



4th MEGA MOCK EXERCISE - EARTHQUAKE REPORT (8th February 2018)

Government of Himachal Pradesh
Department of Revenue (Disaster Management Cell)
www.hpsdma.nic.in

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**4th Mega Mock Exercise on Earthquake
Orientation and Coordination Conference
1st February 2018,
Conference Hall H.P Secretariat, Shimla**

In the run-up to the State-level mock exercise on earthquake preparedness to be held in the State on February 08, 2018, a coordination conference was held at the Armsdale Building Conference Hall, Himachal Pradesh Secretariat, Shimla on 01st February 2018 at 11:00 am. The meeting was presided by Sh. Onkar Chand Sharma, Principal Secretary (Rev-DM) to the Government of Himachal Pradesh and Lt. Gen. (Retd.) N. C. Marwah, PVSM, AVSM, Member, National Disaster Management Authority (NDMA), Government of India. List of Participants and Schedule of the Conference is at Annexure A & B respectively.

2. Sh. D.C. Rana, Special Secretary (Revenue -DM) to the Government of Himachal Pradesh welcomed the dignitaries and the representatives from the Indian Army, NDRF, Police, Home Guards & Fire Services, paramilitary forces, District Commissioners, Head of the Departments and other participants from the stakeholder agencies. He also thanked NDMA for providing financial and technical support to plan and organize the proposed mock exercise. Thereafter, he described briefly earthquake vulnerability of the state and details about conducting the mock exercise through a power point presentation. The copy of the Power Point Presentation is at Annexure C. Brief note on the objectives and deliverable of Mock Exercise is at Annexure D. After this Sh. Rana requested Principal Secretary (Rev-DM) for his inaugural address.

3. Sh. Onkar Chand Sharma, Principal Secretary (Revenue-DM) to the Government of Himachal Pradesh shared the importance of the Mock exercises for preparedness for the hazards like earthquake which has no early warning. He said that this mock exercise will help in evaluating the various Disaster Management Plans prepared in the state at different level and also test coordination mechanism amongst different stakeholders. He emphasized on the importance of distribution of IEC material to make the local people aware about what to do as the first responders. He also shared his experiences of handling the flood disaster in Kinnaur district and the incidents in the Indian Railways where the Incident Response mechanism was followed.

4. Lt. Gen. (Retd.) N.C. Marwah, Member, NDMA in his address applauded the initiatives of the State in the field of disaster management. He enumerated various initiatives which NDMA has taken along with the State Government to help build local resilience in the State. He appreciated the State Disaster Management Plan 2017 for its alignment with Nation Disaster Management Plan 2016 and first SDMP to include Climate Change also as integral part of the plan. He congratulated the state for taking proactive pioneering initiatives like notification State level Incident Response Team (IRT), development of the HRVA Atlas & preparation of Departmental DM plans. He further

added that a multi disaster prone state like Himachal Pradesh should have its own State Disaster Response Force (SDRF) in place at the earliest for which he informed that NDMA will support to the fullest in setting up of the SDRF in the state and trainings from NDRF. He also advocated that Himachal Pradesh should have a state of art SEOC in place. Also emphasized that the state should promote and strengthen civil defense in the state.

5. A detailed briefing about the mock exercise was carried out by Maj. Gen. (Retd.) V. K. Naik, Senior Specialist, NDMA. Discussions were held to ensure that all the participants must have a clear understanding of their roles and responsibilities in the exercise and to make necessary arrangements for conducting the mock exercise. He also took a session on the sensitization of the participants in Incident Response System (IRS) mechanism. (Presentation at Annexure E & F)

6. It was felt and hoped that this exercise which is being conducted by the Himachal State Disaster Management Authority (HPSDMA) in collaboration with the NDMA will help participating agencies and all the stakeholders in evaluating the effectiveness of their District Disaster Management Plans, test coordination mechanism, check the working of Incident Response Teams within the Districts & State level and to improve preparedness and response mechanisms for various disaster situations in future.

Glimpses of Orientation and Coordination Conference



*Orientation of the Participants by Sh. D.C. Rana,
Special Secretary (Rev-DM) to the Govt. of HP*



*Special Address Sh. Onkar Chand Sharma, Principal
Secretary (Rev-DM) to the Govt. of HP*



*Special Address by Lt. Gen. (Retd.) N.C.Marwah,
Member, NDMA Govt. of India*



*Presentation by Major Gen. (Retd.) V.K. Naik,
Senior Specialist, NDMA Govt. of India*



Participants from District Administrations, Armed/Paramilitary forces, State Government Departments



Table Top Exercise held on Earthquake Mega Mock Exercise

7th March, 2018

CS Conference Room, H.P Secretariat Shimla

Following the Orientation and Coordination conference held on 1st February, 2018 in the run-up to the State-level mock exercise on earthquake preparedness to be held in the State on February 08, 2018, a Table Top Exercise was held on 7th February, 2018 under the chairmanship of worth Chief Secretary to the Government of Himachal Pradesh. The meeting was held through the Video Conferencing with all the 12 districts and their respective Incident Response Teams. The members of the State IRT were also present in this table top exercise. List of Participants is at Annexure G.

2. Sh. Onkar Chand Sharma, Principal Secretary (Revenue – DM) to the Government of Himachal Pradesh welcomed the Chief Secretary, the State IRT members & the district participants present through the video conference. He briefly described the earthquake vulnerability of the State and briefed the participants about the objectives of Orientation and Coordination Conference. He also shared the hypothetical Mandi 8 Mw earthquake scenario developed by NDMA with help of IITs.

3. A detailed briefing about the scenario and mock exercise was carried out by Maj. Gen. (Retd.) V. K. Naik, Senior Specialist, NDMA through a detailed presentation. He emphasized the need of IRS trainings in the districts and state at regular interval that the mock exercise is planned to enhance Coordination and Synergize efforts of various Emergency Support Functions at the District/State Level and to find gaps, if any, in the resources, manpower, equipment, communications and systems. He also briefed about the formats to be filled in by the different IRT members during the Mock exercise. (Presentation is at Annexure H)

4. All the Deputy Commissioners/ district representatives in the video conference were requested to briefly share the details of the incident sites planned for the mock exercise and other arrangements. Detailed discussions were also held about the deployment of the observers for the mock exercise in the district from para military forces and Indian Army. The representatives of Army, NDRF, CPRF and Air Force also shared their capacities, requirement, etc. for disaster and emphasized about the need of having good coordination mechanism. The representative of Department of Telecommunication also shared State emergency telecommunication plan and requirement of support from district administration. A demonstration of HAM radio was given by Sh. Gagan Khanna. The response plans of departments and districts were discussed during the given simulation exercise.

5. Sh. D.C. Rana, Special Secretary (Revenue – DM) to the Government of Himachal Pradesh briefly shared standing instructions for the mock exercise with the districts. It was also shared that the trigger of the earthquake for the mock drill will be done by IMD and the district will be informed through the VHF sets installed in the EOCs. They will also be informed from EOC network and the exercise will commence immediately thereafter.

6. The meeting ended by remarks of Sh. Vineet Chawdhry, Chief Secretary to the Government of Himachal Pradesh. He shared his experiences for handling disaster situation during his career and the challenges faced during the response operations. He emphasized on the need/importance of SoPs for the disaster response. That conducting mock exercises is very crucial in disaster preparedness and planning to reduce the time of the coordinated and effective disaster response. He hoped that the mock exercise will be taken seriously by all the stakeholder and this will be no mockery of the exercise. He thanked all the State IRT members, Deputy Commissioners, District IRTs & the representatives of the armed forces/paramilitary forces present in the video conference and hoped that the mock exercise will be a good learning and testing experience.

Glimpses of Table Top Exercise



*Participants of the State Incident Response Team (IRT) and the Districts' IRTs
(Through video conferencing)*

State Level Mega Mock Exercise on Earthquake Disaster 8th February, 2018

A mega mock exercise on earthquake covering all the 12 districts of Himachal Pradesh held on 8th February, 2018 09:15 AM.

2. **Preparatory Actions:** Before the conduct of the exercise many actions were taken by the Disaster Management Cell, Department of Revenue (Rev-DMC) such wide publicity through media - electronic and print media. Advertisements were published in the leading newspapers in the State, jingles were also run through All India Radio and FM Channels in addition to the Orientation and Coordination Conference, Sensitization workshop on IRS and Table Top Exercise, etc. Whatsapp groups were created with all the Deputy Commissioners, ADMs and IRT members for dissemination of information before and during the event. Letter were sent to all Head of the Departments to ensure practice of “Drop, Cover and Hold” and conduct of evacuation drill whereas directions were also sent to all the educational and technical institutions in the State to conduct drill in the summer closing schools along with practicing “Drop, Cover & Hold” and other precautionary steps. Copy of the advertisement which was published in the newspapers is at Annexure I.

3. **The Hypothetical Earthquake:** The Indian Meteorological Department reported the occurrence of Earthquake of 8 Mw on 9 AM, with its epicenter at Sunder Nagar Subdivision, Mandi District. The State Emergency Operations Center (SEOC) was activated immediately and State Incident Response Team members were informed about the earthquake. Simultaneously, all the District EOCs were contacted and the report of the damage and loss were sought by the SEOC both through wireless sets & landlines. Copy of the IMD report is at Annexure J.

4. **The Exercise:** The Mock Exercise was conducted at 56 locations in the Himachal Pradesh on 8th February, 2018 from 9 AM onwards after the hypothetical earthquake warning was generated by IMD. 5 sites had been selected in each district except Lahual & Spiti where one site was selected by the District Administration where local office staff & trained volunteers were deployed. List of the sites where mock exercise was conducted is at Annexure K.

5.. The communication network such as landline, mobile etc. were shown down and reports of damage & loss were received through Police wireless networks. The reports were tabulated in Wireless Section on hourly basis and thereafter shared with Logistic & Planning Sections. The districtwise reports were also compiled at State EOC compilation section. A copy of hourly reports and consolidation reports is at Annexure L.

6. Once the DEOCs were activated the DCs & District IRT established the respective Command posts, Staging area, Relief Camps, etc. Resources like Ambulances, Mini trucks, Mini buses were deployed at the staging area as per requirement and availability of resources in the district for the response. The local police, fire services, home guards & available paramilitary forces and other authorities started search and rescue operations. At State level, an Emergency Operation Centre (EOC) established in Secretariat equipped with communication system like Wireless system, VSAT, fixed line phones and WLL phones, Computers and Laptop started functioning with all IRTs.

7. Different sections of the Incident Response System were established such as Planning Section, Operations Section & Logistics Section. The IRT members/representatives as per the State notified IRT were deployed in their respective sections for the coordination with the districts for assessment of damage and loss reports and effective response. The copies of State Disaster Management Plan were also placed in the EOC & shared with all the Section Chief. Lt Col. Manish Punj, Indian Army & Sh. Ravi Kumar Pandita, Commandant 7th Battalion NDRF were the observer at the Incident Command Post at HP Secretariat. Observers from Army, NDRF, CPMF, etc. were also deployed in the districts. Their list is at Annexure M.

8. **Compilation of Damage & Loss Report** The report of loss as received from the field was 910 Deaths, 3485 Injuries, 237 persons trapped, 307 Rescued, 177 Hospitalized, 55 buildings collapsed, 21 roads damaged, 2 Schools damaged, 2 major fires were reported, 2 bridges collapsed and 67 livestock were reported dead (Copies of loss/damage compiled on hourly basis is at Annexures N). The Mock exercise was called off at 1:00 PM.

Glimpses of Mock Exercise – State EOC



De-Briefing Session – Post Exercise

9. A debriefing session was held through video conference with all the 12 districts & State IRT members at 2.00 pm under the chairmanship of the Responsible Officer (the Chief Secretary). During the de-briefing session the Deputy Commissioner and Observer deployed there shared their feedback and experiences. Members of State IRTs, Officers from Army, Air Force, and NDRF also shared their views. The Principal Secretary (Revenue) and the Chief Secretary also shared their views. Brief description is as under:-

- i. The District and State IRT members acknowledged that the exercise was a useful learning experience. That such exercise should be conducted on regular intervals with more frequency. The Chief Secretary (RO) advocated that such Mock drills should also be conducted in evenings, night-time and on holidays.
- ii. There is need to impart training on IRS to the district level officers and State IRT members. Since the Incident Response Teams have been notified both at State and all the district level, regular trainings of the IRS should be conducted extensively so that the roles of all officers in the Incident Command should be clear to them and they should also be briefed beforehand the exercise.
- iii. The entire districts reported that the Police network got jammed frequently and they found it difficult to communicate with the State EOC. And emphasized that there should be a dedicated network for disaster response.
- iv. Police personnel with VHF sets should be deployed in SEOC and EOC as pre-disaster preparedness measure and for better coordination.
- v. Many districts felt that critical bridges linking the districts with other locations need to be assessed for seismic safety and retrofitted wherever needed. Besides, criticality and vitality of all major bridges in the district should be assessed regularly and included in the DDMPs. Mechanical wing of the concerned department needs to be strengthened.
- vi. State level mapping of resources should be done beforehand and the same should be a part of the State Disaster Management Plan/District Disaster Management Plans with regular up-dation.
- vii. A need to upgrade the State Emergency Operations Center (SEOC) with state of art equipments and appropriate space for IRTs during future emergencies/mock exercises is needed as the space which is currently provided to us is highly inadequate to accommodate IRT members. Similar need was also articulated by the districts.
- viii. It was also felt that information on location of relief camps and details like their capacity, routes, materials available, etc. should be available with the concerned officers and all stakeholders beforehand.
- ix. Non-government organizations and volunteers should be involved in all aspects like community sensitization and should also be involved in planning for disaster management and trained in rescue and relief. They should also be

involved in such mock exercises in future. There is need to put in place IAG coordination in the State and districts.

- x. It was suggested that all mock drills and other joint exercises should be conducted along with local/nearby available Army authorities and Central Police Forces to ensure smooth functioning during actual disaster. The contact details of the nodal officers of these units shall be available and updated regularly in the EOCs.
- xi. The Disaster Management Plans prepared at different level in the State should be two way, each departmental DM plan shall have that department's role as ESF in the State/District level be clearly mentioned. Interdepartmental coordination should also be ensured in the DM Plans.
- xii. Air operations can be well planned with availability of the Helipads & Air Strips in the state with the geo coordinates as well as the dimensions so that the inflow of the air support can be effectively managed.
- xiii. Community sensitization about disaster is crucial. Masses should be educated on awareness on disaster and mitigation and response efforts through inclusion in school curriculum, publicity drives, mass media campaigns, etc. These campaigns should include students, youth, families, elected representatives, etc. on regular basis.
- xiv. Places for relief camps, storing of food/medical supplies/equipments, etc. and for cremation should be identified beforehand and known to all concerned IRT members.
- xv. Contact numbers of specialized agencies who can conduct firefighting operation in places having extremely high inflammable materials like petrol pumps, chemical factories, etc. should be available beforehand.
- xvi. There is need for Traffic & Crowd Management near the staging areas/relief camps as the same was not done.
- xvii. Water and Sanitation facilities should be provided at the staging areas as there were reports of use of open space for urination etc.
- xviii. Medical facilities and resources in the state should be strengthened so that the post disaster medical response can be more effective. There is a lot of shortage of the medical staff in the districts which needs to be addressed.
- xix. Mobilization and coordination with the Air Ambulances service provider for medical evacuation may be needed in difficult and harsh terrain.
- xx. Planning needs to be done regarding movement in narrow streets for response. Local volunteers should be associated.
- xxi. Community participation and regular drill at micro level up to Panchayat level should also be planned.
- xxii. Some Deputy Commissioners observed that most of the line Department were very is their response. And most the Departments don't have DM Plans at the district level.
- xxiii. Lack of coordination amongst different departments was felt in some districts.

- xxiv. It was also suggested that volunteers should be given Identity Cards. That their training and capacity building should also be done.
- xxv. Kangra District was able to mobilize Rs. 8.0 lakh through HRTC and Petrol Pumps towards relief measures.
- xxvi. The Deputy Commissioner Kangra informed that there are around 250 bridges in the district out of which 30 are critical. But the PWD doesn't have even a single bailey bridge as back up.
- xxvii. Need for having mobile toilets was also felt in the district.
- xxviii. All districts felt that they don't have adequate SAR equipment and equipment especially for collapsed structure SAR purpose and advanced life support systems.
- xxix. It was also suggested that IRTs should be constituted at the lower level too.
- xxx. The Deputy Commissioners also felt that it was difficult to assign duties at the Staging Area.
- xxxi. Districts also felt it difficult to establish communication with the SDM. It was suggested that emergency communication network need to go down the SDM level.
- xxxii. It was suggested the teams constituted for response should be a mix of all agencies.
- xxxiii. The NDRF Commander suggested that men come before equipment; hence there is urgent need to constitute SDRF in the State.

10. The meeting ended with the remarks of the Chief Secretary (RO) wherein he complimented the SDMA & DDMA's for participating & the efforts put in the mega mock exercise by all the stakeholders. He further said that these mock exercises are an important investment made for the effective and timely response to the future disasters. He thanked NDMA and Maj. Gen (Retd.) V.K. Naik for their support.

Issues noticed during the Mock Exercise

11. The following issues were noticed during the mock exercise which needs to take note of in future:-

- a) Some districts reacted to the alert as per the scheduled time pre-defined by them whereas the reactions were to be activated immediately on the intimation of occurrence of the hypothetical earthquake by the State HQ.
- b) Mock drill was mainly restricted to the district headquarters whereas it was desired to be taken to the field i.e. at the sub division & Block level.
- c) The reactions at the district level could have started with holdings of the meetings of the DDMA's. It happened only in one or two districts.

- d) Many Deputy Commissioners were seen immediately at the staging areas, which was not desirable. Their presence as Responsible Officer should have been at DEOCs at that time.
- e) All offices and education and technical institutions, etc. were to practice “Drop, Cover & Hold” and conduct evacuation drill but this didn’t happen in most of the places, probably due to lack of communication and coordination among the different departments with DDMA and SDMA.
- f) The district remained so preoccupied with their internal exercise that they failed to project demands at the State level for assistance. Some of the District Magistrates had to be prompted from State to paint a particular scenario and pose demand for assistance to the State EOC. This generated some activity to the State IRT members.
- g) The damages and losses reported were also not commensurate with the magnitude of earthquake communicated to them. In some cases, the districts presumed the magnitude of earthquake at their own.
- h) Some of the State IRT members such as from the department of GAD, Home, etc. reported quite late at State EOC.
- i) Most of the members of the State IRT were not aware of the IRS system and role they had to perform.
- j) The police had learnt from last exercise and had deployed 6 wireless operators at the State EOC. Senior Officers were present in the State EOC and the work done by the Police team was very good.
- k) There were media reports from field that the patients didn’t get stretchers in the hospitals and patients had to be carried on attendant’s back.
- l) Most of the media carried negative reports about the mock exercise. The criticism was done about lack of specialized SAR equipments, preparedness and coordination.

Recommendations

12. On the basis of lessons learnt during this mock exercise, the following recommendations are made:-

- i. The Gap between coordination conference and mock drill should be atleast 15 days so that adequate time is available for preparation.
- ii. Department of Telecommunications has shared that they have mobile BTS towers in the state which can be used to restore mobile communication for the affected area. State may consider pre-positioning them in the districts near EOCs.
- iii. In order to make the mobile service functional in the State at the time of disaster regular fuel supply is required. Therefore, DCs should issue Standing Orders to the Petrol Pumps to make available at least 10 kiloliters of diesel to the mobile service providers to meet the demand on daily basis.

- iv. The State EOC and DEOCs needs to further up gradation and improvement.
- v. Satellite phones are required to be placed in the EOCs for the communication. Besides, HAM Radio, Wireless and V-SAT communication should be added there. SDMA may plan to provide V-SAT to the districts especially in the remote vulnerable areas.
- vi. As suggested by the NDMA the State should establish its State level Disaster Response Force (SDRF), which can be trained by NDRF training centers for the collapsed structure SAR for the earthquake hazard.
- vii. The SDRF (as and when established) and Fire Services should be provided specialized SAR equipment so that the State is effectively responds to emergent situations during the golden hour of disaster.
- viii. The Disaster Management Plans of districts and Departments may be shared with all the stakeholders so that the plans are known to all.
- ix. In order to handle relief material at airports the following may be notified nodal officers:-
 - a. Divisional Commandant Shimla – Shimla Airport
 - b. Divisional Commandant Mandi – Kullu Airport
 - c. Divisional Commandant Kanga – Kangra Airport
- x. Nodal officers may be nominated in State and District IRTs for disposal of dead animals and animal care.
- xi. State IRT notification also needs some tweaking as some senior officers have been put under the control of junior officer. Similarly, the district IRTs need to be notified uniformly so that when officers are transferred from one district to the other they are well aware of their roles and there is no confusion about the same.
- xii. All army units located in the State should be requested to participate in their respective locations in future mock exercise.
- xiii. Matter needs to be taken up with western command to know as what kind of transport plane are capable of landing in Kangra, Kullu & Shimla airstrips.
- xiv. The Indian Oil Corporation should be requested to store adequate quantity of petrol in its Shimla store as the same isn't being done at present. This may lead to problem in future during disaster situations.
- xv. The mobile telecommunication tower not running on electricity should be provided electricity connector on priority.
- xvi. The mobile number of IRTs member may be shared with N.O, DM, DOT so that they can be put on priority dialup list.
- xvii. HAM Radio Network may be expanded on priority in the State.
- xviii. A road map for IRS training should be worked out.
- xix. All critical infrastructure and lifeline buildings of districts and State should be assessed for seismic safety and retrofitted wherever needed.
- xx. Regular IEC campaign should carried out in the State.
- xxi. The District may identify and notify relief centres.

- xxii. Strengthening of health services is needed and hospital safety programmes may be taken up.
- xxiii. PWD Mechanical wing needs to be strengthened. The Department should assess vulnerability of critical bridges and retrofit them. They should also pre-position bailey bridges at critical locations.
- xxiv. DDMA should ensure preparation of Departmental DMPs at district level too, conduct table top exercises regularly for better coordination, etc.
- xxv. DDMA may form and notify IRTs at the Sub-Division and local level too.
- xxvi. DDMA should also focus training and capacity building of local volunteer. Retired personnel from Armed Forces should also be enrolled as local volunteers.

Media Briefing Session

13. After the debriefing session, a media debriefing session was held at the CS committee room with representatives of the print and electronic media under the chairmanship of the Principal Secretary (Rev-DM). He briefed about the mock exercise conducted and the pre exercise events that were conducted to make the exercise more successful with the help of NDMA.

14. The following key points were shared with the media:

- In order to make the exercise successful, the state government conducted comprehensive awareness campaign through Media (Print and Electronic) and distributed around 80000 pamphlets on Earthquake disaster awareness for general public.
- Army and Indian Air Force representatives from Western Command also took part actively and issues of coordination during disaster response operations were streamlined.
- The columns from Army, Paramilitary forces, ITBP, NDRF teams participated in mock exercise along with integral resources of districts such as police, medical, fire services, civil defense, Home Guards etc.
- The support and guidance from Lt. Gen N.C. Marwah (Retd) Member, National Disaster Management Authority and Maj. Gen V.K. Naik (Retd), Senior Consultant, NDMA was highly helpful.

15. That the state has proactively taken the following actions towards making the state resilient to Earthquake disasters:-

- The State has prepared Hazard, Vulnerability and Risk Assessment (HVRA) Atlas; and our State is the only Himalayan State which has prepared such Atlas in the country.
- State and Districts Emergency Operation Centre's are operating 24X7 to deal with the emergencies.
- State Disaster Management Plan was prepared in 2012 and again revised in 2017.
- District Disasters Management Plans were prepared in 2012 and again all revised in 2017.
- The State is conducting Training and Capacity Building Programmes for Engineers, Architects, Town & Country Planners and Masons on Safe Construction Practices and Structural Safety.
- First time, 38 Departmental Disaster Management plans have been prepared.
- Mock Exercises on Earthquake Disasters are being conducted from time to time, to check efficacy of State, District and Departmental DM plans and response of various districts and stakeholder departments.
- The National School Safety Program was also implemented in the State of Himachal Pradesh with the support of National Disaster Management Authority. The programme was aimed to promote the culture of safety among children in all the schools.
- State is supporting State Council of Educational Research and Training (SCERT) and Government College of Teacher Education (GCTE) for School Safety Initiatives.
- State is planning a Comprehensive Programme on Hospital Safety with the vision that all major hospitals in Himachal Pradesh are structurally and functionally safer from disasters, so that the risks to human life and infrastructure are minimized.

A copy of the Press note is placed at Annexure O.

Media De-Briefing



De- Brief Session with all District



Glimpses of Mock Exercise



ANNEXURES

Annexure A

**Orientation and Coordination Conference on Mega Mock Exercise Venue-Armsdale
Building Hall, HP Secretariat, Shimla Date -01 February- 2018**

Participant List			
Sr.No	Name	Designation/ Organization	Contact /Email Id
1	Sh. Vivek Bhatia	Dc Bilaspur	8988280116
2	Sh. Gopal Chand	Dc Kinnaur	94180-65900
3	Sh. Mast Ram Bhardwaj	ADM Kangra	94181-77083
4	Sh. Shashi Pal Negi	SDM Kangra	94188-54386
5	Dr. Shiv Kumar	Addl.SP. Kangra at Dharmshala	94181-75222
6	Sh. Prabhat Kumar	Youth Coordinator NYKS Govt of H.P	94182-86812 nyksshimla@gmail.com
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14	Sh. Ashok Kumar IPS SP Bilaspur	Police	Sp-bil-hp@nic.in
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16	Sh. Man Mohan Singh Addl. SP. Solan	HP Police	94182-70636 Asp-sln-hp@nic.in
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18	Sh. Mohit Chawla	SP Solan	76500-00601
19	Sh. Hans Raj Sharma	Dc Solan	98055-05507
20	Sh. Vivek Chandel	ADM Solan	94184-54000
21	Sh. Sanjeev Dhiman	SDM Kandaghat	94184-86089
22	Sh. S.N. Attri	SE (W) o/o ENC HPPWD Shimla	94180-17630
23	Sh. R.C. Verma	Chief Engineer Director HPPIDC Shimla	94184-69357
24	Sh. C.P. Verma	Director HIPA	94184-92888
25	Sh. Rajiv Kumar	Addl.CEO BBNDA	94180-08000
26	Sh. Rohit Jamwal	Commr.Mc Shimla	94189-89000 rohitjamwal.has@gmail.com
27	Sh. Amit Kashyap	Dc Shimla	94185-00005
28	Sh. Desh Bandhu Kaith	DMC, HIPA	98160-20434
29	Sh. Akshay Sood	ADM Kullu	94183-94443
30	Sh. Sidhratha Arogya	SDM, Nagrota	98054-90009

31	Sh. Arvind Chauhan	State Coordinator HP State Red Cross.	94592-31355
32	Sh. Kulbhushan Singh	NODAL OFFICER Army –(22 Rajput)	82191-95916
33	Lt.Col Manish Punj .SC	OFFICINATING CO Army (22 Rajput)	76500-36367
34	Sh. Surender Thakur	Ac to Dc Kinnaur	8988165780
35	Sh. Gaurav Chaudhary	SDM Horli	98165-46277
36	Sh. Dinesh Kumar	Addl.SP. Una	94180-57747
37	Sh. Bhupinder Singh	Addl SP Mandi	94180-10870
38	Sh. Khajana Ram	Dy. SP Nahan	94180-63732
39	Sh. Jatinder Kumar	Dy. SP (HQ) Chamba	94180-80483
40	Sh. Praveen Thakur	Addl. SP Shimla	94183-10163
41	Sh. Sunil Chauhan tehsildar	Directorate of industries H.P	9418062828
42	Sh. Arun sharma	Directorate of Fisheries	9418029753
43	Sh. Vivek Thakur J.E	H.P.P.W.D Dev No-3	8679137610
44	Sh. Chaman Lal DSP	DSP Traffic Police	9418026375
45	Sh. Bhupinder.k.Attri RTO shimla	Directorate of transport	9418478957
46	Lt. Kamlesh Pal	Rep of 136(I) inf bde gp, Army	7874079317
47	Sh. Naresh dall ASI/GD SSB,MTC	SSB MTC Shimla	8628875986
48	Ms. Rajeshwari Balla	Dy .Dir.Hr.Edu Distt.Shimla	9418499008
49	Sh. T.S bisht	Dy Dir.Ele.Edu Distt.himla	9817018107
50	DR. Uvi Tyagi Bakwm	Dir of health & Family Welfare Kasumpti, Shimla	9418300121
51	Dr Rahul Rao	Dy.M.S IGMCM Shimla	9418024312
52	Ms. Prabha Rajeev	ADM (law & order) Shimla	9418555998
53	Sh. Dharam Chand verma	Dy Sp/SDPO barsar Distt-Hamirpur	9418043823
54	Sh. Rattan Gautam	ADC Hamirpur	9418022828
55	Sh. G.C Negi	ADM Shimla	9418499992
56	Sh. Manoj Kumar	SDPC B/Nagar	7650003389
57	Sh. Pushpinder Joshi	AE, HPSEBL, Shimla	9418073040
58	Sh. Pankaj Dadwal	Dy CE op circle Shimla Kasumpti HPSEBL, Ltd	9418059468
59	Sh. Mahesh Shridhar	Chief Engineer HPSEBL Vidyut Bhawan Shimla	9418059468
60	Sh. R.L Sahrma	Dy commandant/INT, Taradevi shimla	9418136629
61	Sh. Rajneesh Sharma	Dy.Comdt19th ITBP, Sarahan	9459993368
62	Sh. Navin Kumar	Asst. comdt.TTC SSB Kasumpti	9990778206
63	Sh. Nitesh Kumar	T&CB, DDMA, Mandi, D.C office	8130688848
64	Sh. Chandan Kr. Gupta	DOT, H.P Shimla Office	94184242288
65	Sh. R.P Singh	BSNL	9412739217
66	Sh. Surinder Kumar	Dy Secy (Home)	9418035282
67	Dr Narender Kumar	Distt Health officer, CMO, Shimla	9418031106
68	Sh. Lal Chand	MOH Shimla	9459855347
69	Sh. Kamal sharma	J.E PWD Shimla	9857000455
70	Er Rajeev Shaunak	AE HPWD Shimla	9418038239

71	Sh. Mahesh	Div co HPPCL Shimla	9418038239
72	Er Sd mishra	AEiph sub div Kasumpti	9418000951
73	Er. Rahul Thakur	AE HPPwd Reckongpeo	9416932812
74	Sh. Shravan Kumar Himalayan	Food Supplier Officer Shimla	9418475277 Himalayan.73@gmail.com
75	Sh. B.S Bhandari	CISF	Njpc-jhakri@cisf. gov. in
76	Sh. Anand Mohan	CISF unit sjvnl Jhakri	9418070302
77	Capt Garima Chaudhary	Indian Army (AMC)	docgarima1011@gmail.com
78	Dr Ramesh Chand	Sr Medical Supdt IGMC	9418189900 rameshigmc@gmail.com
79	Sh. Ramesh kumar Prajapati	DC Hamirpur	9418069168
80	Sh. Lalit Jain	DC Sirmaur	8627913120
81	Dr. Uma Verma		9816132085
82	Ms. Shalini Agnihotri	SP Kullu	9805590987
83	Dr. Sonia Thakur	Directorate of Higher Education	9418080520
84	Col. AS Basur	Station Headquarter, Shimla	9414061966
85	Sh. Rajiv Kumar	ADM Mandi (Rev Dept)	9418058845
86	Sh. Rugved Thakur	DC Mandi	9816655300
87	Sh. Jai Dev Negi	Astt Director DEE	9418496996
88	Sh. Hitesh Azad	Joint Director (ELE education) Shimla	9418695123
89	Sh. Sunil Verma	SDO (civil) Amb Distt Una	8091041119
90	Sh. Narayan Chauhan	DRO Distt Una	Narayan333999@gmail.com
91	Sh. R.K Bhardwaj (Rtd.)	Div. Cum. Home Guards & Civil Deptt.	98056-41119
92	Sh. S.B. Negi	ADG/HHG/FS	98050-92700
93	Sh. Baldev Singh	Commandant H.H.G 3Bn Shimla	94180-37855
94	Sh. B.S. Chauhan	Commandant Home Guard 2 nd Battalion, Shimla	98160-03564
95	Sh. Pradeep Kanwar	Joint Director Information and Public Relations	94180-01140 Pkanwar05@gmail.com
96	Sh. R.P. Nepta	Bn. ADMN. Officer HG/CD 3Bn Shimla	98164-71717
97	Sh. Sushant Kumar	DRO Sirmour	98167-82376
98	Sh. G.S. Chauhan	Bn. Admin. Officer HG/CD 4 th B.N. Nahan HB	98164-86891
99	Sh. M.S. Jamwal	A.E (S.P) IPH Deptt. O/S Club Shimla	94181-26020
100	Sh. Sumit Sood	Xen IPH Division No-1 Shimla	89881-07860
101	Ms. Anju Sharma	SE IPH, U.S Club Shimla	98161-60052
102	Sh. Sukh dev	Fire Service Deptt. Fire division Shimla	94187-51660
103	Sh. Anil Kumar Gupta	Reliance Jio Info com I.S.B.T Tutikandi Shimla	70189-98123
104	Sh. Sundeep Sharma	State Town Planes TCP Deptt. H.P	94184-70559
105	Sh. R.S. Chauhan	SE, DOE Shimla	94180-77222
106	Sh. Rajnesh Sharma	Addl. S.E, Directorate of Energy, Shimla	89882-97204
107	Sh. Ranveer Singh	DOT	94140-00124 Ddgt-dot-hp@gov.in

108	Sh. Madan Chauhan	Director FCS&CA	94182-00013
109	Sh. Ramesh Gangotra	Joint Dir. FCS&CA	94181-26156
110	Ms. Anita Thakur	Project Associate UNDP	70184-20230
111	Sh. Anurag Chander	IAS (Probationer) DRO, Chamba	95667-60429
112	Sh. Rahul Kumar	IAS (P), DRO, Bilaspur	98734-73287
113	Sh. Amit Sharma	IAS (P), DRO Mandi	94183-60989
114	Sh. Jatin Lal	IAS (P), DRO Kangra	99996-83584
115	Dr. Sunil Bedi	Director Animal Husbandry	94184-91821
116	Dr. VK. Bhardwaj	Deputy Director Animal Husbandry	94181-76145
117	Dr. Anil Malhotra	Proof. & Head Deptt. Surgery IGMC Shimla	94180-23184
118	Sh. Suneel Jaswal	IDEA Cellular Ltd.	98820-08307
119	Dr. Neha Sharma	CB&T, DDMA D.C. office Shimla	98573-79885 Nehasharma05@yahoo.com
120	Sh. Shambhu	22 Rajput	76499-36701
121	Sh. Rahul Singh	22 Rajput	89887-13885
122	Sh. Susheel Chauhan (Network Head)	Bharti Airtel Ltd.	98160-49336 Susheel.chauhan@airtel.com
123	Dr. Gupta	Urban Development Director	94184-73675
124	Sh. Madan Negi	S.O. Revenue	89880-54386
125	Sh. Vivek Sharma	DMS Specialist HPSDMA Shimla	86298-80160
126	Ms. Ruchi Vasudeva	Project Associate HPSDMA Shimla	98160-39164
127	Sh. Ravi Sagar	Computer Operator HPSDMA Shimla	94590-21511
128	Sh. Vijay Singh	Data Entry Operator HPSDMA Shimla	98053-72814
129	Sh. Prem Singh	Computer Operator HPSDMA Shimla	86797-87027

**Schedule of Orientation & Coordination Conference and
Sensitization Programme on Incident Response System**

Venue- Armsdale Conference Hall, HP Secretariat, Shimla.

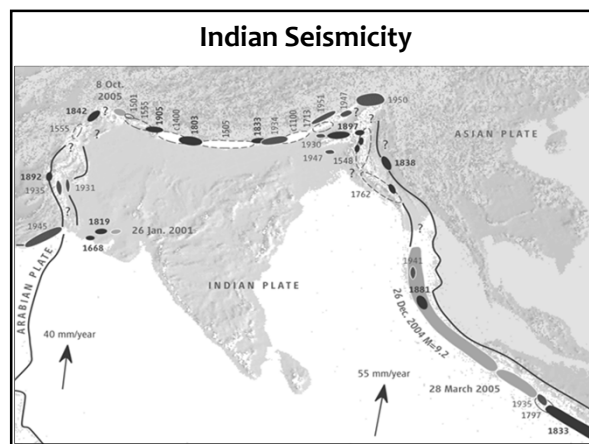
Date -01/02/2018

Sl no	Timings	Topic	Resource Persons
1	10:30 AM- 11:00 AM	Registration	SDMA/ DM Cell
2	11:00 AM- 11:30 AM	Welcome Address, Overview of Scenario & Mock Exercise.	Shri D.C. Rana, Special Secretary (Rev-DM), Govt of HP
3	11:30 AM -11:35 AM	Special Address	Shri Onkar Chand Sharma, Principal Secretary (Rev-DM), Govt of HP
4	11:35 AM -11:45 AM	Words of encouragement	Lt Gen (Retd) N C Marwah, PVSM, AVSM, Member, NDMA.
5	11:45 AM-1:00 PM	Orientation and Coordination Conference- Discussion with participants	Maj. Gen Dr. V.K Naik, KC, AVSM (Retd.) Senior Specialist, NDMA.
6	1:00 PM-1:10 PM	Concluding remarks	Shri Vineet Chawdhry, Worthy Chief Secretary, Govt of HP
7	1:10 PM-2:00 PM	Lunch	
8	2:00 PM-4:55 PM	Sensitization Programme on Incident Response System (IRS)	Maj. Gen Dr. V.K Naik, KC, AVSM (Retd.) Senior Specialist, NDMA.
9	04:55 PM-5:00 PM	Vote of Thanks	SDMA

4th Mega Mock Earthquake Exercise

8th February, 2018

Orientation & Coordinating Conference
1st February, 2018



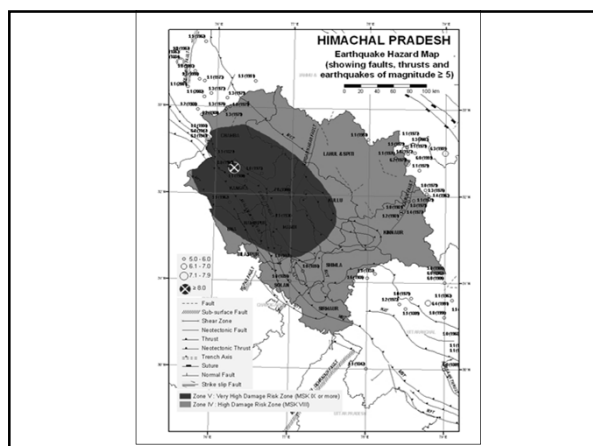
Indian Seismicity

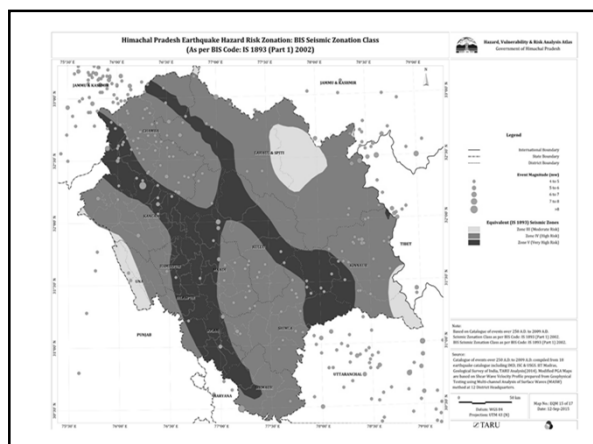
- Several large earthquakes in Himalaya in last 200 years

- M8+ Kumaon earthquake, 1803
- M7.7 Kathmandu earthquake, 1833
- M8.1 Shillong earthquake, 1897
- M7.8 Kangra earthquake, 1905
- M8.2 Bihar-Nepal earthquake, 1934
- M8.5 Arunachal Pradesh earthquake, 1950
- M6.8 Uttarakashi Earthquake, 1991
- M7.6 Kashmir Earthquake, 2005
- M6.9 Sikkim Earthquake, 2011
- M7.8 Nepal Earthquake, 2015



Earthquake Concerns in Himachal Pradesh





1905 Kangra Earthquake

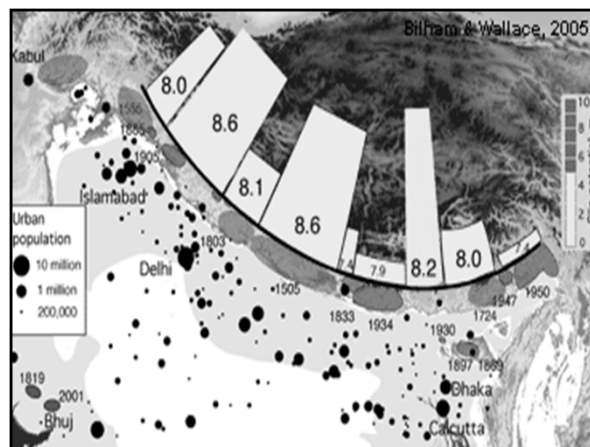
- The 8.0 Mw earthquake that struck Kangra on 4th April, 1905 at 6.19 am IST, lasted 2 minutes.
- Death toll 19,727.
- 1,00,000 houses were destroyed
- 53,000 animals perished
- Many buildings were leveled to the ground.
- Most of the government officials were killed and there was no one to super wise relief work.
- There were several major landslides, rock falls, and avalanches.

TABLE 6 - LOSSES IN MAGNITUDE 8.0 HYPOTHETICAL EARTHQUAKE IF OCCURRED AGAIN IN KANGRA, HIMACHAL PRADESH IN 1991
(Total housing units in the affected area = 1815,858)

S.No.	Item	Scenario if all buildings are <u>without</u> earthquake resistance		Scenario if all buildings are <u>with</u> earthquake resistance	
		Physical Damage	Loss in Rs* (million)	Physical Damage	Loss in Rs. (million)
1.	Loss of Lives	65000	6500	12000	1200
2.	Total collapse of buildings G5	136339	9540	8298	580
3.	Destroyed buildings, G4	263356	18430	94997	6650
2+3	Buildings to rebuild.	399695	27970	103295	7230
4.	Heavily damaged buildings, G3 (to repair & retrofit)	915602	12820	312382	4370
5.	Moderately damaged building, G2 (to repair & retrofit)	357510	3750	648040	6800
6.	Total losses		51040		19600

*Losses estimated in 1997 at 1997 costs

(Source: A.S. Arya, I2WCCE, Paper No. 2824, 2000 (Ref. A7))

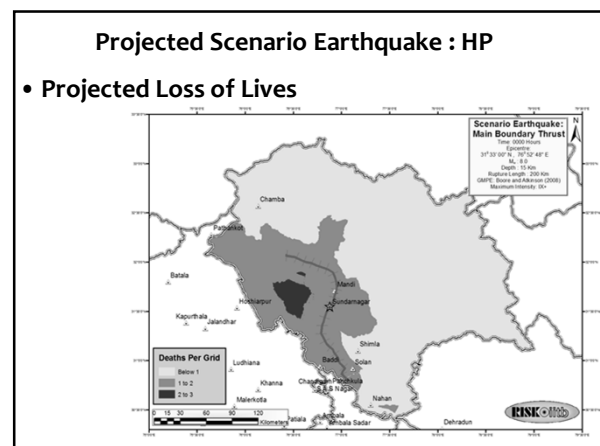
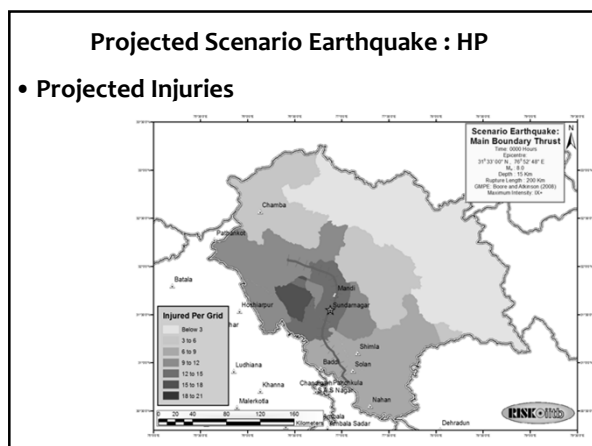
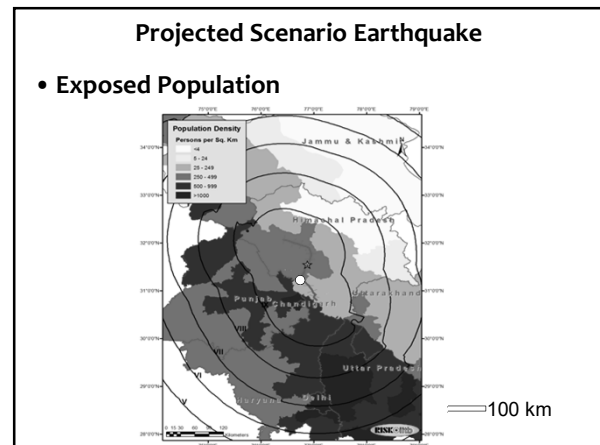
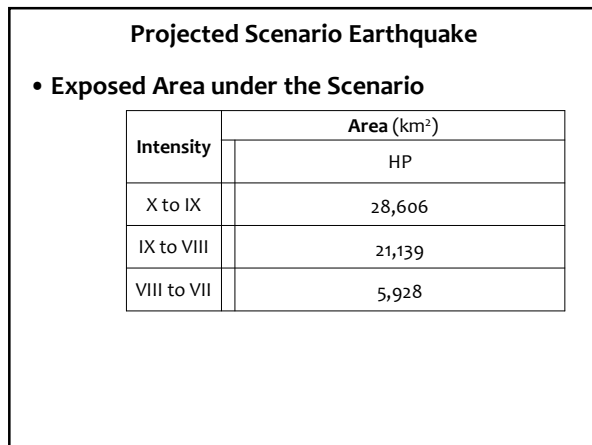
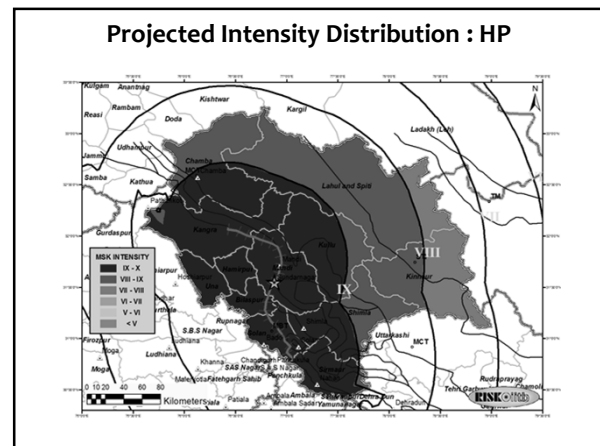
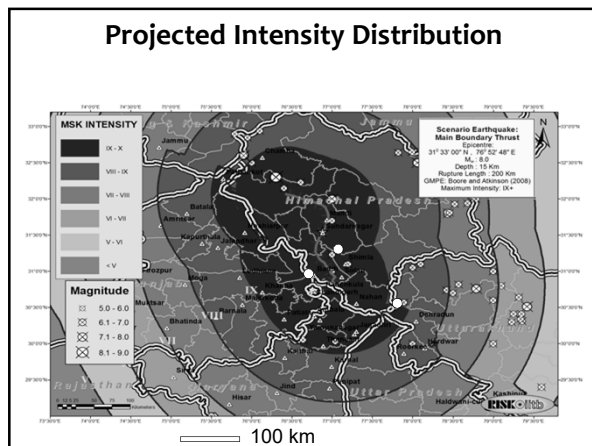


The Earthquake

- **Hypothetical Earthquake**
 - Magnitude M 8.0
 - Epicentre near Mandi (Sunder Nagar)
 - on Main Boundary Thrust (MBT)
 - Earthquake in “seismic gap”
 - A night time event



**Projected Earthquake Scenario –
(NDMA-IITs – 2012-14)**



Projected Scenario Earthquake : HP

• Estimated Injuries and Loss of Life

– Mid-night estimate

State	Population (Census, 2011)	Projected Deaths	Projected Injuries
Himachal Pradesh	68,56,509	2.3% ~1,60,000	16% ~11,00,000

– Projected Ex-gratia

• ~Rs. 700 Crores

Projected Scenario Earthquake : HP

• Estimated Injuries and Loss of Life

	S No	District	Population (Census, 2011)	% Injured	% Deaths
Zone V	1	Chamba	5,18,844	19.9	2.4
	2	Kangra	15,07,223	15.5	2.3
	3	Lahul & Spiti	31,528	19.3	2.2
	4	Kullu	4,37,474	19.2	2.5
	5	Mandi	9,99,518	19.7	2.5
	6	Hamirpur	4,54,293	16.1	2.5
	7	Una	5,21,057	11.4	2.2
	8	Bilaspur	3,82,056	15.0	2.2
Zone IV	9	Solan	5,76,670	10.4	1.8
	10	Sirmaur	5,30,164	15.8	2.3
	11	Shimla	8,13,384	17.0	2.4
	12	Kinnaur	84,298	13.8	2.0

Projected Scenario Earthquake

• Effects on Urban Areas in HP

Intensity	Some Cities/Towns
X to IX	Shimla
	Chamba, Mandi, Nahan, Solan
	Bilaspur, Dharmasala, Hamirpur, Kullu, Una
IX to VIII	Rampur

The Mock Exercise

8th February, 2018

Time ?

Suggested Locations of the Mock

- All districts of the State
- Multiple locations (e.g. District HQs, Sub-Divisional HQs, Schools, Colleges, Universities, Hospitals, etc.) as may be decided by the DCs - (Action by – DDMA's)
- HP Secretariat (Action by: SAD)

Selection of Sites

- Select Critical Buildings
 - e.g., School Buildings, Hospital Buildings, Important Public Offices (Governance Continuity), Police Stations and Prisons, Fire Station Buildings
- Select Critical Lifeline structures
 - e.g., Bridges, Pipelines/water tanks, Communication buildings/Towers, Water Reservoirs, Dams, power houses

The Exercise may involve

- SAR – collapsed structures
- Maintenance of law and order
- Transportation of victims to hospitals
- Response of fire tenders to douse fire
- Setting up of relief camps
- Setting up of temporary hospitals
- Air-lifting of victims (?)

Earthquake is mother of many disasters

Key Objective

To Assess the efficacy of:-

- Public and institutional awareness & preparedness
- Response Plans (of DDMP/SDMP/ Departmental DMPs) at respective level
- Knowledge about ESFs and institutionalization thereof in the Departments/Districts.
- Functioning of EOCs
- IAG/GO-NGO Coordination
- Response plan of district hospitals, etc.

Start of the Mock Drill

- The mock exercise may start with a pre-defined siren/sound which may last for 2 minutes.
- Practice “Drop”, “Cover” and “Hold”.
- Followed by evacuation through the pre-defined evacuation routes and their assembly at the designated places.

(Action by- Secretariat Administration Department, HPSDMA, DDMA, Education Department and All the Universities (technical and non- technical) in the Himachal Pradesh)

At the HP Secretariat, Shimla

- Sounding of start with siren
- “Drop”, “Cover” and “Hold”
- Orderly evacuation as per floor wise evacuation plan
- Assembly of staff at designated places
- Removal of vehicles (Govt.) by the Drivers to designated places
- Arrival of Fire and rescue tenders inside the secretariat parking lots
- Search and rescue by the fire department
- Closure of mock drill with the sound of the siren
(Action by- Secretariat Administration Department)

Campaign to make the mock drill successful

- Printing of Dos and Don'ts in print media (Action by- SDMA)
- Campaign through local Cable operators about “Drop, Cover and Hold” and other precautionary measures required for earthquake safety. (Action by- SDMA, DDMA)
- Screening of movies “Surviving Nature’s Fury” in local cable one week before the drill (Action by- DDMA)
- Distribution of IEC material to local residents during the mock exercise (Action by- DDMA)

Documentation

- Report writing by district on what worked and what did not work; deficiencies noticed – department wise, etc.
- Lessons learnt
- Action plan to improve the DMPs
- Photography

(Action by – DDMA)

Time-Table			
Sr. No	Name of the event	Dates	Venue
1	Orientation & Coordination Conference	01 st February, 2018 Timings 11:00 AM onwards	Armsdale Building Conference Hall, HP Government Secretariat, Shimla.
2	Table Top Exercise	07 th February, 2018 Timings: 11:00 AM onwards.	All the DCs will attend through the Video Conference. State level Officers will be present at CS Committee Room to attend the Table Top Exercise.
3	Mega Mock Exercise	08 th February, 2018	State HQ and All Districts
4	De-briefing/Feedback	08 th February, 2018 2.00 PM	State level Officers will present for debriefing at Armsdale Building Conference Hall. Feedback from all the DCs & Observers through Video Conference.
	Media Briefing and	4.30 -5.00 PM	Media Briefing at CS Committee room.

Let's live through the scenario!

Please exercise safely!

Thank you...



Aims & Objectives of the State Level Mock Exercise

Locations of the Mock Exercise

- All districts of the State – multiple locations (e.g. District HQs, Sub-Divisional HQs, Schools, Colleges, Universities, Hospitals, etc.) as may be decided by the DM and Observer
(Action by – DDMAs)
- HP Secretariat

Key Objectives: To Assess:-

- The efficacy of Response Plan (of DDMP/SDMP/Departmental DMPs) at respective level.
(Action by- SDMA, DDMAs, Police, Fire Services, Indian Army and Paramilitary forces and all the relevant stakeholder departments)
- Assess the understanding of IRS at State and District level and check, if response during mock exercise is in conformity of norms of IRS (for example- Activation of EOC, Establishment of staging area, Mustering of all resources in staging area, creation of task forces and allocation to designated areas, Rescue and Relief operations, Casualty evacuation and Establishment of relief camp and so on.
(Action by- SDMA, DDMAs, Police, Fire Services, Indian Army and Paramilitary forces and all the relevant stakeholder departments)
- The mock exercise should start with a pre-defined siren/sound which may last for 2 minutes. During this period (2 minutes) all officials in Government offices and students at schools and colleges will practice “Drop”, “Cover” and “Hold”.
(Action by- Secretariat Administration Department, HPSDMA, DDMAs, Education Department and All the Universities (technical and non-technical) in the Himachal Pradesh)
- Followed by evacuation – of occupants of Govt. Offices, Schools and other Educational Institutions like, Colleges (both Technical and Non-Technical), Universities, ITIs, etc. through the pre-defined evacuation routes and their assembly at the designated places.
(Action by- Concerned departments, Education department, and All the Universities (technical and non- technical) in the Himachal Pradesh)
- Speed of removal of vehicles from the office compounds and time taken by fire tenders to reach these locations
(Action by- Secretariat Administration Department)

- Knowledge about ESFs and institutionalization thereof in the Departments/Districts.
(Action by – DDMAs, Concerned departments in close coordination with SDMA)
- Testing the functioning of State/District Emergency Operation Centres.
(Action by- Observers, SDMA, DDMAs)
- Promptness in mobilization of resources by the Departments in performing their ESFs
(Action by- Concerned participating departments in close coordination with HPSDMA)
- Level of coordination with local Army, CPMFs (Regional Response Centre), NDRF, Air Force, etc.
(Action by- SDMA, DDMAs, Indian Army, Paramilitary Forces, Airforce)
- At hospital level we will assess – arrangements for triage, surge capacity, setting up of temporary hospital, etc.
(Action by- Department of Health & Family Welfare, IGMCI, DDU)
- For Fire, Home Guard and Civil Defense – SAR and selection/ mobilization of volunteers, etc.
(Action by- Directorate of Fire services, Home Guards & Civil Defense)
- To test communication plan & compatibility of communication networks used by the local police, central paramilitary forces and Army.
(Action by – DG Police, Indian Army and Paramilitary forces)
- Revenue –setting up of relief camps, mobilization of relief material, etc.
(Action by- DDMAs)
- Government- Non Government Organization (GO-NGO) Coordination
(Action by – SDMA, DDMAs, All relevant departments and NGOs)
- Similar goals may be set for other departments.

Scenario

NDMA-IIT Scenario developed during the year 2012

Mock Drill at the Secretariat Level

- Sounding of start with siren
- “Drop”, “Cover” and “Hold”
- Orderly evacuation as per evacuation plan
- Assembly of staff at designated places
- Removal of vehicles (Govt.) by the Drivers to a designated places
- Arrival of Fire and rescue tenders inside the secretariat parking lots
- Search and rescue by the fire department
- Closure of mock drill with the sound of the siren
(Action by- Secretariat Administration Department)

Supervision of the Mock Drills at all Location

- Officers from the NDMA, Army and CPMFs may be deputed who will observe the mock drill at different locations.

(Action by- SDMA & DDMA)

- The Observers will share their report with the DMC directly.

Closure of the Mock Drill

- De-briefing sessions in each locations



Documentation and Reporting

- Report writing by district on what worked and what did not work; deficiencies noticed – department wise, etc.
- Lessons learnt
- Action plan to improve plan and response
- Photography

(Action by – DDMA)

Campaign to make the Mock Exercise Successful

- Printing of Dos and Don'ts in print media **(Action by- SDMA)**
- Campaign through local Cable operators about “Drop, Cover and Hold” and other precautionary measures (DDMA and SDMA) required for earthquake safety. **(Action by- SDMA, DDMA)**
- Screening of movies “Surviving Nature’s Fury” in local cable one week before the drill **(Action by- DDMA)**
- Distribution of IEC material to local residents during the mock exercise **(Action by- DDMA)**

**ORIENTATION & COORDINATION
CONFERENCE**

MEGA MOCK EXERCISE ON EARTHQUAKES
IN
HIMACHAL PRADESH
01 FEB 2018

Maj Gen Dr. V K Naik, KC, AVSM
SENIOR CONSULTANT
NATIONAL DISASTER MANAGEMENT AUTHORITY

SEQUENCE

ORIENTATION CONFERENCE
TABLE TOP EXERCISE
MEGA MOCK DRILL
SUMMING UP AND FEEDBACK SESSION

PREVIEW

1. Objectives.
2. Vulnerability of Himachal Pradesh.
3. Scope.
4. Sequence and methodology .
5. Suggested Participants.
6. Exercise Organizing Committee.
7. Scenario Building by HSDMA.
8. Detailment of Observers (for Mock Exercise only).
9. Over view - IRS.
10. Documentation.
11. Decisions to be taken.
12. Run up activities.

OBJECTIVES

1. To review **Disaster Management Plans** of the State.
2. To evaluate the **Emergency Response Plan** and **Standard Operating Procedures** of the District/s
3. To highlight the **Roles and Responsibilities** of various Stakeholders.
4. Enhance Coordination among **Emergency Support Functions** of various stakeholders at District level.
5. To generate **Public Awareness** by involvement of **LGBs, NGOs and Community.**
6. Identify the gaps in the existing Resources, Manpower, Communications etc

DISASTER VULNERABILITY - HIMACHAL PRADESH

HIMACHAL PRADESH is vulnerable to multiple hazards:-

Earthquake

Landslides/ Avalanches

Floods

Fire

Chemical/ Industrial

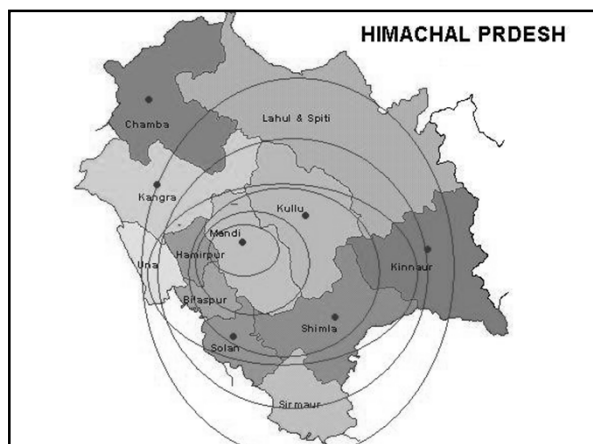
Biological

Terrorist Attack

SCOPE

Table Top and Mock Exercise will be restricted to planning and response at the State/District Level with additional assistance from Central Government resources.

ALL DISTRICTS WILL PARTICIPATE



SCENARIO

1. Occurrence of an earthquake of magnitude 8 on Richter Scale in Mandi District of Himachal Pradesh will be depicted with epicenter of the earthquake between Sunder Nagar and Mandi towns . Time of the event 0000 Hours
2. In addition, the extent of damage in the affected districts, including number of casualties, roads and arteries which cannot be used and the extent of damage to the Services, like electricity, water and tele communication will be depicted site-wise by the observers.
3. To increase the level of difficulty in response, the contingencies such as bad weather conditions and heavy rain fall will also be played up by observers.(Air effort for response may not be available)

STATES LIKELY TO BE AFFECTED

- Himachal Pradesh - all districts
- Chandigarh
- Punjab
- Haryana
- Jammu & Kashmir
- Uttarakhand.

IMPLICATIONS FOR DISASTER RESPONSE OPERATIONS IN HP

2/23/2018
9

Sequence

Orientation & Coordinating Conference,

MAIN ISSUES

- Delineating objectives of The Table Top & Mock Exercise.
- Finalising the Scope of Table Top and Mock Exercise.
- Briefing on Method of Conduct of Table Top and Mock Exercise
- Participants
- Media Coverage.

METHODOLOGY - TABLE TOP EXERCISE.

- Precursor to Mock Exercise.
- IRTs under the RO of each district to participate through video conferencing .
- Presentation of plans by selected districts.
- Presentation of plans by selected line departments.
- Initially situations at the state level are discussed reactions at the state level are sought.
- Subsequently specific situations at District level are discussed –
 - The DC (RO) and other Stakeholders like SSP, District Health Officer, Fire Officer, Public Services Heads, SAR Team Leader, Communication, Civil Defence, Home Guard, Red Cross, RTO, NGOs Public Relations Officer etc are expected to respond.

METHODOLOGY - TABLE TOP EXERCISE

Details of Coordination and Safety are discussed.

The Gaps are identified and Remedial Measures taken.

District ROs to bring out criticalities in disaster response in their areas of responsibility, based upon the disaster scenario, and indicate contingency plans, if any, to manage such criticalities.

Relevant line departments to bring out likely damage to infrastructure – rail, road, bridges, hospitals, communications systems and discuss their plans to restore normalcy in shortest time frame.

The SDMA / RO to give an out line of need of assistance from the central government in the given scenario for advance planning

Methodology - Mock Exercise.

- **The Scenario (type of disaster and impact to be projected) for the mock exercise is finalized in consultation with SDMA**
- **Sequence of events** and Administrative Arrangements are finalized with States & District Authorities beforehand.
- **Scenarios** are formulated after due deliberations and the **Mock Exercise** is conducted by **painting of scenarios** in a sequential manner
- **Observers** are detailed and format for assessment issued.
- **Self Assessment Formats** are given to all stake holders.
- Mock exercises to commence on pre designated signal across the state.
- EOCs are activated at State and district level.
- Actions are taken **on ground** by concerned stake holders on orders of their own departments, as per the IRS
- Observers carry out critical evaluation of various response operations as per the allocated mandate

Methodology - Mock Exercise.

- Incident Command Post is established at district level for command and control.
- Damage assessment is done based upon inputs available from ground
- IRTs at state and district level evolve an incident action plan , which is dynamic.
- Staging areas are established in each district . Tasks Forces are constituted based upon recourses of manpower and equipment available and dispatched to various sites based upon the IAP ad directions from the Incident Commander /RO (at EOC)
- Medical Aid Posts are established at all S&R locations. Med teams will accompany the TFs to all critical areas.
- Casualty evacuation is carried out to pre designated hospitals.
- Relief Camps are established for evacuees.
- Specialist Response from NDRF Battalions, CAPF and Armed Forces also takes place.
- Continuous review of situation is done at EOCs and needs for additional assistance from outside the destruct/state are identified and projected to the central government

Methodology - Mock Exercise.

- Mock exercise is called off on directions from the State EOC.
- A feed back session is carried out by respective DCs at DEOCs.
- All DCs participate in a state level feed back session along with their IRTs through video conferencing, preferably chaired by the Chief Secretary/ Principal Secretary.
- Observrs will also be present and give out their observation in brief.
- Salient's aspects of the response operations and lessons learnt at various districts are highlighted by the participants.
- The complete session is photographed and videographed to maintain records and preparation of the final report.
-

Submission of Final Report.

- Reports are sent by all Stakeholders and Observers to State DM Department which consolidates and send to NDMA along with CDs of Videography and still photography.
- A Final Report is made at NDMA.
- Lessons Learnt are circulated to all concerned.

SUGGESTED PARTICIPANTS AT STATE LEVEL

1. Members of HSDMA & SEC (Chief Secretary – Responsible Officer)
2. DG Police.
3. Spl Secretary, Disaster Management.
4. Jt Secretary/Director, Disaster Management.
5. Secretary, Revenue.
6. Secretary, Health.
7. Secretary, Industries.
8. Representatives from PWD&CPWD
9. Head of Fire Services.
10. Director/ head DM Cell HIMACHAL PRADESH Administration Staff College.
11. Commandant CAPF Bns & (NDRF).
12. Army and Air Force Representatives within the State.
13. Selected NGOs
14. Representatives of telecom service providers

District

1. District Collector.
2. SSP
3. Executive Officer, Municipal Authority
4. CMO
5. Fire Officer.
6. Inspector of Industries.
7. District Red Cross
8. Communication Officer.
9. Civil Defence/Home Guards.
10. Public Relation Officer
11. State & Local NGOs.
12. Army and CAPF Units in District

ANY OTHER STAKE HOLDER IDENTIFIED

**ASPECT FOR OBSERVATION DURING THE RESPONSE
OPERATIONS & DETAILMENT OF OBSERVERS (FOR MOCK
EXERCISE ONLY)**

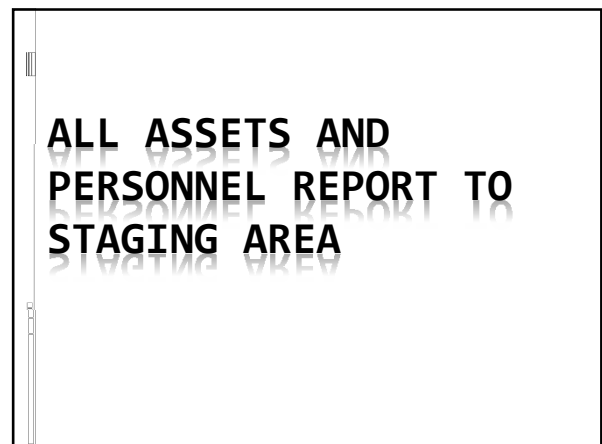
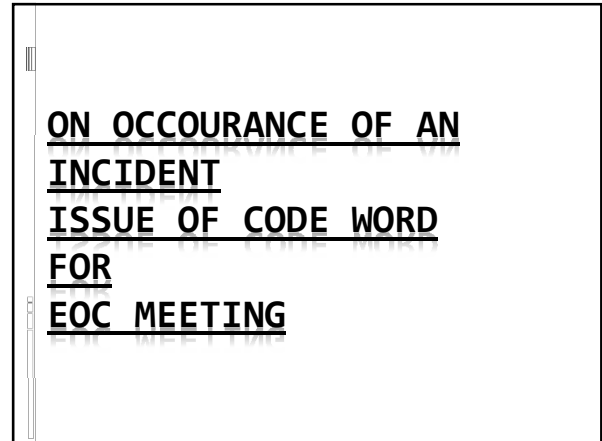
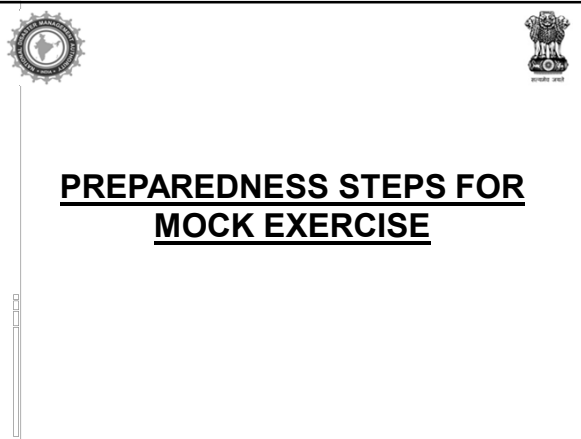
- Search and Rescue.
- Medical and Trauma Counseling.
- Evacuation and Law & Order.
- Helpline and Information Dissemination.
- Relief: Food and Shelter.
- Communication.
- Restoration of Essential Services – Water, Electricity, Sanitation, Schools, etc.
- Transport.
- Irrigation.

Note 1. Observers to be nominated by State Government/ Army and names intimated to NDMA before Table Top Exercise begins.

DETAILMENT OF OBSERVERS

- ALL EOCS
- ALL STG AREAS
- ALL INCIDENT SITES
- ALL RELIEF CAMPS
- SELECTED MEDICAL FACILITIES

**FORMAT FOR OBSERVERS AND SELF
ASSESSMENT BY ALL STAKE HOLDERS
WILL BE ISSUED DURING TABLE TOP
EXERCISE.**

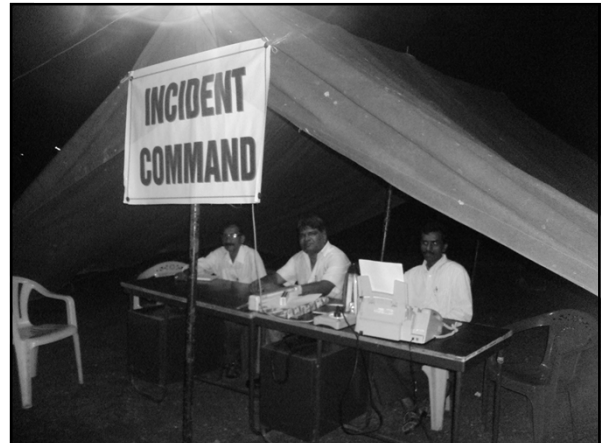




TASKS ASSIGNED

OP CDRS BRIEFED
RESOURCES ALLOCATED
IAP MADE
IRTS/ TF NOMINATED AREA WISE
OPERATIONS COMMENCE AT
AFFECTED SITES

INCIDENT COMMAND POST EST



TF LAUNCHED SEARCH AND RESCUE OPS COMMENCE



MED AID POST ESTABLISHED
CASUALTIES MOVED TO MEDICAL AID POST
TRIAGE CARRIED OUT
CASUALTIES EVACUATED TO HOSPITALS



**EVACUATION PLANNED IF
NEEDED**

SECONDARY DISASTERS



RELIEF CAMPS /SHELTERS OPENED



DEMOBLISE ON SITUATION
COMING UNDER CONTROL
OR
PLAN RELOCATION /LONG TERM
RELIEF AND REHABILITATION

DEBRIEFING & FEEDBACK
SESSION



MOCK EXERCISE EARTHQUAKE SIMULATIONS

SL. No.	Event	Simulation and Follow Up Action												
1	Simulation of Earthquake	1. Indication by blowing of sirens and by observers. 2. To be confirmed from District Control Room over telephone/ mobile												
2	Casualties (As per situation)	<table><tr><th colspan="4"><u>Human Beings</u></th></tr><tr><td><u>Killed</u></td><td><u>Injured</u></td><td><u>Untraced</u></td><td><u>Displaced</u></td></tr><tr><td>2500</td><td>20000</td><td>5400</td><td>5 lac</td></tr></table>	<u>Human Beings</u>				<u>Killed</u>	<u>Injured</u>	<u>Untraced</u>	<u>Displaced</u>	2500	20000	5400	5 lac
<u>Human Beings</u>														
<u>Killed</u>	<u>Injured</u>	<u>Untraced</u>	<u>Displaced</u>											
2500	20000	5400	5 lac											
3	Actual Evacuation of Human Beings for treatment.	100 dummies by Civil Defence/NGOs/Volunteers, to act as fatal injuries and injured. Coordination by respective districts.												
4	Relief Camp	Two relief camp to be established (Minimum 100 persons, including old, women and children per camp.Dummies by Civil Defence /NGOs/Volunteers from Community. Coordination by Deputy Comdt General, Civil Defence..												

5	Water	Arrangement of water tankers/ other means at Relief Camp and ICP by Municipal Corporation/DC of districts
6	Medical (to be coordinated by Chief Medical Officer)	a) All ambulances within the district to be mobilised. In addition State Govt. be prepared to send additional ambulances from neighbouring districts. b) Preparing all hospitals for creating bed capacity to accommodate victims. c) Temporary PHC to be established at Relief Camps and at critical areas.
7	Supplies	One time meal for the evacuated people in relief camps & for casualties to be arranged at district level.) Coordination by Distt Supply Officer)
8	Equipment	Heavy equipment like excavators, dumpers, and road rollers to be identified and one each per district to be moved to the critical area in the district.(Coord by Municipal Corpn/ DC).

9	Transport	Buses/Trucks for evacuation of people to relief camp (to be arranged by RTO District.
10	Electricity	One generator to be moved to each of the Relief Camp & for ICP.(by Electricity Deptt of District)
11	Communications(to be arranged by Distt Communication Officer)	a) EOC and ICP to be in communication with Tehsildars, Relief Camps, Hospitals, State Secretariat. b) Redundancy in communication network.
12	Sewerage & Sanitation	Moving toilets and bathrooms to be arranged at ICP and Relief Camps, by Municipal Corporation/ DC respective districts.

FORMAT FOR SELF ASSESSMENT BY THE STAKEHOLDERS.

- Name of the Organisation.
- Type of Support Function.
(Eg. Medical, Relief, Search & Rescue)
- Name of Team Leader.
- Designation in Parent Organisation.
- Contents of First Message about Incident received and Communication mode.
- Source of Information. (Who sent it)
- Time Information received.
- Starting Time from the Base Station / Organisation.
- Time of arrival at ICP / Disaster Site.
- Distance between Base Station and ICP/Disaster Site (in Km).

FORMAT FOR SELF ASSESSMENT BY THE STAKE HOLDERS.

- Manpower Resources available and how much manpower carried.
- Equipment carried.
- Material brought.
- Vehicle brought (Give type)
 - For use of ICP.
 - Self use.
- Difficulties faced.
- Support Agencies Available.
- What was your Contribution in the Mock Drill?
- Learning from Mock Drill.
- Suggestions for Improvement.
- Any other information, you would like to convey.

FORMAT FOR REPORT BY OBSERVER

1. Emergency Support Function
(e.g Search & Rescue, Medical)
2. Nodal Officer (Name)
3. Observer (Name, Address and Tel. No.)
5. Immediate Response (Give brief details)
6. Duties undertaken by the Team Leader/s.
(Give details of duties)
7. Resources Available
(All resources made available)
8. Utilization of Resources
9. Observers Comments (Frank Opinion, Good practices and weakness/shortcomings noticed)

SUGGESTED ROLES OF KEY STAKE HOLDERS

ROLE OF INCIDENT COMMANDER (IC)

1. Over-all commander of the incident . He is accountable for all actions taken under his command.
2. Gets the Incident Command Post (ICP) established after the emergency is declared 'off-site'. It should not be too near the incident site, to get overwhelmed , nor too far, as not be able to control the incident. Ensures redundancy in communications.
3. After visit to the incident site, meeting of all ESF takes place at ICP and decision taken by IC. He gets Incident Action Plan made.
4. He reports to DDMA/SDMA on actions taken and further requests, if any.
5. All requests for resources come to IC and he/she issues instructions to the ESF representative, who gets the work done through their own heads of deptt. Similarly, all resources first report at the ICP, before they are further despatched to the incident site.
6. Evacuation of the people likely to be affected is ordered by him. He will also ensure setting up of the Temporary Relief Camp, ear-mark a Commandant of the Camp, who ensures water, food, first aid & sanitation.
7. He is the face of Govt and interacts with the media and relatives/public representatives periodically.
8. Responsible for deactivation and making of AAR.

ROLE OF POLICE

1. One of the first responders. SSP/DySP at ICP.
2. Cordon the incident site, and ensure Law and Order.
3. Traffic Control, ensures free run for first responders.
4. Assistance to first responders.
5. Assist in casualty evacuation and evacuation of people from affected area/s.
6. Investigation of the incident.
7. Handing over dead bodies to the relatives/friends, after proper identification and 'panchnama'.
8. Escorting VIPs, during their visit to the incident site ???.

ROLE OF FIRE SERVICES

1. One of the first responders. Div/Distt Fire Officer at the ICP.
2. First dispatch for immediate response and analysis of situation.
3. Fire Fighting, ensuring minimum collateral damage.
4. Evacuation of the people trapped in fire, under debris and other places.
5. Additional fire tenders sent by Control Room, from nearest fire station/other fire stations in near vicinity.
6. It is ensured that right type of fire tenders, like foam/water/other component are only sent. (HAZMAT and high rise vehicles, are sent, if applicable.
7. Ensure that all fire fighters near incident site are wearing PPE, including team leaders and drivers.

ROLE OF MEDICAL SERVICES

1. One of the first responders. DMO/Addl DMO at ICP.
2. Emergency Medical Team first report at ICP and build on the First Aid Post at the SAR site.
3. All casualties/injured are first brought to first aid post, TRIAGE is carried out, prioritizing the injured, by labeling red, yellow, green and black ribbons. TRIAGE done only by qualified doctors.
4. Evacuation of injured as per priority, by ambulances, fitted with life support system.
5. Creation of surge capacity in the near-by hospitals, as per the condition of the casualties and specialties available in the hospital.
6. Psycho-social care of patients.

ROLE OF SERVICE PROVIDERS

1. Each service provider, like electricity, water, tele-communication/sewerage to send a Decision maker at the ICP.
2. Electricity is cut off initially. State Electricity Board to provide temporary electricity with generator/ inflatable lighting tower. Electricity DM team from State Electricity Board to rush to site and after checking, restore the electricity when all clear is given.
3. Water Deptt to provide water for the fire & emergency services, two drinking water bowzers, one each for ICP and Relief Camp .
4. BSNL/MTNL to provide redundancy in communication by making available WLL and Satellite phones.
5. Municipal Corporation to provide heavy engg equipment, like JCB, dozer, road roller, dumper and other DM equipment. It also provides moving toilets, if relief camp is established in the open.

ROLE OF CIVIL DEFENCE/HOME GUARDS/NGOs

1. They are motivated volunteers.
2. They should be trained in DM role during response, like policing, first aid, fire fighting or distributing relief
3. They should be deployed under the overall supervision of Police, Medical Services, Fire Services or the Supply Deptt.
4. All volunteers should wear PPE , where required, while approaching the incident site.
5. They can also be gainfully deployed for trauma counselling.

ROLE OF SDRF/NDRF

1. They are highly trained force in DM.
2. They are self contained and operate independently and should be given areas for deployment which are worst affected.
3. NDRF operates in teams. Each team is self contained in hand held equipment for collapsed structure search and rescue, medical first response and have trained dogs with handlers, doctor with paramedic staff, structural engineers and search and rescue teams. Each battalion has six companies, each company has three teams and each team has 45 men. All units are trained in CBRN too and are equipped accordingly. Each team also has adequate boats (108) for rescue during floods.
4. Request for NDRF team can be made directly by the Collector/DC directly to nearest Comdt NDRF Bn, in case of disaster.

ROLE OF ARMED FORCES/PMF

1. They are secondary responders. (Armed forces get deployed under the provision of Aid to Civil Authorities)
2. They will also function under the RO and be deployed as per the priorities worked out at SEOC/ DEOC
3. They should be given the task to be performed by them and not told how to get it done, which should be left to their officers to manage.
4. They would carry out the assigned task surgically and thereafter hand over the situation back to the civil authorities.
5. Their deployment should be as a last resort and they should be released as soon as the task is completed.

6. PLANNING AND COORDINATION WITH ARMED FORCES AND CAPFS SHOULD BE PART OF SDMP/DDMP



RUN UP ACTIVITIES



- Capacity Development Programs – IRS & Mock Exercise.
- Update all EOC,s
- Procure wireless sets and Loud hailers & practice on that.
- Ensure all satellite phones are functional.
- Orientation & Sensitization Programs
 - ❖ Govt Deptts , RWAs, slum areas.
- Mock Drills to be conducted at :
 - ❖ Schools & Colleges.
 - ❖ Malls.
 - ❖ Hotels/Restaurants
 - ❖ Shopping Bazaars.
 - ❖ Hospitals.
 - ❖ RWAs/residential areas.



RUN UP ACTIVITIES



- Competitions – Painting, debates, road shows, etc.
- Drawing out Disaster Management Plans at District, RWA Hotels/restaurants, shopping area, hotels. Cinema halls/cineplexes schools, office complexes.
- Media Campaign through State /District authorities
 - ❖ Print Media through State
 - ❖ Electronic Media through local channels.
 - ❖ Through SMSs – Publicity Deptts – Tap the Service providers.
 - ❖ Get banners and identification jackets for the stake holders.
- ❖ Following banners to be made:-
 - SEOC/ DEOC
 - STAGING AREA & RELIEF CAMP
 - INCIDENT COMAND POST & MEDICAL AID POST

DECISIONS TO BE TAKEN

SITES FOR MOCK EXERCISE

ONE GOVT OFFICE.
ONE RESIDENTIAL AREA.
ONE SHOPPING COMPLEX/MALL.
ONE SCHOOL/COLLEGE.
ONE HOSPITAL.

IRS NOTIFICATION HP

Responsible Officer:	Chief Secretary to the Govt. of HP
Incident Commander:	ACS/Principal Secretary(Rev-DM)
Safety Officer:	Director General of Police
Liaison Officer:	Special/Addl./Joint Secretary , DM
Information & Media Officer:	Director of Inf. & Public Relation
Operations Wing Head:	ACS/Principal Secretary, Home Deptt.
a. Rescue & Response Branch	
i. Natural Disasters	Director General, Civil Defence, Home Guards and Fire
ii. Epidemic & Health	Director, Health & Family Welfare
iii. Human Induced Disaster	Additional DGP (Law & Order)
b. Transport Branch	Secretary GAD & Commissioner
(Road, rail, Air, etc)	Transport.
Planning Wing Head:	Advisor Planning ,HP
a. Resource Unit:	Joint Director, Planning
b. Documentation Unit:	Deputy/Joint Secretary, DM Cell
c. Logistics Wing Head:	Director, Civil Supplies,
d. Service Branch:	Director, Health & Family Welfare,
i. Communication	SP Police Communications at DGP Office
ii. Medical	Joint/Additional Director H & F Welfare
iii. Food Supplies	Joint/Additional Director, Civil Supplies
iv. Water/sanitation	Engineer in Chief, IPH
b. Support Branch:	ACS/Principal Secretary, PWD
Resource Provisioning	Chief Engineer (Roads),PWD

IRS NOTIFICATION HP

b.	Support Branch:	ACS/Principal Secretary, PWD
	Resource Provisioning	Chief Engineer (Roads),PWD
	i. Facilities Unit	Chief Engineer (Buildings),PWD
	ii. Ground Support	Chief Engineer (PR) PWD
8.	Finance Wing Head:	Special Secretary (Finance), HP
	c. Time Unit	Under /Deputy Secretary, Finance Deptt
	d. Relief/Compensation	Under/ Deputy Secretary, Finance/Revenue Deptt/Revenue
	e. Procurement	Additional/Special Secretary, Finance Deptt

THANK YOU

THANK YOU

AN OVERVIEW OF INCIDENT RESPONSE SYSTEM(IRS)

Maj Gen Dr. V K Naik, KC, AVSM
SENIOR CONSULTANT
NATIONAL DISASTER MANAGEMENT AUTHORITY
01 FEB 2018

AIM TO GIVE AN OVERVIEW OF THE INCIDENT RESPONSE SYSTEM

SCOPE

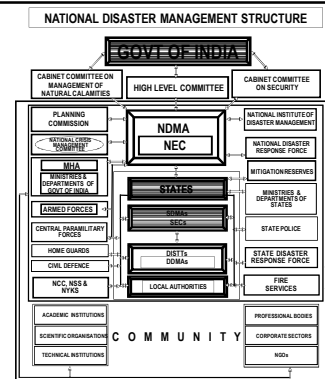
- WHAT IS AN IRS ?
- THE SHORTCOMINGS OF INDIAN RESPONSE SYSTEM AND NEED OF IRS
- EVOLUTION OF IRS IN INDIA
- KEY CONCEPTS AND SALIENT FEATURES OF IRS
 - IRS ORGANISATION
 - EMERGENCY OPERATION CENTER
 - INCIDENT COMMAND POST

DISASTER

- **Disaster**, means a catastrophe, mishap, calamity or grave occurrence in any area arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of, environment and is of such nature or magnitude as to be beyond the coping capacity of the community of the affected area.

DISASTER MANAGEMENT

- Disaster Management . Means a continuous and integrated process of:-
- Planning
- Organizing.
- Coordinating
- Implementing Measures for expedient:-
Preventing, mitigating, capacity building
Preparedness Response, Evacuation,
Rescue, Relief and Rehabilitation



**WHY IS A RESPONSE SYSTEM
NEEDED ?
WHAT SHOULD BE THE
QUALITY OF DISASTER
RESPONSE ?**

In the current context disaster response
has to be
**comprehensive,
effective,
swift
well planned**
based on a well conceived response mechanism.

***THE IRS IS AN IMPORTANT TOOL FOR
MINIMIZING LOSS OF LIFE AND
PROPERTY BY “STRENGTHENING AND
STANDARDISING” THE DISASTER
RESPONSE MECHANISM IN INDIA.***

**SHORTCOMINGS IN
DISASTER RESPONSE**

SHORTCOMINGS IN INDIAN DISASTER RESPONSE

- 1. Delay in Assessment of situation and Information Dissemination.**
- 2. Breakdown of communications both electronic and surface.**
- 3. Delay in mobilization of men, material, relief stores and machines to provide and restore basic life line services.**
- 4. Need is for enhancement of awareness and capacity building of first responders.**

SHORTCOMINGS – RESPONSE

- Lack of accountability because of ad-hoc and emergent nature of arrangements and no prior training for effective performance;**
- Lack of an orderly and systematic planning process;**
- Unclear chain of command and supervision of response activity;**
- Lack of proper communication, inefficient use of available resources, use of conflicting codes and terminology and no prior communication plan;**

SHORTCOMINGS – RESPONSE

- Lack of predetermined method / system to effectively integrate inter-agency requirements into the disaster management structures and planning process;
- Lack of coordination between the first responders and individuals, professionals and NGOs with specialized skills during the response phase; and
- Lack of use of common terminology for different resources resulting in improper requisitioning and inappropriate resource mobilization etc;

Challenges

Incident response

- Designated Authorities not backed by Professional Teams; lack of effectiveness in discharging specific duties
- Key Coordinating Officer may get Overwhelmed, too many people reporting to supervisor at a time
- Inadequate/Ineffective resource management
- Lack of Professional Supply Management
- Coordination Issues: Unclear lines of authority , accountability , information sharing, media, NGO etc.
- Communication weaknesses-inadequacy, lack of plan
- Lack Of Resource Inventory, Digitized Maps etc.
- Poor Documentation ; Inadequate Cost Monitoring

EVOLUTION OF IRS IN INDIA

High Power Committee (HPC)

- Under Mr. JC Pant, formerly Secretary to GOI In 1999

RECOMMENDATIONS :

- Culture of
 - PREPAREDNESS
 - QUICK RESPONSE
 - STRATEGIC THINKING
 - PREVENTION

BEST PRACTICES:

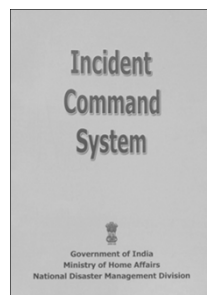
- INCIDENT COMMAND SYSTEM(ICS),
- SUPPLY MANAGEMENT
- EMERGENCY OPERATION CENTER(EOC),
- EMERGENCY SUPPORT FUNCTIONS (ESFs),
- FIELD OPERATION GUIDES(FOG),
- SPECIALISED TEAMS(SAR,HAZMAT etc),
- MOBILE HOSPITALS,
- INFORMATION NETWORK (IDRN)

MHA, GOI approved Policy Document

- In 2004, MHA approved a Policy document outlining the approach, strategy & activities in this adaptation process.

Main Considerations:

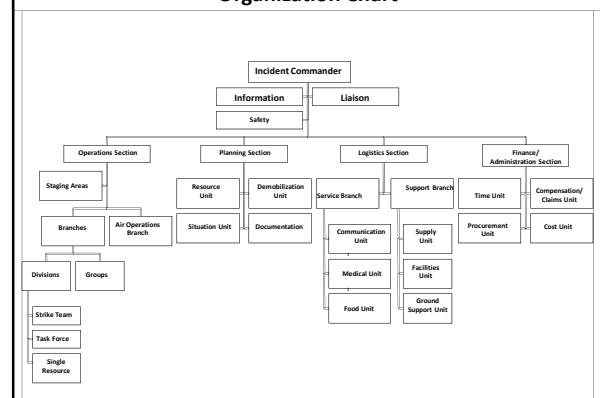
- ICS will not put in place a new hierarchy or supplant the existing system
- Designated authorities at different levels to be backed by trained Incident Command Teams
- Training (Principal driver for Institutionalization)



IRS-intro-PPT-17

INCIDENT COMMAND SYSTEM

Organization Chart



Journey to IRS Guidelines

- HPC recommendations of ICS as one of the global best practices
- 2003-04 onwards close look at ICS by GOI-Interaction with experts (USAID,USFS,FEMA)
- Designating a National Nodal Training Institute & developing Core Group of Master Trainers at National level (NIDM, LBSNAA).
- Training Core Group from states , Regional Training Institutes (RTIs) & then State ATIs.
- Taking up few Pilot projects of using ICS and developing Incident Response Teams

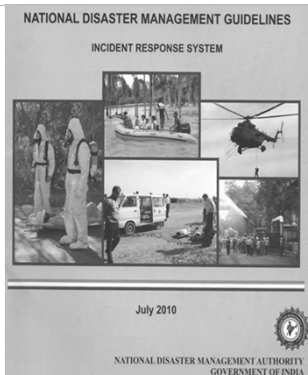
IRS Intro-PPT-15

Journey to IRS Guidelines Contd.

- NDMA constituted a core group to take this task in a focused manner in 2008 which met regularly and reviewed knowledge & experience gained so far.
- Participation of representatives from GOI, State/UT Govts., USAID, USFS, Training Institutions(NIDM, LBSNAA, RTIs, ATIs etc.) & Other experts in the field
- Study of adaptation of ICS by other countries
- Incident Response System (IRS) Guidelines Issued in July 2010 by NDMA
- Conduct of TOTs & development of Training modules by NIDM

IRS Intro-PPT-16

NDMA, GOI Guidelines on IRS



Key features of IRS Guidelines

- ICS becomes Incident Response System (IRS)
- Changed IRS structure notified
- Identification of officers for various IRS positions at state and district level bringing various departments together
- Creation of Responsible officer position

IRS Intro-PPT-21

IRS KEY CONCEPTS & SALIENT FEATURES

FEATURES OF IRS

1. Flexibility
2. Span of control
3. Multi Tasking
4. Accountability
5. Management by objectives & Incident Action Plan
6. Resource Management
7. Common Terminology
8. Unity of command and chain of command
9. Transfer of Command
10. Unified Command
11. Medical Plan
12. Communication Plan
13. Demobilization Plan

Incident Response System

- A Management System
- Standardised
- Team Based Approach
- Professionalise the Response
- All disaster applicability – INDEPENDENT OF MAGNITUDE AND SCALE OF DISASTER

WHAT IS IRS

- The IRS provides a participatory, well structured, fail safe, multi disciplinary, multi departmental and systematic approach to guide administrative mechanisms at all levels of the government.
- It also provides scope for private sector, NGOs, CBOs, PRIs and communities to work seamlessly in the response activities.
- Like ICS in USA, the IRS can be implemented irrespective of size, location, type and complexity of the disaster in India.
- The IRS is applicable for management of all incidents, natural or man-made. Thus its methodology will be equally useful for handling incidents such as Terrorism (Counter-Insurgency), Law and Order Situations, Serial Bomb Blasts, Hijacking, Air Accidents, Chemical, Biological, Radiological and Nuclear (CBRN) Disasters, Mine disasters, Ports and Harbour Emergencies, Forest Fires, Oil Field Fires and Oil Spills.

WHAT IS IRS

- The Incident Response System (IRS) is an effective mechanism for reducing the scope for ad-hoc measures in response.
- It incorporates all the tasks that may be performed during DM irrespective of their level of complexity.
- It envisages a composite team with various Sections to attend to all the possible response requirements.
- The IRS identifies and designates officers to perform various duties and get them trained in their respective roles.
- If IRS is put in place and stakeholders trained and made aware of their roles, it will greatly help in reducing chaos and confusion during the response phase.
- Every one will know what needs to be done, who will do it and who is in command, etc.
- IRS is a flexible system and all the Sections, Branches and Units need not be activated at the same time. Various Sections, Branches and Units need to be activated only as and when they are required.

Advantages of Incident Response System

- Rapid mobilization of resources, optimum utilization, cost effective resource management.
- System of single, unified and Area command to suit disaster situation.
- Management by objective.
- Briefing, planning and operation as per Incident Action Plan.
- Unity and chain of command, transfer of responsibility .
- Integrated communication.
- Personnel accountability.

INCIDENT RESPONSE SYSTEM

HIGHLIGHTS

- Well thought out pre-designated roles for each member of the response team;
- Systematic and complete planning process;
- System of accountability for the IRT members;
- Clear cut chain of command;
- Effective resource management;
- Proper and coordinated communications set up;
- System for effectively integrating independent agencies into the planning and command structure without infringing on the independence of the concerned agencies;
- Integration of community resources in the response effort.

ESSENTIALLY THE COMMON PROBLEMS AND CHALLENGES FOR EFFICIENT DISASTER RESPONSE ARE ADDRESSED

IRS - BROAD CONCEPT

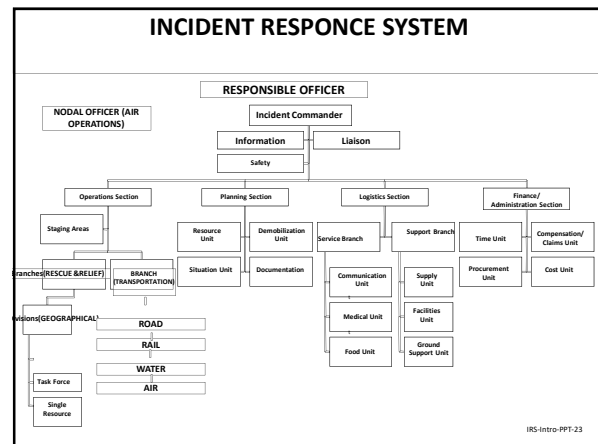
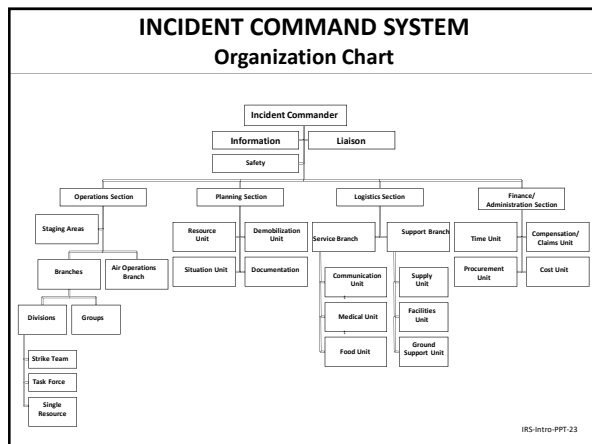
The NDMA guidelines on IRS recommend

Incident Response Teams (IRTs) at the State, District, Sub-Division, and Block levels
Nominating Responsible Officer (RO), Incident Commander (IC), Operation Section Chief (OSC), Planning Section Chief (PSC) and Logistic and Finance Section Chief (L&FSC).

The guidelines contain a suggestive list of officers who can perform the concerned activities.

The idea is to pre-designate officers to perform different functions and to train them on their responsibilities to eliminate adhocism in responses and make it smooth and effective.

The Chief Secretary (CS) and District Magistrate have been designated as Responsible Officer (RO) and overall in-charge of Disaster Response in their jurisdiction.



IRS Provides Direction Through Delegation of Authority & Responsibility



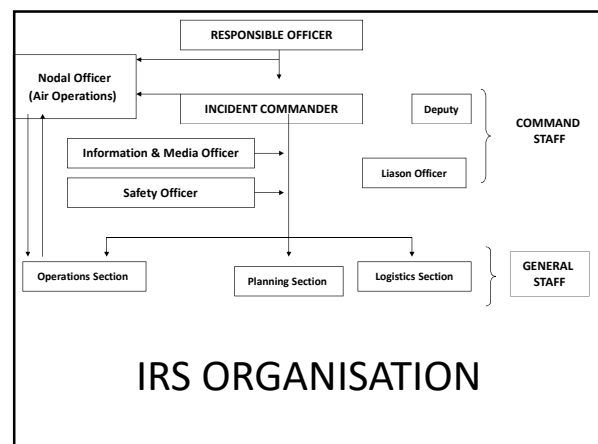
- The Responsible Official (RO) establishes policy, direction, parameters, and delegates authority to the Incident Commander (IC)
- RO generally not at scene all the time but maintains contact as necessary.

FUNCTIONAL RESPONSIBILITIES

RESPONSIBLE OFFICER =	PRIMARYLY RESPONSIBLE FOR EFFECTIVE RESPONSE
COMMAND =	OVERALL INCHARGE OF THE INCIDENT RESPONSE TEAM AND ITS EFFECTIVE FUNCTIONING
OPERATIONS =	DIRECT AND SUPERVISE ALL TACTICAL ACTIONS
PLANNING =	COLLECT/ANALYZE DATA, WORKOUT NEED OF REQUIRED RESOURCES AND PREPARE ACTION PLAN
LOGISTICS & FINANCE =	PROVIDE LOGISTICS SUPPORT, PROCUREMENT AND COST ACCOUNTING

IRS Organisation

- IRS functions through Incident Response Teams (IRTs) in the field.
- In line with our administrative structure and DM Act 2005, Responsible Officers (ROs) have been designated at the State and District level as overall in charge of the incident response management.
- The RO may delegate responsibilities to the Incident Commander (IC), who in turn will manage the incident through IRTs.
- The IRTs will be pre-designated at all levels; State, District, Sub-Division and Tehsil/Block.
- On receipt of Early Warning, the RO will activate IRTs.
- In case a disaster occurs without any warning, the local IRT will respond and contact RO for further support, if required.
- A Nodal Officer (NO) for proper coordination between the District, State and National level in activating air support for response.
- Apart from the RO and Nodal Officer (NO), the IRS has two main components.
 - Command Staff
 - General Staff



Command Staff

- The Command Staff consists of
 - Incident Commander (IC)
 - Information & Media Officer (IMO)
 - Safety Officer (SO)
 - Liaison Officer (LO).
- They report directly to the IC and may have assistants.
- The Command Staff may or may not have supporting organisations under them.
- Main function - to assist the IC in the discharge of his functions

General Staff

- General Staff - three components
 - Operations Section (OS)
 - Planning Section (PS)
 - Logistics Section (LS)

General Staff Operations Section (OS)

- The OS is responsible for directing the required tactical actions to meet incident objectives.
- Management of disaster may not immediately require activation of Branch, Division and Group.
- Expansion of the OS depends on
 - enormity of the situation
 - number of different types and kinds of functional Groups required in the response management.

General Staff - Planning Section (PS)

- Responsible for
 - collection, evaluation and display of incident information
 - maintaining and tracking resources
 - preparing the Incident Action Plan (IAP) and other necessary incident related documentation.
- They will assess the requirement of additional resources, propose from where it can be mobilised and keep IC informed.
- Preparation - demobilisation plan.

General Staff - Logistics Section (LS)

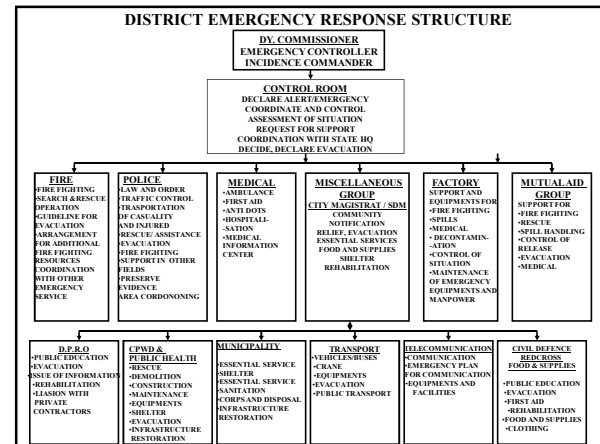
- Responsible for providing facilities, services, materials, equipment and other resources in support of the incident response.
- The Section Chief participates in development and implementation of the IAP, activates and supervises Branches and Units of his section
- Finance Branch the LS in order to ensure prompt and smooth procurement and supply of resources as per financial rules.

IRS NOTIFICATION HP

Responsible Officer:	Chief Secretary to the Govt. of HP
Incident Commander:	ACS/Principal Secretary(Rev-DM)
Safety Officer:	Director General of Police
Liaison Officer:	Special/Addl./Joint Secretary , DM
Information & Media Officer:	Director of Inf. & Public Relation
Operations Wing Head:	ACS/Principal Secretary, Home Deptt.
a. Rescue & Response Branch	
i. Natural Disasters	Director General, Civil Defence, Home Guards and Fire
ii. Epidemic & Health	Director, Health & Family Welfare
iii. Human Induced Disaster	Additional DGP (Law & Order)
b. Transport Branch	Secretary GAD & Commissioner Transport.
(Road, rail, Air, etc)	
Planning Wing Head:	Advisor Planning ,HP
a. Resource Unit:	Joint Director, Planning
b. Documentation Unit:	Deputy/Joint Secretary, DM Cell
c. Logistics Wing Head:	Director, Civil Supplies,
d. Service Branch:	Director, Health & Family Welfare,
i Communication	SP Police Communications at DGP Office
ii Medical	Joint/Additional Director H & F. Welfare
iii Food Supplies	Joint/Additional Director, Civil Supplies
iv Water/sanitation	Engineer in Chief, IPH
b. Support Branch:	ACS/Principal Secretary, PWD
Resource Provisioning	Chief Engineer (Roads),PWD

IRS NOTIFICATION HP

- b. Support Branch: ACS/Principal Secretary, PWD
Resource Provisioning Chief Engineer (Roads), PWD
- i. Facilities Unit Chief Engineer (Buildings), PWD
ii. Ground Support Chief Engineer (PR) PWD
8. Finance Wing Head: Special Secretary (Finance), HP
- c. Time Unit Under/Deputy Secretary, Finance Deptt
- d. Relief/Compensation Under/Deputy Secretary, Finance/Revenue
Deptt/Revenue
- e. Procurement Additional/Special Secretary, Finance Deptt



ESF & IRS

- OPERATIONS SEC**
 - Search & Rescue
 - Fire Fighting
 - Evacuation
 - Law & Order
- PLANNING SEC**
 - DAMAGE ASSESMENT AND RESPONSE
 - HELP LINE
 - FORECASTING
- LOGISTICS**
 - Medical Response & Trauma Counseling
 - Communication
 - Food Shelter
 - Equipment Support, Debris and Road Clearance & Sanitation.
 - Water supply
 - Electricity
 - Transport.

IRS ENTITIES

- EOC
- STAGING AREA
- CAMP/BASE
- HELIBASE/HELIPADS
- INCIDENT COMMAND POST
- RALLYING POINTS
- MEDICAL AID POSTS
- RELIEF CAMPS/SHELTERS

EMERGENCY OPERATION CENTER

- One Sr. Administrative Officer as EOC in-charge having experience in DM with required assistants
- Representation of all concerned line departments with authority to quickly mobilise their resources
- Adequate space with proper infrastructure to accommodate the participating agencies and departments
- Communication facilities with last mile connectivity
- A vehicle mounted with HF, VHF and satellite telephone for deployment in the affected site to provide immediate connectivity with the headquarters and ICP
- A representative of central teams (NDRF, Armed Forces) whenever they are deployed to integrate their resources, expertise and to resolve conflicts that may arise during the response effort
- Provision and plan for dovetailing the NDRF, Armed Forces communication capabilities with the local communication set up.
- There will be proper plan so that all are able to connect with each other in case of large scale disasters or failure of the local communication systems;

EMERGENCY OPERATION CENTER

- Map depicting affected site, resources deployed, facilities established like Incident Command Post, Staging Area, Incident Base, Camp, Relief Camp, Helibase, Helipad, etc.
- DM plans of all line departments
- DM plans of the State and the District
 - Directories with contact details of all emergency services and nodal officers
 - Connectivity with all District headquarters and police stations;
 - Database of NGOs working in different geographical areas;
 - Demographic details of the State and Districts;

EMERGENCY OPERATION CENTER

- Online / Web based DSS with the availability of at least the following components:
 - Standardisation of Command Structure with the details of the earmarked and trained personnel in IRS;
 - Proactive planning facilities;
 - Comprehensive resource management system;
 - Geographic Information System (GIS) for decision support; and
 - Modeling capability for predicting casualties and resources for large scale incidents including CBRN emergencies.
- Socio-economic, demographic and land use planning;
- Resource inventories of all line departments and connectivity with database of India
- Disaster Resource Network (IDRN) ,India Disaster Knowledge Network (IDKN) and Corporate Disaster Resource Network (CDRN);



Staging Area

- An area where resources are collected and kept ready for deployment for field operations. These may include things like food, vehicles and other materials and equipment.
- The SA will be established at a suitable area near the affected site for immediate, effective and quick deployment of resources.
- More than one SA may be established if required.
- If resources are mobilised at other locations to be ultimately despatched to the affected areas, these locations are also known as SAs.

Base

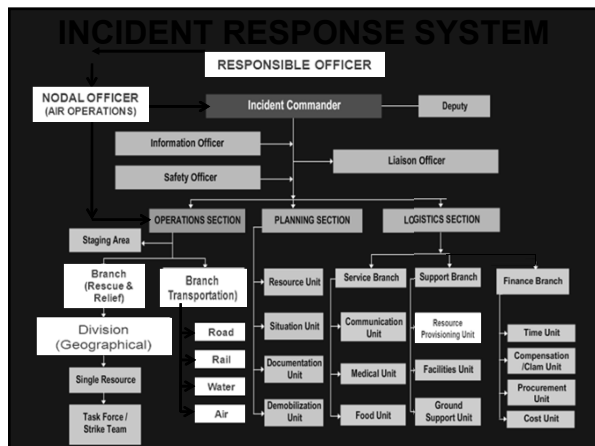
- Normally base is the location where all uncommitted / out-of-service equipment and personnel to support operations are located.
- It will be designated by incident name.
- The management of the Incident Base comes under the Facility Unit of Logistics unit.

Incident Command Post

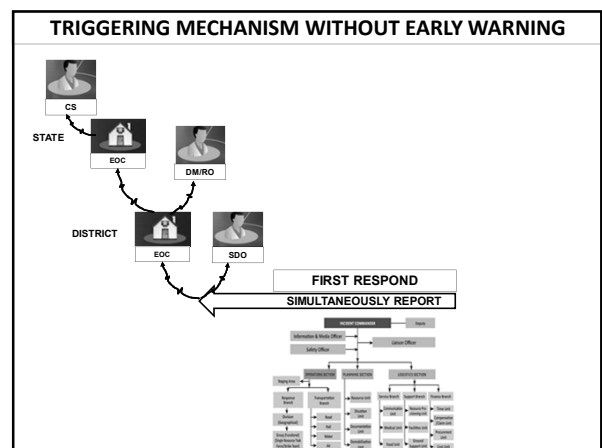
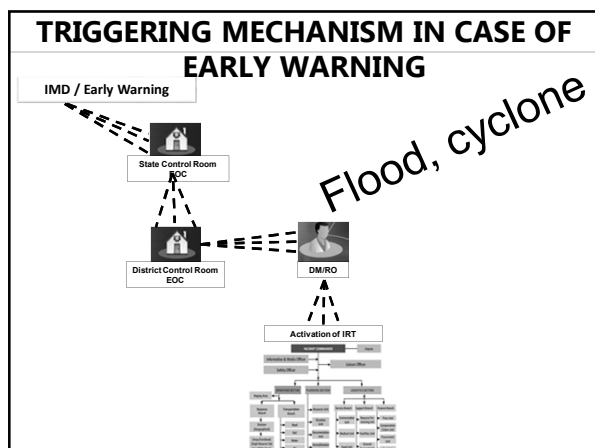
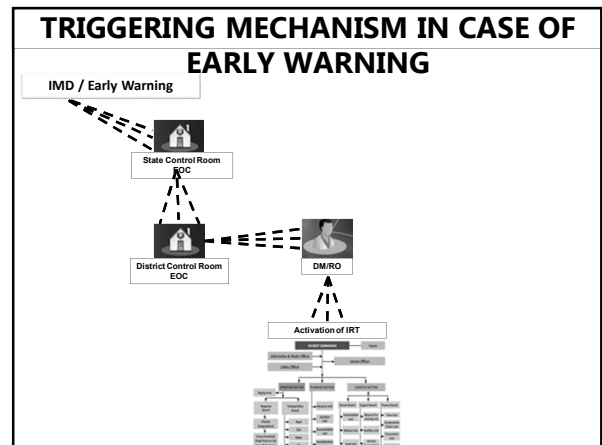
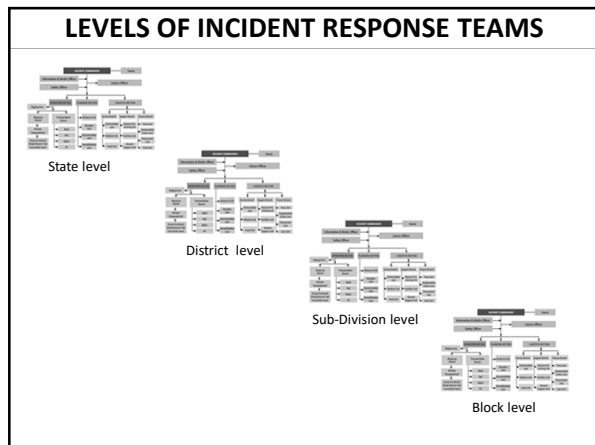
- The ICP is the location at which the primary command functions and coordination are performed.
- The IC will be located at the ICP.
- There will only be one ICP.
- This also applies to situations with multi-agencies or multijurisdictional incidents operating under a single or Unified command.
- Normally ICP is not relocated

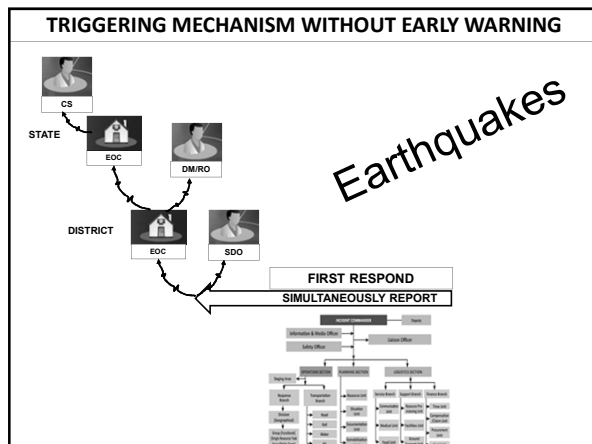
ACCOUNTABILITY – IRS FORMS

- Incident Briefing – IRS Form 001
- Incident Status Summary (ISS) – IRS Form 002
- Unit Log – IRS Form 003
- Record of Performed Activities – IRS Form 004
- Organization Assignment List – IRS Form 005
- Incident Check-in and Deployment list – IRS Form 006
- On Duty Officer List – IRS Form 007
- Medical Plan – IRS Form 008
- Communication Plan – IRS Form 009
- Demobilisation Plan – IRS Form 010



TRIGGERING OF IRS





Stake holders in a District

1. DC/ District Magistrate.
2. SP /Commissioner Police .
3. District Medical Officer/Civil Surgeon.
4. District Fire Officer.
5. State Electricity Board.
6. Water Supply Department.
7. District Supply Officer.

Stake Holders – Cont

8. CEO/Operational Head of Identified Industrial Units.
9. Public Works Department.
10. Local NGOs
11. Civil Defence
12. Home Guards
13. National Disaster Response Force
14. District Public Relations Officer.
15. Army/PMF unit located in the District if required.
16. Any Other identified stakeholder.

ON OCCOURANCE OF AN INCIDENT ISSUE OF CODE WORD FOR EOC MEETING



**ALL ASSETS AND PERSONNEL
REPORT TO STAGING AREA**



DAMAGE ASSESMENT CARRIED OUT

EARTHQUAKE

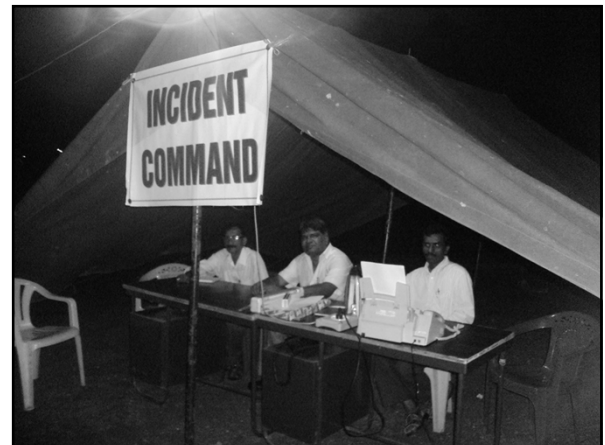




TASKS ASSIGNED

- OP CDRS BRIEFED
- RESOURCES ALLOCATED
- IAP MADE
- IRTS NOMINATED AREA WISE
- OPERATIONS COMMENCE AT AFFECTED SITES

INCIDENT COMMAND POST EST



IRTS LAUNCHED SEARCH AND RESCUE OPS COMMENCE



MED AID POST

- CASUALTIES MOVED TO MEDICAL AID POST
- TRIAGE CARRIED OUT
- CASUALTIES EVACUATED TO HOSPITALS



EVACUATION PLANNED IF
NEEDED



RELIEF CAMPS /SHELTERS
OPENED



?

Thanks

4th Earthquake Mega Mock Exercise 8th February, 2018
Venue – CS Committee Room, HP Secretariat, Shimla
8th February, 2018

<u>Participant List</u>			
Sr. No	Name	Designation/ Organization	Contact /Email Id
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2	Sh. Onkar Chand Sharma	Principal Secretary (Rev-DM) to the Govt. of HP	
3	Sh. D.C. Rana	Special Secretary (Rev-DM) to the Govt. of HP	
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22	Minod Rana	Nodal Term Officer	92185-09601
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30	P.K Negi	Dir. Telecom	89883-00777
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42	Manas Dwivedi	SPO, DM Cell	
43	Vivek Sharma	DMS, HPDMA	
44	Ruchi Vasudeva	Project Associate, HPDMA	
45	Vijay Singh	IT Specialist	








TABLE TOP EXERCISE

MEGA MOCK EXERCISE ON EARTHQUAKES
IN
HIMACHAL PRADESH
07 FEB 2018

Maj Gen Dr. V K Naik, KC, AVSM
SENIOR CONSULTANT
NATIONAL DISASTER MANAGEMENT AUTHORITY

1. Conduct of table top ex
2. Briefing on conduct of Mock ex

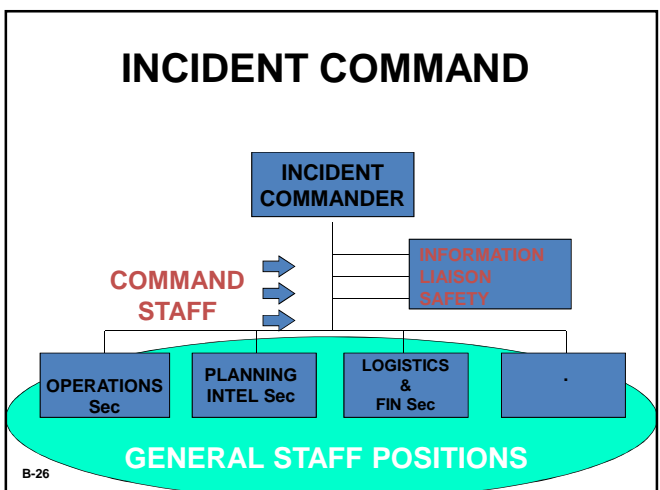
OBJECTIVES

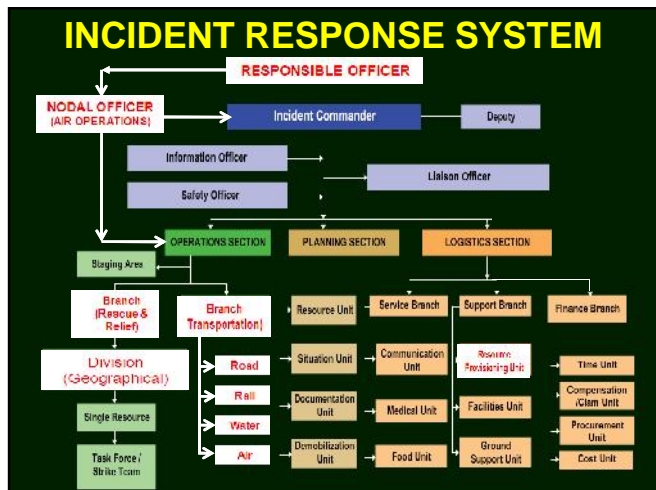
- To review Disaster Management Plans of the State/District.
- To incorporate IRS for Emergency Response in case of any Disaster at State and District level.
- To highlight the Roles and Responsibilities of various stakeholders involved in managing disasters as per IRS.
- To enhance Coordination and Synergize efforts of various Emergency Support Functions at the District/State Level.
- To find Gaps, if any in the Resources, Manpower, Equipment, Communications and Systems.

IRS

WHAT IS IRS

- IRS is a mechanism which reduces adhocism in response through a well conceived team.
- It incorporates all the tasks that may need to be performed during the response.
- It identifies and pre-designates officers to perform various duties and get them trained in their roles.
- It is a flexible system and only those Sections / Branches may be activated in the team which is required to meet the disaster situation.





IRS NOTIFICATION HP

Responsible Officer:	Chief Secretary to the Govt. of HP
Incident Commander:	ACS/Principal Secretary(Rev-DM)
Safety Officer:	Director General of Police
Liaison Officer:	Special/Addl./Joint Secretary , DM
Information & Media Officer:	Director of Inf. & Public Relation
Operations Wing Head:	ACS/Principal Secretary, Home Deptt.
a. Rescue & Response Branch	
i. Natural Disasters	Director General, Civil Defence, Home Guards and Fire
ii. Epidemic & Health	Director, Health & Family Welfare
iii. Human Induced Disaster	Additional DGP (Law & Order)
b. Transport Branch (Road, rail, Air, etc)	Secretary GAD & Commissioner Transport,
Planning Wing Head:	Advisor Planning ,HP
a. Resource Unit:	Joint Director, Planning
b. Documentation Unit:	Deputy/Joint Secretary, DM Cell
c. Logistics Wing Head:	Director, Civil Supplies,
d. Service Branch:	Director, Health & Family Welfare,
i. Communication	SP Police Communications at DGP Office
ii. Medical	Joint/Additional Director H & F Welfare
iii. Food Supplies	Joint/Additional Director, Civil Supplies
iv. Water/sanitation	Engineer in Chief, IPH
b. Support Branch:	ACS/Principal Secretary, PWD
Resource Provisioning	Chief Engineer (Roads),PWD

IRS NOTIFICATION HP

b. Support Branch:	ACS/Principal Secretary, PWD
Resource Provisioning	Chief Engineer (Roads),PWD
i. Facilities Unit	Chief Engineer (Buildings),PWD
ii. Ground Support	Chief Engineer (PR) PWD
8. Finance Wing Head:	Special Secretary (Finance), HP
c. Time Unit	Under /Deputy Secretary, Finance Deptt
d. Relief/Compensation	Under/ Deputy Secretary, Finance/Revenue Deptt/Revenue
e. Procurement	Additional/Special Secretary, Finance Deptt

ESF & IRS AT EOC

- **PLANNING SEC**
 - MAINTAIN SITUATION BOARD
 - CARRY OUT DAMAGE ASSESMENT
 - PLAN RESPONSE
 - MAINTAIN HELP LINE
 - FORECAST FUTURE OPERATIONS
- **OPERATIONS SEC**
 - Search & Rescue
 - Fire Fighting
 - Evacuation
 - Law & Order
- **LOGISTICS**
 - Medical Response & Trauma Counseling
 - Communication
 - Food Shelter
 - Equipment Support, Debris and Road Clearance & Sanitation.
 - Water supply
 - Electricity
 - Transport.

TABLE TOP EX



SITUATION 1 As at 00.00 Hrs on 07 FEB 18



1. An earthquake of 8.0 Mw on Richter Scale occurred in Himachal Pradesh with Epicentre near Mandi (Sunder Nagar) at mid night 06/07 Feb 18
2. Strong tremors experienced in whole North North-Western States of India.
3. The weather is bad, the sky is overcast and is raining heavily.
4. HEAVY SNOW FALL REPORTED IN HIGHER REACHS OF THE STATE. INTERMITTANT SNOW FALL IN SHIMLA AND ADJOINING AREAS
5. As per IMD forecast, due to local disturbances, the weather will remain like this for next 72 hours.

OTHER STATES AFFECTED

- Uttar Pradesh
- Uttarakhand
- Haryana
- Punjab
- Jammu & Kashmir
- Delhi

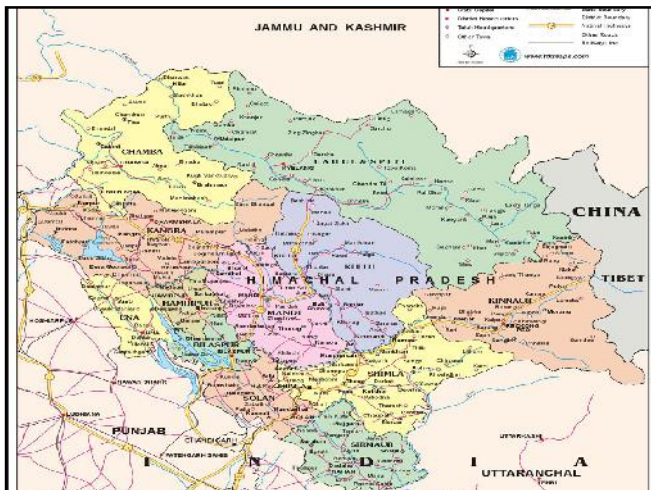
3/6/2018

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SITUATION 2

As on 0100 hrs 07 Feb 18

- The major communication networks incl the mobile phone network has been affected.
- Power lines have been damaged.
- Major roads have been blocked .
- There is a fear of large scale damage to buildings and houses.
- The casualties are likely to be heavy.



Projected Scenario Earthquake : HP

• Estimated Injuries and Loss of Life

S No	District	Population (Census, 2011)	% Injured	% Deaths
1	Chamba	5,18,844	19.9	2.4
2	Kangra	15,07,223	15.5	2.3
3	Lahul & Spiti	31,528	19.3	2.2
4	Kullu	4,37,474	19.2	2.5
5	Mandi	9,99,518	19.7	2.5
6	Hamirpur	4,54,293	16.1	2.5
7	Una	5,21,057	11.4	2.2
8	Bilaspur	3,82,056	15.0	2.2
9	Solan	5,76,670	10.4	1.8
10	Sirmaur	5,30,164	15.8	2.3
11	Shimla	8,13,384	17.0	2.4
12	Kinnaur	84,298	13.8	2.0



ARE WE PREPARED ?

HAVE WE PLANNED?

HOW MANY STAKE HOLDERS HAVE STUDIED AND VISUALISED THE EFFICACY AND SHORTCOMINGS OF YOUR DDMPs

•Presentation of Response plans

1. DDMP – Response Plans by 2 – 3 districts
Chamba
Mandi
2. SDMP and Plans of line departments.
Medical
telecom
PWD
Power and hydro electricity installations

- What are the challenges for health department
- Plan?

- Situation telecom ?
- What is the plan of the State Telecom Disaster Coordination Committee
- HAM Radio?

- **PWD..**
 - What is your assessment
 - What major roads, bridges etc will need immediate attention
 - Plan - how will you restore , in what time frame?
- **Food and Civil Supplies**
 - fuel
 - Essential commodities...

- **Power and hydro electricity**
 - What can go wrong..... What is the departmental plan ?
 - Flooding....? early warning...?
 - What are the plans for disaster response
 - Disruption of power supplies ---- a major crisis

SITUATION 1 & 2 DISCUSSION

- How will the response be initiated at State and District level.
- **IS THERE A NEED TO ACTIVATE THE EOCs? Are the EOCs intact?**
- **Describe - how do you visualise the situation at the district headquarters**



SITUATION -3

As at 0200 hrs 07 Feb 18



- Electronic Media is showing visuals of mass destruction and people in dazed frames in all the Districts. There is panic all over and people were seen standing in the roads and open areas.



SITUATION -3 DISCUSSION



- ACTION TO BE TAKEN TO AVOID PANIC



SITUATION -3 DISCUSSION



- ACTION TO BE TAKEN TO AVOID PANIC
- WAS IT FORESEEN?
- HAVE YOU REACTED AS PER PLAN ?
- HOW WILL THE ADMINISTRATION REACH THE MASSES



SITUATION 4

As at 02:00 Hrs on 07 Feb 18

RESPONSE AT STATE/ DISTRICT LEVEL



- There is likelihood of aftershocks. How and what message would you like to convey as DC/DM to your SDMs BDOs, Tehsildars and Sarpanchs to pass to the Community to protect themselves and how ?
- The land lines and mobile communications have been completely disrupted. Other communications, as existing on ground are available.



SITUATION- 5

As at 04:00 Hrs on 07 Feb 18



A number of people are likely to be trapped under the debris:

1. Actions by the District Magistrates and state DM authority?
2. How will you get a feedback on the extent of damage .
3. What other actions will be taken to organize a quick response.



SITUATION 6

As at 04:00 Hrs on 07 Feb 18

RESPONSE AT DISTRICT LEVEL



As DM/DC of District:-

- (a) What action would be taken to restore communications, electricity & water services and in what time frame will they be reusable?
- (b) What interim measures would be taken to provide essential services?
- (c) How will you plan the rescue and evacuation of affected people and localities
- (d) What would be your immediate request for help, if any, from the State / Central Government.



SITUATION 7

As at 07:00 Hrs on 07 Feb 18

RESPONSE AT DISTRICT LEVEL



There are reports of heavy casualties and loss to property in all the 12 Districts of HP and the adjoining States too.



SITUATION 7

As at 07:00 Hrs on 07 Feb 18

It is still raining heavily all over North India, including HP, due to Westerly Disturbance.

A number arteries to (NH) are affected. The highway authority and PWD are doing their best to restore the roads by making temporary diversions.

The search and rescue operations are getting affected due to difficulty in removing debris. The SAR Teams ex NDRF, are likely to arrive by mid day 07 FEB



SITUATION 8

As at 07:00 Hrs on 07 Feb 18

REQUIREMENT

1. As DC, of Districts

(a) What tasks are you likely to assign to NDRF Battalion Teams and in which Sub Division?

(b) Would you like to ask for assistance from ARMY? If so, where and when would the columns be effective? What kind of help are you expecting from the Armed Forces?

2. As Collector of the District, how do you plan to carry out Search & Rescue and Relief Operations till 1800 hrs and with what force/s and thereafter; your considered plan?



SITUATION 8

ISSUES FOR CONSIDERATION

1. RESPONSE IN GOLDEN HOUR ... OUR CAPACITY?
2. RESPONSE FORCES LOCALLY AVAILABLE LIKELY TO BE IMPACTED.
3. AVAILABILITY OF NDRF
4. NEED FOR SDRF
5. LOCAL RESPONSE ... FIRE SERVICES, MEDICAL SERVICES, CIV DEF, HOME GUARDS, NCC, NYKS.
6. COMMUNITY RESPONSE – IMPORTANCE OF CIVIL DEFENCE



SITUATION 9

As at 12:00 Hrs on 07 Feb 18

EMPLOYMENT OF NDRF TEAMS

Six SAR Teams ex NDRF Battalion at Bhatinda arrived at SEOC. They were directed to report to the affected areas As the CO/ Officer-in-Charge of SAR teams, please give out:-

1. Your capabilities in SAR Operations.
2. Equipment being carried.
3. What help would you require from State/ District Authorities?
4. How long at a stretch can the SAR Team function?



SITUATION 10

As at 12:00 Hrs on 07 Feb 2017

EMPLOYMENT OF ARMY COLUMNS

Army and CAPF have been asked to provide columns for rescue and relief. As the Commander please intimate: -

1. How will these columns be comprised and what is their equipment profile?
2. What are their capabilities and what help can they render to the district authorities?
3. What liaison is required with the in the Civil Administration?
4. Issues of coordination and communication ?
5. Any other help required from the Civil Authorities?



SITUATION 11

As at 08:00 Hrs on 07 Feb 18

MEDICAL PLAN

A large number of casualties have occurred as a result of the earthquake. What are medical plans for evacuation of casualties at:

1. District Level (CMO)

- No. of medical teams in the district?
- No. of PHC, Ambulances and hospitals with bed capacity and specialist facilities.
- How will TRIAGE be organized?
- How and when will the human bodies and carcasses be disposed off?





SITUATION 12

As at 07:00 Hrs on 07 Feb 18

MEDICAL PLAN



3. State/District Health/ Medical Services

- No. of medical teams and ambulances from other sources in what time frame will they be effective?
- No of major hospitals in the State to be alerted, with bed capacity and specialties?
- Are Psycho-Social and trauma counseling facilities available within the State? If so, where and how much?
- What medical help, would you ask from Centre?

Issues for consideration

- How will the killed and injured be handled .
- What are the medical aid recourses.
- What is the surge capacity of hospitals.
- What is the availability of ambulances.

Response by DM/CMO



SITUATION 13

As at 12:30 Hrs on 07 Feb 18

USE OF HELICOPTERS



Your request for helicopters was accepted and four helicopters were made available to the State. Weather has now improved and the Sun is coming up.

REQUIREMENTS

As DC,s How would you like to make use of the helicopters during the remaining 4 ½ hours of day light? Helicopters are available ex Chandigarh, Air Field. These helicopters would be available subsequently also. Their utilization on subsequent days ?

How would you ensure optimum utilization of the helicopters? What tasks would be given to them and your coordination plan?





SITUATION 13

As at 15:00 Hrs on 07 Feb 18

ISSUES – UTILISATION OF AIR EFFORT

Liaison with IAFNodal Officer Air at SEOC.

Mapping all helipads

Arrangement at helipads .

Arrangements at Shimla Air base, Kulu, Dharamsala etc

Criticalities and coordination issues - the Air Force perspective?

PROVISIONING OF ATF ?

Representative IAF to brief



SITUATION 14

As at 15:00 Hrs on 07 Feb 18

RELIEF

As DM,

- How many relief camps would you like to establish in your district in such a situation and in what time frame will they be operationalised?
- Have the locations been finalised? If so, intimate location/s.
- What relief equipment reserves are available in your district? Are they sufficient?
- How the relief stores will be received, stored and distributed to victims?
- Please give the organization, functioning and control of a Relief Camp in your District.
- How and when will the essential services be restored? What interim measures will be taken?



SITUATION 15

As at 19:00 Hrs on 07 Feb 2018

SPOT INCIDENT

There were a number of aftershocks. In one such aftershock in which the roof of the Civil hospital building which was treating over 750 victims Including 150 children and 75 women collapsed, burying the victims and a large number of relatives and hospital staff.

As CMO and as DC of the District what would be your course of action?



SITUATION 16

As at 17:00 Hrs on 07 Feb 18

LAW & ORDER DURING RELIEF
SPOT INCIDENT

Relief materials sent by the State & District administration were intercepted en route and looted by the hooligans. There is a widespread discontentment amongst the affected people against district administration.

As the SP how would you ensure security of food stuff and other relief materials in future.



SITUATION 17

EMPLOYMENT OF NGOS, HOME
GUARDS, NCC&VOLUNTEERS.

1. How would you utilize the services of local and National NGOs, some of whom are already on site?
2. How will their efforts be coordinated and synergised.
3. What is the strength of Civil Defence and Home Guards in your District? How will they be employed in Response & Relief?
4. Are there any plans to utilize the services of NCC and volunteers? What is their strength in your district and how will they be utilized?



WHAT WILL BE THE ORGANISATION AT AIRPORT FOR HANDLING AIR SUPPORT AND AID



SITUATION - 18



- Police and Fire Services teams are requesting for body bags and other related material to preserve / dispose of the dead human bodies.
- They are also seeking instructions for disposal of large number of animal carcasses.
- **REQUIREMENT**
- FROM WHERE WILL THE BODY BAGS BE PROCURED AND BY WHOM

SITUATION - 19

- The CMO of District Hospitals have reported that their mortuary capacity was full and want to know what to do with overflowing dead bodies.
- They also wanted to know if they must separate the bodies of the Indian nationals and the **foreigners** and where they should keep the bodies of foreigners.



SITUATION- 20



DAMAGE ASSESSMENT & RELIEF PLAN AT STATE LEVEL

1. What is the assessment of damage at District & State level and what help, if any is required from the Centre?
 2. What arrangements are made at the State level to receive relief from the other States, Centre and from International Agencies?
 3. What arrangements will be made for dispatch to the affected areas and by what mode?
- State Relief Plan to be given by Secretary DM / Secretary, Supply Department / Any other Agency at State level.

INJECT- 21

- The Prime Minister of India in his broadcast to the Nation has described the Earthquake as a National disaster and asked people to remain calm. The nation will endeavor to surmount the disaster in a befitting manner.
- In a meeting of the Cabinet Committee on the Natural Disasters, the NCMC and the NDMA were instructed to mobilize all resources to meet the emergency. National EOC was asked to get full information on the enormity of the disaster.

REQUIREMENT-22

- UNIFIED COMMAND TO TAKE STOCK OF SEARCH AND RESCUE OPERATIONS CARRIED OUT TILL NOW PASS THE INFO TO NEOC/NDMA.
- WORK OUT PLAN FOR THE NEXT 24 HOURS AND PASS SUITABLE DIRECTIONS TO THE STATE AND DISTRICT EOC,s

Methodology – Mock Drill

ON OCCOURANCE OF AN INCIDENT ISSUE OF CODE WORD FOR EOC MEETING



ALL ASSETS AND PERSONNEL REPORT TO STAGING AREA



STAGING AREA MANAGER GIVES FEED
BACK TO EOC
ABOUT THE RESOURCES HAVE
REPORTED TO THE STAGING AREA

DAMAGE ASSESMENT CARRIED
OUT AT THE EOC



TASKS ASSIGNED

- OP CDRS BRIEFED
- RESOURCES ALLOCATED
- IAP MADE
- TASK FORCES COMPOSED.
- INCIDENT COMMAND POST EST.
- OPERATIONS COMMENCE AT AFFECTED SITES

INCIDENT COMMAND POST EST



TASK FORCE LAUNCHED SEARCH AND RESCUE OPS COMMENCE





MED AID POST EST AT SAR AREA

- CASUALTIES MOVED TO MEDICAL AID POST
- TRIAGE CARRIED OUT
- CASUALTIES EVACUATED TO HOSPITALS





EVACUATION PLANNED IF
NEEDED



RELIEF CAMPS /SHELTERS
OPENED

DEMOBLISE ON SITUATION COMING
UNDER CONTROL
OR
PLAN RELOCATION /LONG TERM RELIEF
AND REHABILITATION

debriefing



- SUMMING UP



**PREPAREDNESS STEPS FOR
MOCK EXERCISE**

PREPARATIONS BEFORE THE MOCK EXERCISE



PREPARATIONS



1. All Emergency Operations Centres will be activated.
2. Incident Response Teams (IRTs) to be created at the District, Sub-Division and Tehsil Level, by name and personnel trained in their roles. A district GO to be published, nominating the various functionaries.
3. District Disaster Management Plans will be finalized before the Exercise.
4. Districts will also prepare resource inventory and mapping.
6. If possible, will have a web based Disaster Support System (DSS).



PREPARATIONS



7. At each disaster site, between 15 or more casualties will be depicted by the observers. To role play the casualties (injured) the district authorities provide volunteers. The community participation will be encouraged.
8. Minimum one relief camps per district will be established, with each relief camp having a strength of at least 150.
9. All the Govt and Private hospitals in the district will be activated and all ambulances operationalised. Minimum 5 Medical aid posts will be created site wise.
10. Police, Fire Services, NGOs, Civil Defence, Home Guards, Volunteers, NCC/NYK/NSS will take part as required.



PREPARATIONS



11. NDRF teams may take part and will deploy at disaster sites. NDRF teams will not be split. CAPF Teams will also take part.
12. Army Columns can be demanded as per situation and will be released notionally, after consultation with the Senior Officer representing HQ Western Command at the SEOC.
13. Municipal Corporations, Electricity, Water, telephone, PRO, will take part as per requirement.



PREPARATIONS



16. For the purpose of the Exercise, no mobile phones will be allowed, after the on-set of the earthquake. Any violations will be noted by the observers.
17. The observers from THE ARMY/CAPF, are participating in the Mock Exercise. They will take part for learning experience.

CONDUCT OF MOCK EXERCISE & DEBRIEFING

CONDUCT ON 08 FEB & DEBRIEFING

- ☐ The Exercise will be conducted in a bottom-up approach, with necessary inputs from top –down, like IMD, MHA and NDMA.
- ☐ The observers will assemble in respective State/ District EOC and at disaster sites 60 minutes before the Exercise starts. Synchronization of watches will be done by the Chief Observer of the Army, so that all actions start at the same time. The Senior Site Observer will place the volunteers role-playing injured at various vulnerable points in the area.
- ☐ The observers will start the exercise in respective Sites simultaneously by sounding of sirens for one minute, in each of the disaster site, to simulate main shaking during earthquake. Every one will take, 'duck, cover and hold' position. State EOC and District EOC will be intimated the epicentre, magnitude and intensity of the earthquake, as measured by IMD, by the State/District Senior Observer.

CONDUCT ON 08 FEB & DEBRIEFING

- ☐ Site Observers will intimate Police, Fire Services and DDMA. They would also give out the extent of damage and loss of life to the first responders, which arrive first on the scene and later to the nominated Incident Commander.
- ☐ They will also simulate related situations, like main/side roads getting blocked due to fall of buildings, developing cracks, mobiles not functioning, people trapped at various places under debris, over-turning of vehicles, etc
- ☐ ICPs will be set up at 5 places & district/State EOC will start planning and moving resources. Information on damages and loss of life/injured will be in the meantime sent by the ICP to District EOCs; simultaneously IRT will start planning by making incident action plan and executing it through Operations Section, with the resources available with them. Additional resources will be demanded from District/State EOCs.

CONDUCT ON 08 FEB & DEBRIEFING

- ☐ First responders reach disaster sites for rescuing the trapped, evacuating of casualties to hospitals, after TRIAGE, pre-hospital preparedness and cordoning of areas, traffic management, media briefing, continuous assessment of damage and calling for additional resources, restoration of services, setting up of Relief Camps and their management, debris removal, etc.
- ☐ The District and State EOCs will monitor and coordinate the resources required at various disaster sites and take appropriate action. They will activate NDRF and Army columns, on as required basis.
- ☐ Calling off the exercise, once the observers are satisfied and the nod from NDMA Coordinator is given.
- ☐ All the Districts will have debriefing after the Exercise district-wise for all the 5 disaster sites (Army observers will be Present).
- ☐ Final debriefing at State will be done at this Conf hall.
- ☐ Submission of AAR by the state to the NDMA.

SEQUENCE OF ACTION

- Briefing of observers, detailment of volunteers to role play dead and wounded and dispatch to site 60 Min minus H HOUR.
- Activation of EOC on trigger OF EQ by sounding sirens all over the town.
- Activation of wireless communication.
- Activation of Staging area.
- Damage assessment by Planning section at EOC.
- Detailment of Incident commanders RO (DC).
- Allocation of resources and formation of task forces.
- Mobilisation form staging area for SAR operations.
- Constant feed back to EOC from site of operations.

**ALL FORC ES TO BE CAPABLE OF
OPERATING FOR 10/15 DAYS- (DAY AND
NIGHT)**

**SUGGESTED SIMULATIONS FOR
MOCK EX**

MOCK EXERCISE EARTHQUAKE SIMULATIONS		
SL. No.	Event	Simulation and Follow Up Action
1	Simulation of Earthquake	1. Indication by observers 2. To be confirmed with DDMA
2	Casualties (As per situation)	Human Beings per site Killed Injured 30 100 AS DECIDED
3	Actual Evacuation of Human Beings for treatment.	15/20
4	Relief Camp	one relief camps to be established per District (Minimum 100 persons, including old, women and children per camp). Location to be intimated

5	Water	Arrangement of water tankers/ other means at Relief Camps and ICPs.
6	Medical	a) All ambulances within the District to be mobilised. Preparing all bigger hospitals for creating bed capacity to accommodate victims. b) Temporary PHC to be established at Relief Camps and at critical areas.
7	Supplies	One time meal packets for the evacuated people in relief camps to be arranged at District level.
8	Equipment	Heavy equipment like excavators, JCB, dumpers, and road rollers to be identified and to be moved to the critical area in the District.

9	Transport	a) Buses/ Trucks for evacuation of people to relief camps. b) Helicopters – 02, for evacuation of selected casualties and movement of VIPs. One helicopter ex State Govt.
10	Electricity	One generator to be moved to each of the Relief Camps. Arrangements for generators at the selected hospitals.
25	Communications	a) ICP to be in communication with EOC, Relief Camps, Hospitals, State Secretariat. b) Redundancy in communication network.
27	Sewerage & Sanitation	Moving toilets and bathrooms to be arranged at ICP and Relief Camps.

OBSERVER TEAM

Places to be covered

1. Hospitals.
2. Shopping Complexes/Malls
3. Residential Areas
4. Office Complexes
5. EOC & ICPs
6. Staging Areas.

STATE EMERGENCY OPERATION CENTRE AND INCIDENT COMMAND POSTS (ICP)	
1.	At the State level, a SEOC will be established for the Exercise which will start functioning after trigger of EQ .
2.	ICP will be established in each site on orders of the DM at a place to be nominated by him. The District level stake holders for management of earthquake will be identified beforehand (eg Police, CMO, Fire Officer, CD, NGOs etc) and respective departments will depute senior representatives to the EOC/ ICP. Accessories like tents, chairs, tables, pens, name plates, notepads, banners and caps / armbands with Mock Exercise (Earthquake) written on it (optional) will be catered for.

Documentation	
The whole mock exercise will be filmed. These will be then edited and made into one film by the DDMA.	
Still photography will also be done .	
Edited CD of the video film along with album of select photographs and newspaper cuttings will be sent to Coordinator, NDMA within 10 days.	
Final Report by the State DM Department will be sent within 15 days, incorporating all Observers/ Facilitators reports and Self Assessment Reports of all stakeholders.	
NDMA will prepare a Report on the Exercise which will be shared with relevant agencies.	



FORMAT FOR SELF ASSESSMENT

1. Name of the Organisation/ Department.
2. Type of Support Function. (Eg. Medical, Relief, Search & Rescue)
3. Name of Team Leader.
4. Designation in the Exercise and in in Parent Organisation.
5. Time, Source and Contents of First Message about Incident received and Communication mode.
6. Action taken by the Team Leader in response to critical situations, in gist.
7. Further Action taken by the recipients/ stakeholders.



8. When did the Stakeholder/ representative arrive at EOC/ ICP.
9. Manpower Resources available and how much manpower carried to ICP.
10. Equipment Material Carried.
11. Vehicle brought (give types)
 - (a) For use of EOC/ Rescue & Relief Work.
 - (b) Self Use.
12. Difficulties faced.
13. Support Agencies available.
14. What was your contribution in the Mock Drill?
15. Learning from Mock Drill.
16. Suggestions for improvement.
17. Any other information, you would like to convey.

FORMAT FOR REPORT BY OBSERVER

1. Emergency Support Function (e.g. Search & Rescue, Medical)
2. Nodal Officer (Name).
3. Alternate Nodal Officer (Name).
4. Observer (Name) & Organization.
5. What was the first reaction of the Nodal Officer/ Org on receipt of information.
6. What was their initial & subsequent assessment of the situation/s.
7. Duties undertaken by the Team Leader (Give details of duties).
8. Resources Available and carried for the specific tasks.
9. Was the organization able to carry out its assigned task? How would you assess their performance - 100 % Success / 75 % Success / 50 % Success / 25 % Success
10. Observers Comments (Frank Opinion, Good practices and weakness/shortcomings noticed).

SUMMING UP



THANK YOU

Newspaper Advertisement – Annexure I



श्री जय राम ठाकुर
माननीय मुख्य मंत्री, हि.प्र.

भूकम्प आपदा पर वृहद् मॉक अभ्यास 8 फरवरी, 2018

हिमाचल प्रदेश भूकम्प की दृष्टि से अतिसंवेदशील है तथा पूरा प्रदेश भूकम्पीय जोन IV एवं जोन V में आता है। एस.डी.एम.ए., एन.डी.एम.ए. के साथ मिलकर 8 फरवरी, 2018 को पूरे प्रदेश में भूकम्प आपदा पर मॉक ड्रिल का आयोजन कर रहा है।

- मॉक अभ्यास का उद्देश्य भूकम्प के प्रति जागरूकता बढ़ाने एवं विभिन्न विभागों की तत्परता का परीक्षण करना है।
- इस अवसर पर हिमाचल प्रदेश के सभी सरकारी कार्यालयों, प्रतिष्ठानों, विद्यालयों, विश्वविद्यालयों एवं समुदायों के द्वारा इस वृहद् मॉक अभ्यास में प्रतिभाग किया जायेगा।
- आप सब से अपील की जाती है कि भूकम्प मॉक अभ्यास के दौरान अपने-अपने कार्यालयों/विद्यालयों/विश्वविद्यालयों/अन्य शैक्षणिक संस्थाओं एवं घरों में ड्रॉप-कवर-होल्ड के माध्यम से अपने आप को सुरक्षित करें।

भूकम्प आने से पहले क्या करें

- मकान खरीदते समय भवन का निर्माण करते समय इस बात का ध्यान रखें कि वह भूकम्परोधी हो।
- मकानों का निर्माण प्रशिक्षित संरचना अभियन्ता की सलाह से करें।
- खाने-पीने का ज़रूरी सामान, नगदी, मौसम के अनुसार कपड़े, कम्बल, टॉर्च, मोमबत्ती, जूते, दस्ताने, दवाएँ, बैटरी से चलने वाला रेडियो, प्राथमिक उपचार सामग्री, आवश्यक दस्तावेज हमेशा तैयार रखें।

भूकम्प के समय क्या करें:-

- यदि भूतल पर हों तो तुरन्त खुले मैदान में चले जाएँ, परन्तु ध्यान रखें वहाँ बड़े पेड़, बिजली के खम्बे, मोबाइल टावर, मकान या ओवर ब्रिज न हो।
- यदि घर या भवन के अन्दर हों तो काँच की खिड़की, गिरने वाली वस्तु से दूर रहें। किसी मजबूत दीवार इत्यादि के साथ खड़े हो जाएँ या ड्रॉप-कवर-होल्ड का प्रयोग करें।
- भूकम्प के समय भवन से बाहर भागना खतरनाक हो सकता है।
- विकलांग, वृद्ध, बच्चों व गर्भवती महिलाओं का विशेष ध्यान रखें।
- बहुमंजिला मकान से नीचे उतरने में लिफ्ट का प्रयोग न करें।

भूकम्प के बाद क्या करें:-

- यदि आप भवन के अन्दर हों तो तुरन्त बाहर आएं। अफरातफरी न मचाएं। पुनः भूकम्प के झटकों के प्रति सचेत रहें।
- घायल व फंसे लोगों की मदद करें, जहाँ ज़रूरत हो प्राथमिक उपचार दें। अफवाहें न फैलाएं। विश्वसनीय सूचना हेतु रेडियो सन्देश सुनें। सहायता के लिए टोल फ्री नम्बर 1070, 1077, 100, 101 एवं 108 नम्बर पर सम्पर्क करें।

आओ हम सभी मिलकर राज्य आपदा प्रबन्धन प्राधिकरण, हि.प्र. के प्रयास को सफल बनाएं तथा 8 फरवरी को व्यापक पैमाने पर भूकम्प सम्बंधी मॉक अभ्यास में प्रतिभागी बनें।

GET PREPARED!!! DURING AN EARTHQUAKE



During an Earthquake DROP to the Ground, take COVER by getting under a sturdy table or other piece of hard furniture; and HOLD ON until the shaking stops.



हिमाचल प्रदेश राज्य आपदा प्रबंधन प्राधिकरण
राजस्व विभाग-आपदा प्रबंधन प्रकोष्ठ हिमाचल प्रदेश सरकार द्वारा जनहित में जारी
Email: sdma-hp@nic.in Website: www.hpsdma.nic.in Follow us: www.facebook.com/sajaghimachal

**Govt Of India
Ministry of Earth Sciences
India Meteorological Department
Meteorological Centre Shimla**

**Date:- 08.02.2018
Time:-0830 Hrs IST**

**SPECIAL EARTHQUAKE REPORT
(For Mega Mock Drill)**

An Earthquake of magnitude 8.0 has occurred
on 08.02.2018, Time – 00:30 Hrs IST
with its centre at Lat. 22.7739° N, Long 71.6673° E
(near Sundernagar, District Mandi, Himachal Pradesh)
Depth of Earthquake- 25 KM

It is expected that it may cause large scale damage as this Earthquake is of category of Great Earthquake (Scale ≥ 8.0).

So, It is requested to take appropriate action with respect to rescue and relief.

For-
Director,
Meteorological Centre
Shimla

Note- This Earthquake bulletin has been issued for Mock Purposes and is to be used for Mega Mock Drill Exercise on Earthquake on 08.02.2018.

Incidents/Sites Selected for the Mega Mock Exercise

District	DEOC Nos.	Incidents/Sites
Bilaspur	01978-221108, 221136, 221171	Navodaya School, Kothipura
		ITI Bilaspur
		Government Sen. Sec. School (Boys), Bilaspur
		Bilaspur Market Area
		Deputy Commissioner Office
Chamba	01899-226951, 226952, 226953, 226662	Government Sen. Sec. School (Boys), Chamba
		Rajiv Gandhi Shopping Complex
		Deputy Commissioner Office
		Jansali Mohalla, Chamba
		NHPC Chamera - II, Residential Colony
Hamirpur	01972-221277, 221377, 221477, 221877	Government Sen. Sec. School (Boys)
		Deputy Commissioner Office
		Ayurveda Hospital
		Market Area, Gandhi Chowk
		Bus Stand
Kangra	01892-229050, 229051, 229052, 229053	Deputy Commissioner Office
		Chand Mari Village - Dharamshala to Macloedganj
		Old Bus Stand - Sub Division Nagrota Bagwan
		Degree College- Nagrota Bagwan
		SDM Office, Kangra
Kinnaur	01786-223151, 223152, 223153, 223154, 223155	Mini Secretariat
		Indra Shopping Complex
		DIET
		Police Residential Complex
		Ayurvedic Hospital, Reckong Peo
Kullu	01902-225630, 225631, 225632	Bhuntar Airport
		Residential Area - Sultanpur
		Banjar - Old Bus Stand
		Manali - the Mall
		Anni - Market Area
Lahaul & Spiti	01900-222509, 222510, 222517	Police Ground, Keylong
Mandi	01905-226201, 226202, 226203, 226204	IPH Divisional Office
		DAV Khaliyar
		Indira Market
		Revenue Colony
		Zonal Hospital
Shimla	0177-2800880, 2800881, 2800882, 2800883	IGMC, Shimla
		DC Office, Shimla
		Himachal Pradesh University, Summer Hills
		Boileauganj Residential Area
		Himachal Pradesh Secretariat
Sirmaur	01702-226401, 226402, 226403, 226404, 226405	Chaugan/ Chamba Ground
		Bus Stand, Nahan
		Medical College Nahan
		Shamsher Govt. Sen. Sec. School, Nahan
		Govt. PG College, Nahan
Solan	01792-220882	SE, HPPWD Office
		DIET Residential Area
		Sugandha Apartment (The Mall)
		Ayurvedic Hospital
		ITI, Solan
Una	01975-225045, 205046, 225049, 225052	Ayurvedic Hospital
		SE, HPPWD Office
		Indira Stadium Hostel
		Indian Oil LPG Bottling Plant, Una
		DC Office Colony, Una

District Wise Hourly report of Damage**Bilaspur**

Time	Description
09:20 AM	No sign of EQ upto 09:20
09:35 AM	EQ Occurred and all Rescue Party left for the affected area
10:20 AM	EQ Occurred and all Rescue Party left for the affected area
10:30 AM	2 EQ take place and fire break at ITI Bilaspur
10:46 AM	Boys School 20-25 persons trapped and rescue operation continue
10:56 AM	Kothipura Jawahar Navodya Vidayalya Bilaspur Building, 10-15 child trapped and rescue operation continue
11:00 AM	Purnam Mall Complex 1 st and 2 nd Casualties out of Above, 3 persons unconscious
11:07 AM	ITI Bilaspur 2 persons injured and both are sent to hospital
11:07 AM	At boys School Bilaspur 25 Trapped and 16 rescued
11:10 AM	D.C office Bilaspur 119 Trapped out of 104 rescued and 15 persons still trapped, rescue operation continued

Chamba

Time	Description
10:39 AM	6 Boys Injured
10:41 AM	3 Injured
10:54 AM	5 injured and 5 Hospitalized
11:19 AM	Real Incidence : Jansali Mohalla Building Slide all team left for Rescue
11:28 AM	Jansali Mohalla Landslide stopped now situation peaceful & no casualty
11:45 AM	1 female, 8 male and 8 hospitalized

Hamirpur

Time	Description
08:50 AM	NO EQ occurred, Situation Peaceful
09:30 AM	Ayurveda Hospital gutted into Fire and rescue party left for the spot
09:36 AM	10 person Injured, building Collapsed
09:45 AM	7 male, 3 female total 10 person injured in bus stand where top floor collapsed and all of them were hospitalized
09:59 AM	Boys School Building Collapsed and rescue team rushed to the spot
10:07 AM	1 injured, Ayurveda Hospital Operation Completed and rescue party retain back
10:16 AM	7 male injured, 3 female injured rescue operation completed at bus stand, all persons were hospitalized
10:25 AM	2 male casualty,1 injured person hospitalized , 2 death
10:30 AM	DC office Hamirpur 4 casualty takes place
10:50 AM	Gandhi Chowk Big Building Fire Break out and rescue party left for spot
10:50 AM	DC office 4 casualty was declared but Doctor declare 2 person alive and are under treatment
11:05 AM	6 Casualty, 6 Hospitalized at Gandhi Chowk Big Building

Kangra

Time	Description
09:47 AM	5 parties moved towards Nagrota bagwan
10:07 AM	4 college Building Collapsed, 3 injured and M.C office building Collapsed
10:42 AM	3 casualties and 8 -10 injured, M.C building, Degree College Collapsed
10:44 AM	1 injured and hospitalized
11:00 AM	1 casualty and 31 Injured sent to TANDA team ready
11:02 AM	1 casualty 9 injured
11:04 AM	3 Casuality
11:16 AM	12 injured and 12 hospitalized
11:35 AM	2 injured
11:40 AM	4 Casuality, 13 Injured and 3 Hospitalized, 1 Cow Rescued
11:41 AM	12 Injured, out of 2, One is dead on the spot,2 sent to TANDA and 10 send to other hospital
11:46 AM	78 Casualities, 138 Injured and 21 animal

Kinnaur

Time	Description
09:20 AM	Nothing
09:30 AM	Meeting will start at 11 am due to cold
09:45 AM	Mock Exercise started at 9:20 am and information supplied later
09:48 AM	Earthquake occurred at 09:20 in Mini Sectariat, Indian Market, Police Colony, DIET , Ayurveda Hospital rescue operation started
09:50 AM	One Building Collapse, Fire Broke out in building, one person injured and sent to district hospital fire brigade came to site
10:00 AM	Rescue Started
10:05 AM	Dist. Administration demanded Army/Military help from Pooh for areas where EQ occurred i.e MINI Sectariat, Police Colony DIET, Ayurveda Hospital, Indra Market and Air Rescue
10:30 AM	EQ density of 8.0 has occurred and rescue team has rushed to the spot. ITBP has provided Medical Camp, 5 injured were given medical aid and 2 were found dead whereas 3 were sent/referred to the Dist. hospital

Kullu

Time	Description
08:50 AM	No EQ Occurred
09:55 AM	Kullu Dhalpur EQ Takes Place, Rescue Party sent to the spot
10:12 AM	7 Casualities, 15 serious and 25 minor and Hospitalized
10:20 AM	Sultanpur EQ at 8.5 Rector Scale rescue party left to the spot
10:35AM	4 Casualities
10:55 AM	4 causalities, 5 injured
11:10 AM	9 Injured and 9 Hospitalized
11:17AM	10 Casualities, 5 Injured, 2 person admitted in CH Anni and 3 persons referred to IGMC
11:14 AM	8-10 Casuality, 12-15 Injured, 1 Serious
11:27 AM	5 Casuality ,5 injured , total loss 20 lakh
11:25 AM	7 casualty, 40 Injured and operation Completed
11:30 AM	2 casualty, 8 Injured estimated Loss 10 lakhs
11:45 AM	Operation Banjar Anni Closed
12:00 PM	Total Loss of Public BLD 60 Lacs, Electricity 15 lacs, Communication Loss 10 lacs, Irrigation 12 lacs, total loss 2 crore 66000 and 50000 approx. Banjar Dist Kullu total damage and total Loss 80 Lacs, 20 fully House Damaged and 45 lakhs of 40 partially Damaged House, Cattle Loss 45 (4.50 lacs) Road Damage loss approx. 40 lacs

Lahual & Spiti

Time	Description
09:10 AM	Mock drill will be started At 11 am
10:30 AM	Operation Started at Police ground and Shakshi Nallah rescue teams were sent to spots
10:58 AM	10 Injured, EQ at the 7.4 rectar at Police ground Kelong, Nil Casuality, rescue operation is still continued
11:05 AM	2 injured,4 trapped And 4 hospitalized, Avalanche comes in Shakshi Nallah where 4 persons were Trapped, 2male and 2 female, hospitalized at kelong
11:20 AM	3 rescued,3 hospitalized and damaged building 2 female and 3 male rescued and hospitalized
11:30 AM	3 trapped 3 hospitalized, Police Line building damaged where 5 persons trapped and injured & hospitalized
11:40 AM	3 Injured in Shakhi Nallah and have carried to Base Camp Kelong, One person is still Trapped and rescue is continued
11:45 AM	One Person who was trapped in Shakshi Nallah Was rescued, BDO Office damaged where 5 Adult and 2 Children were Rescued
12:00 PM	13 Injured,13 Rescued, 13 Hospitalized

Mandi

Time	Description
09:10 AM	No information Received
09:28 AM	EQ at District Mandi at 9:28 am and Parties moved to EQ area
09:42 AM	No Information Received
09:54 AM	EQ Occurred at Revenue Colony, Zonal Hospital, DAV School, Indra Market, IPH Office, Tarna MANDi
10:04 AM	Team Moved to Sundernagar but due to road damaged and blocked at many places has created problem to reach the affected area
10:22 AM	3 casualty, 4 injured, 10 Hospitalized at Sundernagar
10:27 AM	At DAV school children's are trapped and rescue team has reached on spot
10:28 AM	Casualties are more in Indra Market and team has reached at the spot, rescue operation has started and about casualties will be informed later
10:32 AM	Additional Force required for DAV school and Additional Force has been sent to the DAV school
10:47 AM	2 casualty at Indra Market
10:49 AM	Zonal Hospital Collapse, Additional Force required and force has sent to the spot
10:51 AM	50 persons injured at Revenue Colony and minor injuries were found and first aid is given to the persons
10:56 AM	1 injured at DAV school Mandi
10:59 AM	10 Injured at Indira Market 3 injured, 7 minor injured and 3 sent to hospital and 7 persons has given the first aid and sent to home
11:05 AM	3 Injured 3 Hospitalized, rescue operation Continued
11:06 AM	30-40 person Injured and rescue operation continued
11:07 AM	15-20m person Injured , additional force required and rescue operation is still continued
11:12 AM	Vellah sundernagar and jhanjeli where EQ occurred where 50,000 persons has affected due to EQ. roads area damaged and blocked , rescue team cannot reached to the affected area, information has been received through VHF
11:14 AM	5 injured, 5 Hospitalized in Revenue Colony
11:22 AM	5 injured, 5 Hospitalized in Revenue Colony
11:23 AM	1 casualty, 15 person injured, 5 serious and 10 minor at Zonal Hospital
11:30 AM	10 person Injured in which 5 serious and 5 minor and 5 persons hospitalized
11:40 AM	3 reserves have been called from Pandoh, where the areas have been affected and to maintain the law & order
12:00 PM	550 casualties, 2000 injured, Vellah and Jhanjheli team could not reach the spot
12:20 PM	At IPH office loss of 20 lac has been estimated

Shimla

Time	Description
09:40 AM	No loss till now
09:55 AM	Boileagang GSS Damaged, Fire in Boilegang and HPU, Medical team Dispatched to all the affected areas
10:14 AM	5 Major Injured and 20 minor injured, rescue team has been sent
10:15 AM	5 casualties and 41 injured, two ambulance dispatched from DC Office
10:16 AM	22 persons rescued at HPU
10:11 AM	3 Causality and 2 injured and brought to hospital at theog
10:17 AM	2 casualties and 3 major & 4 minor injured
10:17 AM	2 minor and 1 major injured
10:17 AM	2 minor injured
10:26 AM	1 dead, 5 major injured shifted to Sanatorium Hospital and 10 Minor treated on spot
10:28 AM	5 causality and 46 injured recovered at IGMC
10:30 AM	1 causality and 8 Injured sent to Sanatorium 1 injured and 1 dead body sent to IGMC
10:45 AM	60% library Building has damaged 3 crore estimated loss surveyed by PWD at H.P University
10:46 AM	3 injured, 2 person from HPU and one from Boileauganj to PGI by Helicopter
10:50 AM	Communication Restored in Shimla City, Mobile Facilities is working in order
10:52 AM	Out of total 35, 28 minor and 8 major injury and 2 deaths, major shifted to sanitarium and minor sent to relief camp in HRTC bus, Postpartum Carried of 2 dead bodies, 3 crore estimated loss in HPU, rescue operation Completed
11.15 AM	6 causality and 25 major and Minor rescue Completed

Sirmour

Time	Description
09:30 AM	6 Building Collapsed and Road Damaged badly
09:32 AM	4 Building Collapsed, Road Damaged Andheri and Traffic Blocked Road
09:40 AM	DC Sir giving Instructions to Rescue Party, Police Department etc.
09:45 AM	3 Building Collapsed road Damaged near Batta Pul
09:50 AM	5 Building Collapsed road Damaged near Markanda Pul
09:50 AM	1 Building Collapsed and Road Damaged near Nohra Dhar
09:55 AM	5 Building Collapsed old bus stand Road near Rajgarh
09:58 AM	Batta Pul block, Traffic diverted via Jamani wala Road
10:00 AM	5 Building Collapsed, road Damaged near New Bus Stand
10:08 AM	2 Building Collapsed, Road Through
10:05 AM	Force sent From Nahan to Pachndo vis CHD , road near Bus Stand is blocked
10:15 AM	4 Deaths
10:25 AM	2 Building Collapsed, 2 Road Damaged
10:28 AM	1 Building Collapsed, 1 Road Block near Philla bag
10:45 AM	The Information of Incident given to SDM Rajgarh and Rescue work started, Injured people were taken to hospital
10:52 AM	The Information of Incident given to SDM Rajgarh and Rescue work started, Injured people were taken to hospital
10:58 AM	Rescue work is going on while injured were taken to hospital

Solan

Time	Description
09:25 AM	Building Collapsed at ITI colony, Sugandha Apartment, DIET, S.E Office and ITI
09:35 AM	Building Collapsed
10:10 AM	Rescue Reached at ITI Solan
10:18 AM	4 Serious Injured and 8 Minor Injured at SE Office near Bazar
10:22 AM	6 Minor Injury
10:20 AM	2 Minor Injury at DIET Colony
10:38 AM	At SE Office Solan 1 boy and 3 girls injured and sent to Hospital
10:45 AM	3 Death and & injured DIET Colony
10:48 AM	3 Deaths and 17 Injured at Sugandha Apartments

Una

Time	Description
09:15 AM	Mock Drill will Start at 11 am
10:04 AM	5 Injured due to building Collapsed in DC Colony, Rescue team left for the spot
10:35 AM	5 Injured 12 rescued and admitted to FRU Hospital
10:36 AM	3 injured
11:05 AM	3 casualty 69 injured, 53 admitted to local Hospital and one is referred to PGI, Fire breaks out at one building and stopped at earliest

Observers & Units by the Army & Para Military Forces for Mock Exercise

Sl. No.	State/District	Observers	Army/Paramilitary & other response agencies in the district*
1	State – Shimla HQ	Chief Observer (Army), ITBP	Army (22 Rajput), ITBP, SSB, CISF
2	Bilaspur	CISF – Koldam	CISF
3	Chamba	Army, CISF – Chamera Dam	Army, CISF
4	Hamirpur	SSB	HHG & FS
5	Kangra	Army, NDRF, ITBP (Sarahan)	Army, SSB
6	Kullu	Army, ITBP	Army, ITBP (Kullu), HHG & FS
7	Kinnaur	Army, ITBP	Army, ITBP (Reckong Peo)
8	Lahaul & Spiti	Army, ITBP (from Kullu)	Army
9	Mandi	NDRF	NDRF Kangra
10	Shimla	Army, SSB, ITBP, CISF	Army (22 Rajput), ITBP, SSB, CISF
11	Sirmaur	NDRF (from Panchkula)	NDRF from Panchkula
12	Solan	Army, CRPF	Army, CRPF
13	Una	NDRF	NDRF from 7 th Bn Bathinda

* Himachal Home Guards & Fire Services will participate in the respective area of the battalions.

* Army & ITBP to participate in their respective areas.

NDRF:

- 7th Btn from Bathinda may send team to UNA
- NDRF Nurpur will participate in Mandi District
- NDRF Panchkula will participate in Sirmaur District

Contact Details:

1. Army: Lt. Col. Manish Punj (Chief Observer - 8971750555) Maj. Kulbhushan - 8219195916
2. NDRF: Deputy Commandant – Sh. Lokender Singh (9417802063)
3. SSB: Deputy Commandant – Sh. Prakash Chandra (9459376210)
4. ITBP: Deputy Commandant (Intelligence) – Sh. R L Sharma (9418136629)
5. Home Guards: Sh. S.B. Negi, ADG - HHG & Fire Services (9805092700)

Damage Loss Report**Annexure - N**

Final Situation Report of Mock Exercise on dated 8 Feb, 2018														
	Kangra	Mandi	Shimla	Una	Chamba	Bilaspur	Hamirpur	Solan	Sirmour	Kullu	Kinnaur	Lahaul & Spiti	Plane Crash	Total
Casualties	103	558	64	3		3	5	13	87	67	7		5	910
Injured	216	2170	249	67	29	80	49	84	262	200	55	24	26	3485
Trapped		10				209				15	3			237
Rescued			22	12		248					1	24		307
Hospitalized	1	32		54	13	12	6				35	24		177
Buildings Collapsed	2	5	1	1	2		4	3	35		1	1		55
Road Damage									20			1		21
School Damaged			1				1							2
Fire			2											2
Bridges Collapsed									2					2
Live Stocks	22									45				67
Total	344	2775	339	137	44	552	65	100	406	282	102	74	31	

Situation Report = 10:00 A.M. 8 Feb 2018

[illegible]

Situation Report = 10:30 A.M. 8 Feb 2018

[illegible]

Situation Report = 11:00 P.M. 8 Feb 2018

[illegible]

Situation Report = 11:30 A.M. 8 Feb 2018

	Kangra	Mandi	Shimla	Una	Chamba	Bilaspur	Hamirpur	Solan	Sirmour	Kullu	Kinnaur	L & S	Total
Casualties	24	8	64	3		3	5	3	57	49	2		228
Injured	66	160	249	67	21	69	49	84	102	112	5	17	1001
Trapped						90				15	3	4	112
Rescued			22	12		129	1				1	3	167
Hospitalized		27		54	5	6	6	7			7	7	112
Buildings Collapsed	2	5	1	1	2		4	3	28		1	1	48
Road Damage									20			1	21
School Damaged			1				1						2
Fire			2										2
Total	92	200	339	137	28	297	65	100	207	176	19	33	

Situation Report = 12:00 P.M. 8 Feb 2018

	Kangra	Mandi	Shimla	Una	Chamba	Bilaspur	Hamirpur	Solan	Sirmour	Kullu	Kinnaur	L & S	Total
Casualties	103	8	64	3		3	5	13	57	49	7		312
Injured	216	170	249	67	29	80	49	84	102	112	33	17	1208
Trapped		10				209				15	3	4	241
Rescued			22	12		248					1	10	293
Hospitalized	1	32		54	13	12	6				35	7	160
Buildings Collapsed	2	5	1	1	2		4	3	28		1	1	48
Road Damage									20			1	21
School Damaged			1				1						2
Fire			2										2
Total	344	225	339	137	44	552	65	100	207	176	80	40	



PRESS NOTE

No.153/2018-PUB

SHIMLA

08 February, 2018

Note for Media Briefing

Seismicity of the State-

State of Himachal is prone to various hazards both natural and manmade. Main hazards consist of earthquakes, landslides, flash floods, snow storms and avalanches, draughts, dam failures, fires – domestic and wild, accidents – road, rail, air, stampedes, boat capsizing, biological, industrial and hazardous chemicals etc. However, the hazard which poses biggest threat to the state is earthquake hazard. As per the recorded history, the state has been shaken by more than 120 times by earthquakes having a magnitude of 4.0 and above on the Richter scale as per the recorded history of earthquakes upto 2017.

As per the Bureau of Indian Standard (BIS) seismic zoning map five districts of the state, namely Chamba (53.2%) Hamirpur (90.9%), Kangra (98.6%), Kullu (53.1%), Mandi (97.4%) have 53 to 98.6 percent of their area liable to the severest design intensity of MSK IX or more, the remaining area of these districts being liable to the next severe intensity VIII. Two districts, Bilaspur (25.3%) and Una (37.0%) also have substantial area in MSK IX and rest in MSK VIII. The remaining districts also are liable to intensity VIII.

Scenario- Developed in 2012, by the experts of NDMA, IIT Mumbai, IIT Madras, and Geological Survey of India:-

Mw 8.0 earthquake represents a great earthquake occurring in the Himalaya. This hypothetical scenario was developed by a NDMA team of earthquake engineering experts from IITs at Bombay and Madras, and in consultation with the Wadia Institute of Himalayan Geology, Seismology Division of IMD and Geological Survey of India. The simulation results, with the epicenter near Sundernagar in Mandi District of Himachal Pradesh, which lies in the seismic zone V, predict strong shaking in the states of Himachal Pradesh, Haryana, Punjab, Uttarakhand and Jammu & Kashmir and the Union Territory of Chandigarh.

Such type of Mega Mock Exercises were previously conducted in the year 2012, 2014, and 2016 with the assistance of National Disaster Management Authority, Ministry of Home Affairs, Government of India.

The current mock exercise on Earthquake Hazard is largest among all the exercises involving all the 12 districts, educational and technical institutions, government departments, and the mock exercise will be conducted in sites across the State.

The following events were held to successfully complete the mock exercise in consultation with the National Disaster Management Authority, Government of India:

PRESS NOTE

An Orientation and Coordination Conference was held on 01/02/2018 at HP Secretariat in which around 135 officers of State Government Departments, District Administration, representatives from Indian Army, Paramilitary forces were present. Lt. Gen N.C. Marwah (Retd) Member, National Disaster Management Authority and Maj. Gen. V.K. Naik (Retd), Senior Consultant, NDMA also participated in the conference and provided their guidance.

This was followed by the table top exercise held on 07/02/2018 where member of State Incident Response Teams (IRTs) under the Chairmanship of Chief Secretary, Observers from Indian Army, NDRF and ITBP participated. The Deputy Commissioners and District Incident Response Teams (IRTs) were also present through Video Conference.

Today Mega Mock Exercise has been held in the State, where all the 12 districts participated.

In order to make the exercise successful, the state government conducted comprehensive awareness campaign through Media (Print and Electronic) and distributed around 80000 pamphlets on Earthquake disaster awareness for general public.

Army and Indian Air Force representatives from Western Command also took part actively and issues of coordination during disaster response operations were streamlined.

The columns from Army, Paramilitary forces, ITBP, NDRF teams participated in mock exercise along with integral resources of districts such as police, medical, fire services, civil defence, Home Guards etc.

Although after the hypothetical earthquake, the telephonic services were disrupted but Department of Telecom coordinated activated 3 Mobile BTS at staging area D.C. office Shimla, one at Mandi and another at Nahan.

Besides, 10 Telephones were installed for the use of general public at IGMC, Ridge, two at H.P. Secretariat, two at Govt. College Sanjauli, Summer Hill, Govt. Senior Secondary School Boileauganj and D.C. office.

The support and guidance from Lt. Gen N.C. Marwah (Retd.) Member, National Disaster Management Authority and Maj. Gen. V.K. Naik (Retd.), Senior Consultant, NDMA was highly helpful.

State Government steps and efforts to prepare the State for Earthquake disaster:-

We are proactive to take following actions towards making the state resilient to Earthquake disasters:-

- ✓ The State has prepared Hazard, Vulnerability and Risk Assessment (HVRA) Atlas; and our State is the only Himalayan State which has prepared such Atlas in the country.

PRESS NOTE

- ✓ State and Districts Emergency Operation Centre's are operating 24X7 to deal with the emergencies.
- ✓ State Disaster Management Plan was prepared in 2012 and again revised in 2017.
- ✓ District Disasters Management Plans were prepared in 2012 and again all revised in 2017.
- ✓ We are also conducting Training and Capacity Building Programmes for Engineers, Architects, Town & Country Planners and Masons on Safe Construction Practices and Structural Safety.
- ✓ First time, 38 Departmental Disaster Management plans have been prepared.
- ✓ We are also conducting Mock Exercises on Earthquake Disasters from time to time, to check efficacy of State, District and Departmental DM plans and response of various districts and stakeholder departments.
- ✓ The National School Safety Program was also implemented in the State of Himachal Pradesh with the support of National Disaster Management Authority. The programme was aimed to promote the culture of safety among children in all the schools.
- ✓ We are also supporting State Council of Educational Research and Training (SCERT) and Government College of Teacher Education (GCTE) for School Safety Initiatives.
- ✓ We are also planning the Comprehensive Programme on **Hospital Safety** with the vision that all major **hospitals** in Himachal Pradesh are structurally and functionally safer from **disasters**, so that the risks to human life and infrastructure are minimized.

Managing disasters is necessarily a collaborative and complex exercise, involving not only several Departments of the Government but also Civil Society Organizations, local communities and the people at large. We believe that while we have made encouraging progress in recent years in putting in place institutions and mechanisms for disaster prevention and mitigation, we have still a large distance to travel. As you embark on this exercise to find ways and means of strengthening our capacities and capabilities for managing disasters. The mock exercise is aimed at further improving the preparedness at various levels and to strengthen the Incident Response System. The State Government thank all the stakeholders, who made this mega mock exercise a successful event.

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मीडिया के लिए राज्य की भूकम्पीय स्थिति

हिमाचल राज्य प्राकृतिक व मानव दोनों प्रकार की विभिन्न आपदाओं की दृष्टि से संवेदनशील है। मुख्य आपदाओं में भूकम्प, भूस्खलन, अचानक बाढ़, बर्फ के तूफान, हिमस्खलन, सूखा, बांध टूटना, बस्तियों तथा जंगलों में आगजनी की दुर्घटनाएं, सड़क, रेल, वायु, भगदड़ व नाव पलटने आदि की दुर्घटनाओं के अलावा जैविक, ओद्योगिक व रासायनिक दुर्घटनाएं भी शामिल हैं। हालांकि प्रदेश को सबसे अधिक खतरा भूकम्प आपदा से है। इतिहास पर यदि नजर डाले तो प्रदेश में 120 बार 4.0 रिक्टर स्केल और उससे ऊपर की तीव्रता के भूकम्प आ चुके हैं।

भारतीय मानक ब्यूरो (बीआईएस) भूकम्पीय क्षेत्रीकरण मानचित्र के अनुसार वर्ष 2017 तक प्रदेश के पांच जिलों चम्बा (53.2 प्रतिशत), हमीरपुर (90.9 प्रतिशत), कांगड़ा (98.6 प्रतिशत), कुल्लू (53.1 प्रतिशत) और मण्डी (97.4 प्रतिशत) में 53 से 98.6 प्रतिशत क्षेत्र एमएसके 9 या उससे अधिक तीव्रता के अंतर्गत आते हैं जबकि इन जिलों के शेष क्षेत्रों में भूकम्प की तीव्रता 8 है। दो जिलों बिलासपुर (25.3 प्रतिशत) तथा ऊना (37.0 प्रतिशत) में एमएसके 9 तथा बाकी एमएसके 8 की तीव्रता है। शेष जिलों में भी तीव्रता आठ है।

एनडीएमए, आईआईटी मुम्बई, आईआईटी मद्रास तथा भारतीय भूवैज्ञानिक सर्वेक्षण द्वारा 2012 में विकसित परिदृश्य

एमडब्ल्यू 8.0 भूकम्प हिमालय क्षेत्र में आने वाला भारी भूकम्प है। यह काल्पनिक परिदृश्य आईआईटी मुम्बई तथा मद्रास से भूकम्प इंजीनियरिंग विशेषज्ञों की एनडीएमए टीम द्वारा वाडिया हिमालयन भूगर्भ संस्थान व आईएमडी के भूगर्भ विभाग व भारतीय भूवैज्ञानिक सर्वेक्षण के साथ परामर्श से विकसित किया गया है। हिमाचल प्रदेश के मण्डी जिले के सुन्दरनगर, जो भूकम्पीय क्षेत्र-पांच में आता है, में काल्पनिक भूकम्प हिमाचल प्रदेश, हरियाणा, पंजाब, उत्तराखण्ड, जम्मू-कश्मीर तथा केन्द्र शासित राज्य चण्डीगढ़ में भारी भूकम्प के झटकों के पूर्वानुमान को दर्शाता है।

इस प्रकार की बड़ी मॉक ड्रिल पूर्व में 2012, 2014 तथा 2016 में राष्ट्रीय आपदा प्रबन्धन प्राधिकरण द्वारा भारत सरकार के गृह मंत्रालय के सहयोग से की जा चुकी है। वर्तमान में भूकम्प आपदा पर आयोजित किया जा रहा यह मॉक ड्रिल पूर्व के सभी मॉक ड्रिलों से बड़ा है तथा इसमें सभी 12 जिलों, शिक्षण तथा तकनीकी संस्थानों तथा सरकारी विभागों को शामिल किया गया है और इस प्रकार यह मॉक ड्रिल पूरे प्रदेश में आयोजित की गई।

भारत सरकार के राष्ट्रीय आपदा प्राधिकरण की देश-रेख में मॉक ड्रिल सफलतापूर्वक पूरी की गई।

इसके लिए पूर्व अभ्यास व समन्वय सम्मेलन 1 फरवरी, 2018 को हिमाचल प्रदेश सचिवालय में आयोजित किया गया, जिसमें प्रदेश सरकार के विभागों के 135 अधिकारी, जिला

प्रशासन, भारतीय सेना के प्रतिनिधि, अर्धसैनिक बलों के प्रतिनिधि शामिल हुए। राष्ट्रीय आपदा प्रबन्धन प्राधिकरण के सदस्य सेवानिवृत्त लैफ्टिनेंट जनरल एन.सी. मरवाह, एनडीएमए के वरिष्ठ परामर्शी, सेवानिवृत्त मेजर जनरल वी.के.नाईक ने भी सम्मेलन में भाग लिया और मार्गदर्शन किया।

मुख्य सचिव श्री विनीत चौधरी की अध्यक्षता में 7 फरवरी, 2018 को टेबल टॉप अभ्यास किया गया, जिसमें राज्य घटना प्रतिक्रिया दल के सदस्य शामिल हुए। भारतीय सेना के पर्यवेक्षकों, एनडीआरएफ और आईटीबीपी के प्रतिनिधि भी इसमें शामिल हुए। उपायुक्त तथा जिला घटना प्रतिक्रिया दल इस अभ्यास में वीडियो कॉन्फ्रेंसिंग के माध्यम से शामिल हुए।

प्रदेश में आज बड़ा मॉक अभ्यास आयोजित किया गया, जिसमें सभी 12 जिले शामिल हुए।

अभ्यास को सफल बनाने के लिए प्रदेश सरकार द्वारा प्रिंट तथा इलैक्ट्रॉनिक मीडिया के माध्यम से व्यापक जागरूकता अभियान चलाया गया, जिसके तहत भूकम्प आपदा से आम लोगों को जागरूक करने के लिए 80 हजार प्रचार पुस्तिकाएं वितरित की गईं।

पश्चिमी कमान के सेना तथा भारतीय वायु सेना के प्रतिनिधियों ने भी इसमें तत्परता से भाग लिया तथा आपदा प्रतिक्रिया ऑपरेशन के दौरान समन्वय के मामलों पर चर्चा की गई। सेना, अर्धसैनिक बल, आईटीबीपी, एनडीआरएफ दलों ने मॉक अभ्यास में भाग लिया। इसके अलावा जिला स्तरों जिनमें पुलिस, चिकित्सा, अग्निशमन, नागरिक सुरक्षा, गृह रक्षक आदि भी इस काल्पनिक अभ्यास में शामिल हुए।

काल्पनिक भूकम्प आपदा के दौरान टेलीफोन तथा मोबाईल नेटवर्क सेवाएं बुरी तरह से प्रभावित हुईं, परन्तु टेलीफोन विभाग ने तीन मोबाईल बीटीएस प्रभावित क्षेत्रों- उपायुक्त कार्यालय शिमला, मंडी व नाहन में स्थापित किए। इसके अतिरिक्त आम लोगों के प्रयोग के लिए 10 टेलीफोन-इंदिरा गांधी मेडिकल कॉलेज, रिज़, हिमाचल प्रदेश सचिवालय में दो, राजकीय महाविद्यालय संजौली में दो, समरहिल, राजकीय वरिष्ठ माध्यमिक पाठशाला बालुगंज तथा उपायुक्त कार्यालय में स्थापित किए।

राष्ट्रीय आपदा प्रबन्धन प्राधिकरण के सदस्य सेवानिवृत्त लैफ्टिनेंट जनरल एनसी मरवाह तथा एनडीएमए के वरिष्ठ परामर्शदाता सेवानिवृत्त मेजर जनरल वीके नाईक के सहयोग व मार्गदर्शन से मॉक ड्रिल के आयोजन में बड़ी सहायता मिली।

प्रदेश सरकार के भूकम्प आपदा से निपटने के लिए उठाए गए कदम व प्रयास

- प्रदेश सरकार ने भूकम्प जैसी आपदा से निपटने के लिए अनेक पग उठाए हैं। प्रदेश ने आपदा अतिसंवेदनशीलता, जोखिम आंकलन, (एचवीआरए) एटलस तैयार किया है। हिमाचल राज्य देशभर का एकमात्र ऐसा प्रदेश है जिसने इस प्रकार का एटलस तैयार किया है।
- आपदा से निपटने के लिए राज्य तथा जिला आपदा आपरेशन केन्द्र 24 घण्टे क्रियाशील है।

- राज्य आपदा प्रबन्धन योजना वर्ष 2012 में तैयार की गई तथा इसे वर्ष 2017 में पुनः संशोधित किया गया।
- हमने इंजीनियरों, वास्तुकारों, नगर एवं ग्राम योजनाकारों, मिस्त्रियों को सुरक्षित निर्माण अभ्यास व ढांचा सुरक्षा के लिए लिए प्रशिक्षण व क्षमता निर्माण कार्यक्रम आयोजित किए।
- पहली बार 38 विभागीय आपदा प्रबन्धन योजना तैयार की गई।
- हमने राज्य, जिला व विभागीय आपदा प्रबन्धन योजनाओं की क्षमता के परीक्षण के लिए समय-समय पर भूकम्प आपदा पर मॉक अभ्यास भी आयोजित किए।
- राष्ट्रीय आपदा प्रबन्धन प्राधिकरण के सहयोग से हिमाचल प्रदेश में राष्ट्रीय स्कूल सुरक्षा कार्यक्रम भी कार्यान्वित किया गया है। कार्यक्रम का उद्देश्य सभी स्कूलों में बच्चों में सुरक्षा को बढ़ावा देना है।
- हमने राष्ट्रीय शिक्षा अनुसंधान परिषद एवं प्रशिक्षण (एससीईआरटी) और गवर्नमेंट ऑफ टीचर एजुकेशन (जीसीटीई) को स्कूल सुरक्षा पहल में भी सहयोग दिया।
- हमने अस्पतालों की सुरक्षा के लिए वृहद् कार्यक्रम की योजना बनाई है जिसका मूल उद्देश्य प्रदेश के सभी मुख्य अस्पतालों को आपदा से सुरक्षित बनाना है ताकि आपदा के समय मानव तथा अधोसंरचना क्षति को कम किया जा सके।

आपदाओं का प्रबन्धन आवश्यक रूप से एक सहयोगी व जटिल अभ्यास है, जिसमें केवल सरकार के विभिन्न विभाग ही नहीं, बल्कि नागरिक सामुदायिक संगठनों व स्थानीय समुदायों व लोगों की भारी संख्या में भागीदारी है। हम विश्वास करते हैं कि हमने हाल ही के वर्षों में आपदा से निपटने व नुकसान को कम करने के लिए संस्थागत मकैनिज्म स्थापित करने में बढ़ावा दिया है, परन्तु अभी भी हमें इस क्षेत्र में बहुत कुछ करने की आवश्यकता है। इस तरह के अभ्यास आपदा प्रबन्धन को सुदृढ़ करने तथा क्षमता व समर्थता की राह को प्रशस्त करते हैं। मॉक अभ्यास का उद्देश्य विभिन्न स्तरों पर तैयारियों में सुधार लाना तथा घटना प्रतिक्रिया को सुदृढ़ करना है। प्रदेश सरकार सभी हितधारकों जिन्होंने इस मॉक अभ्यास को सफल बनाने में सहयोग दिया है उनका आभार व्यक्त करती है।

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