communication Network (NDCN) with particular emphasis on last-mile connectivity.

4.29 NDCN will be network of networks by leveraging existing communication networks to provide connectivity to various Emergency Operation Centres at National, State and District levels. NDCN will provide assured multi services such as audio, video, data and knowledge based information to meet the requirement of various stakeholders for proactive and holistic management of disaster during all phases of disaster management. NDCN will establish separate satellite link network for providing fail-safe communication during disaster. Estimated cost involved in this project is Rs 943 Cr and is now being examined by MHA.

Highlights of the National Disaster Management Guidelines for Information and Communication System (NDMICS)

4.30 The holistic approach for Disaster Management calls for a dedicated fail-proof communication system to ensure seamless flow

of value-added information products on GIS platform not only in the response phase but also for prevention, preparedness, mitigation and recovery, besides capacity building programmes.

4.31 To achieve this, it is contemplated to establish National Disaster Management Information System (NDMIS) at the central level (with a disaster recovery system at a safe location) that would be coupled to a dedicated and fail-safe National Disaster Communication Network (NDCN) with particular emphasis on last-mile connectivity.

4.32 The proposed NDMIS would establish the single most important scientific tool of "Vulnerability Analysis and Risk Assessment" (VA&RA) as per Vulnerability Profiles for DM activities continuum to avoid ad-hoc decisions for:

- DM activities in the pre-event scenarios,
- Decision Support System (DSS) for DM activities during the event,
- DM activities in the post-event scenarios (for rehabilitation and recovery) to "build better".

Guidelines under Formulation

Preparation of National Guidelines on National Disaster Communication Network

4.33 A number of Core Group meetings and consultations with experts have been held during this period on the subject and final draft on the guidelines is under preparation covering the following aspects:

- Multi-services of audio, video and data augmented with GIS based value added information system.
- Reliable, dedicated and technology-based National Disaster Communication Network with particular emphasis on last mile connectivity during all phases of disaster continuum.
- Mobile communication package at the

District level and transportable communication system for the NDRF.

Highlights of the National Disaster Communication Network (NDCN)

4.34

- NDCN is a Network of Networks backed by Independent Satellite Connectivity;
- For sending the value-added information to the right people at right time, there is a need for a dedicated National Disaster Communication Network (NDCN);
- For the most economic and effective country-wide coverage, NDCN would be a Network of all existing / planned terrestrial as well as satellite based networks with particular emphasis on its fail-safe character and last-mile connectivity along with additionalities at NDRF and district levels;
- The dedicated feature would be ensured by leasing out the required bandwidths through appropriate Service Level Agreements (SLAs) with various operators;
- In addition, NDCN envisages to have its independent Satellite network (based on a separate satellite transponder from ISRO) to ensure its fail-safe character;
- The response phase requires real time transfer of data with full reliability. Highly variable volume of data to be sent to a limited number of stakeholders;
- Delivery of data for the other phases like preparedness, mitigation and recovery would be with less urgent delivery needs, even though long delivery delays cannot be accepted. This data will have a broader stakeholder spectrum.

Implementation

4.35 As the architecture of the network requires integration of various terrestrial as well as satellite based communication equipments along with their interfacing components, it is strongly recommended to appoint a qualified and highly experienced agency for implementation of NDCN as a centrally funded turn-key project.

Preparation of National Guidelines on Scaling, Type of Equipment and Training of Fire Services

4.36 Consequent to projection made by NDMA to 13th Finance Commission and their positive award in way of grants to the states and local bodies for revamping of Fire Services, it was decided to formulate a National Guidelines for Scaling, Type of Equipment and Training of Fire Services in the country. A meeting was organized on 22 March 2010 at NDMA to prepare these Guidelines. In this meeting, the Fire Advisory Committee of India was invited. Preparation of these guidelines is underway.

Brainstorming Session at NDMA on "Seismic Retrofitting Policy for India and Unsafe Open Ground Storey RC Buildings"

4.37 Shri M. Shashidhar Reddy, Vice Chairman, National Disaster Management Authority chaired a day-long Brainstorming Session on 22nd June with technical experts to discuss the issues of drafting a Seismic Retrofitting Policy for the Country. The meeting also focused on the current trend in construction of open ground storey RC buildings in India, which are unsafe during earthquakes. This initiative was a follow up to the recent special meeting of NDMA chaired by the Hon'ble Prime Minister to discuss about India's preparedness in the wake of recent triple disasters in Japan.

4.38 Regarding Seismic Retrofitting Policy for the country, the discussion focused on a vision of zero tolerance of avoidable deaths. It was decided that 'zero draft' would be prepared by the experts by 15th July 2011. Vice Chairman, NDMA urged the technical experts to

come out with technical solutions for remedial measures that should be propagated for addressing the vulnerability of such building stock in the country.

4.39 Regarding open ground storey buildings, he suggested that the technical experts should prescribe do's and don'ts in simplified and illustrative manner for future construction of such buildings. These solutions will be disseminated by the NDMA country-wide to prevent new building construction with open ground storey. He also suggested that a separate section may be introduced in IS:1893 to address these concerns.

Brain Storming Session on Crowd Management at Religious Institutions/ Congregations, 29 August 2011, NDMA

4.40 Concerned at the recurring stampedes in religious places, the National Disaster Authority (NDMA), the apex body for disaster management in India, is now considering spearheading an initiative for integrated approach to disaster management in the pilgrim centres. To this end, NDMA plans to formulate National Guidelines for Disaster Management at Religious Places. These could apply to other congregations also.

4.41 With this in view, available experts in the country from various IITs who are well qualified in transportation models and crowd control were invited to guide our effort in this regard. Executive officers of some of the religious institutions were also invited for sharing firsthand experience. The brain storming session was organized on 29 August 2011 at the NDMA to study the problem of stampede and crowd control in a holistic manner and carry out in depth analysis of high intensity. Member NDMA, Shri T Nandakumar has been asked to study this in detail and submit a report.

Ensuring Disaster Resistant Construction of buildings and infrastructure financed through Banks and Lending Institutions

4.42 In order to overcome the issue of poor

compliance of the National Building Code – 2005 in loan financing by banks and lending institutions for buildings and infrastructure, NDMA formulated 'self-directing' guidelines by simplifying interpretations of technical terminologies of the voluminous NBC – 2005 and integrating them with the loan application procedures. These guidelines are 'compliance-friendly' but non-negotiable and have necessary in-built checks on construction related safety norms and the BIS Codes.

4.43 These guidelines have been circulated by Reserve Bank of India (RBI) to banks and lending institutions on 12 May 2011, for adherence before grant of loans by banks for construction of buildings in housing sector. Besides, National Housing Bank has also adopted the above advisories for all housing financing companies, which cover both banking and non-banking sectors.

Preparation of Guidelines for Hospital Safety

4.44 NDMA will prepare guidelines for Hospital Safety and Preparedness to deal with on-site emergencies. This was decided after a brain storming session with different officers and experts at a meeting convened yesterday at NDMA in the wake of the recent fire accident at AMRI Hospital at Kolkata. This had resulted in the death of more than 90 patients and has raised many issues about Hospital Safety. These guidelines will cover fire and all other hazards.

4.45 In the past, NDMA had issued Guidelines for Medical Preparedness and Mass Causality Management but it largely dealt with preparedness of hospitals to deal with disasters outside the hospital. NDMA has to now address this major issue of emergencies inside the hospitals both in the government and private sectors in the country.

4.46 The meeting was convened by NDMA on 17 October 2011 to review the present status of hospital safety and understand the role and responsibilities of different agencies. It was attended by Members and officers of NDMA, representatives from World Health Organization

(WHO), UN Agencies, AIIMS, Ministry of Health & Family Welfare, Armed Forces Medical Services, Corporate Hospitals, Delhi Fire Services, experts from IITs, IIITs and NGOs.

4.47 Dr. Muzzafar Ahmed, Member, NDMA has been tasked with the responsibility of constituting a core group of experts and lead the efforts for preparing the guidelines for hospital

safety and preparedness after wide consultation with all stakeholders. The core group, besides reviewing the present status, will identify gaps and look at international best practices. The Core Group will also look at the existing codes and other legal provisions and recommend steps for better monitoring and supervision of all safety measures. The Action points in the guidelines will also identify agencies responsible for implementing them.

5

CAPACITY DEVELOPMENT

Introduction

5.1 A strategic approach to capacity development can be addressed effectively only with the active and enthusiastic participation of the stakeholders. This process comprises awareness generation, education, training, Research and Development (R&D) etc. It further addresses putting in place appropriate institutional framework, management systems and allocation of resources for efficient prevention and handling of disasters.

5.2 The approach to capacity development includes:

- According priority to training for developing community based DM systems for their specific needs in view of the regional diversities and multi-hazard vulnerabilities.
- Conceptualisation of community based DM systems at the national level through a consultative process involving the states and other stakeholders with the state and local level authorities in charge of implementation.
- Identification of knowledge-based institutions with proven performance.
- Promotion of international and regional cooperation.
- Adoption of traditional and global best practices and technologies.
- Laying emphasis on table-top exercises, simulations, mock drills and development of skills to test the plans.
- Capacity analysis of different disaster response groups at State/ District/ Local levels.

Pilot Project on Capacity Building of PRIs and ULBs in partnership with IGNOU

5.3 A major activity during the year was initiation of Pilot Project on Capacity Building in Disaster Management amongst Government Officials (GOs), Representatives of Panchayat Raj Institutions (PRIs) and Urban Local Bodies (ULBs) at District level in 54 districts of 11 hazard prone states i.e., Maharashtra, Bihar, Haryana, Andhra Pradesh, Himachal Pradesh, Uttarakhand, West Bengal, Assam, Tripura, Odisha and Gujarat as arrived at jointly by Indira Gandhi National Open University (IGNOU) and the National Disaster Management Authority (NDMA).

5.4 The identified States and Districts are:

- Andhra Pradesh – Anantapur, Mahbubnagar, Srikakulam, Nellore, Prakasam.
- Assam- Dhemaji, Lakhimpur, Barpeta, Dhubri, Cachar.
- Bihar – Sitamarhi, Muzaffarpur, Patna, Supaul, Madhepura.
- Haryana – Gurgaon, Panipat, Ambala, Yamuna Nagar, Rohtak.
- Himachal Pradesh – Kullu, Kinnaur, Chamba, Kangra, Manali.
- Kerala - Idukki, Wayanad, Malappuram, Ernakulam and Palakkad
- Maharashtra- Nasik, Raigarh, Thane, Pune, Satara.
- Orissa – Ganjam, Bhadrak, Jagatsinghpur, Kendrapara, Balasore.
- Tripura – North Tripura, South Tripura, East Tripura (Dhalai), West Tripura.

- Uttarakhand - Bageshwar, Pithoragarh, Rudraprayag, Chamoli, Uttarkashi.
- West Bengal – Bankura, South Dinajpur, Murshidabad, Burdwan, Purba Medinipur.

Progress of Pilot Project of NDMA – IGNOU on Capacity Building

5.5 In respect of Pilot Project of NDMA-IGNOU on Capacity Building in disaster management for Government officials, representatives of Panchayati Raj Institutions and Urban Local Bodies at district level, further initiatives have been taken on the basis of feedback on the training material/ session plans. One more book “Handbook for effective disaster management at micro level” has been added besides four books (revised) for reference purposes.

5.6 NDMA in collaboration with IGNOU launched a pilot project on capacity building on disaster management of Government Officials (GOs), representatives of Panchayati Raj Institutions (PRIs) & Urban Local Bodies (ULBs), in the areas of disaster prevention, preparedness, mitigation, response and recovery in 54 districts of 11 hazard prone States. Draft training material developed by IGNOU was reviewed by NDMA and based on the inputs received following books were got published by IGNOU for Face to Face Training Programmes (FFTPs):

- Conceptual and Institutional Framework of Disaster Management.
- Disaster Preparedness and Mitigation.
- Responding to Disasters.
- Disaster Recovery and the Road Ahead.
- Handbook for effective disaster management at micro level.

5.7 Orientation Workshops have already been conducted in all the States except Assam. In Assam it is due to be held in the first week of November.

Multi State Earthquake Preparedness

5.8 The project was approved in December 2011. Aim of the project is to provide a scientific understanding of the consequences of a large earthquake in the Himalayas among various stakeholders. Development of a common and unified risk management action plan of various stakeholders will also be attempted through this process. An amount of Rs. 1.17 crore was approved for the project. A number of meetings took place with the State Governments of Punjab, Haryana, Himachal Pradesh and UT of Chandigarh to discuss the multi-state Earthquake Preparedness and Awareness Campaign and Mock Drill.

Training of National Cadet Corps (NCC) Cadets

5.9 Task of imparting Disaster Management (DM) training to NCC cadets was undertaken by NDMA. The objectives of the training program were:

- to generate awareness among the NCC cadets,
- to provide exposure to the emergency first aid, search and rescue and firefighting; and
- to involve NCC Cadets in the DM frame work and promoting the culture of prevention and preparedness.

Pilot Project of Training of Civil Defence Volunteers for Flood & Earthquake Preparedness in Gorakhpur, Uttar Pradesh

5.10 NDMA organized a workshop on Pilot Project of training of Civil Defence Volunteers



for Flood & Earthquake Preparedness in Gorakhpur, Uttar Pradesh on 22 November 2011. Shri M Shashidhar Reddy, Hon'ble Vice Chairman, NDMA inaugurated the workshop. On this occasion he said that Flood Preparedness workshop was held at Gorakhpur on 6 August, 2011, where decision was taken to launch community preparedness programme for flood &

earthquake at Gorakhpur with a view to generate awareness & prepare community as First Responder in the event of Disaster. In pursuance to above mentioned decision, training programme for Civil Defence personnel with a view to train 250 Master Trainers was launched on 22 Nov, 2011. This training was conducted in batches as per the details given below:

Sr No.	Batch	Period	Number of Participants
1.	1st Batch	22 November 2011 to 27 November 2011	43
2.	2nd Batch	30 November 2011 to 05 December 2011	42
3.	3rd Batch	07 December 2011 to 12 December 2011	45
4.	4th Batch	14 December 2011 to 19 December 2011	45
5.	5th Batch	21 December 2011 to 26 December 2011	42
6.	6th Batch	28 December 2011 to 02 January 2012	33



राष्ट्रीय आपदा प्रबंधन प्राधिकरण (एन.डी.एम.ए.) भारत सरकार

हर परिवार लड़े आपदा से समाज को एकजुट करने का अभियान

पूर्वांचल में जापानी इंसेफेलाइटिस और ए.ई.एस.की रोकथाम एवं नियंत्रण के लिए समाज को एकजुट करने का अभियान शुरू !!

21 नवंबर, 2011 को शाम 4:30 बजे नागरिक सुरक्षा संगठन के
सामाजिक कार्यकर्ताओं का प्रशिक्षण कार्यक्रम
और
22 नवंबर, 2011 को प्रातः 10:00 बजे बी.आर.डी. मेडिकल कॉलेज, गोरखपुर में
“प्रशिक्षकों का प्रशिक्षण” कार्यक्रम
श्री एम. शशिधर रेड्डी,
जननीय उपस्यद, एन.डी.एम.ए., भारत सरकार
द्वारा उद्घाटन

दिमागी बुखार (नवकी बीमारी)





इस बीमारी का शिकार अधिकतर गरिब लोग होते हैं इसलिए हमें इसके बारे में जागरूकता पैदा करनी है ताकि हर परिवार इस आपदा का मुकाबला कर सके। यह प्रशिक्षण हेल्थ सेंटर के अधीक्षक, चिकित्सा एवं स्वास्थ्य विभाग, जिला मुख्यालय, धरमेश्वर, आई.सी.डी.एम., सहायक, बेसिक शिक्षा अधिकारी, ए.डी.ओ. पंचायत, नागरिक सुरक्षा संगठन, वरिष्ठ क्लिनिकल अधिकारी, डी.आई.ई.टी. (लायट ट्यूटोर), ट्यूटोर, ए.एन.एम., प्रशिक्षण केंद्र, निजी नर्सिंग प्रशिक्षण विद्यालय/संस्थान आदि के अधिकारी/कर्मचारी एवं कार्यकर्ताओं को दिया जा रहा है ताकि वे घर-घर जाकर लोगों को इस बीमारी की रोकथाम और नियंत्रण के बारे में जागरूक कर सकें।

नागरिक सुरक्षा संगठन के सामाजिक कार्यकर्ताओं को जापानी इंसेफेलाइटिस समेत सभी आपदाओं से निपटने के लिए प्रशिक्षण दिया जा रहा है।

आपके हित में तत्पर
राष्ट्रीय आपदा प्रबंधन प्राधिकरण (एन.डी.एम.ए.)

National Workshop on Psycho-Social Support and Mental Health Services during Disasters

5.12 A workshop on Psycho-Social Support and Mental Health Services in Disasters was held on

07 April 2011 at NDMA Bhawan, New Delhi. The workshop conceptualized to initiate an inter-sectoral approach towards implementation of national guidelines on Psycho-Social Support

and Mental Health Services in Disasters. It was attended by renowned experts in their respective field that includes Government Functionaries, Mental Health professionals including, Psychiatrists, Psychologists and Psychiatric Social Workers, NGO heads, Disaster managers from International Organizations and Media. Based on the deliberations and recommendations in the workshop, it was proposed to constitute a Task Force under the Chairmanship of Hon'ble Member Maj. Gen. (Dr.) J.K. Bansal to implement the National Guidelines on Psycho-Social Support and Mental Health Services.

5.13 Shri M Shashidhar Reddy, Vice Chairman, NDMA emphasized on the aspect of need for Psycho-Social Support and Mental Health Services during disasters. He highlighted the salient points of the Guidelines on Psycho-Social Support and Mental Health Services during Disasters already released by NDMA in January 2010.

5.14 Shri Reddy highlighted the shortage of Mental Health Manpower in India. "We are far behind the world average in manpower for the mental health, be it be number of Psychiatrists, Psychologists or Psychiatric Nurses. We have only 0.2 psychiatrists per one lakh population, whereas the World average in 1.20. Similarly, the World average for Psychologists and Psychiatric Nurses is 0.6 and 0.4 respectively, whereas,



Shri M. Shashidhar Reddy, Vice Chairman, NDMA addressing the Participants of National Workshop on Psycho-Social Support and Mental Health Services during Disasters on 07 April 2011

India has only 0.03 for both", he pointed out. He emphasized upon the need for evolving our own model based on the socio-economic conditions of the Country to meet these shortages.

International Conference on Post-Earthquake Reconstruction – Lessons Learnt and Way Forward

5.15 Gujarat State Disaster Management Authority (GSDMA), Government of Gujarat organized an "International Conference on Post-Earthquake Reconstruction – Lessons Learnt and Way Forward" during 14-16 April 2011 at Pandit Deendayal Petroleum University, Gandhinagar, Gujarat. Sri M. Shashidhar Reddy was the Chief Guest for the Inaugural Function. Shri M. Shashidhar Reddy, Vice Chairman NDMA, appreciated the reconstruction work taken up in Gujarat after the Bhuj earthquake, under the massive "Gujarat Earthquake Reconstruction and Rehabilitation Project".

5.16 Vice Chairman, NDMA added, "The loss of life is primarily a result of collapse of buildings. Safety from earthquake disasters therefore requires our buildings to be earthquake-resistant. Our country has a rich tradition of earthquake-resistant vernacular construction, which includes the Assam-type housing in North-East India, Dhajji Dewari in Kashmir and Bhonga in Gujarat, which are as safe against earthquakes as the modern buildings". As the country does not have the categorization of buildings based on their resistance to earthquakes, NDMA has initiated a project for building typology to prepare a catalogue of pre-dominant building types in different parts of the country.

Earthquake Risk Preparedness in Delhi – Review Meeting with Govt. of NCT Delhi

5.17 A meeting to review the status of preparedness for various Disasters with special reference to earthquake risk management in Delhi / NCT Delhi was held at NDMA on 20 April 2011 under the Chairmanship of Sh. M.

Shashidhar Reddy, Hon'ble Vice Chairman, NDMA. Participants from Govt. of NCT Delhi were led by Mr. P. K. Tripathi, Chief Secretary, Govt of NCT Delhi and Mr. Dharmendra, Divisional Commissioner and Member Secretary of DDMA. During this review meeting actions taken so far by the Government of NCT of Delhi towards earthquake preparedness were discussed.

5.18 Appreciating the efforts taken by Delhi Govt., NDMA informed its following initiatives for earthquake risk preparedness covering Delhi region:

- National Earthquake Risk Mitigation Project;
- Probabilistic Seismic Hazard Analysis mapping and Geo-technical investigation of Indian landmass;
- Development of Building Typology Template for Vulnerability Assessment and Risk Analysis of the residential buildings in India for Earthquake;
- GIS based National Disaster Management Information System (NDMIS).

5.19 Vice Chairman, National Disaster Management Authority suggested to look into for a structural evaluation and seismic strengthening of buildings of national importance located in Delhi. Chief Secretary of Government of Delhi assured to look into this matter with the help of CPWD. He also emphasized on the need to conceive a Retrofitting Promotion System (RPS) for old vulnerable buildings in the densely populated areas of Delhi. He also asked the Chief Secretary of Delhi Government to set up State Disaster Response Force out of the existing Armed Reserves as being done in other States.

5.20 This review meeting was also attended by Members of the NDMA, Senior Officers of NDMA along with Senior Officers of different

Departments of NCT of Delhi such as Delhi Administration, DDMA, Fire Services, PWD, DDA etc.

Workshop on Disaster Scenario of the North East, at Guwahati, Assam

5.21 Inaugurating the Workshop on "Disaster Scenario of the North East" at NEDFI House, Guwahati, on 11 May 20011, Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, National Disaster Management Authority stressed upon the need for preparedness and mitigation activities in the region to face the challenges of natural disasters in the region in general, and flood and earthquake in particular. Unique geo-environmental setting of the North East Region vis-à-vis the Eastern Himalayas, weak geological formations, very high seismicity and heavy annual precipitation makes the region one of the most disaster prone regions in the country.

Meeting on Strengthening National Institute of Disaster Management (NIDM) to play a bigger role in the Capacity Building efforts in the Country, 08 June 2011

5.22 A meeting on strengthening NIDM to play a bigger role in the capacity building was organized on 08 June 2011 at NIDM. Shri M. Shashidhar Reddy, Vice Chairman, National Disaster Management Authority and Chairman, Governing Body of NIDM, chaired the meeting. NDMA highlighted the need to look at different ways to strengthen National Institute of Disaster Management to play a bigger role in the capacity building efforts in the Country. During the interaction with the faculty of NIDM, it was decided to make assessment of the number of officials to be trained at different levels and prepare a plan to strengthen NIDM. During the meeting it was also decided to evaluate different States and Organizations on the basis of optimum utilization of the trained manpower in their respective fields and reinforce the capacity building activities of the States through State ATIs. Constant review and updation of the

training modules to make it more focused and purposeful is also required.

Workshop on Special focus on Reproductive Health during Disasters, Gurgaon, 19 July 2011

5.23 During the inaugural session of Training of Trainers on “Minimum Initial Service Package (MISP) for Reproductive Health in Disasters” at Sohna, Gurgaon on 19 July 2011, Shri M. Shashidhar Reddy, Vice Chairman, NDMA called upon the State Governments to give special focus to reproductive health during disasters, particularly with regard to sensitive needs of women and girls. “Considering the fact that at any given point of time, 5% of the population are pregnant women, it is important to realize that their special needs have to be factored in while preparing the disaster management plans at the State and District levels. About 30 participants from 10 different States of Northern Region participated in this four day training programme which was organized by the NDMA in collaboration with United Nations Population Fund (UNFPA) and International Planned Parenthood Federation (IPPF).

5.24 The Minimum Initial Service Package (MISP) for reproductive health is a priority set of life-saving activities and forms the starting point for reproductive health programming which needs to be sustained and built upon. MISP is an international standard recognized in a number of key humanitarian documents including IASC Health Cluster Guide brought out by World Health Organization.

5.25 Recognizing the lack of such capabilities built into our systems, Shri Reddy called upon the need to make this a part of the disaster response plans.

5.26 Even though this MISP becomes a part of the Plans, no useful purpose will be served on the ground unless we build capacities. He urged

upon the participants from all the State Govts to act as a nucleus to carry forward the training programme to the lowest level.

5.27 The inaugural session of this training programme was also attended by Dr Muzaffar Ahmad, Member, NDMA, Ms Federika Meijer, UNFPA Representative besides representatives of IPPF and UNICEF. Ms Sachi Grover of UNFPA coordinated this training programme along with Col (Dr.) T.S. Sachdeva, Senior Specialist of NDMA dealing with the subject of Medical Preparedness.

Conference on Earthquake Risk Management for Industries (ERMI - 2011)

5.28 Two day Conference on Earthquake Risk Management for Industries (ERMI) 2011 was organized by FICCI and Global Forum for Disaster Reduction (GFDR) in association with the National Disaster Management Authority (NDMA) during 21-22 July 2011 at India Habitat Centre, New Delhi. Shri M Shashidhar Reddy, Hon'ble Vice Chairman, National Disaster Management Authority, inaugurated this conference. The inaugural session was attended by Dr. Muzaffar Ahmad, Member, NDMA, Shri Anil K Sinha, Vice Chairman, Bihar State Disaster Management Authority (BSDMA), Prof A S Arya, Member, BSDMA, Prof. Ravi Sinha, IIT Bombay and other Officers from NDMA and participants from Corporate Sector.

5.29 India is vulnerable to earthquakes of various intensities. 59 per cent of our landmass is vulnerable to earthquake, 68 per cent of urban population and 65 per cent of Indian cities are vulnerable to earthquakes. Only 3 per cent of buildings in the country are engineered concrete structures, relatively more resilient to earthquakes. But in India, little emphasis has been put to enforcement of building codes – whether it is building sector or infrastructure sector. However, some of the larger industries claim that they have factored these building codes into at the time of construction itself, Shri

Reddy said that they also need to be re-evaluated. NDMA also urged to integrate updated technical knowledge on earthquake resistant industrial set up in IS 1893 (Part-IV), which is presently under revision. Guidelines for compliance with disaster resistant codes prepared by the NDMA have been circulated by the Reserve Bank of India to all banks, which are to be followed for financing of the building sector covering all types of buildings. NDMA is now in the process of preparing similar guidelines for bank financing for the infrastructure sector by the end of this year.

5.30 During this conference, the Vice Chairman of the National Disaster Management Authority informed that NDMA is, for the first time, planning a Multi-State Preparedness Exercise for a large scale disaster towards the end of the year to assess the disaster preparedness and response at District, State and National levels and also to operationalize the Incident Response System. The Scenario Building exercise for a major earthquake of about 8.0 on Richter Scale has been initiated involving different IITs and Scientific & Technical Institutions in the country. This exercise will cover Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Chandigarh, Uttarakhand and Delhi, and involve State Governments, different Ministries, institutions and all other stakeholders. It will review the preparedness for response and the assessment of the gaps in coordination mechanism at all levels. "This is only the first step, we will try to institutionalize this system fully taking into account India's vulnerability & various administrative and institutional arrangements and make a National Exercise Programme calendar", he said. He also invited the organizations like FICCI and other Private Sector to actively participate in this and mention that Business Continuity would also be an important aspect of such exercise. Dr. Muzaffar Ahmad, Member, NDMA also attended the conference.

Seismic Vulnerability Assessment of Building Types in India

5.31 NDMA has undertaken a project on "Seismic Vulnerability Assessment of Building Types in India" which aims to develop a Building Typology Catalogue of various construction types in the country from their seismic vulnerability considerations. The work has been assigned to IIT Bombay which is coordinating the project with four IITs – IIT Roorkee – North Zone, IIT Kharagpur – East Zone, IIT Guwahati – North East Region and IIT Madras – South Zone. A workshop was organized in NDMA on 05 August 2011 to review the progress of the project. Apart from representatives of the 5 IITs, undertaking this project, representatives of some of the States and other organizations participated in this workshop.

National Conference on Biological Disaster, Hyderabad

5.32 In the present scenario, there is a great possibility of biological agents falling in the hands of terrorists, because biological agents are cheap, easy to produce and a very small amount is required to play havoc. In addition to that, biological disaster may occur due to outbreaks of infectious diseases. In recent past swine flu pandemic rocked the whole world. There has been emergence of infective disease like Japanese encephalitis, Congo Crimean hemorrhagic fever, dengue fever & Chikunguniya, etc. in the different part of the country.



5.33 For prevention, mitigation and preparedness to handle epidemic or bio-threat, NDMA in conjunction with the FICCI held a National Conference on “Biological Disaster Management: A step towards building National CBRN Capacity & Resilience –The Role of Industry under PPP” on 12-13 December 2011 at Convention Centre, Hotel Taj Krishna, Hyderabad. In this endeavour, Andhra Pradesh was the Partner State. The Aim of the conference was to inculcate preventive measures and the best management practices coupled with technology up-gradation including Research & Development for Biological Disaster Management.

5.34 The Conference was inaugurated by the Hon’ble Chief Minister of the Government of Andhra Pradesh Sri. Nallari Kiran Kumar Reddy, and this inauguration ceremony was graced by Hon’ble Vice Chairman of NDMA – Sri M. Shashidhar Reddy, other dignitaries and eminent national and international experts.

5.35 During his inaugural address, Shri M Shashidhar Reddy said that the panic created by Anthrax spores filled letters in 2011 in US is known to whole world. Hundred were exposed, 22 individuals were affected and 11 developed severe pneumonia out of which 5 died. Recently also there was a report of spore in the form of white powder in U.S. India is not immune to biological terrorism; current analysis indicates that the potential of terrorist using of biological agents is real threat. Biological agents can be disseminated as an aerosol; fire extinguisher can

be used for this purpose. Anthrax can be disseminated through Heating, Ventilation & Airconditioning (HVAC) system where air handling unit can be exposed to the anthrax powder. He further stated that the NDMA has already formulated and released the National Guidelines on Biological Disaster management.

5.36 Major General (Dr.) J. K. Bansal, Member NDMA stated in his keynote address that there is a great possibility of biological agents falling into the hands of terrorists as biological agents are cheap, easy to produce and a very small amount can play havoc. They can be disseminated as an aerosol like fire extinguisher or through Heating, Ventilation & Air conditioning (HVAC) system. This epoch-making event will endeavor for Preparedness, Emergency Planning, Mitigation and Response during a Biological disaster with the ultimate aim of inculcating Best Management Practices coupled with technology up-gradation including Research & Development. Eminent speakers from all stakeholders of Biological Disaster Management milieu shared the dais and spoke eloquently on their domain of expertise with stimulating presentations with certain aspects being eye-openers, which were well received by the discerning audience.

Conference on CBRN Disaster Management and Security (CBRN-DMS-2012) at FICCI Federation House, New Delhi (16 Feb 2012)

5.37 Aimed at bringing an interface between research organizations and industry in India and United Kingdom, a two days conference was



organized by FICCI, National Disaster Management Authority (NDMA), Defence Research Development Organisation (DRDO) and partner country United Kingdom (UK). Delivering a special address Major General (Dr.) J. K. Bansal gave an overview of the medical disaster preparedness and underlined the need of training and provision of equipment. He also suggested that NDMA, DRDO and FICCI could evolve a mechanism for training personnel through the PPP mode along with the provision of equipment. He stressed on topics such as CBRN threat perspective and policy; CBRN threats in mass transport systems, multi-agency CBRN response & capacity building. Planning, initial operational response and mass decontamination, role of industry in CBRN training, CBRN mitigation technologies, CBRN medical response at incident site, specialized evacuation and hospital care, CBRN medical counter-measures, business continuity planning during CBRN eventuality was also highlighted by him.

20th Annual National Conference of Burns on 03 February, 2012, New Delhi

5.38 Delivering special address Maj Gen (Dr) J K Bansal apprised audience about causes and impact of burns caused due to radiation and hazardous chemicals. Recounting his personal experience in handling Maya Puri Radiation casualties, including radiation burns, he underscored the need for professional awareness among doctors and specialised training facilities for training doctors and paramedics to handle CBRN casualties. He further highlighted that in view of growing threat of CBRN Terrorism there will be large number of cases of chemical or radiation injuries. Therefore, it is important that preparedness need to be enhanced to handle such cases. Doctors may be the first persons to receive these cases. The knowledge of CBRN will benefit them to handle these cases and treat them. Medical fraternity should upgrade their

professional skills to handle these new kinds of medical cases on priority.

Fourth Regional South Asian Forum for Health Research SAFHR meeting at India International Centre, Lodi Estate organized by ICMR (07 Feb 2012)

5.39 South Asian Forum for Health Research (SAFHR) is a mechanism for enhancing regional collaboration and partnership in health research among South Asian Countries. The consultative meeting was organized for the Development of Health Research Agenda for South Asia. There was a brainstorming discussion with the involvement of health research councils of the South Asian countries and the learned participants. In his concluding remarks Maj Gen (Dr) JK Bansal emphasized on the need for sharing of knowledge, experience and best practices amongst member countries for better health of the community.

NDMA held Coordination Meeting on Psychosocial Workers on 09 Feb 2012

5.40 The meeting chaired by Maj Gen (Dr) J K Bansal, Member NDMA conceptualized to initiate an inter-sectoral approach toward training of psychosocial care workers across the country for better psychosocial care preparedness, response and mitigation in manmade and natural disasters. The meeting was attended by officials and renowned psychosocial experts. The experts deliberated at length on issue related to psychosocial issues and identified thrust areas such as constitution of Psychosocial support teams, logistic supports to psychosocial workers, identification and training of master trainers and standardization of training program.

International Congress on Emergencies Medical Service Systems at AIIMS, Delhi 11 Feb 2012

5.41 All India Institute of Medical Sciences, Department of Hospital Administration,

organized an “International Congress on Emergency Medical Service Systems - EMS 2012” from 9th-11th February, 2012 at Jawaharlal Auditorium, AIIMS, New Delhi. Approximately 1000 experts and delegates from diverse fields participated in this mega event from across the globe. The Conference objective was to create awareness regarding the current status of Emergency Medical Service Systems in India vis-a-vis the global scenario. Maj Gen (Dr) J K Bansal chaired a session on MCI & Disaster Management on 11th February, 2012 and apprised the audience about NDMA’s initiative for preparedness for Emergency Medical Response to CBRN eventuality. He stressed the need of CBRN training of Doctors and paramedical staff.

Visit of Maj Gen (Dr.) J. K. Bansal, Member NDMA to J&K Institute of Public Administration and Rural Development, Srinagar on 28th March 2012

5.42 Maj Gen (Dr) J K Bansal visited J&K Institute of Public Administration and Rural Development on 28 March 2012 and delivered a lecture on CBRN Emergencies. Various scenarios leading to CBRN disasters were discussed, these included – accidental release of CBRN agents, packaging of Chemical or Nuclear agent with a conventional explosive material which may trigger an explosion with wide spread contamination of environment, etc. Preventive measures and preparedness for response were highlighted during the lecture. Lecture was attended by large number of stakeholders including Divisional Commissioner and other Senior Government Officials.

13th D. P. Kohli Memorial Lecture organized by Central Bureau of Investigation at Vigyan Bhawan, New Delhi (30 March 2012)

5.43 Central Bureau of Investigation (CBI) organized the 13th D.P Kohli Memorial Lecture at Vigyan Bhawan. Delivering the Memorial Lecture, Mr. Ronal K Noble, Secretary General INTERPOL gave details on how multi-

jurisdictional sharing and exchanging police information can work legally and technically. Major General (Dr.) J. K. Bansal, Member NDMA held discussion on Bioterrorism with Mr. Ronal K Noble, Secretary General INTERPOL, he said that INTERPOL is willing to train police officer in Bioterrorism Prevention through NDMA & CBI.

Psychosocial Care for Sikkim Earthquake Survivors

5.44 The devastating Earthquake of 18th September, 2011 of 6.8 Richter with epicenter near to Mangan in North Sikkim rendered thousands homeless coupled with injuries of varying degrees, loss of life and livelihood. Concerned with this scenario, NDMA deputed a team of Experts coordinated by Dr. Jayakumar, Senior Consultant (Psychosocial Support) of NDMA. Other members of team were Prof Nimesh Desai, Professor & Director, IHBAS, New Delhi and Prof K. Sekar, Professor of Psychiatric Social Work, NIMHANS, Bangalore. The team visited various affected places including worst affected north Sikkim and provided psychosocial care and conducted the need assessment. The report of the above said subject was submitted and subsequently a power point presentation was made to Hon’ble Vice Chairman and Hon’ble Members of NDMA on 19th October, 2011. Based on the report psychosocial care has been initiated for the welfare of the affected population.

Conference on International Cooperation and Chemical Safety and Security at Hague, Netherlands (12-13 September 2011)

5.45 In key note address Maj Gen (Dr) J K Bansal, Member NDMA highlighted that India is deeply concerned about safety & security of hazardous chemicals. India also attaches great importance to preparedness for prompt and effective response, to minimize the impact of chemical emergencies. National Disaster Management Authority of India has formulated

National Guidelines for prevention, mitigation, capacity development, preparedness & response for any chemical industrial as well as chemical terrorism disasters. Our guidelines focus on chemical plant installation and hazardous chemical storage in terms of good engineering practice for safety, accidents reporting, investigation and analysis, check lists and safety promotional activities. Guidelines also emphasizes on Security & surveillance measures for installations, manufacturing, storing & safe Transportation of hazardous chemicals. India is fully committed to ensure safety & security against chemical terrorism. Prevention is further ensured by establishing mechanism for assessing risk and vulnerability; surveillance based environmental monitoring systems, intelligence gathering, and a secure information dissemination system for chemical security, Development of indicators for Early Warning Systems and mechanism preventing illegal trafficking of hazardous waste.

CBRN Training for Parliament House Complex Security Staff (13-14 October 2011)

5.46 Two days training program for Parliament House Security Personnel was held at NDMA Bhawan, New Delhi on 13-14 October 2011. Inaugurating the training program Chief Guest Shri J K Sinha, Member NDMA highlighted emerging CBRN security concerns and importance of specialized trainings to counter it. In his Keynote address Maj Gen (Dr) J K Bansal, Member NDMA apprised participants of various aspects of CBRN threats and requisite countermeasures. He also appealed all participants to interact with subject experts and derive maximum benefit out of this training program. During the two days training both theoretical and practical training was imparted to 103 Security Personnel in managing CBRN emergencies. On second day of training a 'Table Top exercise on CBRN Scenario Planning & Simulation' was conducted to familiarize

participants with real life situation. The Table Top exercise was followed by a demonstration by NDRF team wherein the trainees were familiarized with Detection & Decontamination Operation during any CBRN Emergency. The training was coordinated by Dr A K Sinha, Senior Research Officer NDMA.

Scientific Advisory Committee Meeting of National Institute of Research in Environmental Health (NIREH) Bhopal

5.47 In view of the persistent maladies still afflicting the victims of the Bhopal Gas Tragedy, on the directives of Group of Ministers (GOM), the Indian Council of Medical Research (ICMR) established a research Institute called the "National Institute of Research in Environmental Health (NIREH)" at Bhopal on 11th October 2010. The immediate goal of this Institute is health research on people affected by exposure to MIC gas tragedy of 1984 to alleviate their sufferings while its long-term goals is to focus on the entire issues of environmental health. The ICMR convened the Second Scientific Advisory Committee Meeting at the National Institute of Research in Environmental Health, Bhopal on 18th October 2011 to review the progress of the said Institute for the period 2010-2011. NDMA nominated Dr. T. S. Sachdeva, Senior Consultant for this meeting as technical expert. On the agenda pertinent to the NDMA, was the raising of Rapid Response Division that shall formulate Guidelines including Preventive and Management strategies pertaining to Chemical Emergencies.

Review Meeting on Bird Flu (H5N1) outbreaks at NDMA Bhawan (20 October 2011)

5.48 Taking note of an FAO alert issued on August 29, 2011, and recurrent outbreaks of Bird Flu (H5N1) in India and neighbouring countries of Nepal, Bhutan and Bangladesh, NDMA convened an inter departmental review meeting

on 20th October 2011 to take stock of emerging situation and requisite preparedness measures. The meeting chaired by Maj Gen (Dr) J K Bansal, Member NDMA was attended by experts and senior officials from Department of Animal Husbandry Dairy & Fishery (DoAHD&F), Ministry of Health & Family Welfare (MoH&FW), Ministry of Home Affairs (MHA), Ministry of Forest and Environment (MoEF), High Security Animal Diseases Laboratory (HSADL) Bhopal, National Institute of Virology (NIV) Pune, Indian Veterinary Research Institute (IVRI) Bareilly, National Institute of Disaster Management (NIDM) Delhi, Defence Research and Development Organization (DRDO), and Directors Animal Husbandry from Government of West Bengal, Assam, Tripura, Madhya Pradesh and Maharashtra. Technical experts and virologists from NIV Pune, HSADL Bhopal and IVRI Bareilly expressed concerns over recent mutations in H5N1 virus and its probable pandemic potentials and suggested strengthening of readiness and surveillance against a possible major resurgence of the H5N1, a Highly Pathogenic Avian Influenza. The meeting also took a comprehensive review of current level of preparedness and decided that containment of individual outbreaks, the probable pandemic potential of virus (H5N1) to be enhanced and adequate preparedness for prevention, response, mitigation and rehabilitation to be ensured in all respect.

National Safety Council of India National Conference at New Delhi (21 October 2011)

5.49 The 12th National Safety Council of India (NSCI) conducted a National Conference entitled "Safety, Health and Environment for Sustainable Growth: Challenges & Responses" from the 19th to 21st October 2011. The highlight of this Conference was a session devoted to Disaster Management. A session on Disaster Management was chaired by Major General (Dr.) J. K. Bansal, Member NDMA on 21st October 2011 in that two speakers from the

NDMA Major General (Retired) R. K. Kaushal and Dr. T. S. Sachdeva, Senior Consultant delivered a talk on the "National Policy on Disaster Management" and "On-site Management of CBRN Disasters" respectively.

CBRN Disaster Management Training at Haryana Institute of Public Administration (HIPA), Gurgaon, Haryana (16-18, November 2011)

5.50 National Disaster Management Authority (NDMA) in collaboration with Defence Research & Development Establishment (DRDE) Gwalior, conducted a three days training program on CBRN Disaster Management at Haryana Institute of Public Administration (HIPA), Gurgaon w.e.f. 16-18, November 2011. In his inaugural address Shri T K A Nair, Advisor to Hon'ble Prime Minister expressed Government of India's concern on Indian vulnerabilities to the growing threats of CBRN emergencies and appreciated NDMA's initiative to train district officials who by virtue of their administrative responsibility are the first responders. Delivering his keynote address Maj Gen (Dr) J K Bansal Member NDMA presented an extensive background detail of CBRN threat perceptions and various specialized aspects of managing the same. During the three days training program a total of 78 districts officials that includes Medical Doctors, Veterinarians, Engineers, Fire Officer, Police Officer, District Project Officer, Revenue Officers and Industrial Extension Officer were trained in both theoretical and practical aspects of CBRN Disaster Management by experts from NDMA and DRDO. All participants were given hands on training on various CBRN protection, detection and decontamination equipment developed by DRDO. On 18th November the training concluded with an elaborate CBRN Drill Demonstration by the NDRF Team from Greater Noida.

30th Annual National Conference of Indian Society of Professional Social Work

5.51 The National Institute of Mental Health and Neurological Sciences (NIMHANS) organized a National Conference of Indian Society of Professional Social Work from 5 to 7 Jan 2012. Around 400 social workers and educators participated in this particular conference. In his key note address Maj Gen (Dr.) JK Bansal, Member, NDMA emphasized the role of psychosocial workers in disaster management. Psychosocial workers play an important role in bringing out the victims from the emotional traumatic impact of disaster. He advised that the psychosocial support must be integrated with rescue, relief and rehabilitation team. He cited the example of remarkable impact made by psychosocial support in fast recovery of Mangalore air crash victims from mental trauma. The psychosocial support was provided jointly by NDMA & NIMHANS. Dr. Jayakumar C, Senior Consultant (Psycho-social Support) & Dr. A.K. Sinha, SRO to Member, NDMA also attended the conference and made very significant contribution during deliberation.

3rd Indian Global Psychiatric Initiative Conference - 2012, Kochi (17 January 2012)

5.52 The 3rd Indian Global Psychiatric Initiative Conference-2012 was held at The Amritha Institute of Medical Sciences, Kochi. More than 500 psychiatrists from India, USA, UK, Australia, Canada, New Zealand and China attended the conference. Maj Gen (Dr) J K Bansal, Hon'ble Member NDMA delivered key note address. In his key note address he apprised audience that disaster causes intense mental trauma and psycho-social disturbances to the survivors due to loss of life property & physical injuries. Physical trauma may be relieved soon but psycho-social problems and mental trauma may continue for a longer time in the form of pathological grief, depression, anxiety and post-traumatic stress disorders. Gen Bansal

emphasized to provide timely psycho-social support to prevent development of long term mental health complications of the survivors to resolve psychological and mental health problems in the aftermath of disasters, by restoration of well being of the disaster –victims.

Conference on Chemical (Industrial) Disaster Management (CIDM-2011)

5.53 NDMA jointly with FICCI, Factories & Boilers Inspection Department, Government of Rajasthan and Petroleum & Natural Gas Regulatory Board (PNGRB) organized "CIDM-2011" a Mega National Conference on "Safe Processing, Waste Management, Storage & Transportation of Chemicals, Petroleum, Petroleum Products & Natural Gas" at Jaipur on May 19-20, 2011. Hon'ble Vice Chairman, NDMA, Hon'ble Minister for Disaster and Relief, Govt of Rajasthan, Hon'ble Minister for Labour & Employment and Hon'ble Member, Dr. Muzaffar Ahmad, NDMA attended the conference. The aim of this conference was sensitizing industries, primarily first responders, District / State Administration, R&D and technology providers towards Chemical (Industrial) Disaster Management. The conference was followed by a Mock Exercise on May 21, 2011 at IOCL Bottling Plant Sitapura, conducted by NDMA along with the Jaipur District Administration.

Pre-Hospital Trauma Life Support Course (PHTLS) in India at JPN Apex Trauma Centre, AIIMS, New Delhi

5.54 NDMA in collaboration with JPN Apex Trauma Centre, AIIMS organized Promulgation of Pre-Hospital Trauma Life Support Course (PHTLS) in India at JPN Apex Trauma Centre AIIMS, New Delhi from 28th Feb. 2012 to 4th March 2012, which was inaugurated by Hon'ble Member Dr. Muzaffar Ahmad.

Conference on Chemical (Industrial) Disaster Management (CIDM-2011) at Kolkata

5.55 National Disaster Management Authority, Ministry of Environment & Forests, Petroleum & Natural Gas Regulatory Board (PNGRB), West Bengal Pollution Control Board (WBSPCB), Directorate of Factories, Labour Department, Government of West Bengal and FICCI organized two days conference on 8-9th Sept. 2011 at Kolkata on Emergency Planning in Industries, Hazardous Waste Management and Safe storage, Transportation of Petroleum, Petroleum Products, Natural Gas through Pipelines & POL Tankers. Shri Janab Javed Ahmad Khan, Hon'ble Minister of Disaster Management, Government of West Bengal inaugurated the conference. The main focus of the conference was to make industry globally safe by better emergency planning both on-site & off-site and to minimize accidents occurring due to handling, storage, warehousing and transportation of Hazardous wastes, Petroleum Products and Gases either through pipelines or POL tankers.

National Workshop on Landslide Hazard and Risk Assessment in India

5.56 Shri M. Shashidhar Reddy, Hon'ble Vice Chairman and Dr. Muzaffar Ahmad, Member, NDMA attended a workshop on "National Workshop on Landslide Hazard and Risk Assessment in India" on 15-16th Nov. 2011 at Geological Survey of India Training Institute (GSITI) Hyderabad. The aim of this workshop was to discuss the methods and results of research project and similar studies carried out by other India Institutes. The workshop provided the opportunity to update our knowledge on different state-of-art techniques of landslide hazard analysis and scope for future studies / collaborations.

National Action Plan on Chemical (Industrial) Disaster Management (NAP-CIDM)

5.57 Workshop for finalization of Draft Report

of National Action Plan on Chemical Industrial Disaster Management was organized on 6th December 2011 at DMI, Bhopal under the chairmanship of Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA and Dr. Muzaffar Ahmad, Hon'ble Member, Additional Chief Secretary, Govt of Madhya Pradesh, Department of Home, ED, DMI, Bhopal, Director, MoEF. Dr. Rakesh Dubey, Director, DMI gave presentation on draft action plan and explained in detail. During the discussion, Hon'ble VC and Member suggested modifications in the action plan.

National Seminar on Disaster Medical Response

5.58 National Seminar on "Disaster Medical Response" organized on the occasion of the 5th All India Conference of Medical Service Centre on "Health, Medical Education, Technology and the Common Man" at the Centenary Auditorium, University of Calcutta, Kolkata on 12th November, 2011. The seminar inaugurated by Dr. Muzaffar Ahmad, Member. More than thousand delegates, distinguished teachers, scientists and super-specialists and all categories of health professionals of all systems of medical practice from across the country were participated in the said conference. The seminar was covered topics i.e (a) concepts and issues in disasters, with reference to India (b) disaster Task Force and Disaster Management (c) Health Hazard and Mental health issues in Disaster Management.

56th Annual National Conference of IPHA, Kochi

5.58 Indian Public Health Association (IPHA), Kochi, Kerala organized 56th Annual National conference of Indian Public Health Association (IPHA) from 10-12th February 2012. Dr. Muzaffar Ahmad, Hon'ble Member was invited to present a paper on Disaster Management and deliver a lecture on "Public Health Priorities for the 12th Five Year Plan (2012-2017)". The

objective of programme was to make aware the delegates about the strategies used for disaster management in the Indian setting and its importance.

Conception of Pilot Project on Advanced Trauma Life Support with JPN Apex Trauma Centre, AIIMS

5.59 Taking into account the lack of competence and capability to manage the cases of trauma occurring during emergencies and disasters, NDMA took up a meeting with Prof. M.C. Misra, Head of Surgery & Chief, JPN Apex Trauma Centre, AIIMS on 4th April 2011 for formulation of Pilot Project targeting medicos and paramedics on training and capacity building in trauma life support where in the modalities for providing capacity building and creating master trainers for trauma management was discussed at length.

Seminar on Disaster Management and Role of Army with a special focus on Jammu & Kashmir at Nagrota, Jammu on 05th May 2011

5.60 Member, NDMA Dr. Muzaffar Ahmad inaugurated the seminar organized by Northern Army Command at Nagrota, Jammu on 5th May 2011 which focused upon Disaster Management and Role of Army in the Region. This seminar was not only attended by the officers from the Army but also officers from the State Govt Machinery and other civil society organisations.

Interactions of NDMA with His Excellency Governor of Jammu and Kashmir on Safety Aspects pertaining to Amarnath Yatra 2011

5.61 Dr. Muzaffar Ahmad, Member, NDMA and Secretary, Internal Security, Govt. of India called upon Shri N.N Vohra, His Excellency, Governor of J&K at Raj Bhavan on 18th June, 2011 in connection with discussions on several safety aspects for the Amarnath Yatra for the year 2011. During the discussions, Shri Vohra and Dr. Muzaffar Ahmad discussed modalities for putting in place an effective Disaster

Management Plan for the Amarnath Yatra-2011. In this context, two NDMA teams under the supervision of Dr. Muzaffar Ahmad and Shri J.K. Sinha, Members, NDMA conducted Table-Top & Mock Drill exercises simultaneously at the Baltal and Nunwan Base camps for the Amarnath Yatris on June 25th June 2011.

Meeting for Formulation of Guidelines for Banking Lending Institutions for Mainstreaming DRR in Loan Schemes

5.62 The meeting for Formulation of Guidelines for Banking / Lending Institutions for Mainstreaming DRR in Loan Schemes in the Power Sector, Transport Sector, Infrastructure Sector and Telecom Sector was held under the chairmanship of Dr. Muzaffar Ahmad, Member, NDMA on 10th July 2011, 26th July 2011, 10th Aug. 2011 and 30th Aug. 2011.

Meeting with Lt. Governor, Government of Delhi

5.63 A meeting under the chairmanship of Lt. Governor, Delhi attended by Vice Chairman and Dr. Muzaffar Ahmad, Member, NDMA was held on 24th Oct. 2011 at Raj Niwas with regard to "Suitable Strengthening of Building Bye-Laws to meet the Challenges posed by Natural and Manmade Disasters". In this meeting, it was decided that NDMA will conduct training of trainers programme in Rapid Visual Screening (RVS) for practicing government engineers, architects and town planners working in MCD, NDMC, DDA, PWD and in other government agencies of Delhi Government. It was also decided to constitute a committee consisting of experts to frame the training module and subsequently impart the training.

Consultative Round Table on Re-building-Leh Ladakh-(Post 2010 Cloudburst)

5.64 After the cloudburst and flash floods, which had devastated Leh on 6th August 2010, Hon'ble Vice Chairman, NDMA along with Member Dr. Muzaffar Ahmad visited Leh in

Feb. 2011 and handed over 16 prefabricated shelters constructed by NDMA from Prime Minister's National Relief Fund (PMNRF) to Chief Executive Councilor, Ladakh in the presence of officials from District Administration and people of Leh. Hon'ble VC and Member Dr. Muzaffar Ahmad also took an interactive session with Chairman / Chief Executive Councilors accompanied by Director, Tata Institute of Social Sciences , Executive Councilors and Councilors of various villages of Leh on 14th Feb 2011. Following this, an Advocacy Roundtable on Rebuilding Ladakh was also held in NDMA, New Delhi on 5th April, 2011 with support of Sphere India and other National and International NGOs who provided assistance in Leh-Ladakh, after the devastating cloudburst in Leh.

86th Training Course on Hospital Administration for Senior Hospital Administrators at NIHFW

5.65 Dr. Muzaffar Ahmad, Member, NDMA delivered a lecture on the role of Public Health Managers in Disaster Management at the 86th Training Course on Hospital Administration for Senior Hospital Administrators on 12th Sept 2011 at National Institute of Health and Family Welfare, New Delhi.

National Consultation on Addressing Caste Based Discrimination in Disaster Response on 14th December, 2011 at IIC

5.66 Dr. Muzaffar Ahmad, Member NDMA inaugurated the National Consultation on Addressing Caste Based Discrimination in Disaster Response organized by Sphere India on 14th Dec. 2011 and same day in the evening a meeting was held with officials of Government of Assam including the Addl. Secretary (Revenue), Guwahati, Principal Secretary Health, Director Health Services, Director Fire Services for conducting Emergency Management Exercise at Guwahati.

National Institute of Disaster Management

5.67 National Institute of Disaster Management (NIDM), constituted under the Disaster Management Act 2005, has been entrusted with the nodal national responsibility for human resource development, capacity building, training, research, documentation and policy advocacy in the field of disaster management. Upgraded from the National Centre for Disaster Management of the Indian Institute of Public Administration on 16 October 2003, NIDM is steadily marching forward to fulfill its mission to make a disaster resilient India by developing and promoting a culture of prevention and preparedness at all levels. During 2011-12, major activities performed by the NIDM are mentioned in the succeeding paragraphs.

Training Programmes

5.68 NIDM conducted 89 face-to-face training programmes and 15 web based online courses. These were attended by 2,486 and 1,021 participants respectively.

Training Programme on Comprehensive Disaster Risk Management for Officials of African Countries

5.69 NIDM organized the second "Training Programme on Comprehensive Disaster Risk Management" from September 19-30, 2011 for the officials of African countries under Indo-African collaboration. Twenty five participants from thirteen countries participated in the programme. H.E. Ms. Nimisha Madhvani, High Commissioner, Uganda High Commission and Shri Gurjit Singh, Additional Secretary (E &SA), Ministry of External Affairs were the Chief Guests of the function. Other dignitaries included Shri R. K. Srivastava, Joint Secretary (DM), Ministry of Home Affairs and Shri Lokesh Jha, Joint Secretary (PP), Ministry of Home Affairs.

Workshops/ Conferences

International Conference on Environmental Knowledge for Disaster Management

5.70 The international conference on Environmental Knowledge for Disaster Risk Management (EKDRM-2011) was organized during 10-11 May 2011 at Vigyan Bhavan, New Delhi as apart of the cooperation of the NIDM and Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH under the aegis of the Advisory Services in Environmental Management (ASEM) programme in India. There were 5 thematic sessions and 42 papers were presented during the conference.

National Round Table on Climate Change and Disaster Management

5.71 India Water Partnership (IWP) along with its host institution, Institute for Human Development (IHD) in collaboration with NIDM, Ministry of Home Affairs, Govt. of India organized a one day National Level Round Table on 26th November, 2011 at NIDM. Participants were from the NDMA, NIDM, India Meteorology Department (IMD), National Centre for Medium Range Weather Forecasting, experts from Universities, IWP network and zonal water partners, corporate sector, UN Agencies and international aid agencies and INGOs, print and electronic media, members of the state Disaster Management Authorities. Key themes discussed in the national round table were scientific explanation of increasing number of extreme events turning into hydro meteorological disasters in India; Risk reduction strategy for changing vulnerability profile of the country at the local level; Capacity of the stakeholders to cope with mitigation, adaptation and Disaster Risk Management; Innovation for unconventional strategy for sustainable development; Food security, poverty and safety with inclusive strategy; and Land and Water Management. The National Round Table would

come out with a strategy document for future policy interventions and programmes for adaptation to climate change and disaster risk reduction for different stakeholders.

National Workshop on Sikkim Earthquake

5.72 NIDM organized a one-day brainstorming national workshop on 9th February 2012 at its premises in Delhi to synthesize different expert comments, feedback and suggestions for formulating guiding road map for recovery, rehabilitation and redevelopment of the affected area. The workshop attempted to bring all stakeholders who have worked during the post-earthquake operations and involve planners, policy makers and decision making authorities for documenting the lessons learnt based on the their experience with the situation after Sikkim earthquake. The workshop focused mainly on the issues related to response, relief, and rehabilitation operations by agencies such as National Disaster Response Force (NDRF), Army, Air Force, Indo-Tibetan Border Police (ITBP), Army, State Police, Civil Defence, NGOs and other volunteers. Restoration of lifeline facilities in the affected areas by concerned State Government Line agencies, Border Roads Organization, Teesta Urja, Public Sector Units and others, damage and loss assessment survey conducted by expert teams set up by Ministry of Home Affairs, Ministry of Urban Development, Ministry of Rural Development, National Disaster Management Authority and agencies of the State Government. The teams included experts from IITs, IIRS, TISS and others. The workshop was attended by more than 70 delegates.

Joint Indo-Japanese Training cum Field Workshop on Landslides & Disaster Management

5.73 NIDM has organized 2nd Indo-Japanese Training cum Field Workshop at Gangtok, Sikkim during 13-17 Feb. 2012, jointly with

Land Revenue and Disaster Management Department, Government of Sikkim. The programme was inaugurated by the Chief Secretary, Government of Sikkim in the presence of Member of Parliament, Ministers, Parliamentary Secretary, Secretaries from various other departments in Government of Sikkim, District Magistrate, City Mayor and other dignitaries, as well as experts and officials from related departments of Government of Sikkim, Media, GSI, MoRTH, BRO etc. About 400 persons were present during the inaugural programme ninety six participants, including nineteen Japanese delegates attended the workshop.

Annual Training Conference

5.74 Seventh Annual Training Conference was held during 27th-28th February, 2012 at NIDM, New Delhi. Joint Secretary, Disaster Management (MHA), Director NDM (MHA), Director Generals/ Directors of Administrative Training Institutes(ATIs), representatives from Central Ministries / Departments, States Head/Faculty members of Centre of Disaster Management (CDMs) from ATIs/Training Institutions and senior faculty members of NIDM attended the Conference. The issues discussed during the conference were the progress made by each CDMs in conducting Training courses, mainstreaming disaster risk reduction into various sectors, utilization of funds by each CDM and continuation of scheme after March 2012. The National School Safety Programme (NSSP) of NDMA was also discussed during the conference by representative from NDMA.

National Conference and Field Study on Landslide Management

5.75 National Institute of Disaster Management, World Centre of Excellence on Landslide Disaster Reduction (conferred by ICL and IPL-ISDR) in collaboration with Disaster Management Cell, Uttarakhand Academy of Administration, Nainital, National Centre of

Excellence on Landslides (conferred by NIDM, Ministry of Home Affairs, GoI) jointly organized a National Conference and Field Study on Landslide Management at Nainital during 22-24 March 2012. A publication in the form of abstract proceedings is published and shared with the delegates during the conference.

Disaster Reduction Day

5.76 NIDM observed "Disaster Reduction Day" on 12 October, 2011 at New Delhi in lines of International Day for Disaster Reduction, which is observed in October every year. Shri Mullappally Ramachandran, Hon'ble Minister of State for Home Affairs, was the Chief Guest of the function. Various activities, poster & painting competition, slogan writing – Hindi & English were organized for school children. Rallies and special lectures were organized in the universities and colleges to mark the initiatives of awareness for disaster reduction amongst youth & children. State Governments too observed Disaster Reduction day.

International Day of People with Disabilities

5.77 National Institute of Disaster Management observed the International Day of People with Disabilities (IDPD) on 2nd December 2011 at the conference hall of NIDM Building. The Institute extensively supports the IDPD Theme for year 2011, "Together for a Better World for All: Including Persons with Disabilities in Development". Since disaster is a key development issue and an inclusive disaster risk reduction frame work is being advocated by all disaster management and disability management stakeholders throughout the world, NIDM organized a special programme arranging two thematic lectures on this issue. The programme was attended by about 50 persons from different institutes and schools. The observance of the day aims to promote an understanding of disability issues in disaster context and mobilize support for the dignity, rights and well-being of persons with disabilities.

NIDM e-learning Self Study Programme

5.78 NIDM with the technical support of C-DAC developed e-learning self-study programme on disaster management and launched on 12th October 2011, on the occasion of Disaster Reduction Day. Target group of this course is general public as well as government officials and other stakeholders. These self-study programmes on disaster management can be accessed by anyone from anywhere in the world as per user's convenience in flexi time and free of cost. Similar self-study modules for specialized courses on School Safety, Community Based Disaster Risk Management; Industrial and Chemical Disasters, Landslide Risk Mitigation, Earthquake Risk Mitigation etc. are under preparation and will be launched shortly.

Training modules

5.79 NIDM has brought out 2 training modules on Chemical (Industrial) Disasters and Community Based Disaster Risk Management during the year 2011-12. It has also prepared 6 modules / methodologies / guidelines under the GoI-UNDP DRR programme.

NIDM conferred the title of "World Centre of Excellence on Landslide Risk Reduction"

5.80 National Institute of Disaster Management (NIDM), New Delhi, India has been conferred the title of "World Centre of Excellence on Landslide Risk Reduction" by the International Consortium on Landslides (ICL) and Global Promotion Committee (GPC) of the International Programme on Landslides under International Strategy for Disaster Reduction (IPL-ISDR) during the 2nd World Landslide Forum held at FAO Headquarters, Rome, Italy between 3 and 7 October 2011. NIDM is now one among the 15 organizations / universities / institutes which have been identified as WCoES by the GPC of IPL-ISDR and ICL.

NIDM in International Forum

5.81 During the period under report, NIDM represented the country in the following International Forum:

- Dr. Santosh Kumar, Professor and Head of the Policy Planning and Cross Cutting Issues Division attended the third session of Global Platform on Disaster Risk Reduction at Geneva, Switzerland during 8-13 May 2011.
- Dr. Anil K. Gupta participated in the Pilot Training Workshop on Ecosystem Approach to Disaster Risk Reduction organized by Partnership on Environment and Disaster Risk Reduction (PEDRR) as a resource person and attended the launch of Strategic Environmental Assessment Report of North Province held at Colombo, Sri Lanka during 23-26 May 2011.
- Ms. Sreeja S. Nair attended the Pilot Training Workshop on Ecosystem Approach to Disaster Risk Reduction organized by Partnership on Environment and Disaster Risk Reduction and the launch of Strategic Environmental Assessment Report of North Province held at Colombo, Sri Lanka during 23-26 May 2011.
- Fourth Russia – India – China Trilateral Experts Meeting on Disaster Management was organized by the Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters during September 6-9, 2011 at St. Petersburg, Russia. Dr. Satendra, IFS, Executive Director, NIDM was deputed by the Ministry of Home Affairs, Government of India as

member of the five members Indian Delegation led by Shri R K Srivastava, Joint Secretary, DM, Ministry of Home Affairs.

- Dr. Satendra, ED, NIDM visited various Institutes and Organizations in United States with Senior Management Personnel from the Disaster Management Sector under Professional Exchange Programme during 13-19 November 2011.
- Dr. Surya Prakash, Associate Professor participated in the Second World Landslide Forum as a convener of the Session on Landslide Education, Training and Capacity Development during 30 September to 09 October 2011 hosted by the Food and Agriculture Organization (FAO) of the United Nations in the Headquarters building in Rome.
- Dr. Sujata Satapathy participated in Economic Research Institute for ASEAN and East Asia (ERIA) Workshop on “Economic and Welfare Impacts of Disasters in East Asia & Policy Responses” held on 19-20 December 2011 at Jakarta, Indonesia.
- Mr. Bishwanath Das, Assistant Professor, NIDM attended the Second Expert Group Meeting on Lessons Learned from Great Earthquake and Mega Tsunami Japan 2011 held at Tokyo and Iwate during 16-18 December 2011

organized by Cabinet Office of Japan, UN-ESCAP and ADRC.

- Dr. Sujata Satapathy attended the 5 Days Capacity Building Workshop on “Psychological Intervention after Disasters” held during 18-22 February 2012 at Beijing, China, organized by the International Union of Psychological Sciences (IUPsyS) with support of the Institute of Psychology, Chinese Academy of Sciences and sponsored by International Council for Science (ICSU).

Visit of Delegation from Madagascar

5.82 A delegation from Madagascar visited NIDM on 29th February 2012 for learning from Indian experience of cyclone risk mitigation and management. The delegation comprised of senior officers from Prime Minister’s Office, Departments of Land & Water Resources, Disaster Management, etc., exchanged their views on various aspects of cyclones and disaster management with faculty members of NIDM.

Visit of Trainees from India Meteorological Department on 9 February 2012

5.83 A team of scientists undergoing training in India Meteorological Department (IMD), Delhi, which is also the Regional Meteorological Service Centre visited NIDM for understanding issues related to disaster management. The team comprising forecasters from Thailand, Sri Lanka, Maldives and various offices of India discussed with the faculty members of NIDM on the issues related to evacuation, structural and nonstructural mitigation measures.

6 MOCK EXERCISES/ DRILLS, IMPLEMENTATION OF IRS & AWARENESS GENERATION

Introduction

6.1 Recognizing that awareness is the cornerstone of proactive approach to disaster management and community preparedness, NDMA has launched a number of initiatives in this regard. As an ongoing programme, mock exercise/ drills are being conducted regularly to generate awareness and identify the gaps in planning and resources at the district/ enterprise levels. Full use of electronic and print media is being made to sensitize the community about disaster risks and vulnerabilities. Interviews, articles and press releases are being issued to centre-stage the awareness generation. The mock exercise is one of the most important initiatives which the NDMA has undertaken to facilitate the State Governments and District Administration in reviewing the effectiveness of their Disaster Management Plans for both natural and man-made disasters and assess the response capabilities along with creating public awareness. These exercises are conducted in the most vulnerable districts and industries on the recommendations of the State Governments.

Mock Exercises

6.2 The aim of the mock exercises is to test the adequacy and efficacy of the emergency response plans, highlight the roles and responsibilities of the concerned stakeholders at various levels of administration, enhance coordination and synergize efforts of various Emergency Support Functions, find gaps in the resources, manpower, equipment, communication and systems. It also empower the vulnerable groups to face disasters squarely.

6.3 These exercises are conducted in a well-planned and comprehensive manner by adopting a step-by-step approach. In the initial stage an

orientation-cum-coordination conference is held to highlight the roles and responsibilities of the various stakeholders. In the next phase, the Table Top Exercise is carried out to elicit the responses of the participants on simulated scenarios. These scenarios are painted to cover the entire gamut of the disaster management cycle. At the end of this phase the lessons that emerged are shared with all the participants and sufficient time is given for the participants to hone their responses and train their subordinates before the actual conduct of the mock exercise. The exercise is conducted on a simulated scenario and is progressed keeping in view the responses of the various participants. A number of observers are also detailed to monitor the exercise. Apart from the participants, the spectator from the community and stakeholders are also invited to attend the mock exercise. After the mock exercise, a detailed debriefing is carried out in which the observers are asked to give their feedback. The gaps identified during these exercises are communicated to the State and District Administration and also to the Management of various industries for taking necessary actions for improvement.

6.4 Conduct of mock exercises has gone a long way in creating a culture of preparedness at the grassroots level. There has been a large participation of the community as well as the students in most of these exercises. The District Administration, the Corporate Sector and the other First Responders have shown a tremendous enthusiasm. Most of these exercises have been attended by the elected representatives of the people and senior level functionaries at the State level. These exercises have also been widely covered by the local print and electronic media, thus spreading the awareness amongst the large number of people.

Mock Exercises at all Nuclear Power Plants of the Country

6.5 On 01 June 2011, Hon'ble Prime Minister of India and Chairman of the National Disaster Management Authority reviewed India's disaster preparedness in general for all disasters and in particular the preparedness for nuclear



emergencies in the wake of the Nuclear Emergency in Fukushima, Japan. He clearly directed that India should have a world class nuclear emergency response capability. He also appreciated the NDRF capability and the humanitarians work done by the NDRF in Japan for helping the Japanese Government in their response effort. The Prime Minister of Japan personally complemented the work done by the NDRF.

6.6 On the directions received from the Prime Minister, the NDMA for the first time in the country conducted a two-day Off-site Training

Programme and Mock Exercise on nuclear emergencies at all Atomic Power Plants of the country spread over six states. It was spearheaded by the Vice Chairman, NDMA Shri M. Shashidhar Reddy himself along with members, NDMA Shri B Bhattacharjee, Ex-Director, Bhabha Atomic Research Centre &



Shri J. K. Sinha, Ex-DG, CRPF and Senior Specialists Maj Gen (Retd.) V. K. Datta, Senior Specialist Shri Shivajee Singh, Retd. IG, BSF and Shri B. B. Gadnayak, Specialist (IRS). Contingents from the NDRF along with all their equipment also participated and gave demonstration on nuclear response and decontamination procedures to the local administration and people.

6.7 The details of Mock Exercises conducted at various sites of Nuclear Power Plants are as follows:

Sr No.	Date	Venue
1.	10-11 June 2011	Tarapur Atomic Power Station, District Thane, Maharashtra
2.	12-13 July 2011	Madras Atomic Power Station, Kalpakkam, District Kanchipuram, Tamil Nadu
3.	22-23 July 2011	Narora Atomic Power Station, District Bulandshahar, Uttar Pradesh
4.	02-03 August 2011	Kaiga Atomic Power Station, District Uttar Kannada, Karnataka
5.	11-12 August 2011	Kakrapar Atomic Power Station, District Surat, Gujarat
6.	17-18 August 2011	Rawatbhata Atomic Power Station, District Chittaurgarh, Rajasthan

6.8 During the workshop at each location, the Vice Chairman, NDMA Shri M. Shashidhar Reddy himself along with Members NDMA Shri

B. Bhattacharjee and Shri J. K. Sinha impressed upon the district administration and the NPCIL authorities, the significance of preparing a

detailed plan covering the different emergency planning zones and conducting regular mock exercises/ drills for different rescue maneuvers. It was explained that this would help in getting a comprehensive feel and understanding of the real time situations and the actual difficulties that may be encountered in evacuation and also understanding different rescue maneuvers. It was also stressed that each location should have a proper Emergency Operation Centre (EOC) along with a comprehensive decision support system and fool proof communication capability with adequate redundancy. The decision support system should be web based along with a Geographic Information System (GIS) platform with different information layers covering roads, medical facilities and other required information. This was very important as in nuclear emergencies real time information would be required and immediate decisions would have to be taken. Delay in decision making would become catastrophic.

6.9 Since nuclear emergencies require large scale awareness amongst the people regarding the do's and don'ts in such situation, it was stressed that the Civil Defence set up at such locations should be revamped and made very active. They should be able to push forward the public awareness programme and training of the people at large in the whole district.

6.10 During the workshops, it was also emphasized that apart from the Civil Defence set up, the whole administrative structure along with NPCIL should also constantly be involved in spreading awareness in the districts. The NPCIL should reach out to the community around its locations and pass on useful information more openly.

6.11 Member Shri B. Bhattacharjee explained in detail how it was very unlikely that an Off-Site nuclear emergency could occur and what were the safety standards at all nuclear power plants. He further explained that in the most unlikely event of such an emergency arising what should be do's and don'ts for the people concerned/ involved.

6.12 Member Shri J. K. Sinha explained in detail how and why there should be a pre-determined response team at different levels and how they should be equipped. He gave details of the significance of the Incident Response System and how and why for all nuclear emergencies the District Magistrate himself would have to function as the Incident Commander.

6.13 The two-day Workshop/ Mock Exercise at all nuclear power plant locations were started with a discussion on the Incident Response System (IRS) and how it would be implemented during the Mock Exercise. Incident Response Teams consisting of the administration and different stakeholders were formed on the principles of IRS. The Officers from the Crisis Management Group, Department of Atomic Energy and Atomic Energy Regulatory Board also participated. The Station Director of the plant concerned, the District Magistrate, the Superintendent of Police, the Chief Medical



Officer and other stakeholders then participated in the Table Top Exercise. During this exercise a scenario was presented before the participants/ stakeholder and information were elicited regarding what are their plans, capabilities and how would they respond to such a situation. The significance of the shortcomings noticed in their response during the Table Top Exercise was brought out and explained. On day two, the actual mock exercise was conducted in which the NDRF also participated and demonstrated how the responders should be trained, equipped and be able to respond to such situations.

6.14 Issues taken up in the workshop/ mock exercises on nuclear emergencies conducted at six locations in the year 2011 are as follows:

- Significance and utility of Incident Response System.
- Significance and importance of the Emergency Operation Centre.
- The Triggering mechanism for response activities – Activation of Incident Response Teams and mobilization of resources.
- Establishment of the Incident Command Post.
- Required training and equipping of Search and Rescue Teams.
- Establishment of various IRS facilities such as Medical Aid Post, Relief Camp, Decontamination Point, etc.
- Evacuation of civilians from EPZ.
- Mobilization of NDRF and other forces.

6.15 These mock exercises were an eye opener for the district and state officials. The NPCIL also realized how close coordination between the district officials and NPCIL authorities was very essential. On the basis of this experience and on the request of the district officials a guidelines on how mock exercises for nuclear emergency should be conducted is in the process of being prepared by the NDMA in collaboration with AERB.

Chennai Emergency Management Exercise (CEMEx-2011)

6.16 Inauguration ceremony of CEMEx-2011 was held at Sri Ramachandra University, Chennai on 4th Aug. 2011 which was inaugurated by Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, National Disaster Management Authority, Government of India. The others present were Dr. Muzaffar Ahmad, Hon'ble Member, NDMA, Prof. Rangaswami, Vice

Chancellor, Sri Ramachandra University, Mr. David McLoughlin, Deputy Country Representative UNICEF India, other dignitaries and 11 International faculties participated besides 40 National faculty of eminence. Chennai Emergency Management Exercise (CEMEx-2011) was organized during 4th-8th August 2011 at Chennai.

6.17 While inaugurating the CEMEx-2011, Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA appreciated the role of Sri Ramachandra University, SRMC Emergency Physicians Alumni Association, Government of Tamil Nadu for their effective collaboration with NDMA and UN Disaster Management Team.

6.18 He mentioned about taking actions on proactive measures to be taken for preparedness and mitigation for the disasters and stressed upon the need of involving community in the preparedness activities by way of programmes for community awareness. He also mentioned that the CEMEx-2011 which has been conducted after MEMEx-2010 at Mumbai will give us a road-map to plan such exercises in other vulnerable urban states in India and the vision to make cities risk resilient and well prepared to meet challenges of disasters.

6.19 In this exercise, more than 12 tracks were planned to impart training and skill development of various functionaries of government departments and other personnel from private, Non- government Sectors. The completion of the tracks was followed by conduct of table-top and finally by a major incident mass casualty mock drill at municipal corporation ground. This was an attempt to test the existing levels of preparedness and interagency coordination, with reference to handlings such emergencies in urban set ups.

Preparatory Meeting for conduction of Delhi Emergency Management Exercise (DEMEx)

6.20 A review meeting with respect to the conduct of Delhi Emergency Management Exercise (DEMEx) under the chairmanship of Dr. Muzaffar Ahmad, Member, NDMA was held

on 9th January, 2012 at NDMA Bhawan, which was attended by Secretary (Revenue/DM), All DCs of Delhi, Director of Health Services, Representatives of Delhi, Police, MCD and other departments, HOD, JPN Trauma Centre, AIIMS. This meeting was called to initiate the preparations for conducting the DEMEX which was designed as capability enhancement exercise with intense planning, learning and practice sessions. The model of Emergency Management Exercises is focused on generating public awareness, undertaking capacity building and strengthening interagency coordination of groups stakeholders (emergency responders) involved in emergency especially disaster response in a metro environment.

Awareness Campaigns

6.21 Creating awareness amongst the

vulnerable section of population about the likely effects of disasters is one of the prime responsibilities of National Disaster Management Authority. Aware community is a prepared community to face the challenges of disasters. In its endeavour to spread awareness NDMA launched a number of public awareness campaigns through electronic and print media. The focus was on building appropriate environment for DM and creating a high level of impact on the target audience.


6.22 These campaigns were run through radio and video spots on AIR, Doordarshan, Private TV Channels like General Entertainment Channels, News Channels and, Regional Channels, F.M. Radio channels through DAVP and NFDC.


जानकारी

यानी भूकंप से निपटने की तैयारी



झुको, ढको, पकड़ो





जैसे ही भूकंप के झटके लगे :

- फौरन किसी खुले स्थान की ओर दौड़ें • यदि यह संभव न हो तो तुरन्त झुक कर अपने डेस्क या मेज के नीचे चले जाएँ • अपने सिर को किसी मजबूत चीज़ या अपने बस्ते से बचाएँ तथा किसी मजबूत चीज़ को कस कर पकड़े रहें • दौड़ कर किसी कोने में खड़े होकर अपने आप को बचाएँ



राष्ट्रीय आपदा प्रबंधन प्राधिकरण
भारत सरकार





7

DISASTER RISK MITIGATION PROJECTS

National Cyclone Risk Mitigation Project

7.1 The National Cyclone Risk Mitigation Project (NCRMP) has been drawn up with a view to address the Cyclone risks in the country, with World Bank assistance. The main aim and objective of the Project is to strengthen the structural and non-structural cyclone mitigation efforts, to reduce the cyclone risk and vulnerability in the coastal districts prone to cyclones and in building capacities for cyclone risk mitigation therein.

7.2 The Financing and Project Agreements relating to NCRMP were signed between the Department of Economic Affairs, World Bank and the State Governments of Andhra Pradesh and Odisha on 14.1.2011. This constitutes Phase

I of the project which will be implemented over a period of five years up to 31.10.2015 by NDMA in coordination with the States of Andhra Pradesh and Odisha and the NIDM at a cost of Rs. 1496.71 crore. The project is funded by the World Bank as an Adaptable Programme Loan with an International Development Association (IDA) credit amounting to Rs. 1198.44 crore. The remaining amount of Rs. 298.27 crore will be contributed by the State Governments of Andhra Pradesh and Odisha (under component – B).

Components of the Project

7.3 The Project has following four principal components:

Component	Description	Outlay
A	Last Mile Connectivity	Rs. 72.75 crore
B	Structural and Non-Structural Measures	Rs. 1164 crore
C	Technical Assistance for Cyclone Hazard Risk Mitigation, Capacity Building and Knowledge Creation	Rs. 29.10 crore
D	Project Management and Implementation Support	Rs. 95.06 crore
	Unallocated and contingency @ 10% of overall cost (Rs. 135.80 crore)	

7.4 Components A, C and D will be fully financed by the Central Government through World Bank assistance. The component-B will be financed by Central and State Governments in the ratio of 75:25.

Achievements

7.5 The achievements up to 31.03.2012 for both the states are discussed in the following table.

Component	Andhra Pradesh	Odisha
Award of Work	The contracts of 78 packages consisting of 141 works and amounting to Rs 99.22 crores have been entrusted during 2011-12. Of these 9 packages consisting of 14 works amounting to Rs 12.64 crores pertains to Multi-purpose Cyclone Shelters (MPCSs), 58 packages consisting of 116 works amounting to Rs	The contracts of 84 packages consisting of 117 works and amounting to Rs 108.37 crores have been entrusted during 2011-12. Of these 18 packages consisting of 22 works amounting to Rs 15.38 crores pertains to Multi-purpose Cyclone Shelters (MPCSs) and 27 packages consisting of 59 works amounting to Rs

Component	Andhra Pradesh	Odisha
	59.29 crores pertains to roads and 11 packages and works amounting to Rs 27.29 crores pertains to bridges.	51.96 crores pertains to roads.
Physical and Financial Achievements	The works of 14 awarded MPCs are at various stages of completion. 24 roads of the 116 have been completed and rest is at various stages of implementation. One bridge of the 11 awarded have been completed and the remaining are at various stages of completion. An amount of Rs 39.40 crores have been incurred on above accomplishment.	The works awarded are at various stages of completion and no work under any component has been fully completed. An amount of Rs 8.91 crores have been incurred on above accomplishment.

7.6 The allotment and implementation of works has picked up and this will improve in the next financial year.

National Earthquake Risk Mitigation Project

7.7 NDMA proposes to implement National Earthquake Risk Mitigation Project (NERMP) in the various parts of the country with special emphasis on States in seismic zone IV and zone V. The objective of this project is to strengthen the structural and non-structural earthquake mitigation efforts and to reduce the earthquake risk and vulnerability in all States/UTs in the country particularly the high risk areas in Zone IV and V highly prone to earthquakes. This project would incorporate schemes/activities in accordance with Earthquake guidelines prepared by NDMA. As per the draft Detailed Project Report, the project will have following six components:

- (i) Techno-Legal Regime
- (ii) Institutional Strengthening
- (iii) Capacity Building
- (iv) Public Awareness
- (v) Retrofitting of Hospitals
- (vi) Project Management, Monitoring and Evaluation

7.8 The draft DPR for the Project and draft EFC Memo were sent to MHA. MHA, however, desired that project may be reviewed keeping in view the feasibility of large scale trainings for capacity building involved in the project and it may be considered to be implemented in a

phased manner.

7.9 It is now proposed to implement the project in two phases namely Preparatory Phase and Main Implementation Phase. The total duration of NERMP is proposed to be 7 years including a preparatory phase of 2 years to assess the effectiveness / proof of the likely concepts as envisaged in the DPR as well as to demonstrate the effectiveness of the full project.

7.10 The Preparatory Phase will consist of various preparatory activities including strengthening the Techno-Legal Regime, Institutional Strengthening, Awareness Generation and Capacity Building including Training of Master Trainers, Training of Trainers of Civil Engineers, Architects and Masons with focus on seismic zone IV and V. The preparatory period will also be utilized to undertake development of course content for various training programmes, Guidelines for Retrofitting in accordance with the National Retrofitting Policy being formulated by NDMA separately, and other contents for capacity developments and awareness generation. It is envisaged that the DPR for Implementation Phase of NERMP shall be finalized during the Preparatory Phase.

Landslide Risk Mitigations Projects (LRMP)

7.11 Recognizing the risk due to Landslides, the 11th Five Year Plan envisaged launching of National Landslide Risk Mitigation Project. It

was envisaged to prepare a Detailed Project Report (DPR) for the Project, which, however, could not make much head way so far. It has been felt that Landslides are site specific in nature. Also, the vulnerability are different in different locations. As such, it has not been feasible to have one large National Landslide Risk Mitigation Project.

7.12 Accordingly it has been proposed that the National Landslide Risk Mitigation Project (NLRMP), which could not make much headway, be rechristened as the Landslide Risk Mitigation Projects (LRMP) comprising a number of site specific mitigation projects in various states in a phased manner.

7.13 The Landslide Risk Mitigation Projects (LRMP), envisages support for site specific Landslide Mitigation Projects recommended by States, site specific Landslide studies / investigations from Premier Institutes, covering “disaster prevention strategy, disaster mitigation and R& D in monitoring of critical Landslides thereby leading to the development of Early Warning System and Capacity Building initiatives.

7.14 Proposals received from States for site specific Landslide Risk Mitigation Project from Premier Institutes for site specific Landslide Studies/Investigations/ Monitoring for development of Early Warning System will be scrutinized by NDMA. For this purpose, a core group of experts will be formed by NDMA drawing experts on Landslides from GSI, the nodal agency for Landslide Management in India, Ministry of Mines and various Government organizations/Premier Institutes working on landslides, who shall study the techno-economic feasibility of the proposals submitted by the State Governments and also prioritize the projects to be taken up under the Plan every year. The Core Group will fix and decide the norms and financing of the project, and also prioritize the projects to be taken up during the various years of the 12th Five Year plan, for obtaining concurrence of MHA. A MoU will be signed between the State and NDMA

setting the terms and conditions of the Project. The financial support to be provided for undertaking the site specific landslide risk mitigation project is proposed to be shared between the Centre and the States on 75: 25 basis. The financial support to be provided for undertaking such R&D studies may be up to 100%. The study/R&D work undertaken should in turn lead to the preparation of a Mitigation Project.

7.15 Draft Scheme for Landslide Risk Mitigation Project has been prepared and is under consideration.

Flood Risk Mitigation Project (FRMP)

7.16 National Flood Risk Mitigation Project (NFRMP) was envisaged during 11th Five Year Plan. It was envisaged to prepare a Detailed Project Report (DPR) for the Project, which however, could not make much head way so far. It has been felt that flood is River/River basin specific in nature. Also, the vulnerability is different in different Rivers/River basins due to many factors. As such, it has not been feasible to have one large National Flood Risk Mitigation Project. Therefore, in order to avoid duplicity of work and to productively utilize the available resources, it is felt that the National Flood Risk Mitigation Project (NFRMP), be rechristened into Flood Risk Mitigation Projects (FRMP), covering “disaster prevention strategy, disaster mitigation and R&D in monitoring of factors causing flood thereby leading to the development of Early Warning System and Capacity Building initiatives.

7.17 The Flood Risk Mitigation Projects (FRMP) broadly include development of River Basin specific Flood Early Warning Systems (FLEWS) and Digital Elevation Maps (DEMs) with 0.5 m contours for devising Flood Inundation Models in respect of flood prone States, through application of science and technology and Spatial Data Management Tools, which include the application of GIS platforms, and scientific tools for vulnerability analysis and risk management especially to improve the

efficacy and durability of rehabilitation structures, improving the early warning and forecasting systems, and ITC applications etc, with proposals formulated by the respective State Governments. The Administrative and Technical sanctions of the proposals shall be given by the respective State Government before they send it to NDMA for seeking financial assistance.

7.18 Under this Project, financial support is proposed to be provided to the Flood Prone States for undertaking Non-structural measures for specific Rivers/River Basins flood mitigation program. The cost is proposed to be shared between the centre and the States on 75:25 basis.

7.19 The financial support to the States for developing Flood Early Warning Systems (FLEWS), Digital Elevation Maps (DEMs), related R&D support, Capacity Building initiatives, in respect of specific river basin/river systems of the State, through premier Institutes/organization like National Remote Sensing Centre (NRSC), Space Application Center (SAC), IMD, Survey of India and CWC etc. is proposed to be shared between Centre and State on 75:25 basis.

7.20 Draft Scheme for Flood Risk Mitigation Project has been prepared and is under consideration.

Other Disaster Management Projects

7.21 NDMA has undertaken implementation of some Pilot projects and studies through various national institutions of repute e.g. I.I.T.s, I.I.Sc., SERC etc. Details of activities undertaken by the NDMA during 11th Five Year Plan and completed in 2011-12 under "Other Disaster management Projects" are as under:-

Development of Probabilistic Seismic Hazard Map of India (PSHA)

7.22 Although, the geology and seismotectonics of different regions of India have been well documented, there is lack of information on ground motion data of strong earthquakes. Also, the present seismic zone map

of India is based on observed damage patterns where the spatial and temporal uncertainties in the occurrence of earthquake are not included. NDMA, therefore, undertook a study on Development of Probabilistic Seismic Hazard Map of India (PSHA) for creation of a national database catalogue of earthquakes for seismic hazard analysis, which will include, development / selection of strong motion attenuation relationships for six or seven different seismogenic regions of the country and development of national PSHA map for PGA and Sa at Bedrock level on a grid of 0.2° x 0.2° for different return periods. This study coupled with the Geo-tech Investigations would cover the deficiencies in the existing database. The Structural Engineering Research Centre, Chennai. (SERC) who undertook this study has since submitted the Report which has been accepted by NDMA.

Geo-Technical Investigation for Seismic Microzonation of Indian Land Mass

7.23 As per the decision taken in the National Workshop on Seismic Microzonation of the Indian Land Mass held on 16.7.2008, Technical Investigation, preparation of the Technical Document on Geo-Technical Investigation for Seismic Microzonation Studies in India has been undertaken by the Indian Institute of Science, Bangalore, as the Nodal Agency which has since submitted the Technical Document.

Cartography

7.24 The work of preparation of a report for development of Cartographic Base for India has been awarded to National Atlas and Thematic Mapping Organization (NATMO), Kolkata to prepare a Detailed Project Report (DPR) at the required scale with the specific Contour intervals. NATMO has since furnished its draft report to the NDMA.

Brahmaputra River Erosion Study

7.25 Brahmaputra river erosion study was awarded to Water Resources Development Training Centre, Indian Institute of Technology,

Roorkee to make study on the Spatio-temporal Erosion-induced River Bank line changes and to identify the highly vulnerable reaches of the river affected by erosion using Multi-date and multi-spectral digital satellite images processed by image processing software to analyze the above changes and erosion vulnerability. The report has since been received and forwarded to all concerned stakeholders for comments.

7.26 NDMA has also initiated following projects under ODMP in 2011-12 which are likely to be completed during the XII Plan.

Typology of Buildings

7.27 The work for preparation of catalogue of different building types in various parts of India and development of vulnerability functions for a number of different types appearing in the building catalogues has been assigned to five different nodal institutions in different parts of the country viz, (1) IIT Roorkee – North Zone, (2) IIT Kharagpur-East Zone, (3) IIT Guwahati-North East Region, (4) IIT Bombay-West Zone, and (5) IIT Madras-South Zone at the total estimated cost of Rs. 126 lakhs. An amount of Rs.50 lakhs has already been released during 2011-12. The project is likely to be completed in 2012-13.

Preparation of Upgraded earthquake Hazards Maps

7.28 As recommended by the Working Committee of Experts (Geophysical-Hazards), a project for upgrading Earthquake Hazards Maps in various parts of the country to be undertaken through Building Materials Technology Promotion Council (BMTPC) at an estimated cost of Rs.76.83 lakh has been approved for implementation during 2011-12 and 2012-13.

Soil Piping Project

7.29 Soil piping is a recently noticed phenomenon in Kerala. It is a sub-surface soil erosion process which is dangerous disaster since the soil erosion takes place beneath the soil. This phenomenon is new and requires proper instrumentation for studying this and

suggesting measures for mitigation. Government of Kerala through the Centre for Earth Science studies (CESS) with financial assistance from NDMA is undertaking Soil Piping Project to study this phenomenon and suggest measures to avoid a disaster.

Early Warning System for flash flood in the Meenachal and Manimala Rivers in Kerala

7.30 NDMA is considering the proposal of Mission for Geospatial Application (MGA), Department of Science and Technology, Government of India for establishing Flood Early Warning System for flash floods in the Meenachal and Manimala Rivers of Kerala.

7.31 NDMA proposes to continue taking up pilot projects and studies covering different aspects of natural and manmade disasters including Cyclones, Floods, Landslides, Earthquakes, Medical Preparedness, Chemical, Biological, Radiological and Nuclear Disasters, stampedes and large crowd management through reputed Institutions/organizations. Some of the projects/studies likely to be taken up under this Head are as under:-

- Studies/Research/Development of various vulnerability assessment Techniques
- Other Technical and Scientific Initiatives for management of Disaster including early warning Systems for other disasters
- Initiatives on various cross cutting themes like Medical Preparedness, Mass Casualty Management
- Pilot project on other man-made and natural disasters
- Disaster Risk Insurance
- Institutional Strengthening for management of other Disasters

National School Safety Programme- A Demonstration Project of NDMA

7.32 The Government of India in June 2011 approved the National School Safety Programme (NSSP)-A Demonstration Project with a total

cost of Rs 48.47 crore as a 100% Centrally Sponsored Scheme which is being implemented by National Disaster Management Authority in partnership with the State/UT Government within a time frame of 24 months. It is a holistic project to promote culture of safety in schools and covers 8600 schools of 43 districts of 22 States/UTs of the country falling in seismic zone IV & V. The programme design would be tested and validated for its mainstreaming in the Sarva Shiksha Abhiyaan, a flagship programme of Ministry of Human Resource Development (MHRD) for its up scaling and implementation throughout the country.

NDMA holds Inception Workshop on National School Safety Programme

7.33 The Inception Workshop on National School Safety Programme – A demonstration project of NDMA was launched on 01



September 2011. This, consequent upon the approval of Government conveyed in June 2011, is a historic step which will result in safe schools in India. The Inception Workshop aimed at discussing the implementation roadmap of various activities to be undertaken at the National and State level, the financial arrangements with regard to release and utilization of funds, policy issues, issues relating to project monitoring as also the discussion on the work done by various state governments to build a safe school environment. Shri M.Shashidhar Reddy Vice Chairman, NDMA launched the workshop.

7.34 The National School Safety Programme is a 100% centrally sponsored scheme to be

implemented in a time frame of 24 months at an estimated cost of Rs. 48.47 crores. It is a holistic project to promote culture of safety in schools by initiating policy level change, capacity building of officials, teachers and other stakeholders, promoting non-structural mitigation measures and transfer of demonstrative retrofitting technology to Schools on pilot basis.

7.35 The objective of the project is to save lives and prevent injuries in schools by capacity building and awareness generation and reducing the underlying risk in the existing school buildings (both structural and non structural) by conducting hazard risk and safety assessments and strengthening weak structures, if required, by adopting appropriate measures. To prevent interruption of education by creating an enabling school environment for vulnerability reduction through Education, learning, training and



knowledge sharing and creating an enabling external environment by putting in place appropriate policy.

7.30 This project is to be implemented in 43 Districts of 22 identified States/UTs falling in seismic zones IV and V. The total number of Schools covered under this demonstration project would be 8600, with 200 schools in each district. The State Governments are nodal partners for implementation of this project and they would be required to carry out the project related activities in the selected schools of their states.

7.36 The National School Safety Programme demonstration project of NDMA will be finally

integrated with the Sarva Shiksha Abhiyan(SSA) of MHRD and at end of the project will have following deliverables –

- Draft School Safety Policy
- Standard Teachers' Training Module on School Safety
- Training of Master Trainers (10 Master Trainers per State)
- Training of Trainers Programme (15 Trainers per district)
- Training of Teachers (500 Teachers, Officials etc per district)
- Training of at least 2 Engineers from each of the 43 districts who are fully qualified technically to carry out assessment of the safety of the existing structures
- Rapid Visual Survey of all Schools
- Preparation of a standard checklist to assess the existing risks in the school buildings (structural and non-structural risks)
- Non Structural Mitigation Measures
- Structural Retrofitting of one school building in each of the 43 district
- Awareness generation and capacity building of students, teachers, parents, officials of Education Departments in the targeted districts.

Progress achieved till date

7.37

- 200 schools in 43 Districts each of 22 States/UTs have been identified, for implementation of the project.
- School DM plan template with guidance note has been prepared and circulated among the States/UTs and also uploaded on NDMA's website.
- Compendium of Information,

Education and Communication (IEC) has been prepared and uploaded on NDMA's website and States have been advised for further dissemination for enhancing awareness.

- During the financial year 2011-12, Grants in aid amounting to Rs 4.55 crore were released to all the states/UTs except Andaman & Nicobar and Chandigarh for preparation of School Disaster Management Plan and translation, printing and circulation of first lot of IEC materials.
- 8 Training programmes of Master Trainers have been completed by National Institute of Disaster Management (NIDM) under this project.

The GoI-UNDP Disaster Risk Reduction (DRR) Programme

7.38 The GoI-UNDP Disaster Risk Reduction (DRR) Programme is being implemented in various the states and selected cities of the country at an outlay of \$20 million (Rs. 100 Crores approx.) during the period 2009-2012. The DRR Programme, apart from sustaining the capacities developed under the Disaster Risk Management Programme (2002-2009), aims at supporting Central and State Governments by providing critical inputs that would enhance the efficiency and effectiveness of the efforts in Disaster Risk Reduction. The Programme strives to strengthen the institutional structure to undertake Disaster Risk Reduction activities at various levels including risks being enhanced due to climate change and develop preparedness for recovery. GOI-UNDP DRR Programme has two outputs:

- Institutional strengthening & capacity building for Disaster Risk Reduction to be implemented by NDMA with an outlay of Rs 63 crores(DRR project).

- Urban Risk Management to be implemented by Ministry of Home Affairs with an outlay of Rs.37 crores (URR Project).

The progress achieved under the project

7.39 The output “Institutional Strengthening and Capacity Building” being implemented by

Coverage :

2009-2010	2011	2012
26 States	24 States	19 States

Status of preparation of Disaster Management Plan

7.40 One of the key objectives of the DRR Project is to provide technical and coordination support to the states and districts in preparation of Disaster Management Plans. Many of these plans are at draft stage and the project is providing further support to review these draft plans and bring in necessary modifications as required.

Hazard Risk and Vulnerability Assessment

7.41

- National Consultation Workshop on Hazard Risk and Vulnerability Analysis (HRVA) was organized in 2010 to understand the various existing methodologies and practices. A draft framework for conducting HRVA has also been developed and circulated to states.
- Presently Hazard Risk and Vulnerability Assessment have been

NDMA aims at strengthening capacities of existing State Disaster Management Authorities (SDMAs) and selected District Disaster Management Authorities (DDMAs) in the country to perform various functions as mandated under the DM Act, 2005. The project is referred as DRR Project.

initiated in 23 Districts.

- States such as Himachal Pradesh, Sikkim, Tripura, Uttarakhand, West Bengal are leveraging funds from State/13th Finance Commission Grant/State budget to undertake state vulnerability analysis.
- HRVA completed in the districts of Lucknow, Nilgiris, and Nainital, 4 districts of Sikkim, Jalandhar (Punjab), Jalpaiguri (West Bengal), State of Tripura covering the entire 4 project covered districts, 4 districts of Andhra Pradesh.

Preparation of Training Modules and Manuals

7.42 Under the DRR Project, NIDM has been entrusted with the task of developing a number of guidelines and manuals which would be referred to various state governments for conducting different training and capacity building programmes.

8

NATIONAL DISASTER RESPONSE FORCE:
STRENGTHENING EMERGENCY RESPONSE

8.1 The National Disaster Response Force (NDRF), constituted under the provisions of Sections 44 and 45 of the DM Act, 2005, has established itself as one of the most visible and vibrant face of the NDMA. Eight Bns of NDRF are located at eight different locations in the country based on the vulnerability profile to cut

down the response time for their deployment. During the current year (2011-12), two more battalions of NDRF have been raised, trained & equipped and have been located at Bihta (near Patna) in Bihar and near Vijayawada in Andhra Pradesh (Fig 8.1).

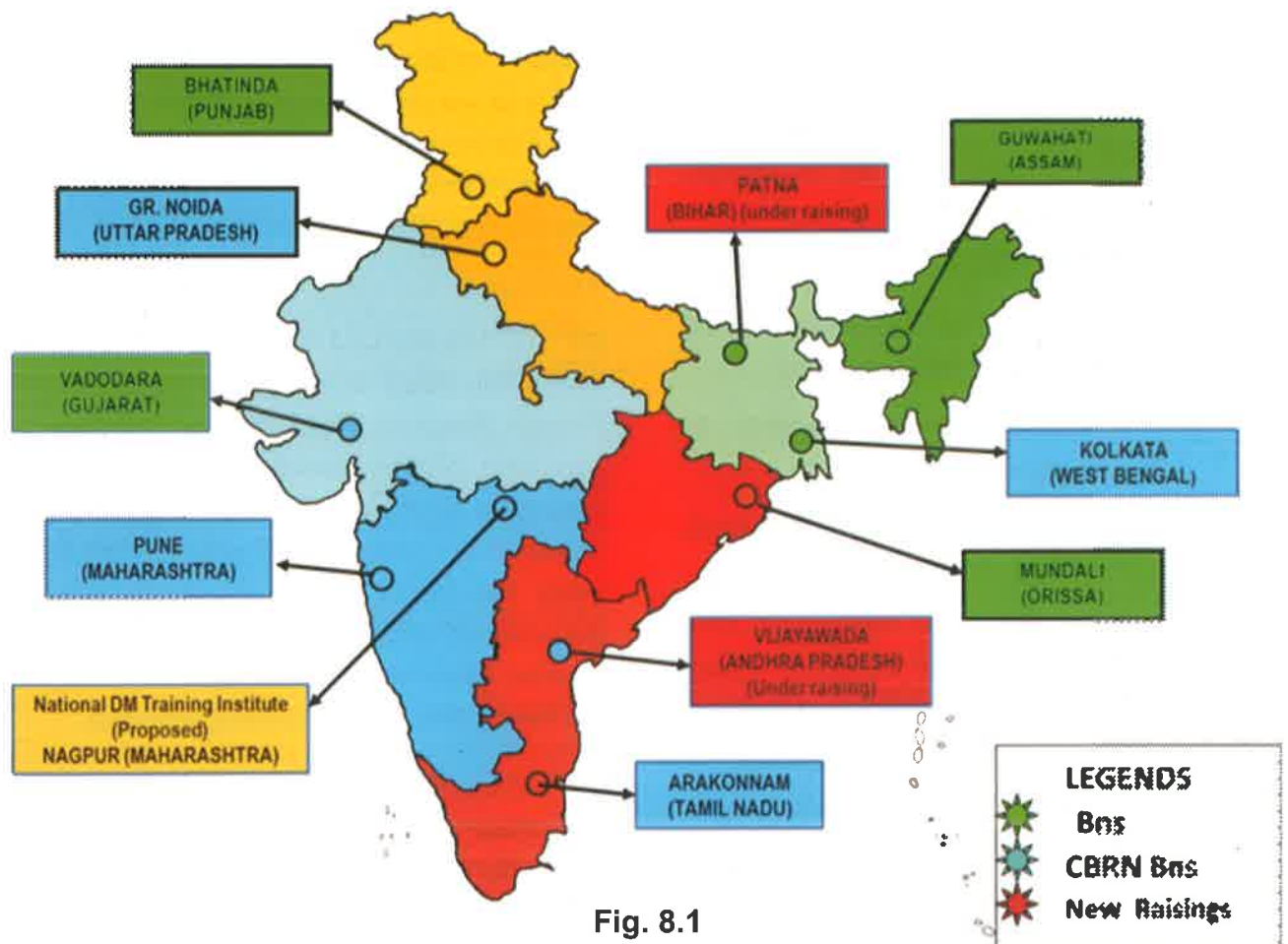


Fig. 8.1

8.2 The DM Act, 2005 has made statutory provisions for constitution of National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters. According to Section 45 of the Act, the National Disaster Response Force (NDRF) has to function under the general superintendence, direction and control of the National Disaster

Management Authority (NDMA) and under command and supervision of Director General, NDRF. In line with the vision enshrined in the Section 44(i) of the Act, the NDRF is gradually emerging as the most visible and vibrant multi-disciplinary, multi-skilled, high-tech force of the NDMA capable of dealing with all types of natural and man-made disasters.

Vision

8.3 The DM Act, 2005 envisages a paradigm shift from the erstwhile response centric syndrome to a proactive, holistic and integrated management of disasters with emphasis on prevention, mitigation and preparedness. This national vision inter alia, aims at inculcating a culture of preparedness among all stakeholders. NDRF has proved its importance in achieving this vision by highly skilled rescue and relief operations, regular and intensive training and re-training, capacity building & familiarization exercises within the area of responsibility of respective NDRF Bns, carrying out mock drills and joint exercises with the various stakeholders.

Role of NDRF

8.4

- Specialised response during disasters
- Proactive deployment during impending disaster situations
- Acquire and continually upgrade its own training and skills
- Liaison, Reconnaissance, Rehearsals and Mock Drills
- Impart basic and operational level training to State Response Forces (Police), Civil Defence and Home Guards
- Training of State Police and help in raising of SDRF

Vis-à-vis Community

- Community Capacity Building Programme
- Public Awareness Campaign
- Exhibitions : Posters, Pamphlets, literatures
- Training of village volunteers & other stakeholder

Organization

8.5 National Disaster Response Force (NDRF) was initially constituted with eight battalions, two each from the BSF, CRPF, CISF and ITBP. Each battalion has 18 self-contained specialist search and rescue teams of 44 personnel each including engineers, technicians, electricians, dog squads and medical/paramedics. The total strength of each battalion is approximately 1,149. All the battalions are equipped and trained to combat all natural disasters including earthquake, floods, cyclone, landslides etc and Chemical, Biological, Radiological & Nuclear (CBRN) emergencies. In 2011-12, two more battalions were inducted in NDRF at Bihta (near Patna) in Bihar (BSF Bn) and near Vijayawada in Andhra Pradesh (CRPF Bn), raising the total strength of NDRF to 10 battalions.

NDRF: High Priority for NDMA

8.6 NDMA provided the much needed impetus to establish NDRF as a truly specialist force for Disaster Response. Right from its inception in Sept 2005, NDMA accorded highest priority to ensure that NDRF is trained and equipped as per international standards. With efforts of NDMA, today the Force has acquired the unique distinction of being the Single Largest Dedicated Disaster Response Force in the World, trained and equipped as per international standards.

Disaster Response

8.7 Over the years, NDRF has acquired a niche for itself of being a truly specialist response force to deal with any natural disaster and CBRN emergencies. The response time of this force has been reduced to the barest minimum on account of the concept of 'proactive' availability of this Force to the states and also the concept of 'pre-positioning' the force in threatening disaster scenario. The NDRF is being increasingly requisitioned by the states for rescue and relief operations in earthquake, floods, cyclones, landslides, building

collapses, train accidents and CBRN emergencies. Some of the major response operations undertaken by NDRF during 2011-12 are mentioned in succeeding paragraphs.

First International Operation in Japan

8.8 On March 11, 2011 an earthquake of unprecedented scale struck Japan's Tohoku region that resulted in Tsunami and leakage in the Fukushima nuclear power-plant. Subsequently, one team of NDRF consisting of 46 personnel equipped with the latest Search & Rescue and CBRN equipments was deployed (first international deployment) in Onagawa, Japan to assist the local authorities in relief and rehabilitation efforts. Notwithstanding extreme weather conditions and bitter chill of Tohoku's blustery winds, NDRF personnel worked painstakingly to search for victims bodies and their belongings from large piles of rubbles more than 10 meter deep. Working in sub zero temperature, they recovered 7 dead bodies and Japanese currency worth Fifty Million yen. NDRF's exemplary dedication and compassion was widely appreciated by the Japanese Government, people and the media.



8.9 On December 28, 2011, at the invitation of the Indian Council of World Affairs on Strategic and Global Partnership Hon'ble Prime Minister of Japan, Shri Yoshihiko Noda, in his address at Taj Palace Hotel, New Delhi praised NDRF for their extraordinary devotion and commitment exhibited during their deployment in Japan.

Relevant extracts of the speech of Hon'ble Prime Minister of Japan is quoted below:

8.10 "On March 11, an earthquake of unprecedented scale struck Japan's Tohoku region. Nations around the world, including India offered warm support for Japan. On behalf of the Japanese people, I would once again like to express my sincere gratitude for the assistance we received from Indian people in all walks of life, including heroic efforts by the National Disaster Response Force (NDRF) of the Government of India. Under the leadership of Commandant Alok Avasthy, the 46 members of the Force showed such outstanding discipline in their work that no one thought that it had been the Force's first overseas operation ever since its creation. I imagine how hard it was for NDRF members, coming from India to work under the bitter chill of Tohoku's blustery winds in late March. Despite such harsh conditions in Onagawa, a port town of Miyagi Prefecture severely damaged by the tsunami, they listened to the needs of local residents and worked painstakingly with their hands to search for victims' bodies and their belongings from piles of rubble more than 10 meters deep. Their dedication, whole heartedness and warm smiles touched the hearts of those who were grieved at the disaster and gave them immeasurable hope. Nurturing such face-to-face, warm-hearted relationship with heart-to-heart communications provides the foundation for building mutual trust and deepening "Kizuna" – the bonds of



friendship between Japan and India. The dedicated efforts by NDRF members have reminded us of this importance.”

Sikkim Earthquake

8.11 On Sept 18, 2011, the State of Sikkim was struck by a major earthquake. 10 teams of NDRF(403 personnel) from NDRF Bn Greater Noida and Kolkata were airlifted to Sikkim along with latest search & rescue equipments and 14 search dogs. The NDRF personnel braved the in-hospitable terrain, inclement weather and steep climbs to provide much needed relief to affected people in far flung hamlets of the State. NDRF personnel provided free medical aid, extricated dead bodies and distributed relief materials in the worst affected areas.



Building Collapse Search & Rescue Operations

8.12 On requisition of concerned authorities, NDRF teams were deployed during various



building collapsed incidents at Udhyog Vihar, Gurgaon (Haryana), Garia, 24 South Pargana (West Bengal), Kakinara (Andhra Pradesh), Salimar Gardan Gaziabad (Uttar Pradesh) and Chandni Mahal, Daryaganj (Delhi). During these collapsed structure search & rescue operations, NDRF personnel saved lives of 08 injured persons trapped under debris and recovered 05 bodies of victims.

Flood Recue and Relief Operation in Rohtas, Bihar

8.13 Due to unprecedented release of about 9.58 lakh cusec of water in river Son from Vansagar dam in Madhya Pradesh and Rihand Dam in Uttar Pradesh, flood like situation developed in many villages of Rohtas district of Bihar. Villagers had never experienced such large volume of water since 1975. Simultaneous flash floods did not provide much time for the villagers to go to the safer places. This flood like situation emerged twice between 10th and 29th Sept 10-29, 2011 and both times NDRF Bn Patna was requisitioned for the rescue operations. On both occasions, two teams of NDRF Bn Patna along with flood rescue equipments immediately rushed to the affected areas and with prompt response efficacy evacuated 1,162 victims to safer places.



Flood Rescue Operations

8.14 During the year 2011-12, NDRF teams along with with inflatable boats and other life



search and rescue equipments were deployed for flood rescue and relief operations in Andhra Pradesh, Gujarat, Odisha, Haryana, Uttar Pradesh, Bihar, Punjab and Assam. In various flood rescue and relief operations, NDRF personnel saved lives of 19,390 flood marooned people by evacuating them to safer places and distributed 86.5 ton relief materials among the flood victims.

Bus Accident at Pahalgam, Jammu & Kashmir

8.15 On July 30, 2011 a private bus carrying more than 45 passengers fell in the gorge of river Lidder at Nagarbhal, Pahalgam in Jammu & Kashmir. One team of NDRF Bn Bhatinda along with latest search and rescue



equipments was immediately deployed at the accident site for rescue and relief operations. NDRF personnel successfully evacuated 38 injured survivors from the damaged bus and retrieved 07 bodies of victims.

Train Accidents at Kamrup, Assam; Fatehpur, Rajasthan & Vellore, Tamil Nadu

8.16 On requisition of Railway Authorities, 03 teams (103 personnel) of NDRF along with

search and rescue equipments were deployed at Rangia, Kamrup (Assam) where a train accident occurred on July 10, 2011. The NDRF personnel extricated 08 injured victims from damaged compartment of train and handed over to medical authorities.

8.17 On July 16, 2011, 04 teams (129 personnel) of NDRF were deployed at Malwan, Fatehpur (Rajasthan) on requisition of Railway authorities following a train accident. The NDRF personnel saved 02 lives by extricating them from damaged coaches of the train also recovered 38 dead bodies.

8.18 On Sept 13, 2011 at about 2130 hrs a train accident occurred near Chitteri Railway Station, Vellore (Tamil Nadu) between a stationery passenger train and EMU train. On requisition of Collector, Vellore; 04 teams (70 personnel) of NDRF Bn Arakkonam were immediately



deployed for search and rescue operations. Working in incessant rain NDRF personnel recovered 6 dead bodies from damaged coaches of the train.

Other Deployments

Def Expo India 2012, Pragati Maidan, New Delhi

8.19 One team (24 personnel) of NDRF Bn Ghaziabad deployed during "Def-Expo India-2012" from the period March 29 to April 01, 2012 at Pragati Maidan along with NBC suit and other MFR & CSSR equipment.

Deployment during Amarnath Yatra

8.20 Two teams (90 personnel) of NDRF Bn Bhatinda along with portable shelter and other MFR & CSSR equipment were deployed at Pahalgam and Baltal of Jammu & Kashmir from July 17 to August 15, 2011 to help and assist pilgrims during Amarnath Yatra. During the period of deployment a bus carrying yatries met an accident. NDRF personnel promptly started search and rescue operation and successfully saved lives of 38 injured yatries by evacuating



them from the damaged bus and also retrieved 7 bodies of victims.

Capacity Building

8.21 Awareness Generation and Community Capacity Building are key components of proactive approach on Disaster Management. Since community is invariably the first responder, if the local people are properly sensitized about the precautions and preventive actions to be taken in case of any calamity, the



loss of life and damage to property can be drastically reduced. Thus, NDRF has been engaging itself in a big way in Community Capacity Building and Public Awareness programmes which includes training of people (the first responders) and concerned government officials at different levels in the areas with high vulnerability. During 2011-12, more than 5,30,369 community volunteers and other stakeholders have been trained by NDRF in different parts of the country.

Training

HAZMAT Course at SCDA, Singapore

8.22 The 8th international HAZMAT course was conducted at Singapore Civil Defence Academy (SCDA), Singapore from June 20 to July 01, 2011. Eight officers from NDRF along with two officers from South Korea and four officers from Singapore Police Force attended the course. Purpose of the training was to get operational expertise related to HAZMAT vehicles as recently NDRF CBRN Bns has procured the same.



INSARAG Training of NDRF USAR Team

8.23 The first Mission of Leadership Module towards INSARAG IEC certification of NDRF was conducted by the Swiss experts for Management & Rescue component from June 20-24, 2011 at NDRF Bn Mundali location. The objective of this training was to clarify the



structure of INSARAG & UNOCHA. Also, the first mission of search dog training was conducted by the Swiss experts from June 22 to July 08, 2011. The objective of this training was to identify suitable dogs for the heavy USAR team as well as to formulate a training regime for search dogs.

INSARAG Earthquake Response Simulation Exercise

8.24 The Swiss Agency for Development and Coordination (SDC) in association with the International Search and Rescue Advisory Group (INSARAG), United Nation Office for the Coordination of Humanitarian Affairs (UNOCHA) organised the SimEx-2011 in Kriens, Switzerland during Oct 3-7, 2011. A NDRF team from India alongwith 10 other International teams participated in the SimEx-2011. The aim of the exercise was to coordinate all USAR activities, conduct assessments in the affected area, awareness of realistic logistical constraints, reporting to LEMA and OSOCC, utilising INSARAG markings etc in accordance with INSARAG Guidelines.

CSSR Training by NSET/PEER

8.25 CSSR Training was conducted by National Society for Earthquake Technology (NSET), Program for Enhancement of Emergency Response (PEER), Nepal for NDRF personnel at NDRF Bn Mundali location during Feb 03-10, 2012. Seventeen (17) NDRF personnel from



various NDRF battalions participated in the course. The purpose of this training was to create a pool of master trainers in NDRF Battalions.

Mountain Search and Rescue Training

8.26 Two NDRF Bns have been given with additional responsibilities of mountain search and rescue. At present, Himalayan Mountaineering Institute, Darjeeling, West Bengal and Swami Vivekananda Institute of Mountaineering (SVIM), Mount Abu, Rajasthan are imparting training to NDRF responders. NDRF personnel are being trained in rappelling, different types of high altitude rescue techniques, climbing on rock surfaces, use of various types of knots and hitches in different situations and details of various mountaineering tools, equipments and accessories. Total 500 NDRF personnel have been trained in these institutes in 2011-12.

SDRF Training, Mizoram

8.27 Master Instructors of NDRF Bn Guwahati



conducted SDRF training for personnel of Mizoram Police during Jan 17 to Feb 13, 2012 at Lungverh, Mizoram. SDRF personnel of State police were trained on MFR & CSSR, Rope Rescue, Flood Rescue and CBRN response techniques. Forty nine (49) personnel of Mizoram Armed Police successfully completed the training.

SRPF Training of Maharashtra

8.28 Shri M. Shashidhar Reddy, Hon'ble Vice Chairman, NDMA inaugurated the Disaster Management training of the SRPF Maharashtra at SRPF Camp, Pune on July 01, 2011. The training of SRPF personnel was conducted by NDRF Bn Pune.



Mock Exercises

8.29 Since April 01, 2011 onwards NDRF Bns conducted 45 mock exercises on Chemical (Industrial Disasters), Urban Flooding, Cyclones, Earthquake simulation, Train accidents etc with different stakeholders in various parts of country. During the mock exercises NDRF personnel demonstrated search & rescue (SAR) operations, Medical First



Response (MFR), methods of rescue of trapped victims on triage in a mass casualty scenario, victim search & location techniques in a collapsed structure, decontamination operations etc. About 15,526 participants actively participated in these mock exercises.

9

ADMINISTRATION AND FINANCE

General Administration**NDMA Secretariat**

9.1 The NDMA Secretariat comprises five Divisions, namely, (i) Policies, Plans, Capacity Building and Awareness Division, (ii) Mitigation Division, (iii) Operations and Communications Division (iv) Administration and Coordination Division, and (v) Finance and Accounts Division.

Policies, Plans, Capacity Building and Awareness Division

9.2 This Division deals with all matters pertaining to the formulation of policies, guidelines and approval of plans of all the Central Ministries / Departments as well as capacity building and awareness in all the States. Mainstreaming disaster management in development plans is also an important task of this division. The total sanctioned staff in this Division is 15, comprising one Advisor (JS level), three Joint Advisors (Director Level), three Assistant Advisors (US level) and 8 support staff.

9.3 Capacity Building which is a major subject to be dealt with by the NDMA is another task of this division. This Division has taken up the task to lead this effort and ensure that the culture of preparedness is inculcated at all levels. It also handles conceptualization and execution of an awareness generation campaign involving both electronic and print media, besides involvement of the community and other stakeholders at the grassroots level.

Mitigation Division

9.4 The responsibilities of this division are to

take up Risk Mitigation Projects at national level in conjunction with the Ministries and the States pertaining to disaster themes like Cyclones, Earthquakes, Floods, Landslides and failsafe Communication and IT plan etc. It also guides and commissions specialized studies and projects like Micro-zonation, Vulnerability Analysis, etc. It also supervises and monitors the design and implementation of the mitigation projects to be undertaken by the Ministries themselves. The total sanctioned staff in this Division is 10, comprising one Advisor (JS level), two Joint Advisors (Director Level), two Assistant Advisors (US level) and 5 support staff.

Operations and Communications Division

9.5 NDMA, as the Apex Body, needs to be always in a state of readiness to tender advice to the Government on disaster situations at all times, for which it must remain fully apprised of the latest information. For this critical activity NDMA have an Operations Centre to provide round the clock disaster specific information and data input facility and also guide the effort during the subsequent stages of response. This Division is also closely involved with the tasks relating to Rehabilitation and Recovery and ensures that all new built environments are disaster resilient.

9.6 It also has the task of maintaining a dedicated and continually operational state-of-the-art communications. The key components of the Communication and IT Wing are Communications and IT network and DM Information System with special reference to Knowledge Management and Data Fusion with

emphasis on GIS based applications. The total sanctioned staff in this Division is 19, comprising one Advisor (JS level), three Joint Advisors (Director level), four Assistant Advisors (US level), two Duty Officers (US level) and 7 support staff.

Administration and Coordination Division

9.7 This Division is responsible for all aspects of Administration and Coordination. Its activities involve extensive interface with the Ministries / Departments and States. This Division also provides administrative and logistic support to the Members and the staff of the NDMA at all levels. The total sanctioned staff in this Division is 22, comprising one JS, one Director, two USs and 18 support staff.

Finance and Accounts Division

9.8 The Finance and Accounts Division deals with the work relating to maintenance of accounts, preparation of budget, financial scrutiny of proposals, etc. This Division also monitors progress of expenditure and advises NDMA on all matters falling within its delegated financial powers, etc. The total sanctioned staff in this Division is 8, comprising one Financial Advisor (JS level), one Director, one Assistant FA (US level) and 5 support staff. Details of its functions and responsibilities are:

- Drawl of budget of the NDMA.

- Maintenance of departmental accounts in accordance with the requirements under General Financial Rules (GFRs).
- Watch and review the progress of expenditure against sanctioned grants through maintenance of control registers.
- Advise NDMA on all matters falling within the field of delegated powers.
- Associate closely with the formulation of schemes and important expenditure proposals from their initial stages.
- To watch settlement of audit objections, Inspection Reports, Draft Audit paragraphs etc.
- To ensure prompt action on Audit Reports, Reports of Public Accounts Committee (PAC) and Estimates Committee.
- To ensure timely submission of periodical reports and returns.

Finance and Budget

9.9 In the Demands for Grants of Ministry of Home Affairs (MHA), NDMA has been classified under Grant No. 54 – Other Expenditure of MHA. The classification of Budget heads is as under:

BE, RE, RA, FE, Expdr-2011-12 (Plan)		
Name of Organisation: National Disaster Management Authority (NDMA)		
Grant No.	55	Other Expenditure of MHA
Major Head	2245	Relief on account of Natural Calamities
Minor Head	80.102	Management of natural disasters, contingency plans in disaster prone areas
Sub Head	0 4	National Disaster Management Authority
		PLAN
(Rs In thousands)		

Sl.No.		Object Head	BE 2011-12	RE 2011-12	Re- appropriation	Actual Expenditure 2011-12
		1	2	3	4	6
	2245	REVENUE				
	02	National Earthquake Mitigation Project				
1	04.02.11	Domestic Travel Expenses	1000	100		0
2	04.02.12	Foreign Travel Expenses	1000	0		0
3	04.02.13	Office Expenses	3500	200		0
4	04.02.16	Publication	2000	300		0
5	04.02.20	Other Administrative Expenses	4500	200		0
6	04.02.26	Advertising & Publicity	20000	200		0
7	04.02.28	Professional Services	27000	1000		0
8	04.02.31	Grants-in-aid (General)	40900	0		0
9	04.02.35	Grant-in-aid for creation of Capital Assets	100	0		0
		Total NEMP	100000	2000		0
	03	Landslide Risk Mitigation Project				
1	04.03.20	Other Administrative Expenses	1000	0		0
2	04.03.28	Professional Services	18800	0		0
3	04.03.31	Grants-in-aid General	100	0		0
4	04.03.35	Grants-in-aid for creation of capital assets	100	0		0
		Total LRMP	20000	0		0
	04	Disaster Management Communication Net Work				
1	04.04.20	Other Administrative Expenses	1000	10000		0
2	04.04.28	Professional Services	1000	10000		0
3	04.04.31	Grants-in-aid General	4000	1000		0
4	04.04.35	Grants-in-aid for creation of Capital assets	144000	2000		0
		Total DMCN	150000	23000		0
	05	Other Disaster Management Projects				
1	04.05.11	Domestic Travel Expenses	1000	500		0
2	04.05.12	Foreign Travel Expenses	1000	0		0
3	04.05.20	Other Administrative Expenses	38000	8000		0
4	04.05.26	Advertising & Publicity	1000	1000		43.0750
5	04.05.27	Minor Works	1000	0		0
6	04.05.28	Professional Services	38000	20000		20192.750
7	04.05.31	Grants-in-aid General	189900	50000		45579
8	04.05.35	Grants-in-aid for creation of capital assets	50600	1000		0

Sl.No.		Object Head	BE 2011-12	RE 2011-12	Re- appropriation	Actual Expenditure 2011-12
		Information Technology				
9		Office Expenses	3200	0		0
10		Machinery & Equipment	75300	0		0
		Total ODMF	399000	80500		65814.8250
	06	National Cyclone Risk Mitigation Project with World Bank Assistance				
1	04.06.01	Salaries	24000	5000		207.334
2	04.06.02	Wages	2000	0		0
3	04.06.03	Overtime Allowances	1000	0		0
4	04.06.11	Domestic Travel Expenses	100000	4000	-96000	86.116
5	04.06.12	Foreign Travel Expenses	20000	1000	-19000	0
6	04.06.13	Office Expenses	400000	5000	-317700	0
7	04.06.14	Rent, Rates & Taxes	9000	5000		0
8	04.06.16	Publication	2000	0		0
9	04.06.20	Other Administrative Expenses	100000	5000	-95000	0
10	04.06.26	Adv.&Pub.	20000	5000	-9900	353.030
11	04.06.28	Professional Services	530000	100000	-495000	5431.568
12	04.06.31	Grants-in-aid General	150000	140000		93868
13	04.06.35	Grants-in-aid for creation of capital assets	850000	856300		698540
14	04.06.50 99	Other Charges (V) Information Technology	36000	0		0
15	04.99.13	Office Expenses	116000	0		0
16	04.99.52	Machinery & Equipment	100000	0		0
		Total NCRMP	2460000	1126300	-1032600	798486.048
	07	National Flood Disaster Management				
1	04.07.20	Other Administrative Expenses	1000	100		0
2	04.07.28	Professional Services	9000	200		0.5
3	04.07.31	Grants-in-aid General	9900	200		0
4	04.07.35	Grants-in-aid for creation of capital assets	100	100		0
		Total	20000	600		0.5
		Grand Total (Plan)	3149000	1232400	-1032600	864301.373

ANNEXURE-I

Composition of NDMA

Present Composition

- | | | |
|----|-------------------------|-------------------------------------|
| 1. | Dr. Manmohan Singh, | Prime Minister of India Chairperson |
| 2. | Shri M Shashidhar Reddy | Vice-Chairperson (Since 16.12.2010) |
| 3. | Shri B Bhattacharjee | Member (Since 15.12.2011) |
| 4. | Shri J K Sinha | Member (Since 18.04.2007) |
| 5. | Shri T Nandakumar | Member (Since 8.10.2010) |
| 6. | Maj. Gen. J. K. Bansal | Member (Since 6.10.2010) |
| 7. | Dr. Muzaffar Ahmad | Member (Since 10.12.2010) |
| 8. | Shri K M Singh | Member (Since 14.12.2011) |
| 9. | Dr. Harsh K. Gupta | Member (Since 23.12.2011) |

Founding Members

- | | | |
|----|-------------------------------|---|
| 1. | Gen. N. C. Vij | Vice-Chairperson (Since 28.9.2001 to 27.9.2010) |
| 2. | Lt. Gen. (Dr.) J. R. Bhardwaj | Member (Since 28.09.2005 to 27.09.2010) |
| 3. | Dr. Mohan Kanda | Member (Since 05.10.2005 to 04.10.2010) |
| 4. | Prof. N. Vinod Chandra Menon | Member (Since 28.09.2005 to 27.09.2010) |
| 5. | Shri M Shashidhar Reddy | Member (Since 05.10.2005 to 04.10.2010) |
| | | Member (Since 11.10.2010 to 16.12.2010) |
| 6. | Shri K M Singh | Member (Since 28.09.2005 to 27.09.2010) |
| 7. | Smt. P. Jyoti Rao | Member (Since 14.08.2006 to 13.08.2011) |
| 8. | Shri B Bhattacharjee | Member (Since 21.08.2006 to 20.08.2011) |
| 9. | Shri J K Sinha | Member (Since 18.04.2007) |

ANNEXURE-II

List of Senior Officers of the NDMA

1. Dr. Sutanu Behuria, Secretary (Since 02.11.2011)
2. Dr. Noor Mohammed, Secretary (Since 01.02.2011 to 31.07.2011)
3. Smt. Archana Goyal Gulati, Financial Advisor (Since 01.02.2012)
4. Shri Sunil Kumar Kohli, Financial Advisor (Since 01.08.2008 to 31.07.2011)
5. Shri Amit Jha, Joint Secretary (Since 27.02.2009)
6. Smt. Sujata Saunik, Joint Secretary (Since 18.12.2009)
7. Shri P. K. Tripathi, Joint Secretary (Since 6.10.2010)
8. Shri A.R. Sule, Director (Since 31.3.2006 to 15.11.2011)
9. Shri R.K. Singh, Joint Advisor (Since 20.02.2009)
10. Shri S.S. Yadav, Joint Advisor (Since 22.05.2009 to 19.9.2011)
11. Col. Shashi Bhushan, Joint Advisor (Since 31.8.2010)
12. Col. B B Singh, Joint Advisor (Since 14.1.2011)
13. Shri R K Chopra, Dy Secretary (Since 4.4.2011)
14. Shri Munish Girdhar, Dy Secretary (Since 29.04.2011)
15. Shri P. Thakur, Assistant Advisor (Since 07.05.2008)
16. Shri J.C. Babu, Assistant Advisor (Since 03.10.2008)
17. Shri S.K. Prasad, Assistant Advisor (Since 01.10.2008)
18. Shri A.K. Jain, Assistant Advisor (Since 03.11.2008)
19. Shri Budh Ram, Assistant Financial Advisor (Since 31.12.2008)
20. Smt. Vijaylakshmi Bhardwaj, Assistant Advisor (Since 19.01.2009)
21. Shri R.K. Chopra, Under Secretary (Since 14.11.2006 to 3.4.2011)
22. Shri D P Majhi, Under Secretary (Since 18.08.2011)

List of Experts in the NDMA

Senior Research Officers

1. Dr. Susanta Kumar Jena (Since 22.05.2006)
2. Shri Nawal Prakash (Since 22.05.2006)
3. Dr. Pavan Kumar Singh (Since 23.05.2006)
4. Dr. A. K. Sinha (Since 22.10.2010)

