

REPORT OF MEGA MOCKDRILL ON EARTHQUAKE PREPAREDNESS HELD ON 15TH FEBRUARY, 2012



DELHI DISASTER MANAGEMENT AUTHORITY

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Executive Summary

Delhi Disaster Management Authority (DDMA) in collaboration with National Disaster Management Authority (NDMA) is conducted a state level mega mock drill on Earthquake Preparedness in Delhi on 15th February, 2012, which is first such state wide programme in India. The scenario of the mega mock drill was simulated in extreme hazard and weather condition. An Earthquake of intensity 7.9 on Richter scale occurred on Delhi-Moradabad Fault line at 11.30 hrs. Tremors lasted for 48 Seconds. Strong tremors were also experienced in the whole of North, North-Western States of India. The whole of Delhi was severely affected by the disaster.

Total 399 sites were chosen for mock drill among which prominent sites were schools, high rise buildings, RWAs, malls, petrol pumps, cinema halls, hospitals, CNG/LPG stations, metro stations, etc. The summary of total number of such sites chosen is given in the following table:

S.No	Place Affected	No.	S.No	Place Affected	No.
1	School (Government)	218	13	Metro Stations	7
2	School (Private)	24	14	DC Office	5
3	Colleges	34	15	Flyovers	6
4	Hospitals (Government)	13	16	CNG/LPG Stations	11
5	Hospitals (Private)	11	17	Road Accident	1
6	Cinema Hall	5	18	Hotel	1
7	Resident Welfare Association	9	19	Industry	1
8	Government Office Building	14	20	Foot Over Bridge	1
9	Market Trade Association	7	21	Slum/ JJ Colony	4
10	Petrol Pump	9	22	Petroleum Installation	1
11	High Rise Building	3	23	Airport	1
12	Malls	7	24	Parking Lot	2

TOTAL = 399

All the nine Revenue Distts under the able leadership of Dy. Commissioners/ Chairman Distt. alongwith Additional District Magistrate/ Chief Executive Officers DMAs conducted table top exercise and finalized their district wise plans in coordination with the ESFs viz Delhi Police, Fire, Health, MCD, NDMC, PWD, MTNL, Power Distribution Companies, NDRF, DJB, DTC, Schools, Colleges, DMRC etc

The resources of every Deptt/ agency was stretched to the maximum limit in this mega mockdrill to test their limitations, response time and requirement of men and material by every department in a major disaster. Independent observers from the Armed forces have been deputed to make assessment of every department on the basis of the strength and the weaknesses.

In District North East the area most affected were B.R. Ambedkar College, Northern Engineering College, Shyam Lal College, ITI Nandnagri, Swami Dayanand Hospital, Jag Pravesh Hospital, Rupali Nursing Home, Yamuna Vihar; Maavi Hospital, Maha Laxmi Hospital, Best Care medical centre, Dilshad Garden; Gagan Cinema, Nand Nagri; Yuva Vikas Manch, Karawal Nagar; Youth Welfare Association, Maujpur; Seelampur RWA, PNSS Kalyan Samiti, Pratap Nagar; Janta Majdoor colony RWA, Welcome; DC(NE) Office, SDM(Seelampur) Office, Deputy Director of Education office, Yamunavihar; MCD building, Keshab chowk; Bhajanpura and Seelampuri Market trade associations; IGL Tahirpur and Bhajanpura petrol pumps.

The number of persons dead due to the tremors, in the district is 28, while 147 persons were seriously injured, and 696 persons sustained minor injuries.

In District East the area most affected were Fraser Suite Hotel, Mayur vihar; Scope Minar, Laxmi Nagar; Karkardooma metro station; V3S mall, Laxminagar; Star City Mall, Mayurvihar-I; CNG filling pump Mayur Vihar-I; DC Office; LPA Girls SS School, Vivek vihar; RSKV, Kondli; Govt. Boys Senior Secondary School, Vivek Vihar, Phase-II; Gram Shiksha Kendra School, Gandhi Nagar; Ambedkar Institute of Advanced Communication Technologies & Research, Geeta Colony; Mayur Vihar, Phase-I, Pkt-4 Market, RWA 57-G; RWA, Geeta Colony, Gandhi Nagar near Community Centre, Geeta Colony; Akshardham Foot Over Bridge near Akshardham Metro Station; Anand Vihar Railway Station near ISBT; Max Balaji Hospital, Patparganj, Delhi.

The number of persons dead due to the tremors, in the district is 19, while 39 persons were seriously injured, and 88 persons sustained minor injuries.

In District South the area most affected were Deshbandhu College, Kalkaji; Acharya Narender Dev, Kalkaji; PGDAV, Lajpat Nagar; Lady Shri Ram, Lajpat Nagar; College of Vocational Studies, Sheikh Sarai ; Aurbindo College Malviya Nagar; Ideal Welfare Association, Shaheen Bagh; A-Sangam Vihar Association, Sangam Vihar; Chhatarpur Pahari Resident Welfare Association; Kalkaji Market; Select City Walk in Hauz Khas; Defence Colony Central Market, Lajpat Nagar;

Okhla I CNG station; BRT CNG Station, Hauz Khas; PVR, Saket, Hauz Khas; Sapna Cinema, Defence Colony; Madan Mohan Malviya hospital, Kalkaji; ESI, Hauz Khas; Moolchand Hospital; Batra Hospital; MTNL Office, Tughlakabad; Delhi Jal Board, Lajpat Nagar; BSES office, Adchini; AIIMS metro station; Select City Walk mall in Hauz Khas.

The number of persons dead due to the tremors, in the district is 41, while 226 persons were injured.

The areas most affected in district North were Miranda College; I.P. College; Hansraj College; Tirath Ram Shah Hospital, Rajpur Road; Sant Parmanad Hospital, Sham Nath Marg; Inderlok Metro Station; Indraprastha Metro Mall; Yamuna Vihar Fly over; Majnu Ka Tilla (Filling point); 313/44 B-22 Block A9 Inderlok (Residential Area); Wazirabad Water works (Residential Area); B Block near post office MALKA GANJ (RESIDENTIAL AREA); DC Office (North); Raj Niwas; Phul Mandi, Mori Gate.

The number of persons dead due to the tremors, in the district is 20, while 39 persons were seriously injured, and 56 persons sustained minor injuries.

In Central District the areas most affected were MCD Civic Centre, VAT Building and Liberty Cinema Hall.

The number of persons dead due to the tremors, in the district is 30, while 59 persons were seriously injured, and 96 persons sustained minor injuries.

In the district New Delhi most affected places were Khan Market metro station; Yashwant Place, Mohan Singh Place and Connaught Place market complexes; Doordarshan Bhawan; Loknayak Bhawan, Khan Market; Slums of Sanjay Camp, B.R. Camp and Janta Camp

The number of persons dead due to the tremors, in the district is 10, while 100 persons were injured.

The areas most affected in district North West were Maharaja Agrasen College of Engineering, Rohini Sec.-21; Delhi Technological University; Swami Shraddhananda College, Alipur; Sweet Shop in front of Police Station, Sultanpuri; Rohini Court; Delhi Haat; Sanjay Gandhi Transport Nagar; slum behind police station, Narela; Madhuban Chowk Under Pass; Shakti Nagar MTNL Building; DSIDC Office, Bawana; Shakur Pur Railway Station; Bawana, Western Yamuna Canal; Model Town P.S.; Metro Walk Amusement Park; Deep Cinema Market Complex; Haider Pur; KLa Mandir Cinema Hall, Mangolpuri; Kanjhawala Dispensary; Maharshi Balmiki Hospital, Pooth Khurd; CNG and Petrol pump stations at Pooth Kalan and Rohini North P.S.

The number of persons dead due to the tremors, in the district is 86, while 336 persons were seriously injured, and 655 persons sustained minor injuries.

The areas most affected in South West District are Govt. Boys Sr. Secondary School, Nazafgarh; Sarvodaya Bal Vidhalaya, Naraina; Ram Lal Anand Collage, South Campus; Sector-10 Metro Station, Dwarka; Indian Oil, Bijwasan; RWA, Bijwasan; E-545, E-611, Budhnagar, Inderpuri; Safdarjung Hospital; Rao Tula Ram Hospital; Indira Gandhi International Airport T-2; DLF Promenande Mall, Vasant Kunj; Emporio Mall, Vasant Kunj; SR Office, DC Office, Kapashera; A-67, Naraina Industrial Area;

The number of persons dead due to the tremors, in the district is 19, while 42 persons were seriously injured, and 10 persons sustained minor injuries.

In District West the areas most affected were Consumer Cooperative Wholesale Society, Karampura; District Centre, Janakpuri; DDU College; Shivaji College; Rajdhani College; Bharti

College; SPM College; Bharti Vidyapeeth College; Moments, Kirti Nagar; TDI, RG; Tilak Nagar Metro Station; D11, Tagore Garden Extn., Tagore Garden; N15-16, Vishnu Garden, Khayal Road; G1/78, Uttam Nagar, near pillar number-674; near Panchayat ghar, Matiala; Ekta apartments, opp Fire Station, Jwalaheri; DDU Hospital (make shift hospital); Acharya Shri Bhikshu Hospital; Patel Hospital; Guru Gobind Singh; ESI, Basai Darapur (make shift hospital); Balaji Action Hospital; Maharaja Agrasen Hospital; Mata Chanan Devi (make shift hospital); MGS Hospital; Kalra Hospital, Kirti Nagar; MCD Office, Rajouri Garden; Transport Authority Office, Janakpuri; DC Office; Janakpuri Flyover; Meerabagh Underpass; Vishal Cinema, Rajouri Garden; H-10, Udyog Nagar; Lokesh Cinema, Nangloi; Jhuggis, behind Pacific Mall; IOCL, Bottling plant, Tikrikala; HPCL, Punjabi Bagh; Petrol Pump, Ashok Park; Tihar Jail; Water pipeline under Moti Nagar flyover; Nangloi Water Treatment Plant.

The number of persons dead due to the tremors, in the district is 21, while 29 persons were seriously injured, and 38 persons sustained minor injuries.

All the injured were shifted to the hospitals in ambulances and PCR Vans. The persons with major injury were admitted in the hospital and the persons with minor injury were discharged after giving first aid.

The scenarios of mockdrill in the districts were of different nature like building collapse, fire incident, road accident, CNG leak, etc. The persons trapped in the debris were rescued with the help of the human life detection machines.

The major agencies which participated in the mockdrill were, Delhi Fire Service, Municipal Corporation of Delhi, Civil Defence Organization, New Delhi Municipal Corporation, Directorate of Health Services, Delhi Police, CATS & St. Johns Ambulance Services, Delhi Jal Board, Delhi Transport Corporation, Mahanagar Telephone Nigam, BSES/NDPL etc.

The whole exercise was observed all over Delhi by independent observers of Army (19 officers and 32 JCOs) and their report on observations of the mock drill was submitted subsequently in the debriefing meeting for future improvements in disaster preparedness. The mockdrill culminated without any mishap and inconvenience to the public. The exercise was successful and was appreciated by the Vice-Chairman, National Disaster Management Authority and the Hon'ble Chief Minister of Govt. of NCT of Delhi. People of Delhi and various Media Organizations have also appreciated the efforts made and the participated in the mock drill. Delhi has become a role model for conducting such drill for other Authorities in India.

Introduction

Keeping in view the administrative, political, demographic, historical and cultural importance of the city a mega earthquake preparedness program was organised by Delhi Disaster Management Authority (DDMA) in collaboration with National Disaster Management Authority (NDMA) from December, 2011 to mid February, 2012, which is first such state wide programme in India. The disaster management exercise comprises of activities like a) Workshops, b) Awareness programmes, c) Mock Drills, d) Public Lectures and e) Media Campaign on various platforms. Preparatory mega mock drills were also held in all the revenue districts. The exercise culminated with a Delhi wide mega mockdrill on 15th February, 2012 at 11.30 a.m. having participation of various stake holders – govt. sector, private sector, RWAs, schools, colleges, universities, market associations, courts and judiciary and public representatives.

Objectives of the Exercise

- ☐ Creating awareness and coordination among government functionaries, technology personnel, NGOs, CBOs and communities about earthquake disaster and possible preventive actions.
- ☐ Preparing the ESFs to effectively respond to large scale earthquake disaster at state level.
- ☐ Development and strengthening of earthquake preparedness, response and recovery plans and practise these through mock drills.
- ☐ Capacity building of Emergency Support Functions and practice of standard operating procedures.
- ☐ Networking knowledge on best practices and tools for effective risk management.
- ☐ Damage minimization
- ☐ Ensuring safety and security of residents of Delhi
- ☐ Developing mitigation strategies for the city by using the outcomes of the program

Highlights of the Exercise

- ❖ The exercise started at 11:30 hrs on 15th February simultaneously in all nine districts of NCT of Delhi.
- ❖ The earthquake was simulated by sounding of siren at a number of places in respective districts, for one minute.
- ❖ All the Emergency Support Functionaries (ESFs) participated in the exercise.
- ❖ First of its kind in India where state level mega mock drill on earthquake held on a single day.
- ❖ A unique joint initiative of NDMA and DDMA in urban disaster management.
- ❖ Focus not only on earthquake but also on its resultant disasters, e.g. Fire, Building Collapse, Road Blockage, Pipeline Burst, etc.
- ❖ Mock drill conducted in simulated high magnitude earthquake (7.9 Richter scale) and extreme weather condition (Freezing Cold and Rain)
- ❖ Divisional Commissioner-cum-Secretary Revenue, NCT of Delhi, was over-all responsible for conduct of the Exercise
- ❖ NDMA provided the necessary assistance and support for the planning and conduct of the Mock Exercise
- ❖ Two months of preparatory mock drill conducted all over the state before the mega mock drill.

Media Campaign

In order to mobilize the people and involve the ESFs, a comprehensive media campaign through the print, outdoor, and radio channels was carried out with the approval of Hon'ble CM. Kapil Dev was the Goodwill ambassador of the mock drill. An SMS campaign also started w.e.f from 11th Feb, 2012 which was continued till 15th Feb, 2012 for the information of people of Delhi and to keep them ready for the Mega Disaster preparedness mockdrill on 15th Feb, 2012 at 11.30 am. On 13th Feb, 2012, a Joint press conference of DDMA and NDMA was done at 4.00pm in the Media Center at the Delhi Secretariat. A press conference was also done on 15th evening at the Hon'ble Chief Ministers residence.

Scenario of Mega Mock drill

- ☐ An earthquake of magnitude 7.9 on Richter Scale occurred on Delhi-Moradabad fault line, at 11:30 hrs on 15 February, 2012.
- ☐ The epicenter of the earthquake was 275 km East of Delhi, near Moradabad
- ☐ Tremor lasted for 48 seconds
- ☐ The potential intensity of the earthquake is between MSK VIII-IX.
- ☐ It is simulated to be freezing cold and has been raining for the last two days and weather is predicted to remain as such for the next 24 hours.

As a result of the above there has been,

- ☐ Massive collapse of infrastructures
- ☐ A significant number of medical casualties
- ☐ The walled city, East, NE and West Delhi, having congested areas have suffered the maximum
- ☐ Fire and Gas leaks have occurred at number of places

Coordination by the State Emergency Operation Centre

The entire exercise was coordinated by the State Emergency Operation Center located at HQ of DDMA. The State EOC coordinated with all 9 District level EOC for smooth conduct of the exercise. The coordination was done both by DDMA and NDMA officials. Vice Chairman NDMA was present in the EOC for the entire exercise along with the members of NDMA to make the coordination effective. From DDMA the exercise was coordinated by the Secretary (Revenue/Disaster Management) and Addl. Secretary (Revenue/Disaster Management).

All the Emergency Support Functionaries participated in complete coordination with one another and due to the combined effort of all the agencies the mega mock drill was completed successfully. People including the school & collage students have also greatly participated in this exercise. This Mock drill was given detailed live coverage by the Electronic Media.