



Disaster Management System in Himachal Pradesh

Dr. Vinod Kumar

Assistant Professor. Sociology. Vallabh Government College Mandi Himachal Pradesh 175001.

Email - vinodkrmd@gmail.com

Abstract: *The state of Himachal Pradesh has been facing widespread and extensive damages almost every year because of natural calamities, unprecedented droughts situation, excessive rains, snow and flash flood due to cloud burst etc. which have been taking its toll of human lives, cattle heads, destruction of public utilities, roads, bridges, footpaths, culverts, landslides and washing away of drinking water supply and irrigation schemes and damage to public and private properties making a dependent into the already fragile economy of the state. The losses sustained are so serve that relief and restoration operations without adequate financial resources are not possible despite best efforts of the state to cope up with the emergent situation out of the available scanty resources. Disaster Management can be defined as the body of policy and administrative decisions and operational activities which pertain to the various stages of a disaster at all levels.*

This paper focuses on analyzing natural and man-made disasters in Himachal Pradesh in specific period from 1990 to 2007 and also discusses Disaster Management system in Himachal Pradesh. In the present paper the data was collected through primary and secondary sources. The primary data has been collected by observation and field survey method. The Secondary data was collected from records, reports, relief manual, action plan and memorandum of the state revenue department and other department which are concerned with disaster management. Newspapers, magazines, journals, books, articles and website have been utilized.

Key Words: *Natural calamities, Unprecedented Droughts situation, Excessive rains, Earthquakes, Landslides, Avalanches, Floods, Flash floods, Cloud burst., Fires and Accidents.*

1. INTRODUCTION:

The state of Himachal Pradesh has been facing widespread and extensive damages almost every year because of natural calamities, unprecedented droughts situation, excessive rains, snow and flash flood due to cloud burst etc. which have been taking its toll of human lives, cattle heads, destruction of public utilities, roads, bridges, footpaths, culverts, landslides and washing away of drinking water supply and irrigation schemes and damage to public and private properties making a dependent into the already fragile economy of the state. The losses sustained are so serve that relief and restoration operations without adequate financial resources are not possible despite best efforts of the state to cope up with the emergent situation out of the available scanty resources. Disaster Management can be defined as the body of policy and administrative decisions and operational activities which pertain to the various stages of a disaster at all levels.

2. Multi-Hazard Approach:

Himachal Pradesh is vulnerable to 25 out of 33 types of hazards identified by the High Powered Committee (HPC) of Government of India and categorised into 5 sub-groups. Apart from identified hazards by HPC, the state is also confronting the emerging threats of climate change and man and animal conflict.

Water and Climate Related Disasters:

1. Floods
2. Hailstorm
3. Cloud Burst
4. Heat Wave and Cold Wave
5. Snow Avalanches
6. Droughts
7. Thunder and Lightning



Geologically Related Disasters:

1. Landslides and Mudflows 2. Earthquakes 3. Dam Failures/ Dam Bursts

Chemical, Industrial and Nuclear:

1. Chemical and Industrial Disasters 2. Nuclear Disasters

Accident Related Disasters:

1. Forest Fires 2. Urban Fires 3. Major Building Collapse 4. Serial Bomb Blasts 5. Festival related disasters
 6. Electrical Disasters and Fires 7. Air, Road and Rail Accidents 8. Boat Capsizing 9. Village Fire

Biologically Related Disasters:

1. Biological Disasters and Epidemics 2. Pest Attacks 3. Cattle Epidemics 4. Food Poisoning

Natural and Man-made disasters in Himachal Pradesh

Heavy Rains-Monsoon A monsoon is type of climate that is warm year-round with vary rainy summers and relatively dry winters. The change from dry season to rainy season is abrupt, and the rainy season is marked by heavy rainfall

Table No : 1 Due to heavy rainfall, following loss has been recorded in H.P. From 2000-2007.

YEAR	Loss of Human Lives	Cattle Heads are Perished	Financial loss in crore	Land Affected IN Hectare (Agriculture)	Land Affected IN Hectare(Horticulture)
2000	35	1411	1466.26	N. A.	N. A.
2001	45	915	138.25	N.A.	N.A.
2003	89	452	263	N.A.	N.A.
2005	1	24	800	N.A.	N.A.
2006	48	846	533.70	87122	6718
2007	98	3087	1269	1,12,982	66,748

Floods in Himachal Pradesh

The state being in hilly terrain, the flood problem in the state is largely isolated in nature. The main problems are flash floods and bank erosion because of steep slopes of rivers and high river flows due to heavy rains are not an unusual phenomenon. As a result breaches in embankments and damage to various utilities like irrigation/flood control schemes and houses are also observed.

The rivers of importance from flood damage angle are:

- River Satluj and its tributaries like Spiti, Sangle Khad, Ali Khad, Gambhar Khad, Sirs Khad and Swan Khad.
- River Beas and its tributaries like Uru, and Sukheti Khad.
- River Ravi and its tributaries like Sivi.
- River Yamuna and its tributaries like Pabbar Khad, Giri and Bata.

Flash floods in Satluj during rainy season of Year 2000

A natural calamity is of gigantic magnitude struck the Satluj Valley on the intervening night of 31st. July 2000. it led to an unprecedented rise in the water level of Satluj River from Tibetan plateau throughout the entire length of about 250 km up to Govindsagar lake. The rise in the level of water according to eyewitnesses was reported up to 60 feet above the normal levels. The flash flood was termed as the one that occur once in 61000 years. It is almost impossible to design technical specifications for all kinds of infrastructures to cater to such a rare incidence. It is obvious that such a natural calamities would cause unprecedented loss of human life, livestock, public and private property and



would also erase from the surface and existing of physical infrastructure. It has led to extensive damage to about 200 km of road length, washed away 20 bridges and 22 Jhulas and badly damaged 12 bridges. About 1,000 irrigation, sewerage, flood protection and water supply schemes have been considerably damaged and some of these have been completely destroyed.

According to preliminary estimates the damage has been estimated at about Rs 1466.26 crore.

Flash flood in Sutlej during rainy season of the Year 2005

A natural calamity of gigantic magnitude, due to sudden rise/breach of Parechu river in the Chinese territory struck the Sutlej valley on 26.06.2005. It, led to an unprecedented rise of water level of Sutlej river from Tibetan Plateau throughout the entire stretch of National Highway 22. The rise in water level was reported up to 15 meters above the normal level at some places. It led to extensive damage to about 350 hundred kilometers of road length from Samdo to Govindsagar/Bhakra Dam. Detail of damage is as under:

- 10 bridges, 11 ropeways washed away.
- 15 motor able bridges and 8 jeep able and foot bridges damaged/affected.
- 10 kms road between Wangtoo and Samdo washed away.
- 15 kilometer length of various patches in road between Wangtoo and Samdo has been damaged/affected.
- Various link roads originating from National Highways including certain NH/PWD roads between Sainj and Wangtoo have been damaged.
- Electrical lines including poles and towers, OFC Network, water supply schemes, sewerage system have also suffered serious damages.

Cloudburst in Himachal Pradesh

Himachal Pradesh has been facing widespread and extensive damages almost every year because of hazards and natural disaster. Cloudburst is one of the natural disasters which causes huge damages to the lives and property of the state. Cloudburst is a unique weather phenomenon which last for a short time in particular area which results in loss of lives of human being and animal as well as property and infrastructure of the state in that particular area.

Table : 2 List of Major cloudbursts up to 2006 in different regions of Himachal Pradesh

Sr.No	Date of incident	Place of incident	District	Detail of loss
1.	29.09.1988	Soldan Stream	Kinnaur	32 people, 15 houses, an orchard, 25 km road bridge.
2.	08.07.1993	Nathpa Jhakri	Shimla	Loss to NJPC & NH 226 km long formed.
3.	August 1994-95	Mani Mahesh	Chamba	50 died, 62 km road, 2000 injured.
4.	Sept. 1995	Beas River & southern slope of Rohtang	Lahaut Spiti & Mandi	Loss in several private and govt. establishments
5.	11.08.1997	Andhra Khad, Chirgaon	Shimla	300 people died and loss to private & govt establishment.
6.	22.07.2001	Sainj & Jeeba Nallah	Kullu	40 farms, 2 bridges damaged.
7.	16.07.2003	Pullia Nallah	Kullu	90 people killed, loss to property
8.	08.08.2003	Kangli Nallah	Kullu	36 people killed, loss to property.
9.	08.07.2003	Rai Khad, Rampur	Shimla	Loss to crops & cattle.
10.	13.07.2003	Chunahan	Mandi	Loss to crops & real estate, cattle's
11.	20.07.2003	Balh Valley Gaggal	Mandi	Loss to crops & property.
12.	24.07.2003	Bahang	Kullu	2 people, house property.
13.	26.07.2003	Jhakri area	Shimla	Loss to NJPC, buried dead, a few went missing.



14.	27.07.2003	Dansa (Rampur)	Shimla	Damage to crops, apple orchards & land.
15.	02.08.2003	Lulani (Baijnath)	Kangra	5 killed, 18 families marooned.
16.	03.08.2003	Shilara (Rampur)	Shimla	Landslides.
17.	03.08.2003	Bhagsunath	Kangra	1 died, 2 injured.
18.	06.08.2003	Balh Valley	Mandi	Loss to crops and fertile land.
19.	07.08.2003	Kangni Nallah	Kullu	36 dead 20 stall reported missing.
20.	07.08.2003	Kotkhai	Shimla	Transport bus with passenger washed away, 15 had miracle escape.
21.	29.07.2004	Kothi Khokhan	Kullu	Loss to property.
22.	01.08.2004	Kothi Gulabh	Kullu	Killed, damage to Manali & Leh Highway.
23.	09.08.2004	Bassani	Kullu	22 labourer trapped, loss to Parvati Project.
24.	11.07.2005	Chopal	Shimla	40 cattle lost, valuable land washed away.
25.	18.08.2005	Bahan Godhiman, Karsog	Mandi	25 families affected & valuable land washed away.
26.	09.07.2006	Rampur, Sangla	Shimla, Kinnaur	Landslides.
27.	23.07.2006	Chopal	Shimla	Flash flood, bridge partially damaged.
28.	25.06.2006	Haripur	Chamba	Five mules & scooter washed away, landslides.

Drought

Drought is an insidious natural hazard that results from a departure of precipitation from expected or normal that when extended over a season or longer period of time, is insufficient to meet the demands of human, plant and animal activities.

Table: 3 Droughts in Himachal Pradesh

YEAR	Hilted area in H.P.	Total Loss in crore
1999	51 to 90% damage to crops in different part of state	234.87
2001	Chamba, Kangra, Solan, Bilaspur, Lahaul Spiti	299.17
2002	50% throughtout the State	70.21

Earthquake in Himachal Pradesh

Himachal Pradesh falls in Zone IV and V of Seismic activity and has been the epicenter of several earthquakes causing heavy damages and loss of lives.

Table: 4 Earthquakes in Himachal Pradesh.

Year	Hilted Area	Measuring on the Richter Scale	Loss of Lives	Total Damage to Property in crore
1905	Kangra	8	20,000	2000
1975	Kangra	N.A.	N.A.	N.A.
1986	Kangra	5.5	6	N.A.
2004	Kangra	4.6.	Nil	N.A.
2005	Kangra, Chamba, Shimla.	4.8	Nil	N.A.



Landslide in Himachal Pradesh

The hills and mountains of Himachal Pradesh are liable to suffer landslides during monsoons and also in high intensity earthquakes. The vulnerability of the geologically young and no so stable steep slopes in various Himalayan ranges has been increasing at a rapid rate in the recent decades due to inappropriate human activity like deforestation, road cutting, terracing and changes in agricultural crops requiring more intense watering etc.

Table: 5 Landslides in Himachal Pradesh.

YEAR	Hited Area	Damaged	Loss of Human Lives
27June 2006	Parbati Project at the Suind Power House in Sainj of Kullu district	Thousands of metric tones of debris came sliding down the Hille Side	Nil
7 August 2006	Pangi Village near Reckong Peo in Kinnaur district	Damaged a 200 meter stretch of the old H.T.R. blocked	Nil
23 June 2007	Purli-Bal Village In Hamirpur	Falling boulders due to Lanslide	9
9 July 2007	Panggi Nala Kinnour	Stone Boulder fell a mountain on H.R.T.C.Bus.	2
9 July 2007	Nathpa Kinnour	Rock fall from mountain in Nathapa	2

Table: 6 Major Landslides in Himachal Pradesh

September, 1968	Himachal Pradesh	Active Maling slide 1 KM of road and a bridge washed out.
December, 1982	Himachal Pradesh	Near Solding Nallah 3 bridges and 1.5 KM length of road washed away
March, 1989	Himachal Pradesh	Nathpa, 500 mtr. Road section is frequently damaged during successive year
September, 1995	Himachal Pradesh	22 persons killed and several injured about 1 km road destroyed.

Avalanches Prone Area in Himachal Pradesh

In Himachal Pradesh, the vulnerable areas are Chamba, Kullu, Lahaul Spiti and Kinnaur. Specific villages highly prone to snow avalanches have been identified in three districts of Himachal Pradesh.

Table : 7 Major Avalanches in Himachal Pradesh.

YEAR	Affected Area	Loss of Human Lives	Damaged
March 1978	Himachal Pradesh	30	Road and Property Damaged.
March 1979	Lahaul Spiti	237	Communication lines disrupted.
March1991	Himachal Pradesh	Nil	Road was Blocked for 40 days.
Sept.1995	Himachal Pradesh	Nil	Huge Chunk of derbris came down which later melted into flood.

Fire - Fire is a process of burning that produces light and heat and often smoke and flame. It is a chemical reaction generating gas or vapour and accompanied by heat. the molecules in vapour and light. There is tremendous loss of life and property due to fire accidents. The damage from fire hazards over a period of time has been more than damage done by earthquakes, cyclones, floods or other natural hazards combined.



Table: 8 Fire in Himachal Pradesh.

YEAR	Affected Area	Loss	Loss of Property lakh / crore
20 Oct2005	Pirdi Village in Kullu	Two Story residential Building	6
20 Oct 2005	Sainj Bajar in Kullu	One Shop& Store	7
2 Nov.2005	Sheela Village in Kullu	80 Houses(353pepole of 80houses become homeless)	2 (crore)
16Nov.2005	Bharmour in Chamba	10 Houses burnt(23 families becomes homeless)	65
26 April2006	Kandoloo Village near Sanwal in Churah in Chamba	10 Houses burnt	30
21 Nov.2006	Remote Anadhreli Malhan village under Bajnath in kangra	60 Houses were razed to ground. 24 others were partially damaged	1
20 January2007	Kadari Village In Kullu	Broke out in a Building(41 sheep,4 cows,3oxen were burent alive)	9
27 January 2007	Chathela Village in Kotkhai of Shimla district	16 houses.2 temples gutted in fire and completely destroyed.	N.A.
7 June 2007	Malana Village in Kullu	60 rooms in 10 buildings, one Fair price Shop Completely destroyed (18 Families becomes Homeless)	N.A.

Table: 9 Forest Fires in Himachal Pradesh since 1998 up to 2006

Year	Fire Cases	Area	Damage/Loss
1998-1999	533	8128	46,32,200
1999-2000	1900	36887	3,29,11,500
2000-2001	362	6216	46,72,000
2001-2002	282	4204	40,26,640
2002-2003	831	16198	1,24,55,230
2003-2004	729	10993	7,99,66,381
2004-2005	391	6002	36,39,254
2005-2006	47	6500	41,75,792

The total damage/loss due to forest fires in Himachal Pradesh since 1998 to 2006 has been estimated Rs. 14 crores.

Himachal Pradesh being a hilly State, many motor accidents take place resulting in injury and deaths of many persons.

Table: 10 Accidents in Himachal Pradesh.

Year	Place	BUS No.	No Of Deaths	No of Persons injured.
7Oct 2005	Kullu	P.B.H.P66-0025	27	40
30 June2006	Ghanahatti In Shimla	P.B. H.P.63-0196	18	15
14 Nov.2006	Talada in Kullu	P.B.H.P.49A7981	13	39
2 Dec.2006	Jhokri village near Kandaghat in solan	H.R.T.C.H.P14B-7561	14	28
2 May2007	Kupri Nallah in Kotkhai in Shimla	P.B.H.P.52-3405	19	26
3 July2007	Ghadoori in Nahan	P.B.H.P.64-3476	18	25



20 July 2000 (Air Crash)	Gargi Nallah IN Mandi		10	
29 July 2004 (Air Crash)	Jungi Pangi Dhar in Mandi		5	

3. Disaster Management :

Disaster Management can be defined as the body of policy and administrative decisions and operational activities which pertain to the various stages of a disaster at all levels. Broadly disaster management can be divided into pre-disaster and post-disaster contexts. There are three key stages of activity that are taken up within disaster management.

Before a disaster Strikes (Pre-disaster)

Activities taken to reduce human and property losses caused by the hazard and ensure that these losses are also minimized when the disaster strikes. Risk reduction activities are taken under this stage and they are termed as mitigation and preparedness activities.

During a disaster (disaster occurrence)

Activities taken to ensure that the needs and provisions of victims are met and suffering is minimized. Activities taken under this stage are called as emergency response activities.

After a disaster (Post-disaster)

Activities taken to achieve early recovery and does not expose the earlier vulnerable conditions. Activities taken under this stage are called as response and recovery activities.

As per clause b of sub-section (2) of Section 14 of the Disaster Management Act 2005, the Himachal Pradesh Disaster Management Authority under the chairperson of the Honourable Chief minister was constituted on 1st June 2007 with the following persons as member of the HPDMA:

1. Honourable Chief Minister Chairperson
2. Hon'ble Revenue Minister Member
3. Chief Secretary Chief Executive Officer
4. Principal Secy.(Rev) Member
5. Principal Secy. (Home) Member
6. Principal Secy. (PWD) Member
7. Principal Secy. (Health) Member
8. Director General Police Member
9. Secretary/Add. Secy. (Rev.) Member Secy.

The State Disaster Management Authority (SDMA) has the mandate to lay down the state policies and approval of State Disaster Management Plan, with the assistance of SEC.

4. Roles and Responsibilities:

1. Lay down the State disaster management policy
2. Approve the State Plan in accordance with the guidelines laid down by the National Authority.
3. Lay down guidelines to be followed by the departments of the State Government for the purpose of coordination and integration measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance.
4. Coordinate the implementation of State Plan at State and District level.
5. Recommend provision of funds for mitigation and preparedness measures.
6. Review the development plans of different departments of the State and ensure that prevention and mitigation measures like earthquake resistance structures are built at least for life line structures.
7. Review the measures being taken for mitigation, capacity building and preparedness by the departments of the State Government and issue such guidelines as may be necessary.



5. State Emergency Operation Centre (SEOC)

SEOC In charge (Special / Additional / Deputy Secretary Revenue)
Supporting Staff
State Level Committee (SLC) (SDRF)
District Emergency Operation Centre
Relief Commissioner / FC Revenue
Nodal Department
Sub Divisional Emergency Operation Centre (EOC)
Tehsil/sub-The/Block Emergency Operation Centre (CR)

The State Executive Committee (SEC):

As per sub-section (1) of section 20 of the Disaster Management Act 2005, the State Executive Committee under the chairperson of Chief Secretary was constituted by the Government of Himachal Pradesh on 1st June 2007 comprising the following members:

S.No.	Official	Designation
1	Chief Secretary	Chairman
2	Additional Chief Secretary/ PS (Forest)	Member
3	Principal Secretary Revenue)	Member
4	Principal Secretary (Home)	Member
5	Principal Secretary (Health)	Member
6	Principal Secretary (PWD)	Member
7	Principal Secretary (Finance)	Member
8	Principal Secretary (I&PH)	Member
9	Secretary(GAD)	Member
10	Director, HIPA, Fairlawns, Shimla-12	Member
11	Secretary/ Add. Secy.(Revenue)	Member Secretary

As per the Disaster Management Act 2005, the SEC may discharge following functions:

- Coordinate and monitor the implementation of the National Policy, the National Plan and State plan.
- Examine the vulnerability of different parts of the State to different forms of disasters and specify measures to be taken for their prevention or mitigation.
- Preparation of State Disaster Management Plans.
- Monitor the implementation of State Disaster Management Plan (SDMP) and Crisis Management Plan (CMP) prepared by the line departments of the State Government and District Authorities.
- Monitor the implementation of the guidelines laid down by the State Authority for integrating the measures for prevention of disasters and mitigation by the departments in their development plans and projects.



- Evaluate preparedness at all government or non-governmental levels to responds to any threatening disaster situation or disaster and give directions, where necessary, for enhancing such preparedness.
- Coordinate response in the event of any threatening disaster situation or disaster;
- Give directions to line Departments of the government of the state or any other authority or body in the State regarding actions to be taken in response to any threatening disaster situation;
- Promote general education, awareness and community training and to conduct regular Mock drills to test the plan in regard to the forms of disasters to which different parts of the State are vulnerable and the measures that may be taken by such community to prevent the disaster, mitigate and respond to such disaster;
- Advise, assist and coordinate the activities of the Departments of the Government of the State, District Authorities statutory bodies and other governmental and non-governmental organizations engaged in disaster management.;
- Provide necessary technical assistance or give advice to District Authorities and local authorities for carrying out their functions effectively;
- Advise the State Government regarding all financial matters in relation to disaster management.

Technical Committee(s):

Under sub-section (1) of Section 21 of the Disaster Management Act, 2005, the SEC has constituted a sub-committee to look into the issue of amendment to the TCP Act and building bye-laws of Urban Local Bodies.

The State Emergency Operations Centre:

The State Emergency Operations Centre (SEOC) will be a hub of all activities related to disaster response in the State.

6. District Disaster Management Authority:

The District Disaster Management Authority (DDMA) will act as the district planning; coordinating and monitoring body in accordance with the guidelines laid down by the State Authority.

As per Section 25 of the DM Act 05, DDMA for every district in the State of Himachal Pradesh has also been constituted, consisting of the following members:

S.No.	Officials	Designation
1.	Deputy Commissioner	Chairperson
2.	Superintendent of Police	Member
3.	Chief Medical Officer	Member
4.	Superintending engineer (PWD)	Member
5.	Superintending Engineer (I & PH)	Member
6.	Superintending Engineer (MPP & P)	Member
7.	Chairperson of the Zila Parishad	Member
8.	Additional District Magistrate	Member Secretary

The roles and responsibilities of the DDMA have been elaborated in Section 30 of the DM Act, 2005. The DDMA will act as the planning, coordinating and implementing body for DM at the District level and take all necessary measures for the purposes of DM in accordance with the guidelines laid down by the NDMA and SDMA. It will, inter alia prepare the District DM plan for the District and monitor the implementation of the National Policy, the State Policy, the National Plan, the State Plan and the District Plan. The DDMA will also ensure that the guidelines for prevention, mitigation, preparedness and response measures laid down by the NDMA and the SDMA are followed by all the Departments of the State Government at the District level and the local authorities in the District. The DDMA will further ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of



disasters and the mitigation of its effects are taken, ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments, lay down guidelines for prevention of disaster management plans by the department of the Government at the districts level and local authorities in the district, monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level, lay down guidelines to be followed by the Departments of the Government at the district level for purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and monitor the implementation of the same, review the state of capabilities and preparedness level for responding to any disaster or threatening disaster situation at the district level and take steps for their up gradation as may be necessary, organize and coordinate specialised training programmes for different levels of officers, employees and voluntary rescue workers in the district, facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organisations, set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public, prepare, review and update district level response plan and guidelines.

The DDMA will also coordinate response to any threatening disaster situation or disaster, coordinate with, and provide necessary technical assistance or give advice to the local authorities in the district for carrying out their functions, examine the construction in any area in the district and issue direction the concerned authority to take such action as may be necessary to secure compliance of such standards as may be required for the area, and identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places, establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice. The DDMA will encourage the involvement of non-governmental organisations and voluntary social-welfare institutions working at the grassroots level in the district for disaster management ensure communication systems are in order, and disaster management drills are carried out periodically.

District Disaster Management Advisory Committee(s):

As per section 28 of the District Disaster Management Act 2005, an advisory committee may be constituted by DDMA for efficient discharge of the functions.

District level Disaster Management Advisory Committee(s) will be appointed by the District Disaster Management Authority to take advice on various subject specific fields within the overall context of disaster management. The committee will comprise disaster management experts, which may be from government departments, research institutes and NGO's.

District Disaster Management Committee(s):

In order to implement the District Disaster management Plan in the district the following committee has been constituted under the chairmanship of Deputy Commissioner as below:-

- 1) Superintendent Of Police
- 2) Additional Deputy commissioner
- 3) Additional District magistrate (L& O)
- 4) Conservator Of Forest
- 5) General Manager (Telecommunication)
- 7) Chief Medical Officer
- 8) Superintending Engineer (PWD)
- 9) Superintending Engineer (IPH)
- 10) Superintending Engineer (MPP &Power)
- 11) Chirperson Of Zila Parishad
- 12) District Food and supplies controller
- 13) Commandant Home Guards
- 14) Commandant ITBP (Hqrs)
- 15) District/Divisional Fire Officer



- 16) Divisional manager HRTC
- 17) District public Relation Officer
- 18) District Town Planner
- 19) District Revenue Officer
- 20) Commissioner Municipal Corporation
- 21) Deputy Director (Higher Education)
- 22) Deputy Director (Elementary Education)
- 23) Medical Superintendent
- 24) District Coordinator NYk
- 25) Additional District Magistrate (Protocol) Member Secretary

Non Official Members

- 1) Mayor /Dy mayor MC
- 2) All Zila Parishad Members
- 3) All Councilors MC
- 4) All NGOs/CBO

Any other member can be included as desired by the chairman.

This committee will ensure that the functions assigned to the different departments are being implemented properly while dealing with the disastrous situation.

Sub Divisional Disaster Management Committee(s)

This committee shall be constituted at every sub division under the Chairmanship of Concerned SDO (C) and the following members :-

- 1) Dy SP
 - 2) Tehsildar
 - 3) Block Development Officer
 - 4) Block Medical Officer
 - 5) Executive Engineers PWD, IPH, Electricity
 - 6) Divisional Forest Officer
 - 7) Sub divisional fire officer
- All other Sub Divisional Officers

Non Official Members

- 1) Chairman /Vice chairman Panchayat Samiti
- 2) All members of Panchayat Samiti
- 3) All NGO/Volunteers /CBO in the sub division.

This Committee will prepare the Sub divisional disaster management Plans may be block wise if More than two one block is there and response plans in accordance with the District Disaster management plans and identify the hazards encountered by the people in past and send the data so collected to the District Disaster Management Authority for further updation in the disaster plan.

Tehsil/sub Tehsil/Block Disaster Management Committee:

Subject to the directions of the District Authority, the Tehsil/Sub Tehsil/block disaster management committee will be responsible for the development and implementation of block level disaster management plans.

Gram Panchayat/Village Disaster Response Committee:

Response committees will be constituted to be the first responders under the Chairpersonship of Panchayat Pradhan. The secretary of Panchayat will be secretary of the committee and local Patwaris and ward members shall be its members.



7. Conclusions and Suggestions :

During study of disaster management in Himachal Pradesh it has been observed that there has been no separate department for disaster management at the state level as well as district level only the revenue department of government has been managing all kind of work related to disasters at the state and district level. There was no permanent disaster management authorities at all the levels of the state in Himachal Pradesh. Only at the time of disasters happening anywhere, the government and administration make efforts to establish disaster management. It can be analyzed after the study the role of government and administration in any disaster situation was not effective. Government and administration were not preparing disaster management policy regarding prevention, mitigation and reduction policies. The action plan of the state government and district was not also effective during any disaster situation in a real sense. It was also concluded that the financial arrangement of the state government and district administration were not full fill the need of affected community in meeting any disaster situation. The relief measures were very low in real divesting properties. The emergency relief funds did not full fill the need of affected community. The rescue operation of the government and administration did not satisfy affected community needs. It was very slow and not effective in any disaster situation.

Govt. and administration did not make efforts to link NGOs, CBOs, VOs and corporate sector to manage disaster situation. They ignored by the govt. and administration to invite for the meeting of disaster management. The government and administration were also not making efforts to provide them funds for sources and other equipments inventories to handling disasters. The state govt. and the district administration were not providing all the facilities to the affected community in right time during disasters. The rehabilitation system was not satisfactory. The system of information dissemination of the state government and district administration was not much capable. It was seen that there was not proper coordination system among the different functionaries of state and district levels.

There was lack of coordination at the state, district, sub-division, block, tehsil as well as village levels among the different functionaries of the disaster management. Regarding proper information system it has been observed that in any disaster situation there was a lack of proper information system among the different functionaries of the disaster management. Some times they were very much late to collect information from the disaster occurred places. So they were not able to start relief and rescue operation well in time for the affected community. It was also assessed after the study that there was also lack of resources, inventories, facilities and infrastructure for handling any disaster situation. Some time it was found that the state government and district administration had failed to handle a disaster situation for the want of infrastructure, resources, inventories and other facilities. It was found that community was not participating in the government and administration disaster management system. They were not giving cooperation to the government and administration to successfully manage disaster management system. The community was not fully aware about the disasters' causes and their recovery.

There is a need of efficient permanent organization set up for disaster management in Himachal Pradesh. it should be established at state level to panchayat level. There should be a need of good governance and sound administration for the better performance to manage disaster situation in Himachal Pradesh. There should be a separate ministry for the disaster management at the national and state level. It should be called the ministry of disaster management. There should be a need to establish separate department to manage disaster management system in Himachal Pradesh. It should be established at state level in block level in Himachal Pradesh. The govt. of Himachal Pradesh should enact disaster management act for authorities, coordination, mitigation, preparedness and response as well as for various mitigation preparedness measures of the disaster management. Setting up of disaster management committees is urgently needed at state level to panchayat level in Himachal Pradesh. The state govt. and district administration should implement disaster management policy effectively.

The state govt. and the district administration should develop and integrate "all hazard" disaster management plans on priority. Which too must be practiced and updated periodically. There is a need of effective disaster preparedness prevention, reduction, mitigation and rehabilitation system in Himachal Pradesh. The govt. and the administration must implement effective disaster preparedness, prevention, reduction, mitigation and rehabilitation policies to manage the crisis/disaster situations. There should be effective coordination system between the state govt. and field administration in Himachal Pradesh. For effective disaster management system there must be good relation between the central and state govt. they should cooperate them for relief and rescue measures in the disaster situation faced by the state community.



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