



Guidelines for conducting

Earthquake and Fire Mock Drills

in Schools / Educational Institutions

Disaster Management Cell

Department of Revenue, H.P. Secretariat, Shimla

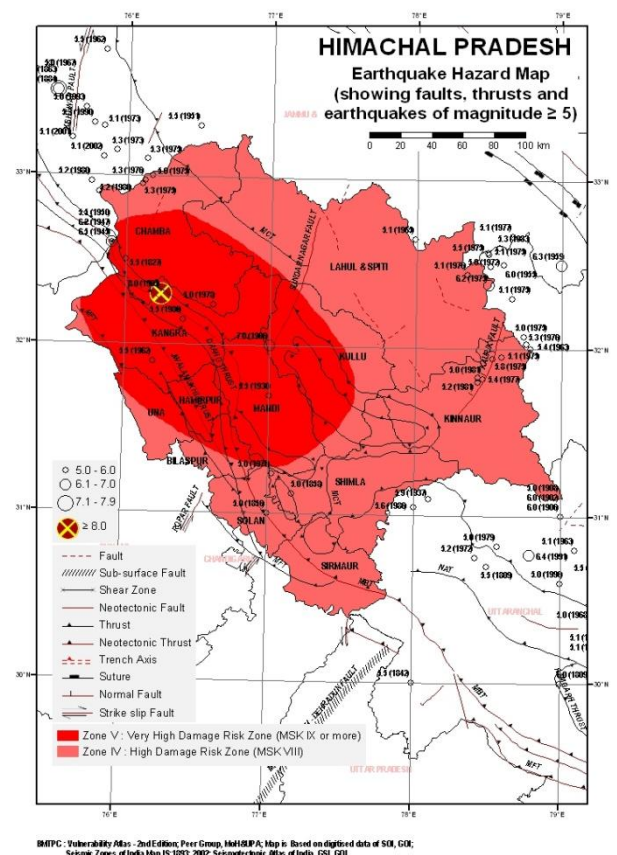
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1. Basic Hazard Profile of Himachal Pradesh:

Himachal Pradesh 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 the biggest threat to the state is that of earthquakes. Another form of the natural hazards in the state is the frequent occurrences of landslides. The hills and mountains of Himachal Pradesh are liable to suffer landslides during monsoons and also in high intensity earthquakes.

Although widespread floods problems do not exist in the state because of topographical nature, the incidences of flash floods are increasing and causing large scale damage. Besides, with the increase of road connectivity and number of vehicles plying on these roads in the State, the number of road accidents and loss of precious human lives is increasing day by day. Another major disaster that affects the state is forest fire. Over the years the forest wealth of the State is being destroyed by the incidences of fire attributed to both anthropogenic and other reasons. The destruction of rich flora and fauna of the State due to forest fires will have serious repercussions on the ecological balance of the State.



The State is known as land of Gods. Every year, large numbers of devotees visit temples and religious sites for pilgrimage and religious purposes. Sometimes, especially during the days of religious festivities, human stampedes pose a great risk to the lives of the devotees and tourists. In one such notable accident at the temple of Maa Naina Devi in district Bilaspur, 162 people died when a human stampede occurred on 3rd of August 2008. Possibility of such instances is always there if there is any laxity on the part of the management. Boat-capsizing and Helicopter crash are some uncommon but not unprecedented types of anthropogenic disasters.

2. Need of Awareness and Preparedness for Disaster Safety in Schools:



The impacts of natural and human-induced hazards are increasing with population growth and climate change, causing immense losses to the society. Besides their impact on the society and infrastructure, disasters are also one of the biggest challenges to the goal of 'Education for All'. In the past couple of decades, a number of disasters killed thousands of school children and severely disrupted the normal education in many countries. The following table reveals alarming data about the impact of disasters on schools in various countries:

Sr. No.	Location	Date	Disaster	School Centric Damage
1.	Dabwali, Haryana.	December, 1995	Fire during a school prize distribution ceremony	425 deaths, most of them school children
2.	Bhuj, Gujrat	26 th January, 2011	Earthquake	971 school children and 31 teachers died, numerous more injured, 1884 school buildings collapsed, 11761 school buildings suffered major to minor damages, 5950 classrooms were lost and 36584 classrooms became unfit for use
3.	Saraswati Nursery School, Kumbhkonom, Tamil Nadu	July, 2004	Fire	93 children burnt alive.
4.	South/South East Asia	December, 2004	Tsunami	Indonesia – 765 to 1151 severely damaged or destroyed schools; Sri Lanka – 51 schools completely destroyed, 100 were partially damaged; Maldives – 44 schools were destroyed or damaged- a huge percentage of the total; Thailand- fewer than 30 schools were damaged and very few destroyed. India – 358 schools were destroyed or damaged.
5.	Muzzafarabad, Pakistan	October, 2005	Earthquake	16000 children died due to collapse of school buildings.
6.	Sichuan, China	May, 2008	Earthquake	7000 inadequately engineered schoolrooms collapsed in the earthquake. 19,065 identified school children died, hundreds disabled and hundreds missing.

The information provided above endorses the fact that the rights of all children, to both education and safety, must be safeguarded simultaneously. Disaster–resilient education and safe schools are within reach. It requires sincere efforts to assess local risks and institutional capacities and to develop a well-planned and self-sufficient mechanism of preparedness.

Considering the fact that external help may reach to the school very late, it is important that school teachers, staff and students learn about the key aspects of school safety and preparedness. It is critically required that the school administration take proactive measures to increase awareness about disaster preparedness and also test their preparedness plans through conducting mock drills at regular intervals.

3. Creating awareness about School Safety

In order to create an enabling environment for school safety, it is important to spread awareness among the school staff, teachers and students and make them prepared to deal with any kind of catastrophic event. Concentrated efforts are needed to be taken to engage students in activities which enhance their understanding of disasters and relevant aspects. Some activities to create awareness about disaster preparedness are:

- Film Shows on Disaster Preparedness
- Quiz Competitions on Disasters
- Practical Projects (Presentations)
- Models on Disaster-related topics
- Thematic Debates / Discussions
- Poster Making Competitions
- Thematic Skits and Plays
- Photography Competitions
- Essay Writing Competitions
- Slogan Writing Competitions
- Students March / Rally
- Study tours to the sites of disaster-related significance



4. Conducting Mock Drills:

A Mock Drill is the testing of the efficacy of Disaster Management Plan. Lot of homework needs to be put in to prepare a plan and then conduct a mock drill which may last only a few minutes. It is a participatory method to practice the safety-related measures and evacuation of a building during an emergency situation. For fire-related evacuation mock drills, the fire-alarm is activated and the building is evacuated as though a real fire had occurred. Generally, the time it takes to evacuate is measured to ensure that it occurs within a reasonable length of time.

To ensure proper execution of a mock drill exercise, the roles and responsibilities of the concerned staff, teachers and students as well as the departments like fire services, home guards and civil defence should be precisely defined and the standard operating procedures (SOPs) should be clearly understood by everyone.



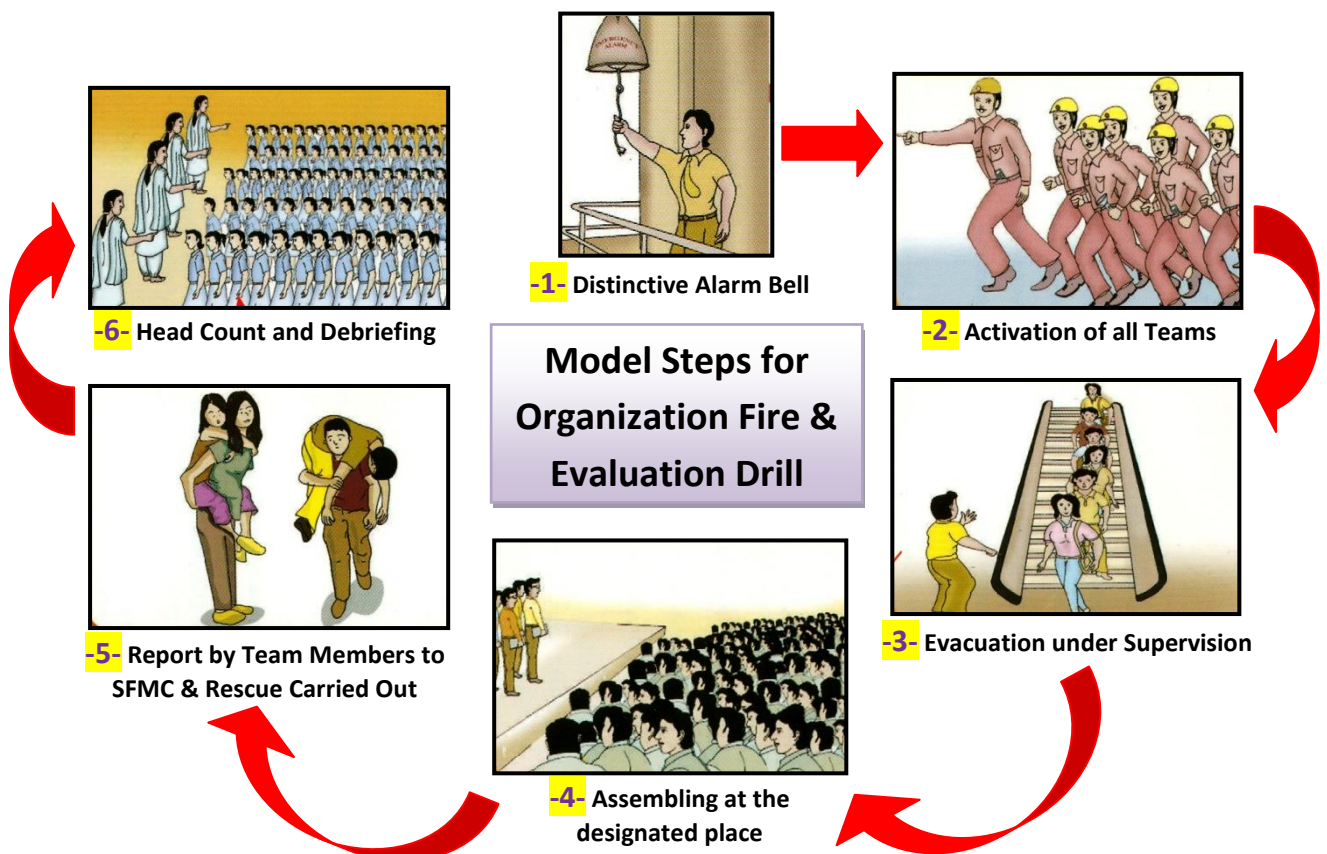
The objectives of conducting Mock Drills in Schools:

- (a) Educating and training staff, teachers and students to react for any unforeseen emergency situations specifically like Earthquake & Fire, mainly because they have a quick onset and hardly have any warning signs.
- (b) Mock exercises and evacuation to build up courage and confidence in staff, teachers and students.
- (c) To teach Life Saving and Rescue techniques to school staff, teachers and students and to enable them to be life savers at the time of emergencies.
- (d) Testing the efficacy of School Disaster Management Plan and improving it further so that it becomes do-able.
- (e) To have clarity and better understanding of the roles and responsibility of all stakeholders.

The mock drills can be classified into two types:

- (i) **Pre-announced Drills:** When the staff, teachers and students are expecting a mock drill, it is called as Pre-announced Drills. The objectives of Pre-announced Drills are:
- To ensure everyone has read and understand new evacuation procedures.
 - To Test how everyone reacts to a more specific hazard (like a predetermined blocked exit route).
 - To determine people's ability to locate and operate fire extinguishers.
- (ii) **Unannounced Drills:** Unannounced drills are a good way to test people's ability to react to a hazardous situation they weren't expecting. Schools should conduct unannounced drills once the understanding about mock drills is clear and a certain level of proficiency has been attained. The objectives of Unannounced Drills are:
- To ensure everyone in the school premises can clearly hear the alarms.
 - To discover if the staff, teachers and students know the exit routes to take.
 - To determine whether staff and teachers with special roles (in the case of an emergency) know what steps to take and
 - To find out how long it takes to get everyone out of the building.

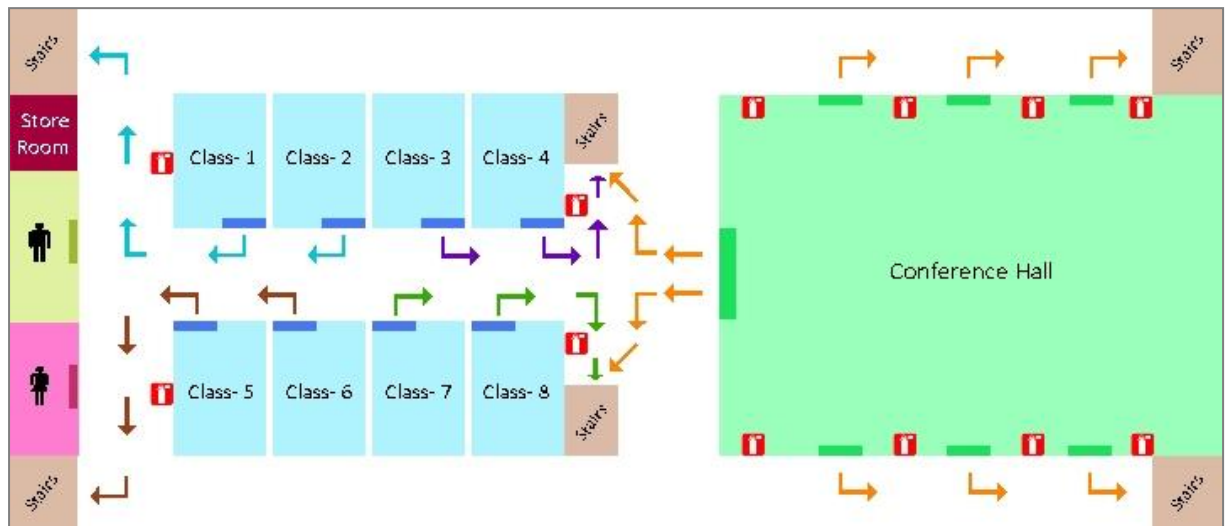
NOTE: To begin with, all schools are advised to conduct pre-announced mock drills till they attain proficiency in it. It is also necessary to avoid injury to any student. In the end of the drill, debriefing by the Drill In-charge or the Principal should be done to review and suggest any changes in the School Disaster Management Plan.



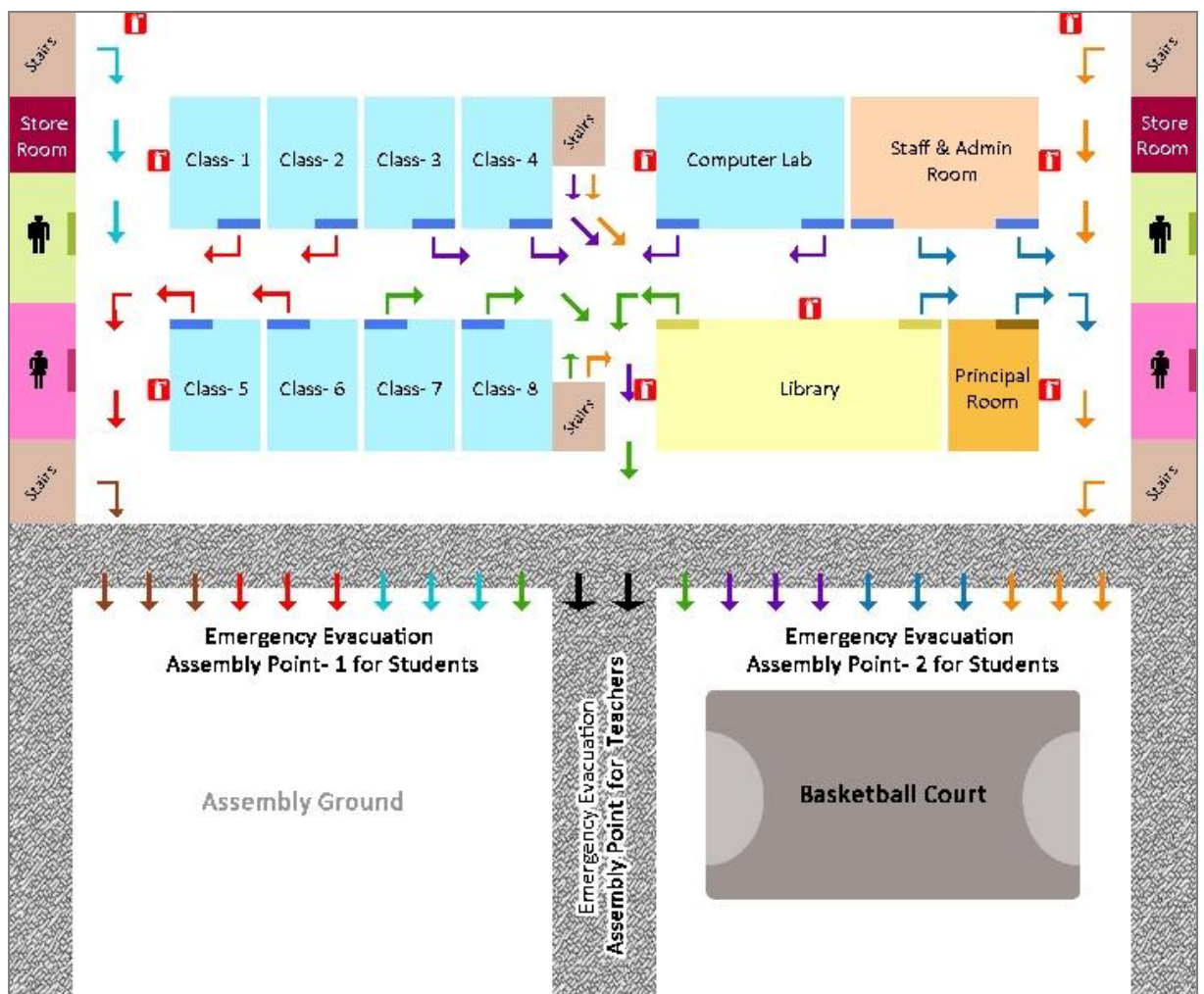
5. Emergency Evacuation Plan

Identifying the evacuation assembly area and the evacuation route is critical in a School Emergency and Disaster Preparedness Plan.

- School Emergency Evacuation Plan- TOP FLOOR -



- School Emergency Evacuation Plan- GROUND FLOOR -



- An Evacuation Route Map showing the site and neighbourhood map with identified evacuation routes and locations should be posted in strategic and conspicuous places (preferably in each room with the room marked on the map).
- Depending on the hazard, the school should identify safe evacuation areas.
 - Open areas for earthquake and fire
 - Shelter for windstorms, heavy rainfall etc.
 - Higher ground for floods and flash floods
- Evacuation routes should avoid potentially hazardous conditions and elements.
 - Avoid routes where there are no objects like toppled cabinets, broken glass, fallen trees, cut electrical wires) which may hinder evacuation.
 - Avoid flooded areas.
 - Avoid storage areas of combustible or hazardous chemicals.
- Simple rules for building evacuation which teachers must stress upon the students:
 - Do not push, run, talk or go back during the evacuation.

Create a Buddy System to ensure safety of the children with disabilities

School Administration must pay attention to the needs of children with physical disabilities (especially during an emergency situation). Persons with disability may not be able to evacuate without any assistance. Therefore, it is strongly advised that each student with disability is accompanied by a physically-fit student. This practice is known as **Buddy System**.

Ideally, the school administration should arrange to get such children (with disabilities) make several acquaintances with their fellow classmates at the time of the beginning of the academic session, so that they can get build up trust and friendship between themselves. Teachers must also keep motivating the students to assist their physically challenged colleagues during an emergency situation.

6. Mock Drills Calendar

Emergency drills and exercises should be conducted regularly in schools to test the plan and to develop the capacity of students, teachers and staff to respond to a disaster. Drills offer the opportunity to identify training needs, establish new reflexes, and teach through action, repetition and change in plan. **As per the directives laid down by the HP State Disaster Management Authority (HPSDMA), all schools must conduct emergency mock drills at least four times a year.**

NOTE: 4th of April (Anniversary of Kangra Earthquake of the year 1905) and **13th of October** (International Day for Disaster Reduction) are two of the four suggested dates for conducting mock drills in all schools of Himachal Pradesh.

7. Emergency Mock Drills & Exercises

There are various drills that can be conducted in schools depending on the hazard. After conducting a drill, an evaluation should be made to determine any lapses in the drill / plan. Here is a list of drills that are appropriate to both sudden disasters (e.g. earthquakes, fires) and early warning situations:

- Drop, cover and hold (for earthquake).
- Building evacuation and evacuation assembly (for fire, earthquake)
- Stop, drop and roll (when on fire)
- Administering mass casualty non-medical triage and first aid
- Emergency communications
- Assisting the disabled during emergencies
- Public relations, communications and documentation
- Relief operations
- Conducting light search and rescue (there should be no student in the S & R team)

a) School Fire Drill Procedure

Alarm Operation

When a fire is discovered, immediately sound the distinctive alarm by operating the nearest alarm call point. It is crucial to ensure that the distinctive alarm sound should be used for fire and earthquake. It should be different from normal school bell. Preferably it should not be electricity operated.

Calling the Fire Brigade

It is very important that the schools know the phone numbers of local Fire Stations where the schools shall immediately report about the onset of the fire. This task could be assigned to the school superintendent as a telephone will be readily available at that location.

Evacuation and Assembly

- Upon hearing the fire alarm, pupils must be instructed to leave the building in single file and in a calm, orderly manner.
- People whose clothes have caught fire should perform **“stop, drop and roll”** on the floor until the fire on the clothes extinguishes.



- The person in-charge of each class must indicate the exit route to be used and everyone must be directed to pre-identified evacuation areas.
- Specific arrangements must be made for students with physical or mental disabilities to ensure that they are assisted during evacuation.
- No running is to be permitted to avoid panic and stampede.
- On staircases, everyone must descend in single file. Overtaking of classes or individuals must not be permitted. 2 files can be permitted on wide staircases.
- Anyone who is not in class when the fire alarm goes off must go immediately to the assembly point.
- At assembly point, the students should stand according to their Roll Number.
- At the assembly point, a roll call or body count must be made to ascertain that no one remains in the school premises.
- Each teacher must report whether everybody is accounted for or if there are missing students.
- No one must be allowed to re-enter the building until told to do so by the authorities.

b) School Earthquake Drill Procedure

Alarm Operation

A pre-arranged distinctive signal such as a siren or bell is set off indicating earthquake shaking. Pupils and teachers will be alerted by this signal.

Response

- While the signal is ongoing, move away from windows, glass and unfastened objects.
- Everyone should perform **“drop, cover and hold”** under tables, desks or chairs until the “shaking” signal stops.
- School bags can be used to protect head where sufficient number of desks are not available or where there are no desks at all.



- Door mentor should hold the door open to prevent it from locking the people inside.
- If outside, get clear of buildings, power lines, trees, light poles and other dangers, drop down to your knees and cover your head and neck.

Evacuation and Assembly

- **Once the shaking stops**, students must be instructed to leave the building in **single** file and in a calm, orderly manner. (Two files if staircase is wide)
- The person in-charge of each class must indicate the pre-determined route to be used and everyone must be directed to pre-identified evacuation areas.
- Specific arrangements must be made for pupils with physical or mental disabilities to ensure that they are assisted during evacuation.
- No running is to be permitted to avoid panic and stampede.
- On staircases, everyone must descend in disciplined file. Overtaking of classes or individuals must not be permitted.
- Watch out for potential falling objects.
- Anyone who is not in class when the “shaking” signal went off must stop and observe the surroundings for potential hazardous objects.
- Then proceed immediately to the evacuation point.
- Students should stand according to their Roll No. for easy counting.
- At the assembly point, a roll call or body count must be made to ascertain that no one remains in the building.
- Each teacher must report whether everybody is accounted for or if there are missing students.

8. First Aid Kit

A well-stocked school-specific first aid kit is a handy thing to have. To be prepared for emergencies, keep a first aid kit ready always. While preparing the First Aid Kit, make sure it has all the items you may need such as medications, emergency phone numbers, and other items your health-care provider may suggest. Check the kit regularly. Make sure the flashlight batteries work. Check expiration dates and replace any used or out-of-date contents. It is the responsibility of the school management to know if there are students with specific medication needs.

Sample First Aid Kit (No. of items can be increased according to number of the persons)

The American Red Cross recommends that all first aid kits for a family of four include the following:

- 2 absorbent compress dressings (5 x 9 inches)
- 25 adhesive bandages (assorted sizes)
- 1 adhesive cloth tape (10 yards x 1 inch)
- 5 antibiotic ointment packets (approximately 1 gram)
- 5 antiseptic wipe packets
- 2 packets of aspirin (81 mg each)
- 1 blanket (space blanket)
- 1 breathing barrier (with one-way valve)
- 1 instant cold compress
- 2 pair of non-latex gloves (size: large)
- 2 hydrocortisone ointment packets (approximately 1 gram each)
- Scissors
- 1 roller bandage (3 inches wide)
- 1 roller bandage (4 inches wide)
- 5 sterile gauze pads (3 x 3 inches)
- 5 sterile gauze pads (4 x 4 inches)
- Oral thermometer (non-mercury/non-glass)
- 2 triangular bandages
- Tweezers
- First aid instruction booklet

Annexure-1: Key Contacts for more Information:

Himachal Pradesh State Disaster Management Authority (HPSDMA)

Disaster Management Cell, Department of Revenue,
Himachal Pradesh Secretariat, Shimla 171002

Telefax: +91 177 2625657 **# Email:** sdma-hp@nic.in **# Website:** www.hpsdma.nic.in

For further assistance, please contact		
District	DDMA- Phone No. & Email	Distt. Fire Services- Phone No.
Bilaspur	Phone: 01978-224155 Email: dc-bil-hp@nic.in	01978-222227
Chamba	Phone: 01899-225371 Email: dc-cha-hp@nic.in	01899-222290
Hamirpur	Phone: 01972-224300 Email: dc-ham-hp@nic.in	01972-222533
Kangra	Phone: 01892-222103 Email: dc-kan-hp@nic.in	01892-224992
Kinnaur	Phone: 01786-222252 Email: dc-kin-hp@nic.in	01786-222219
Kullu	Phone: 01902-222727 Email: dc-kul-hp@nic.in	01902-222345
Lahaul-Spiti	Phone: 01900-222501 Email: dc-lah-hp@nic.in	
Mandi	Phone: 01905-225201 Email: dc-man-hp@nic.in	01905-222900
Shimla	Phone: 0177-2655988 Email: dc-shi-hp@nic.in	0177-2658976
Sirmaur	Phone: 01702-225025 Email: dc-sir-hp@nic.in	01702-222500
Solan	Phone: 01792-220656 Email: dc-sol-hp@nic.in	01792-223888
Una	Phone: 01975-225800 Email: dc-una-hp@nic.in	01975-238699

Toll-free Helpline Numbers:

Emergency Services- 108 :: Fire Services- 101 :: Ambulance- 102 :: Police- 100 ::
District Disaster Control Room- 1077 ::

Annexure-2: Response Teams: Composition, Roles & Responsibilities

SR. NO.	TEAMS	COMPOSITION OF THE TEAM	KEY ROLES
1	School Fire Management Committee (SFMC)	This Committee must include the Chairperson. Principal/In charge, Vice Principal, Head Master/ress, Administrator, 2 teachers (1 Male + 1 Female) and 2 Parent-Teacher Association members, if any (1 M + 1F)	• The Primary Management Body shall have an understanding of the Policy and Planning Principals. • Help the School in preparing SFMP. • Co-ordinate with the other core team in organizing mock drill regularly. • Evaluate the SFMP regularly and Update. • Mobilize relief and external support in case of any emergency. • Liaison with Media and other Govt./NGOs for effective Disaster Management
2	Awareness Campaign Team	The team may include 5-6 teachers as per the strength of the school.	• Conduct awareness generation activities systematically in the whole school targeting all Staffs teachers and students/classes. • Develop(creative IEC materials and activities like pictures, posters slogans, poems, essays, street plays, pamphlets, simple tips on do's and don'ts, etc. and promote awareness. • Organize regular innovative activities and exercise for all staffs/teachers and students to ensure continuing interest on the issue during the normal time(like organize stage programmes competitions etc.)
3	Fire Alarming Team	The team may include 5-6 teachers as per the strength of the school.	• Primary Team to alert the whole school for Safe Exit in case of emergency through warning signs. With different colours of flags, alarm bells etc. • Should regularly practice the warning signs, including waving of flags or ringing alarm bells, etc. • Should regularly monitor and update on the potential hazard that the school can face and inform the school authorities. • Should maintain the School Emergency Operation Control Room. • Should maintain contact with all the other teams and with external stakeholders and keep them informed about the latest situation especially the Fire services.
4	Evacuation Team	The team may include 5-6 teachers as per the strength of the school.	• Should be acquainted with all exit in the school and keep all the staffs and students informed about their nearest Exits and also should regularly check the exit routes clear of any obstacles. • Should be prepared to provide assistance to the differently-abled students for safe evacuation. • Evacuation all in an orderly manner and practice the drill regularly and ensure that the emergency assembly area is safe and accessible. • Take roll call and report to the SFMC and the Search & Rescue Team.

5	Search and Rescue Team	The team may include 5-6 teachers as per the strength of the school.	- Should collect the details on the number of students/Staffs/Teachers/ employees present in the school during the drill/incident. - If anyone missing the team should quickly facilitate in order to search and rescue by physically, visually and vocally checking every room in the building and carrying the victim to the First-Aid Team in case of injury and reporting to SFMC for any other causes.
6	Fire Fighting Team	The team may include 5-6 teachers as per the strength of the school.	- Should be acquainted with the use of all the existing fire fighting systems/extinguishers available in the school and should ensure that all the equipments are in working conditions. - Should confirm existence of fire and control it, if possible. - Look for conditions that may cause further development of the fire and seek assistance from maintenance staffs for removal of such conditions. - Ensure that electric main switches are turned off and the fire don't spread much until the local fire services control and douse off the fire completely.
7	First Aid Team	The team may include the School/Govt. Doctor,Nurse,4 teachers.	- Should maintain and control the First-Aid Room of the school with all the required First-aid kits up-to-date. - Should administer first aid and record all cases and treatments during the incident. - Should determine further media assistance and refer to the nearest medical facility centre/hospital, etc.
8	Site Safety Team	The team may include the Senior Security Officer of the School, 2 peons and 2 teachers.	- Should work with the SFMC and the other stakeholders to establish a release policy and should communicate the same with the parents. - Develop effective procedures on how release will be handled during and after an emergency. - Lock all external gates and doors and secure the entire building premises. - Allow only the Emergency Support Functionaries into the building and facilitate them to reach their spots concerned. - Release staffs/teachers and students according to the pre-planned policy.
9	Transport Management Team	The team may include the Transportation/Vehicle Coordinator of the School, the Administrator,2 teachers and 2 senior students from each section from 8 th to 12 th Standard	- Should be well acquainted with all the buses and their plying routes from the school and also the number of students within each bus. - All the staffs/teachers/ and students should be given emergency cards with identical numbers for their buses/vehicles concerned. - Assist SFMC in arranging and providing commutation systems, including buses, ambulances, other vehicles to carry the victims/injured to medical centers and /or to transport all the staffs/teachers and students to their respective destinations.
10	Media Management Team	The team may include the Vice-Principal, Head Mistress or any Senior Staff of the School.	- The team should be well acquainted with all the present/Media Policies. - Should always consult the SFMC before briefing the Media on any matter. - Always remember that only One member from the team would brief the media at one time in order to keep the clarity. - Should be in constant contact with all the local media personal for promoting fire safety awareness in print as well as electronic media time to time.

Fire & Evacuation Drill Reporting Format

Name of the school			
Name of the principal/in-charge			
Full address			
	Landline		Mobile
Contact details			
Owned by			
Maintained by			
Total no. of staff			
Total no. of students			
Total no. of classrooms			
Total no. of laboratories			
Other no. of activity rooms			

BUILDING WISE DETAILS

Blocks	Building Name	Total No. of Rooms in the School	No. of Only Classrooms	Age Group of Students	Type of Roof Construction	Age of Building
Block-I						
Block-II						
Block-III						
Block-IV						
Block-V						

DETAILS OF OPEN SPACES/GROUND

Sr. No.	Type of open Space	Approx. Size (L x B)	Accessibility from the Road (Yes/No and the Distance from the main road)
1	Play Ground with Swings		
2	Cricket, Football Fields		
3	Basketball Court		
4	Assembly Ground		
5	Any other (Specify)		

Details of the Team Members

A. SCHOOL FIRE MANAGEMENT COMMITTEE

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				
6				
7				
8				

B. AWARENESS CAMPAIGN TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				
6				

C. FIRE ALARM TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				
6				

D. EVACUATION TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				

E. EARCH AND RESCUE TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				

F. FIRE FIGHTING TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				
6				

G. FIRST-AID TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				

H. SITE SAFETY TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				
6				

I. TRANSPORTATION MANAGEMENT TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				
4				
5				
6				

J. MEDIA MANAGEMENT TEAM

Sr. No.	Name	Designation	Contact No.	Email
1				
2				
3				

Annexure-3: Details of the Mock Drill

Sr. No.	Name of the Drill	Date & Time	No. of Participants	Remarks
1	Fire Evacuation Drill			
2	Drop Cover Hold Drill			
3	Safety Consideration Drill			
4	Any other Type of Drill (Specify)			

STRENGTHS OF THE DRILL

WEAKNESSES OF THE DRILL

RECOMMENDATIONS/SUGGESTIONS FOR FURTHER IMPROVEMENTS

ENCLOSURES (Tick all the enclosed ones with their nos.)

Type of Item	No.	Remarks / Description (If Any)
Photograph		
Newspaper Clippings		
Any other		

Name of the Organizing Authority	
Full Address & Contact Details	
Signature with official seal	



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