



DISASTER MANAGEMENT PLAN

DEPARTMENT OF TOURISM AND CIVIL AVIATION

GOVERNMENT OF HIMACHAL PRADESH
Shimla 171009

CONTENTS

1. About the Department	5
1.1 Organizational Structure	6
1.2 Purpose of the Plan.....	6
1.3 Scope of the Plan.....	7
1.4 Authorities, Codes, Policies.....	7
1.5 Institutional Arrangements for Disaster Management.....	8
1.5.1 State Disaster Management Authority	8
1.5.2 State Executive Committee (SEC).....	9
1.5.3 Advisory Committee of SDMA.....	9
1.5.3 District Disaster Management Authority.....	9
1.5.4 Disaster Management Setup in The Department	9
1.6 Plan Management (Implementation, Monitoring And Revision)	9
2. Hazard Risk and Vulnerability Analysis.....	11
2.1 Risk Assessment of Himachal Pradesh.....	11
2.2 Assessment of Sectoral and Departmental Risks	11
2.2.1 Earthquakes	11
2.2.2 Landslides	12
2.2.3 Floods / GLOFs.....	12
2.2.4 Stampede.....	12
2.2.5 Air Crash	12
2.3 Gaps In Existing Capacity	13
3. Risk Prevention and Mitigation Plan	14
3.1 Risk Prevention and Mitigation	14
3.2 Risk Mitigation	15
3.3 Matrix of Hazard Specific Mitigation Measures	15

3.4 Forecasting and Early Warning	16
3.5 Strategies for Risk Prevention and Mitigation	16
4. Mainstreaming Disaster Risk Reduction	17
4.1 Policy Framework on Mainstreaming	17
4.2 Mainstreaming DRR into Development Sectors	17
5. Disaster Preparedness	18
5.1 Strategies for Disaster Preparedness	18
6. Disaster Response and Relief	20
6.1 Response Plan	20
6.2 Relief and Rehabilitation	21
7. Disaster Recovery and Reconstruction	22
7.1 Disaster Recovery	22
7.2 Disaster Reconstruction	22
7.3 Action Plan for Reconstruction	22
7.4 Financial Mechanism	22
8. Financial Arrangements	23
NOTES	24

1. ABOUT THE DEPARTMENT

Tourism Industry is the buttress of Himachal Pradesh economy and has been given very high priority and thus, the government has developed an infrastructure for its development which includes the provision of public utility services, roads, communication network, airports, transport facilities, water supply and civic amenities, etc. Each year huge tourists, both, international as well as domestic, visit to explore the natural picturesque beauty of the state (Table 1).

Table 1: Tourist arrival in a calendar year including religious tourists

Year	International	Domestic	Total
2010	4,53,616	1,28,11,986	1,32,65,602
2011	4,84,518	1,46,04,888	1,50,89,406
2012	5,00,284	1,56,46,048	1,61,46,332
2013	4,14,249	1,47,15,586	1,51,29,835
2014	3,89,699	1,59,24,701	1,63,14,400
2015	4,06,108	1,71,25,045	1,75,31,153

(Growth 7% to 8% per annum)

The State Government is aiming at promoting sustainable tourism and encouraging the private sector to develop tourism-related infrastructure in the State while sensitive to the ecology and environment. The main thrust is on employment generation and promoting new concepts of tourism in the State.

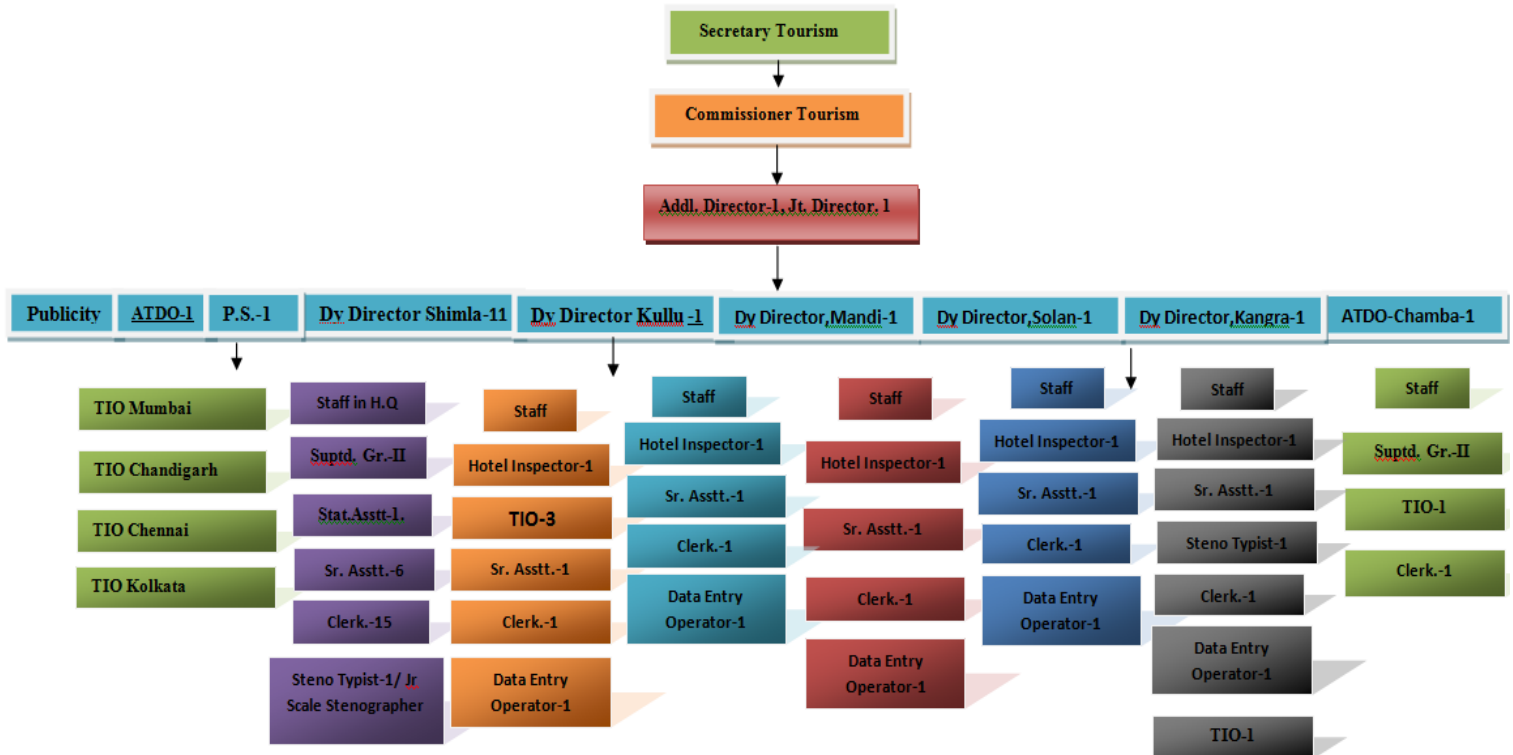
The Department of Tourism & Civil Aviation, H.P. plays a proactive role in the promotion of tourism in the State. This is done through a wide range of literature and publicity material, participation in national and international fairs / meet, by creating /upgrading infrastructure and transport amenities in the tourist places / destinations and by creating new tourist products in the State. This is also being done through public-private participation. The Department also plays a regulatory role under the H.P. Tourism Development and Registration Act, 2002. The functions assigned to the departments are:

- Development and Promotion of Tourism
- Tourist Services - Supply of information, Development/Reservation of accommodation and development of civic amenities
- Hotel legislation
- Construction/Maintenance of the tourist accommodation
- Promotion of sports such as winter sports, golf, and adventure sports etc.
- Registration of Tourism units
- Matters relating to shooting of films in Himachal Pradesh
- Civil Aviation
- Development of lakes in Himachal Pradesh

1.1 ORGANIZATIONAL STRUCTURE

Tourism minister is Legislative head of the Department of Tourism & Civil Aviation. Figure 1 provides the organogram of the department.

Figure 1: Organogram of the Department of Tourism and Civil Aviation



Infrastructure and Human Resources

The directorate building of the department is situated at Block No. 28 SDA Complex, Kaumpti, Shimla. The building is three storeys with two emergency exits. To survive any fire emergency, the directorate has installed four fire extinguishers. A hundred officials and staffs (36 in directorate and 64 in field offices) worked for the department.

1.2 PURPOSE OF THE PLAN

The objective of Disaster Management Plan is to play a preventive and curative role with respect to disasters, so that as far as possible disasters may be avoided. Even if the Disaster takes place, it must be controlled immediately with minimum loss to public personal property and life. The disaster plan deals with various types of emergencies and how to combat them in case they happen at all so that the public/tourists are not affected adversely.

The main aim is to reduce vulnerability and also to minimize the damage caused by various types of disasters, be it natural or manmade. There are many stakeholders involved in Disaster Management. One of the main objectives is to form a synergy between all the stakeholders so that during a calamity everyone has a defined role and knows what is expected of them. This plan is based on the guidelines provided by National Disaster Management Act 2005 and National Disaster Management Plan.

Purpose of the Plan

- To assign responsibilities to the nodal officers at various levels in the Tourism & Civil Aviation Department of the state govt.
- To establish the chain to command in case of any natural or man-made disaster/emergency.
- To formulate a Standard Operating Procedure (SOP) in case of disasters.
- To lay down guidelines for the private-sector in tourism and aviation.
- To propose a methodology for reinforcing the existing infrastructure and training the personnel employed by the tourism and aviation industry.
- To propose guidelines for dealing and coordinating with outside-state authorities such as defence-services, NDMA, other-states, foreign-states and others in case of emergencies.

Every department of the State Governments is legally mandated under Section 40 of Disaster Management Act 2005 to prepare its disaster management plan in accordance with the guidelines laid down by the State Disaster Management Authority. The Act stipulates that while preparing the plan, every Department shall make provisions for financing the activities specified therein.

- The plan shall be reviewed and updated annually
- A report on the status of implementation of the plan has to be furnished to the State Executive Committee.
- The overall aim of this Plan is to make the farming community resilient enough to deal with any unlikely events. The basic purpose of this Disaster Management plan is to provide guidance to attached and subordinate offices as well as other agencies within the Department to manage the risks of disasters before, during, and after disasters.

1.3 SCOPE OF THE PLAN

The Department also endeavours to strengthen the Tourist infrastructure like Toilets, Way Side Amenities, Parking, Tourist Reception Centers, etc with the financial support of the State Government and Ministry of Tourism, Government of India. The Department also provides a fund for beautification and restoration of important heritage buildings, temples, churches, monasteries etc. thus playing a role in the preservation of Heritage of the state.

This plan will be helpful in understanding the significance of various disaster management activities which are needed to be performed for making Department of Tourism and Civil Aviation resilience to different types of disasters. It gives comprehensive information regarding hazards, their probability and methods to reduce their impact on planning, mitigating and building capacity of structural and non-structural components of the complex

1.4 AUTHORITIES, CODES, POLICIES

Following are the specific acts and rules of the Department:

- The Himachal Pradesh Tourism Development and Registration Act, 2002
- HP Aero Sports Rules 2004
- HP River Rafting Rules 2005
- The Himachal Pradesh Tourism Development and Registration of Tourism Trade Rules, 2012
- HP Sustainable Tourism Policy 2013

- HP Miscellaneous Adventure Activities Rule 2017

For the functions related to Disaster management following guidelines are to be followed:

- Disaster Management Act, 2005
- National Disaster Management Plan, 2016
- Himachal Pradesh Disaster Management Plan, 2012
- National Action Plan on Climate Change
- National Guidelines issued by the NDMA
- Guidelines and provision for State Disaster Response Fund (SDRF)
- Guidelines for administration of the National Disaster Response Fund (NDRF)

1.5 INSTITUTIONAL ARRANGEMENTS FOR DISASTER MANAGEMENT

The State Government has adopted the Disaster Management Act 2005 as enacted by the Govt. of India for providing an effective mechanism for Disaster Management in the State of Himachal Pradesh.

1.5.1 STATE DISASTER MANAGEMENT AUTHORITY

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 a member of the Himachal Pradesh Disaster Management Authority (HPSDMA):

Table 2: Members of State Disaster Management Authority

S. No.	Member	Designation in HPSDMA
1	Hon'ble Chief Minister	Chairman
2	Hon'ble Revenue Minister	Co-Chairman
3	Chief Secretary	Member
4	Principal Secy. (Rev)	Member
5	Principal Secy. (Home)	Member
6	Principal Secy. (PWD)	Member
7	Principal Secy. (Health)	Member
8	Director General of Police	Member
9	Secretary/Additional Secretary (Revenue)	Member Secretary

1.5.2 STATE EXECUTIVE COMMITTEE (SEC)

As per sub-section (1) of section 20 of the Disaster Management Act 2005, the State Executive Committee under the chairmanship of Chief Secretary was constituted by the Government of Himachal Pradesh. SEC coordinates and monitors the implementation of the National Policy, the National Plan and the State Plan in addition to management of disasters in the state. It monitors the implementation of disaster management plans prepared by the departments of the Government of the State and District Authorities.

1.5.3 ADVISORY COMMITTEE OF SDMA

As per Sub Section (1) of section 17 of the Disaster Management Act 2005, the chairperson of Himachal Pradesh State Disaster Management Authority nominates members of the Advisory Committee to assist the Authority and to make recommendations of different aspects of Disaster Management.

1.5.3 DISTRICT DISASTER MANAGEMENT AUTHORITY

As per Section 25 of the DM Act 2005, District Disaster Management Authority has also been constituted in every district of Himachal Pradesh which is chaired by the Deputy Commissioner of the district.

1.5.4 DISASTER MANAGEMENT SETUP IN THE DEPARTMENT

The Publicity officer of the department is presently the nodal officer for the disaster management. The department does not have any separate disaster management cell. The nodal officer is responsible for the implementation of guidelines related to disaster management. The department's officials attend training programmes and mock drills organized by state government time to time.

In case of an emergency, the department can be contacted on:

0177-2625924 | 0177-2625864 | 0177-2623959 | 0177-2625511

1.6 PLAN MANAGEMENT (IMPLEMENTATION, MONITORING AND REVISION)

The Secretary and Commissioner of the department will helm all the policy and final decision-making for DM in the state's tourism & civil-aviation sector, the district directors will be responsible for implementation of the plans in the various districts of the H.P. state.

They will appoint Nodal Officers at key levels as focal-points for all managerial activities of the department pertaining to DM. He would keep the department in a state of preparedness of any kind of disaster and in an unfortunate event of a disaster would be the key pivot around whom all the coordination and DM activities will be implemented.

As per mandate of the DM Act 2005 the plan should be revised annually. Any changes in guidelines under the national and state level shall be incorporated in the plan as and when such changes are made. The introduction of new technology for hazard risk mitigation shall also be incorporated as when the same is tested and found feasible and acceptable in particular geographical area of the State.

The role and responsibilities of a Nodal officer of the department will be as follows:

- Act as focal point for disaster management activities of the Department. The department may ensure that he / she has the mandate to work immediately without waiting for directions from above. This will save time in the event of any disaster.
- Provide his / her contact details and contact details of alternate person to SDMA / DDMA and Revenue department, State & District Emergency Operation Centres, all line departments & agencies.
- Accountable to any communication /actions related to disaster management of the department.
- Take lead to update the department disaster management plan, emergency support function (ESF) plan, and standard operating procedure (SOP).
- Constitute the quick response Team (QRT) in the department as per the need and organize training for the members.
- Provide regular information on disaster or related task assigned to him to SEOC / Revenue department during & after disasters in consultation with the department head.
- Attend disaster management meetings, training, workshops or any related programme on behalf of the Department.
- Identify an alternate Nodal Officer and build his / her capacity.
- Organize regular awareness programmes in the Department, etc.

Dissemination of Plan

After finalization of the Plan, a copy will be submitted to the HPSDMA for approval. After approval, it shall be disseminated to all agencies, field offices and other stakeholders. Further, whenever it revised/updated, it shall be submitted to HPSDMA for endorsement of changes. The revised Plan shall be shared with all concerned.

2. HAZARD RISK AND VULNERABILITY ANALYSIS

2.1 RISK ASSESSMENT OF HIMACHAL PRADESH

The state of Himachal Pradesh is exposed to a range of natural, environmental and man-made hazards. Main hazards consist of earthquakes, landslides, flash floods, snowstorms, avalanches, GLOF, droughts, dam failures, fires, forest fire, lightning etc. Enormous economic losses caused due to natural disasters such as earthquakes, floods, landslide, avalanche, etc., erode the development gain and bring back economy a few years ago. Most of the fatalities and economic losses occur due to the poor construction practices, lack of earthquake-resistant features of the buildings and low awareness about disasters among people. In order to estimate and quantify risk, it is necessary to carry out the vulnerability assessment of the existing building stocks and lifeline infrastructure.

The physical vulnerabilities of Himachal Pradesh include the unsafe stocks of houses, schools, hospitals and other public buildings and infrastructure that may not withstand the shocks of powerful earthquakes. The economic vulnerabilities are mainly the productive assets like industries, hydropower stations, reservoirs, tourism facilities etc. located in hazard zones. Any disruption of these facilities due to disasters may badly affect the economy of the State. The socially vulnerable groups in the State, like most of the States, are the rural and urban poor, the vulnerable women, children, disabled, aged etc. who suffer an unequal burden of disasters. The delicate ecology and environment of the State further make it highly susceptible to the hazards of landslides, forest fires and flash floods. Most of these risks of disasters have accumulated over the years while new risks of disasters are created unwittingly with the process of development.

2.2 ASSESSMENT OF SECTORAL AND DEPARTMENTAL RISKS

Infrastructure plays a key role in the tourism sector and therefore, critical infrastructure like road, power, supply chain, civil aviation etc must be developed with standards and specifications that are resilient to the shocks of natural hazards like earthquake, landslides, flood etc. Public sector traditionally remained the main investor on infrastructure, but with the liberalization of the economy, innovative public-private-partnerships are taking place in many areas, which makes it imperative for the concerned departments to make sure that such investments are safe and these are not inadvertently creating new risks of disasters. Substantial investments have taken place over the years in the tourism sector in both public and private sectors contributing significantly to the economy of the State. Such investments should also be protected from the risks of disasters.

Since the state is vulnerable to various hazards, the infrastructure which is indispensable for the tourism sector and civil aviation is also prone to mayhem created by those hazards. The disasters to which the sector of Tourism and Civil Aviation is vulnerable are discussed below:

2.2.1 EARTHQUAKES

Himachal Pradesh is highly seismic sensitive state as over the years a large number of the damaging earthquake has struck the state and its adjoining areas. According to the Indian standard code of practice for earthquake resistant design of structures, IS 1893 (2002), seven districts of HP are in the zone of most severe (Zone V) seismic hazard with the design peak ground acceleration as 0.36g. The remaining five districts lie in the zone of high seismic hazard (Zone IV) with design PGA as 0.24g.

Large earthquakes have occurred in all parts of Himachal Pradesh, the biggest being the Kangra earthquake of 1905. The Himalayan Frontal Thrust, the Main Boundary Thrust, the Krol, the Giri, Jutogh and Nahan thrusts are some of the tectonic features that are responsible for shaping the present geophysical deposition of the state. Chamba, Kullu, Kangra, Una, Hamirpur, Mandi and Bilaspur Districts lie in Zone V i.e. very high damage risk zone and the area falling in this zone may expect earthquake intensity maximum of MSK IX or more. The remaining districts of Lahaul and Spiti, Kinnaur, Shimla, Solan and Sirmour lie in Zone IV i.e. the areas in this zone are in high damage risk with expected intensity of MSK VIII or more.

2.2.2 LANDSLIDES

Landslides are one of the key hazards in the mountain regions particularly in the state of HP which cause damage to infrastructure i.e. roads, railways, bridges, dams, bio-engineering structures, and houses but also lead to loss of life, livelihood and environment. According to the analysis carried by TARU in 2015, mostly the built-up area comes under the high risk of landslides. 993.29 km. length of total national highway and 1111.552 km. length of total state highway falls in the highly vulnerable zone.

2.2.3 FLOODS / GLOFS

In Himachal Pradesh, flash flood due to cloudburst is common phenomena. The state experiences riverine flooding of varied magnitude almost every year and Sutlej and Beas are most vulnerable rivers. All the villages and property inside the floodplain and near close vicinity are in the vulnerable zone. According to TARU report (2015), about 59 villages in Beas basin and 280 villages in Sutlej basin are potentially at risk due to inundation caused by river flooding.

TARU investigated 11 existing lakes in the state. According to their analysis, out of 11 (eleven) glacier lakes, few glacier lakes in each basin are more vulnerable. According to modelling output and inundation maps of Chenab Basin, area falling under the vulnerable zone of Lake 8 and lake 7 are at utmost risk. In Ravi basin area falling under the vulnerable zone of Lake 5 and lake 6 are at maximum threat. Volume and area wise Glacier lakes in Sutlej basin are not so vulnerable when compared to glacier lakes of Chenab and Ravi basins. But numbers of villages falling within the inundated vulnerable zones are quite high in Sutlej basin.

2.2.4 STAMPEDE

The State is known as the land of Gods. Many famous temples are located in the State such as Sri Naina Devi, Baba Balak Nath, Sri Chintpurni, Maa Jawalaji, Maa Braheswari and Sri Chamunda Nandikeshwari Dham to name a few. Large numbers of devotee's throng these places every year. A human stampede at the temple of Naina Devi occurred on 3rd August 2008. 162 people died when they were crushed, trampled, or forced over the side of a ravine by the movement of a large panicking crowd. The possibility of such instances is always there if there is any laxity on the part of the management.

2.2.5 AIR CRASH

The State has two airports and more than 120 helipads / helicopter landing sites in the State. Hydro-metrological hazards such as lighting, fog can challenge the resilience of aviation department.

The risk involved for the Department of Tourism and Civil Aviation when exposed to different types of disasters are summarized in table 3.

Table 3: Types of risks while exposed to different disasters

#	Hazard	Risk
1	Earthquake	Very High Risk: Distribution of key infrastructures like roads, bridges, hotels, airport runway and other departmental buildings are at higher risk as most of the districts of the state falls under vulnerability zone V of the earthquake.
2	Flood	High Risk: Topography of Himalayan river valleys, glacial fed rivers, damage or sudden release of water from power project dams are also threat to the infrastructure of the department and its habitats.
3	Cloudburst	High Risk: Impact of cloudburst is dual. It leads to landslides and flash floods. Settlements on river terraces are at high risk.
4	Landslide	High Risk: landslides pose risk to buildings and disruption in road and communication network. Landslides also choke rivulets and form temporarily lakes. When these lakes burst causes flash floods.
5	Avalanche	Low Risk: Six districts viz. Hamirpur, Una, Bilaspur, Mandi, Sirmour, and Solan have no risk of avalanche. Further Kangra, Chamba and Shimla have a medium risk. Kullu falls in the High-risk zone, whereas Kinnaur and Lahaul Spiti are in the Very High-Risk zone. Further, there is a small proportion of the population living in High and very Avalanche risk-prone districts. Low vulnerability suggests Low risk.
7	Road accident	Medium Risk: Steep slopes, Sharp bends in roads, poor road conditions, and overloaded buses cause accidents.
8	Terrorist Attack	Low-Medium Risk: Terrorist attack on pilgrimage site or hijack of means of civil aviation also put the department under threat.

2.3 GAPS IN EXISTING CAPACITY

Human resources of the department need training on management and mitigation of different type of disasters including relief, rescue and rehabilitation. Department also needs to establish a monitoring mechanism at the district level to check the Disaster management plans. For this, a pool of resource persons is needed in each district to help in preparation of safety plans. It will also be helpful in the auditing of these plans at grass root level to ensure the implementation of the concerns of risk reduction. Adequate financial powers need to be vested to manage the crisis and setting up of adequate safety measures in the premises, such as Disaster Preparedness Kit, Fire Extinguishers etc.

3. RISK PREVENTION AND MITIGATION PLAN

3.1 RISK PREVENTION AND MITIGATION

Risk prevention is preventing the creation of new risks of disasters. Such risks may be created unwillingly by the Departments directly through public investments or indirectly through the facilitation of private investments that are vulnerable to the risks of disasters. Therefore, every investment should go through HRVA to check if new programmes, activities or projects have the potential to create new risks of disasters. If such investments cannot be avoided these must be protected by safeguards through adequate structural and non-structural prevention measures so that the benefits of investments are fully protected from risks of disasters. For example, assets of the department like offices, equipment's and others should be located at places which have lesser chances of getting affected by a hazardous event.

Prevention can be understood as an activity to provide an outright avoidance of the adverse impact of hazards and related environmental, technological and biological disasters. Depending on social and technical feasibility and cost/benefit considerations, investing in preventive measures is justified in areas frequently affected by the disaster. In the context of public awareness raising and education, prevention refers to attitude and behaviour leading towards a culture of prevention.

Disaster impact can be prevented by strict adherence to the safety norms and practices given below:

- Construction of earthquake resistance structure. The Bureau of Indian Standards (BIS) has been publishing seismic hazard maps of India since 1962.
- Fire Safety Norms
- Electrical Safety Norms
- Conduct hazard hunt and secure hazards (structural and non-structural)
- Preparation of Emergency Preparedness plans.
- Basic disaster awareness and sensitization
- Conduct of Mock drills to test the plans and organized response.
- General awareness among people about the nature and intensity of the impact and resultant damages, losses and hardship caused by different types of disasters.

HP State Disaster Management Authority has made suggestions for mainstreaming actions for safety (Guidelines for Departments under Disaster Management Act, 2005) which are as under:

- Establish clear and measurable objectives for seismic safety that can be implemented and supported by the community with the timeline.
- Define the level of earthquake hazard and establish norms for buildings in each zone.
- Establish programmes as long-term undertakings with a strong commitment to sustained effort rather than one-time action.
- Adopt a multi-hazard approach to safety with earthquake mitigation strategies that complement and enhance disaster countermeasures for other hazards.
- Employ advisory committees as needed to assure that policy and technical decisions are consistent, and to provide long-term independent support and evaluation to the State for the seismic safety effort. Besides this Sector, specific illustrations for DRR integration into development planning are given. Guidelines for the education department have been reproduced in the text box (National

Disaster Management Authority Guidelines for departments under Disaster Management Act, 2005 and adopted by HP State Disaster Management Authority, 2012).

In the light of above-mentioned guidelines Prevention, Mitigation and Preparedness Plans are prepared to reduce the impact of disasters. The following will be undertaken to minimize the collateral damage usually caused by any disaster.

3.2 RISK MITIGATION

Risk mitigation is reducing the risks of disasters that are already there due to exposure of vulnerabilities to the hazards. Mitigation projects reduce the level of exposures or the depth of vulnerabilities or both through a combination of various structural and non-structural measures. Mitigation projects are always costly and therefore these have to be planned with proper Cost Benefit Analysis (CBA) to ensure that the benefits of the projects outweigh the costs. Structural mitigation refers to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural mitigation refers to policies, awareness, knowledge development, public commitment, information sharing which can reduce risk.

The list of codes and laws are and must be enforced in order to prevent and mitigate the effects of the hazards. Bureau of India Standards, National Building Codes of India (2005) and subsequent amendments in various acts provides sufficient legal protection to the enforcing agencies for safe construction practices. The National Building Codes must be strictly followed in lifeline structures and should be immediately implemented wherever necessary. In construction work, the civil engineers have to follow Bureau of Indian Standards (BIS) to construct resistant structures.

3.3 MATRIX OF HAZARD SPECIFIC MITIGATION MEASURES

HAZARD	MITIGATION MEASURES	
	STRUCTURAL	NON-STRUCTURAL
Earthquake	<ul style="list-style-type: none"> • Undertaking mandatory technical audits of structural designs of infrastructure under department by the competent authorities. • Retrofitting and reinforcement of old and weak structures. 	<ul style="list-style-type: none"> • Seismic hazard risk mapping pertaining to departmental assets. • Developing appropriate risk transfer instruments by collaborating with insurance companies and financial institutions.
Floods, Flash Floods and GLOF	<ul style="list-style-type: none"> • The department should demarcate the flood-prone area and no construction should be done there. • Open space for emergency construction of sheds etc. shall be left to the extent possible 	<ul style="list-style-type: none"> • Flood mapping pertaining to departmental assets. • Mitigation plan should be in place to safeguard the departmental infrastructure / inhabitants from the flash flood.
Landslides	<ul style="list-style-type: none"> • Selecting alignments for construction of hotels, departmental buildings, airport runway which are less prone to landslides. 	<ul style="list-style-type: none"> • Creating awareness about the hazard among the local communities and tourist.

Fire	<ul style="list-style-type: none"> • Open space for emergency exit in the case of fire. • Fire extinguishers should be installed in hospitals / medical centers. • Replacement of dilapidated electrical wires. 	<ul style="list-style-type: none"> • Fire safety mock drill. • Display of floor wise evacuation maps.
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3.4 FORECASTING AND EARLY WARNING

Forecasting and early warning help in mitigating the effects of disasters. The loss of life and property can be considerably reduced with an accurate and timely warning. Climate meteorological disaster such as flash floods / cloudburst/snow gauges would be strengthened so that Early Warning System can be effectively communicated to the vulnerable areas.

- A network of rain / snow gauges would be strengthened in the information.
- Tie up with weather reports, Indian Meteorological Department would be strengthened so that Early Warning System can be effectively communicated to the vulnerable areas.
- Networking would be done to communicate the Early Warning System to the vulnerable sections of the village.
- Modern media would be utilized to communicate the Early Warning System.
- Information & Communication Technology tools need to be used for data receptions, forecasting and timely dissemination.

3.5 STRATEGIES FOR RISK PREVENTION AND MITIGATION

The strategies for risk prevention and mitigation for Department of Tourism and Civil Aviation are as following:

- Formation of DM Cell and manning the same with senior personnel drawn from key sections of the department.
- Establish Advisory Body comprising policy makers critical to the management of the crisis in the tourism sector.
- Establish Location for Tourism Emergency Operations Centre.
- Establish communication focal points and protocols with Meteorological Dept, Fire Department, hospitals, other relevant agencies of government.
- Raising awareness of local authorities, local residents and tourists, and of the local tourism industry about the importance of natural and man-made disaster prevention and preparedness.
- Identifying the resource gaps both physical and manpower and replenishes the same through capacity building.

The Department may have to develop strategies for risk prevention and mitigation for short, medium and long-term basis. The National and State policies, Guidelines and Plans on disaster management shall provide strong justifications and support for such investments. The Departments should make use of these instruments for justifying their proposals for risk prevention and mitigation projects. Otherwise, the Departments have always the opportunities for mainstreaming disaster risk reduction in the existing programmes, activities and projects.

4. MAINSTREAMING DISASTER RISK REDUCTION

4.1 POLICY FRAMEWORK ON MAINSTREAMING

Mainstreaming disaster management into the development planning process essentially means looking critically at each activity that is being planned, not only from the perspective of reducing the disaster vulnerability of that activity but also from the perspective of minimizing that activity's potential contribution to the hazard.

Every development plan in the state would require incorporating elements of impact assessment, risk reduction, and adoption the 'do no harm' approach. The measures such as urban planning and zoning, upgradation of building codes their enforcement, adoption of disaster-resilient housing designs and flood proofing, response preparedness planning, insurance and establishment of early warning systems generating community awareness, To make the future environment free from construction risk, To utilize the funds of the govt. to mitigate the vulnerability to any disaster, thus progressing towards physical, socio-economic and environmental vulnerability free era. To make sure that all the govt. plans should be integrated with disaster risk reduction programmes by integrating such elements in these plans so that disaster risk-free environment can be created.

The Himachal Pradesh State DM Plan 2012 has one full chapter on 'Mainstreaming DM Concerns into Development Plans/Programmes/Projects'. The Plan has proposed strategies for integration and mainstreaming DRR into a few flagships national programmes in the sectors of rural and urban development, education, health and public works department. Some of these programmes have undergone changes in the recent years but the strategic entry points for mainstreaming DRR in development plans remain the same. Concerned Departments may, therefore, incorporate structural and non-structural measures for disaster risk reduction into the projects according to the contexts of local situations within the broad framework and guidelines of the programmes.

4.2 MAINSTREAMING DRR INTO DEVELOPMENT SECTORS

1. Disaster Risk Management (DRM) and Climate Change Adaptation (CCA) and other risks need to be mainstreamed into the tourism sector, as well as in the agendas of Authorities in charge of emergency management.
2. There is a need to develop Monitoring and Evaluation Frameworks and Systems and agree on the coordinating body for monitoring / screening, assessing and evaluating risks as well risk management planning and reporting DRM and CCA in the tourism sector.
3. It is of great importance to ensure community-level, tourists and other stakeholder's involvement as well as transparency and accountability, and inclusiveness of the system.
4. Focus on resilience building in the sector instead of reactive crisis approaches.
5. Early warning system development.
6. Simulation and training exercises to not only look at the strengths and weaknesses but to verify procedures and improving skills to identify further resources and strengthen coordination of all stakeholders.
7. There is a strong need for capacity-building and establishing preparedness in the sector.

5. DISASTER PREPAREDNESS

Disaster preparedness has been defined as the state of readiness to deal with a threatening disaster situation or disaster and the effects thereof". The Department may review their "state of readiness" and prepare a strategic action plan to deal with possible disaster situations.

5.1 STRATEGIES FOR DISASTER PREPAREDNESS

1. The publicity campaigns in print and electronic media may be carried out to aware the tourists and locals, before & during the tourist season.
2. Display of informatory / warning boards on the highways and at the locations prone to manmade or natural disaster and sensitive area.
3. Inventory of human and material resources available to Government, Private and Civil Society
4. Warning boards may also be displayed and mock drills may be conducted at main tourist destinations.
5. Weather conditions in the hills are unpredictable and hence warning to tourists going for any trekking activity may be given in advance through display signboard, local media & tourism stakeholders etc.
6. Training of staff and mock drills at an interval of six months.
7. All the hotel owners / Resort owners / Home Stay owners must be informed to adopt preventive measures for the safety & security of the tourists / guests in the event of any disaster in the units itself. Awareness training about disaster management may be imparted to all tourism stakeholders viz hoteliers, travel agents, tour operators, guides, taxi operators, Home Stay owners, etc. Fire extinguisher, emergency exits must be clearly indicated in the units.
8. Identify safe locations that can be used as helipads.
9. Composition of the tourism load
 - Nationalities
 - Age groups with special needs (children, old people, families)
 - People with disabilities
 - Tourists with specific interests and capacities
10. Seasonality of tourism
 - Load of tourists as an absolute number during different seasons
 - Load of tourism in relation to seasons with higher exposure to natural hazards
11. Tourism seasonality and natural hazards e.g.

Month	No. of Tourists	% of Natural Hazard
January		
February		

12. Create simple tools to assess these specificities
 - Maps or simple graphs showing the distribution of tourists in the destination
 - During various seasons
 - During the day
 - During special events
13. Close Check and preparation during Special events in the destination and in the areas close to the destination

- National Holidays
 - Religious events
 - Cultural events
14. The multi-stakeholder power
- Local authorities and institutional stakeholders have the knowledge to assess historical data
 - Local tourism business have the knowledge to assess tourist's behaviours
 - Local communities have the knowledge to "*guide*" foreigners
15. Community Preparedness: Whenever any disaster strikes, the community is the first to be affected. Hence, community involvement is very important for proper disaster management. In order to have an effective disaster response, we need to have proper awareness and training amongst the community. NGOs / Associations have a very important role in community preparedness, as they work on grass root level and know the community very well. They have the role of identifying the youth volunteers and involving them in the awareness process.
16. Budgetary allocations
17. Annually updation of the state preparedness plan. In case of a disaster, the plan will be reviewed right after that.

6. DISASTER RESPONSE AND RELIEF

6.1 RESPONSE PLAN

Providing public safety, minimizing damages to property and protecting public lives are the primary goals of disaster response plan. The Disaster Management Act, 2005 requires that the State Disaster Response Plan (SDRP) incorporates the results of vulnerability and risk assessment of the state. The response plan includes 'plans, procedures and identification of support functions and the agencies that will be responsible for the support functions. The response plan also provides a framework for the standard operating procedures to be further developed by the state government departments.

Emergency Response Planning:

- Constitution of **Quick Response Team (QRT)** at Headquarter of the department. The team will include staff members under the supervision of Additional / Joint Director.
- Similarly, the constitution of QRT at district tourism development offices under the supervision of Deputy Director / DTDO / ATDO.
- If a disaster like building collapse or occurrence of fire occurs during night/on holiday in the office building, the safety of employee (s) on night duty in the building must be ensured by adopting safety measures in the building. The employee (s) on duty must inform the authorities about the incidence immediately. Phone numbers of DDMA / SDMA, police, fire brigade, home guards must be displayed in the office premises.
- On receiving information about the occurrence of a disaster like tourists stranded in snow or missing while trekking, the QRT and Deputy Director / DTDO will immediately aid & assist the rescue operations carried out by SDMA / DDMA / local administration, Police and other line departments. Head of the Department must be immediately informed about such a situation.
- To publicize the details of QRT, their location, their contact details with all other departments, media and public representatives.

Emergency Support Functions (ESFs) Plan:

- In the aftermath of a major natural disaster wherein State Government's assistance is required for the districts, the command, control and coordination will be carried out under the ESFs Plan.
- EOC shall activate the ESFs and the concerned Department / Agency of each ESFs shall identify requirements in consultation with their counterparts in affected districts, mobilize and deploy resources to the affected areas to assist the district (s) in its / their response action. The State EOC shall maintain a close link with the District EOCs and NEOC.

ESFs shall be responsible for the following:

1. They will coordinate directly with their functional counterpart in districts to provide the state government assistance required. Request for assistance will be channelled from the district through the Deputy Commissioner and designated departments / agencies. Based on the identified requirements by the districts, appropriate assistance shall be provided by an ESF Department/ Agency to the district or at the Deputy Commissioner's request, directly to an affected area.
2. The designated authorities for each of ESF shall constitute quick response teams and assign the specific task to each of the members.

3. The designated authorities for each of the ESF shall identify and earmark the resources i.e. Manpower and materials to be mobilized during the crisis.
4. Each of the designated authority shall maintain an inventory of all the resources with details for each of the ESF.
5. The designated authority for each of the ESF will also enter into pre-contracts for the supply of resources, both goods and services to meet the emergency requirements.
6. The designated authority for each of the ESF will be delegated with adequate administrative, legal and financial powers for undertaking the tasks assigned to them.

6.2 RELIEF AND REHABILITATION

Relief and rehabilitation of the persons affected by disasters is an important function post-disaster response. Typically, the tasks of relief and rehabilitation include the following:

- Food and nutrition
- Water and sanitation
- Health
- Medical response
- Clothing and utensils
- Shelter
- Relief camps

Many Departments and agencies of the State Governments will be required to perform important functions relating to relief and rehabilitation. The response plan of the Department should provide detail with the logistic, financial and administrative support necessary for discharging these functions and the manner in which these functions shall be discharged

7. DISASTER RECOVERY AND RECONSTRUCTION

7.1 DISASTER RECOVERY

The process of recovery from small-scale disasters is usually simple. Recovery operations get completed almost simultaneously with the response, relief and rehabilitation. However, in medium and large disasters involving widespread damages to lives, livelihoods, houses and infrastructure, the process of recovery may take considerable time as the relief camps continue till houses are reconstructed. Often intermediary shelters have to be arranged before the permanent settlements are developed. Therefore, some of the Emergency Support Functions may continue for months.

7.2 DISASTER RECONSTRUCTION

Post-disaster construction provides an opportunity for 'Building Back Better' so that the reconstructed assets are able to withstand similar or worse disasters in future. It is difficult to anticipate such reconstructions as these would depend on the types and location of the disasters and the nature reconstructions to be made, which would be known only after the disasters.

7.3 ACTION PLAN FOR RECONSTRUCTION

Reconstruction is time and funds absorbing phase of disaster management. The construction department will be persuaded to include disaster resilient features in new constructions. Reconstruction programmes will be within the confines and the specification as laid down by the by the government known as National Building Codes. The work of the new construction will be completed in a long time. Hospitals are to run in shelter accommodation by the time new construction is complete. Essential services in shelters/camps will be established in the shortest possible time.

7.4 FINANCIAL MECHANISM

It is very difficult to estimate the budget requirement for relief and rehabilitation phase of disaster management. Funds required for this head will depend upon nature and intensity of natural calamity. However, the budgetary requirement can be reduced considerably by addressing structural and non-structural mitigation measures.

8. FINANCIAL ARRANGEMENTS

Section 40 (2) of the Disaster Management Act stipulates that every department of the State Department while preparing the DM Plan, shall make provisions for financing the activities proposed therein. Normally the funds required for risk assessment and disaster preparedness must be provided in the budgets of every concerned department. Such funds are not very sizeable and departments should be able to allocate such funds within their normal budgetary allocations. This budget can be used to work upon the already suggested mitigation and preparedness measures, as response and relief are already being taken care of by the SDRF and NDRF.

Funds for disaster response, relief and rehabilitation are provided in State Disaster Response Fund (SDRF), which the departments can access without any problem. In case such funds are not adequate the additional demands can be projected by the State Government which can be met from the National Disaster Response Fund (NDRF).

