



*A Report on 'Mw8 =Mandi, Earthquake  
Scenario: Multi State exercise and  
Awareness Campaign' Project  
2012-2013*

*Department of Revenue & Disaster Management,  
Government of Haryana*

*“Where observation is concerned, chance favors the prepared mind”*

*- Louis Pasteur*

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## Acronyms

|      |   |
|------|---|
| DC   | Deputy Commissioner                     |
| DMP  | Disaster Management Plan                |
| EOC  | Emergency Operation Center              |
| HODs | Head of the Departments                 |
| IIT  | Indian Institute of Technology          |
| IRS  | Incident Response System                |
| IMD  | Indian Meteorology Department           |
| MBT  | Main Boundary Thrust                    |
| MCT  | Main Central Thrust                     |
| MSK  | Medvedev- Sponheuer-Karnik Scale        |
| Mw   | Moment Magnitude                        |
| NGRI | National Geophysical Research Institute |
| NDMA | National Disaster Management Authority  |
| SDM  | Sub Divisional Magistrate               |
| UC   | Unified Command                         |

## I. Introduction

Haryana falls in the seismic zone IV, III, & II and therefore, the region is vulnerable to earthquakes. Although, in recent past, no major earthquakes have occurred in Haryana, yet tremors have been felt whenever there is an earthquake in the Himalayan foot-hills. Therefore, to get prepared at administrative and community level to face any future earthquake, States of Punjab, Haryana, Himachal Pradesh and UT of Chandigarh conducted a Mega Mock Drill in collaboration with National Disaster Management Authority (NDMA) under a national project 'Mw8 Mandi, Earthquake Scenario: Multi State exercise and Awareness Campaign'.

The project implementation in Haryana State covered seismic assessment of various life line buildings in selected districts of Haryana. Further Incident Response System (IRS) training was imparted to administrative officers of the selected districts to review and update the Disaster Management Plan (DMP). Awareness Campaigns were launched to sensitize public, civic bodies, school and college students in District Panchkula. The concluding event of this one year project was the conduct of Mega Mock Drill at 15 selected locations of District Panchkula on 13<sup>th</sup> February 2013.

## II. 'Mw8 =Mandi, Earthquake Scenario: Multi State exercise and Awareness Campaign'

The project was conceptualized and developed by NDMA, IIT Bombay & IIT Madras as its technical partners and GeoHazards Society as its implementation partner, on 13<sup>th</sup> March 2012, at NDMA Bhawan, New Delhi. State Project Officer, Haryana attended this meeting.



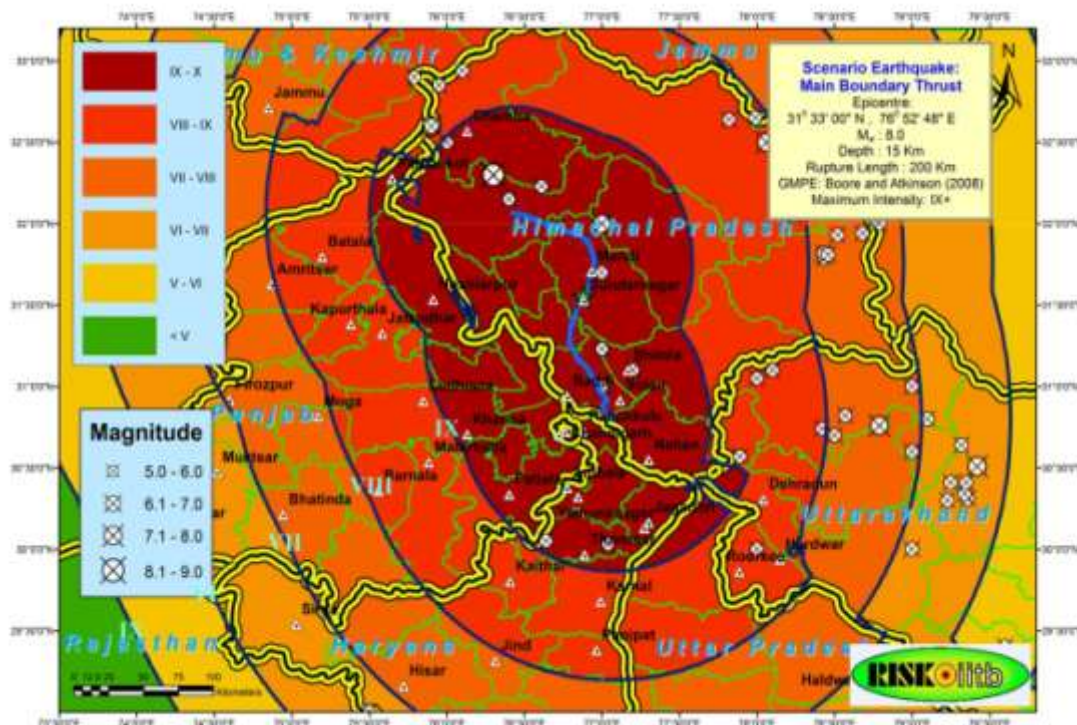
Picture 1 Prof. Ravi Sinha, IITB addressing the first meeting at NDMA in presence of Hon'ble Vice Chairman NDMA

## 2.1. Project Concept

The project concept was based on the simulation of 'Possible Effects of a Major Earthquake in Kangra Region', which was formulated by Prof A. S. Arya in the year 1992. Kangra earthquake was a major mishap that occurred on 4<sup>th</sup> April 1905 in the Kangra Valley, Himachal Pradesh. It caused massive damage in Lahore, Gurdaspur, Pathankot, Jalandhar, Ludhiana, Ambala, Shimla and Dehradun.

## 2.2. Hypothetical Earthquake Scenario

A multistate earthquake disaster scenario was developed for a hypothetical earthquake of Magnitude 8. This hypothetical scenario was developed by a team of earthquake



Picture 2 Hypothetical Earthquake Scenario

engineering experts from IIT Bombay and IIT Madras under the guidance of NDMA. The simulation considered the epicenter in a "seismic gap" in western Himalaya near Sundernagar in Mandi District of Himachal Pradesh. This region lies in the seismic

zone V, projected with strong shaking in the States of Himachal Pradesh, Haryana, Punjab and the Union Territory of Chandigarh. As the map clearly depicts that 13 districts of Haryana i.e, Panchkula, Ambala, Bhiwani, Hisar, Jhajjar, Kaithal, Karnal, Kurukshetra, Panipat, Rohtak, Sonipat falls in region with seismic intensity X-VIII. The loss estimation outcome based on the census data of Haryana State, projects deaths and injuries calculated by researchers of IIT Bombay are tabulated below:

| State   | Population (Census 2011) | Injuries | Death  |
|---------|--------------------------|----------|--------|
| Haryana | 25353081                 | 1504200  | 323400 |

Table 1 Loss Estimation at State Level

| Sr. No. | District    | Population<br>(Census 2011) | Injuries | %<br>Injuries | Death  | %<br>Death |
|---------|-------------|-----------------------------|----------|---------------|--------|------------|
| 1       | Panchkula   | 5,58,890                    | 51,900   | 9.2           | 11,400 | 2          |
| 2       | Ambala      | 11,36,784                   | 121,700  | 10.7          | 26,200 | 2.3        |
| 3       | Yamunanagar | 12,14,162                   | 114,000  | 9.3           | 25,500 | 2.1        |
| 4       | Kurukshetra | 9,64,231                    | 85,200   | 8.8           | 19,500 | 2          |
| 5       | Kaithal     | 10,72,861                   | 93,700   | 8.7           | 20,400 | 1.9        |
| 6       | Karnal      | 15,06,323                   | 125,700  | 8.3           | 28,400 | 1.8        |
| 7       | Panipat     | 12,02,811                   | 85,100   | 7             | 19,200 | 1.5        |
| 8       | Sonipat     | 14,80,080                   | 86,700   | 5.8           | 19,800 | 1.3        |
| 9       | Jind        | 13,32,042                   | 91,600   | 6.8           | 21,200 | 1.5        |
| 10      | Hisar       | 17,42,815                   | 88,500   | 5             | 20,100 | 1.1        |
| 11      | Bhiwani     | 16,29,109                   | 71,100   | 4.3           | 15,000 | 0.9        |
| 12      | Rohtak      | 10,58,683                   | 55,500   | 5.2           | 12,700 | 1.1        |
| 13      | Jhajjar     | 9,56,907                    | 46,200   | 4.8           | 9,700  | 1          |

Table 2 Loss Estimation at District Level



### **III. Mw8 Mandi, Earthquake Scenario: Multi State exercise and Awareness Campaign' Project in Haryana**

The 'Mw8 Mandi, Earthquake Scenario: Multi State exercise and Awareness Campaign' Project, a collaborative initiative of Haryana, Punjab, Himachal Pradesh & Chandigarh and NDMA, began in Haryana with a Technical Committee Meeting on 17<sup>th</sup> July, 2012 in New Secretariat Building Haryana, Chandigarh, under the Chairmanship of Hon'ble member NDMA Prof. H K Gupta, Hon'ble member NDMA Shri T Nandakumar and Sh. Raj Kumar, IAS, Hon'ble Financial Commissioner Revenue & Disaster Management. The meeting was attended by Experts from NDMA, IITB, IITM, GeoHazards Society and Senior Officials of Haryana administration. Hon'ble Financial Commissioner Revenue, Haryana took up the charge as State Nodal Officer for the Project. NDMA deputed Ms. Deepshikha Purwar, as State Coordination Officer from GeoHazards Society (associated with NDMA as implementation partner of the Project) to coordinate the execution of the project.

#### **3.1. Project Objectives**

The objectives for conducting the mega mock exercise in the state are mentioned below:

- ❖ To understand the implications of a possible major earthquake and its likely direct & indirect consequence in the state;
- ❖ To enhance the Disaster Management capacity of the state;
- ❖ To update Response Plans at various levels;
- ❖ To generate public awareness;
- ❖ To setup an interstate coordination mechanism;
- ❖ To conduct a Mega Mock Drill in Try City in collaboration with Punjab & UT Chandigarh.

## IV. Project Activities

### 4.1. Nomination of Nodal Officers

Senior Officials from department of Health, Public Relations, Irrigation, Police, Home guard & Civil Defence, PWD (B&R), PHED, Town & Country Planning, Transport, Urban Local Bodies, Haryana Remote Sensing Application Center, Haryana Vidyut Prasaran Nigam and Haryana Urban Development Authority, were nominated as nodal officers to ensure the preparedness of the respective department. Nodal Officers were also nominated, one each from 13 selected districts to achieve preparedness at district level as well.

### 4.2. Collection of Data required for Scenario Development

As required by IIT B, Data from Census 2011 on Demography and Households of Chandigarh and Feature Identity Database to carry out the simulation and calculation for region specific Scenario Development.

### 4.3. Sensitization of Administrative Officers

To take the project initiative forward, Haryana Administration undertook several activities in District Panchkula. *Capacity Development Programmes* were held at divisions of Ambala, Karnal, Hisar and Gurgaon from 2<sup>nd</sup> week of November- 4<sup>th</sup> week of December 2012. It covered table top exercise, Training on Incident Response System for Administrative Officers from District of Panchkula, Ambala, Kurukshetra, Yamunanagar, Karnal, Kaithal, Jind, Panipat, Hisar, Sonipat, Rohtak, Bhiwani, Jhajjar, Gurgaon and Preparatory Mock Drills at each district divisional headquarters.

*Training on 'Rapid Visual Screening'* was also conducted on 6<sup>th</sup> & 7<sup>th</sup> Nov 2012, attended by 27 Civil



Picture 3 Trainees & Trainers

Engineers of 13 identified districts for further assessment of Critical infrastructure vulnerable for earthquake damage risk in Haryana State. The Training was conducted by Prof. CVR Murty, IIT(M) on 'Assessment of Water Tanks/Pipelines' and Shri. Asish Saprey & Shri.Chaitanaya Krishna, IIT(B) on 'Building Assessment'. Field survey was conducted to provide hands on training to the engineers to assess the seismic strength of critical infrastructure. RVS trained engineers further assessed the seismic vulnerability of vital installations of Haryana State.

All State representatives from participating State attended an *Awareness Meeting* in Chandigarh on 7<sup>th</sup> Dec'2012, headed by Secretary Revenue, Delhi Disaster Management Authority, Shri Kuldeep Singh Ganger, to discuss the strategies for the launch and promotion of awareness generation campaign in the participating States. Team NDMA and Team GHS was also present in this meeting.

A *High Level Meeting* chaired by the Hon'ble Administrator of Chandigarh and Governor to Punjab Shri Shivraj V Patil was held on 9<sup>th</sup> January 2013, in Chandigarh at Hotel Mountview. Hon'ble Vice Chairman Shri M Shashidhar Reddy, members of NDMA and administrative representatives of U.T Chandigarh, Punjab, Haryana and Himachal



Picture 4 High Level Meeting at Hotel Mountview

Pradesh discussed the course of action for the Mega Mock Drill. Deputy Commissioner and Sub Divisional Magistrate of District Panchkula attended this meeting along with other senior officials.

A *Sensitization Workshop* was held on 6<sup>th</sup> and 7<sup>th</sup> Feb'2013 in District Panchkula to impart training on Incident Response System and Mega Mock Drill, for District Panchkula administrative Officers. The workshop helped in clarifying various queries of Officers regarding the conduct of Mega Mock Drill.

#### 4.4. Awareness Generation

An *Extensive Media Campaign* was launched in District Panchkula to reach out to the masses. Print and electronic media was effectively utilized to spread awareness. Sensitization of Administration and General Public was the main focus of this exercise which was achieved by conducting orientation workshops, meetings and trainings. A message from



Picture 5 Hoardings at prominent places

Hon'ble Additional Chief Secretary & Financial Commissioner Revenue, Shri Krishna Mohan, IAS, was relayed on FM radio along with other supportive jingles. Posters and Hoardings at important roads, areas, and buildings were installed in District Panchkula. Awareness generation through rallies by school children and Nukkad Nataks at prominent places was successfully executed. Effective media coverage through Newspapers, FM radios, to cover the Project events was also achieved.



Picture 6 Workshop with School kids

In order to spread awareness among the schools, a workshop was held on '*Urban Earthquake Risk Management*' on 30<sup>th</sup> January 2013 at Indradhanush Auditorium, Panchkula. Prof. CVR Murty, IIT Madras and Dr. SriNagesh from NGRI, Hyderabad conducted this workshop for 1300 school children. School

Children from various schools were also involved in various awareness activities/competitions such as quiz, poster making, Rallies etc.

*An Awareness workshop* was also conducted for *Sarpanchs* of Panchkula District, on 7<sup>th</sup> Feb, 2013. Resource persons were from a Non Government Organization 'Safety Circle', from Chandigarh. Around 150 Sarpanchs from various villages of the district attended this workshop.

#### 4.5. Pre Mock Exercise

Pre Mock Exercises were conducted in Panchkula City at Different locations on 7th and 9th Feb 2013. The Deputy Commissioner of District Panchkula coordinated the Pre Mock Exercise as the Commanding Officer along with the Incident Commanders of the selected locations. The Pre Mock Exercise helped in filling the gaps and preparing for better response.

#### V. Mega Mock Drill, 13<sup>th</sup> Feb'2013

The Mega Mock Drill was scheduled on 13<sup>th</sup> Feb 2013 which began at 10.30 am at all 15 selected locations with a sound of siren as a symbolic occurrence of earthquake, which was followed by activation of response mechanism including rescue and relief as per the directions from Emergency Operation Center (EOC) established in Mini Secretariat Panchkula, headed by Deputy Commissioner Smt. Ashima Brar, IAS, as Responsible Officer as per the IRS structure adopted in the district. EOC In-Charge, under the Responsible Officer, was Mr. Narwal, District Planning Officer, Panchkula. Members of Planning Section, i.e. the Technical Support Committee, were the heads of Line departments, i.e. Public Health Engineering, Electricity, Police, Municipal Corporation, PWD(B&R), Civil Defence & Home Guard, Fire and HUDA were present in EOC. The exercise also included participation from 15 observers from Armed Forces and NDMA. Logistics Section and Operations Section was also present in the EOC.



Picture 7 State EOC headed by Secretary Revenue Shri Vijayendra Kumar, IAS

#### 5.1. Response Mechanism

Panchkula Administration adopted Incident Response System to respond for the hypothetical earthquake of magnitude 8 with epicenter in Mandi Himachal Pradesh. State Emergency Operation Center was established in which was headed by Secretary Revenue & Disaster Management Shri Vijayendra Kumar, IAS, and HODs of

Line Departments. State EOC was equipped with basic infrastructure and Wireless Communication to stay in touch with Unified Command established in UT of Chandigarh and Panchkula District EOC. District EOC was further connected to three Incident command Posts for 15 Mock Exercise locations. Out of 15 locations 5 locations were supervised by each incident commander, with one incident site in-charge at each site, is as follows:

- a) *Incident Command Post 1, Sector 6-Waterworks* : Smt Manita Malik, SDM Kalka
- b) *Incident Command Post 2, Sector 3-Gymkhana*: Shri Ashwini Sharma, HCS, Executive Officer, HUDA
- c) *Incident Command Post 3, Sector 8-Water works*: Shri P.D. Verma, Superintendent Engineer, HUDA.

| Sector 6 Waterworks                      | Sector 3 Gymkhana                                 | Sector 8 Waterworks  |
|--|---|--|
| Mini Secretariat, Sector-1, Panchkula    | Jeevan Chaya Housing Society Sector-20, Panchkula | Bharat Electronic, Industrial Area Phase 2 Panchkula       |
| Government College, Sector-1, Panchkula  | Mata Mansa Devi Temple, Panchkula                 | Marketing Board Building, Sector-6, Panchkula              |
| General Hospital, Sector-6, Panchkula    | Government College, Sector14, Panchkula           | Market Area,Sec-7 Panchkula                                |
| Police Headquarters, Sector-6, Panchkula | Alchemist Hospital, Sector-21, Panchkula          | Dhawan Hospital, Sector-7, Panchkula                       |
| Saket Hospital Sector-1, Panchkula       | Nada Sahib Gurudwara, Panchkula                   | Amartex Industries Ltd, Industrial Area Phase-I, Panchkula |

Table 3 Mock Exercise Locations

The Mock Exercise was officially called off at 12.30pm and was concluded with a Debrief Session at Panchkula EOC. A final debrief with all the participating States, UT Chandigarh, Army Personnel, NDRF and NDMA was conducted on 14<sup>th</sup> Feb'13 at Tagore Theatre, Chandigarh.



Picture 8 DC taking Status Update



## 5.2. Some Figures from Drill

- a) A total of 1405 officials were deployed in the exercise
- b) 2 Relief camps were established
- c) 7 NDRF teams one each for 7 mock drill locations
- d) Team of fire departments, electricity, civil defense and Health departments along with their Task force leader were put together to make 1 response team for each site
- e) Trucks, canters, cranes, Hydra Hammers, 19 Fire tenders (Resources were also sought from neighboring district.
- f) Victim Segregation - 250
  - Severely Injured - 62
  - Moderately injured - 67
  - Less injured - 76
  - Dead - 8
  - Sent to relief camp -37



Picture 10 Safe Evacuation at Civil Hospital



Picture 9 Rescue Operation at Secretariat

Mega Mock Exercise was an eye opener for Haryana State and District Panchkula administration, which has helped them to identify various gaps within the system, for which necessary actions would be taken soon to achieve efficient coordination and response mechanism to face a massive earthquake.

Following are the lessons learnt from the Mega Mock Exercise:

## **VI. Lessons Learnt**

### **6.1. Compatible Communication Setup**

All the Site In-charges were equipped with Walkie-Talkie sets along with one Police personnel to operate the equipment. This made the communication efficient among 15 sites, 3 ICPs, 2 Relief Camps and the district EOC. The situation was manageable with the given fact that at a particular time, many sets do not function at the same time and information flow takes place one-way at a given moment. However, to operate Walkie-Talkie by the officer himself can facilitate the purpose of communication in a better way and call signs should be taught to them.

### **6.2. Coordination Mechanism**

As the coordination of 15 sites along with 3 ICPS and 2 Relief Camps was a humongous task, that too when mobile phones and landlines were not used till the mock drill exercise was called off, the coordination mechanism was found to be in place as per the demand. However, there is always a scope for the improvement and with more sensitization and practice, coordination mechanism for further mock drills and preparedness for real emergency situation would be better only.



### **6.3. State of the Art EOC**

Establishment of a 24\*7 functional and fully equipped Emergency Operation Centre is required in Panchkula District. Though a temporary setup has already been established as an EOC but it needs installation of basic vital equipments to make it functional 24\*7.

### **6.4. Training of Stakeholders**

The District Disaster Management Plan, Panchkula, 2013 has been prepared that extensively mentions department-wise activities and preparedness measures for entire district. Capacity building is a major focus point in the plan and through trainings imparted to officials in the district, coordination related to disaster response would get fused in the system itself.

### **6.5. Procurement and Maintenance of Basic Resources**

During the mock exercise issues of inadequate resource also emerged. Departments responsible for responding for an emergency faced severe resource crunch due to the unavailability of important equipments required for search and rescue. Also, proper maintenance of existing resources was not in place which led to inadequate resources. Administration is in dire need of basic resources to respond effectively for even a small level emergency.

### **6.6. Need for large scale Public Awareness & Sensitization**

Launch of vast media campaign, Awareness generation and sensitization of each level of Administration, Media and Community with a multi hazard approach is needed. Public awareness will surely curtail the risk of damages from a disaster in near future.

## **VII. Some Good practices**

### **7.1. Vast Media Campaign**

An extensive media campaign was launched from Jan'13 to Feb'13 to reach out masses, was successful to spread awareness at a large scale. Posters and Hoardings with messages on Earthquake Preparedness and Mega Mock Exercise, Jingles on FM Radio, Advertisement in Newspapers, etc. were part of the Awareness Generation Campaign.

### **7.2. Inclusion of Schools in Spreading Awareness**

Various Awareness Generation activities such as quiz, Poster Making, Slogan writing and Rallies by School students in Panchkula District which not only Generated Awareness among School kids but also among at Community level, as School children played an important role in taking the Safety & Preparedness to their Families.

### **7.3. Pre Mock Exercise**

Pre Mock Exercise was conducted twice in Panchkula City at Different Locations made Administration to identify the gaps and overcome those gaps before Mega Mock Exercise.

### **7.4. Hazard and Risk Vulnerability Analysis (HRVA)**

District Panchkula has already started the process of HRVA though the process could not be completed before the mock exercise but would surely help in updating the Disaster Management Plan with vulnerable areas in Panchkula

### **7.5. Resource Mapping and Resource Inventory**

Under the supervision of Haryana Institute of Public Administration, Haryana State has already completed the task of Resource mapping and Preparation of Resource Inventory which was of great help during the conduct of Mock Exercise.

## **7.6. Standardization of Standard Operating Procedure (SOPs) of Emergency Support Functionaries (ESFs)**

Standardization of SOPs of ESFs were already in place for Panchkula Administration which was helpful in assigning the roles and responsibilities of each ESF to function in a coordinated and organized way to achieve efficient response to any emergency.

## **7.7 Preparation of Disaster Management Plans at State/District Level**

The preparations of updated Disaster Management Plans at State/District Level are underway. The task has already been assigned to Haryana Institute of Public Administration, which has engaged dedicated Officers for each district to prepare the Disaster Management plans. It will be ensured to incorporate the lessons learnt from the Mock Exercise, in these Plans.

### VIII. School Shakeout Preparedness Drill- 4<sup>th</sup> April, 2013

Schools are one among the highly vulnerable communities when affected by an earthquake. During the Mega Mock Exercise Schools of Haryana State were excluded because of the examination schedule in the month of February. Therefore, to sensitize school children and school staff of various schools of each district of Haryana, Department of Revenue & Disaster Management pioneered for the annual event of School Safety Shakeout Drill of GeoHazard Society. This event is organized annually to enhance earthquake preparedness in schools located in high earthquake risk zones. It also marks the anniversary of the great Kangra earthquake which killed more than 19,000 people in 1905.

Three government schools were selected from each district, and three workshops were organized to orient the school principals and teachers from the selected schools on school safety preparedness. The resource person for these workshops was Mr. Hari Kumar, President GeoHazard Society, New Delhi. The following were the participating districts which attended workshops at the mentioned venue:

| Sr. No. | Venue     | Participant Districts  | No. of Participants | Date    |
|---------|-----------|--|---------------------|---------|
| 1       | Panchkula | Panchkula, Ambala, Kurukshetra, Karnal, Kaithal                | 35                  | 21/3/13 |
| 2       | Hisar     | Hisar, Sirsa, Fatehabad, Bhiwani, Rohtak, Jind, Panipat        | 30                  | 22/3/13 |
| 3       | Gurgaon   | Gurgaon, Sonipat, Jhajjar, Mahendragarh, Rewari, Mewat, Palwal | 40                  | 23/3/13 |

Table 4 School Shakeout Preparedness Drill Districts



Picture 11 "DROP, COVER, HOLD"

The purpose to conduct these workshops was to give safety tips and instructions to conduct School Shakeout Preparedness Drill on 4<sup>th</sup> April, 2013, at 11.00 AM in all the selected schools. The drill involved students doing the Drop, Cover and Hold at the sounding of a special bell and then evacuating the school building in accordance with a pre-drawn evacuation plan.

Soon after the evacuation, as per instruction students assembled in a systematic manner at safe assembly area, which was followed by roll call of the students to confirm the safe evacuation of each student and to locate any missing or injured student. Some schools also examined the functionality of their first aid group, to enhance its



Picture 12 Safe Evacuation



Picture 13 Roll Call at Assembly Area

efficiency in real time disaster. The Drill was called off by the head teacher allowing students to go back to their respective classes. It was followed by a debriefing session for the school staff members and members of the school safety committee.

A total of approx. 10,672 school students from 40 schools of Haryana State participated in this drill making it a successful awareness and preparedness event with help and support extended by GeoHazard Society, New Delhi. (List of Schools is at annexure A). In many schools, it was declared an annual event and few schools also decided to hold such mock drills quarterly.

## Annexure A

GSSS: Government Senior Secondary School

| Haryana (40 schools 10762 participants) |                             |  |              |
|---|-----------------------------|--|--------------|
| 1                                       | GGSSS, Manesar              |  | 624          |
| 2                                       | GSSS, Dhankot               |  | 590          |
| 3                                       | GSSS(BK), Manesar           |  | 214          |
| 4                                       | GSSS, Rathdhana             |  | 46           |
| 5                                       | GSSS, Baroli                |  | 296          |
| 6                                       | GSSS, Ukhalchanna           |  | 165          |
| 7                                       | GGSSS, Badli                |  | 236          |
| 8                                       | GSSS, Bahadurgarh           |  | 340          |
| 9                                       | GSSS, Dongra Ahir           |  | 170          |
| 10                                      | GSSS, Bhojawas              |  | 1167         |
| 11                                      | GSSS, Berli Khurd           |  | 102          |
| 12                                      | GSSS AP Sampli              |  | 48           |
| 13                                      | GSSS, Nand Rampur Bass      |  | 64           |
| 14                                      | GSSS, Singar                |  | 78           |
| 15                                      | GSSS, Chhapera              |  | 212          |
| 16                                      | GMSSSS, Dhatir              |  | 82           |
| 17                                      | GSSS, Hasanga               |  | 233          |
| 18                                      | GSSS, Bhirdana              |  | 605          |
| 19                                      | GSSS, Dhangar               |  | 108          |
| 20                                      | GSSS, Dhiranwas             |  | 86           |
| 21                                      | GSSS, Bhiwani Rohilla       |  | 313          |
| 22                                      | GSSS, Roopgarh              |  | 371          |
| 23                                      | GSSS, Dohkamaur             |  | 130          |
| 24                                      | GSSS, Kawi                  |  | 170          |
| 25                                      | GSSS, Dhukra                |  | 80           |
| 26                                      | GSSS, Jawal                 |  | 72           |
| 27                                      | GSSS, Humayunpur            |  | 112          |
| 28                                      | GSSS, Sarangpur             |  | 85           |
| 29                                      | GSSS, Harodi                |  | 58           |
| 30                                      | GSSS, Assankalan            |  | 68           |
| 31                                      | GSSS, Pinjore               |  | 350          |
| 32                                      | GGSSS, Sector 15, Panchkula |  | 1045         |
| 33                                      | GGSSS, Barwala              |  | 104          |
| 34                                      | GSSS, Kakarmajra            |  | 409          |
| 35                                      | GSSS, Guhna                 |  | 215          |
| 36                                      | GSSS, Manas                 |  | 290          |
| 37                                      | GSSS, Gharaunda             |  | 915          |
| 38                                      | GSSS, Assandh               |  | 258          |
| 39                                      | GSSS, Mirzapur              |  | 131          |
| 40                                      | Guru Nanak SSS              |  | 120          |
| <b>State total</b>                      |                             |  | <b>10762</b> |