

Proceedings of the State Level Workshop on Disaster Risk Reduction for Nodal Officers (DM) under the Chairpersonship of Director-Cum-Special Secretary (Rev-Dm) to the Government of Himachal Pradesh, Sh. D.C Rana Held on 30th July 2024 at 11.00 AM in the NIC Conference Room, Armsdale Building, H.P. Secretariat.

List of participants is at **Annexure A**

At the outset, the Principal Scientific Officer, Dr. S.S. Randhawa, welcomed the Director-Cum-Special Secretary (Revenue-Disaster Management) to the Government of Himachal Pradesh, Sh. D.C. Rana, all the Nodal Officer for Disaster Management of the Stakeholder Departments present for the meeting, and the senior officers from the respective DDMA's who joined the meeting via video conferencing.

The Director-Cum-Special Secretary (Revenue-Disaster Management) provided an overview of the meeting, briefing on the DM Act provisions, National and State Policies on Disaster Management, National and State Disaster Management Plans, and elaborating on the Emergency Support Functions. The Chair also apprised the participants of the current disaster risk reduction arrangements undertaken by the department. The participants were informed that the DMC has shared the directions of the NDMA, SDMA, SEC under the provisions of the DM Act 2005 from time to time with all the stakeholder departments but no action taken report is being received. In view of the increasing frequency and intensity of disasters, it is very important that pro-active mitigation and preparedness measures are taken by all the departments, as directed by the authorities constituted under the DM Act, so that loss of lives, livelihoods and property can be reduced in future and development gains of the State can be preserved.

A detailed presentation on the agenda items were made and issues explained to the participants. Following this, the discussion on agenda points, directions and decisions by the National Disaster Management Authority (NDMA), HP State Disaster Management Authority (HP SDMA), and State Executive Committee (SEC) were discussed. Details of these points are enclosed as **Annexure-B**. After thorough discussion of the agenda points, the following additional/specific directions were issued for compliance:

1. The Nodal Officers were requested to ensure implementation of all the points listed in **Annexure B** and share ATR on monthly basis with DMC, Department of Revenue.
2. The Departments were requested to implement the directions issued by the HP SDMA/SEC in 2012 under the provisions of the DM Act 2005 w.r.t. Training and Capacity Building, Preparedness of DM

Plans, Disaster Risk Reduction (DRR) Integration in development projects, plans and policies and Emergency Support Functions (ESFs).

3. All the Departments were requested to revised their Disaster Management Plans (DMPs) which were prepared in 2017. The remaining departments were informed that as per the provisions of the DM Act, they are also required to prepared their DMPs.
4. All the Departments my initiate training programs of their manpower and stakeholders as per the Training Needs Assessment document prepared by the DMC, Department of Revenue. Manpower will require both in-service and pre-service trainings. Efforts may be made to integrate in-service trainings with departmental training programs. Departments may send proposal for funding training to the DMC, Department of Revenue.
5. The Nos of the stakeholder departments were informed that the National Disaster Management Authority (NDMA) has issued hazard-related guidelines under the provisions of the DM Act 2005 with specific action points for implementation by the States through its departments. Departments are instructed to review these actionable points and act upon them in the three phases of disaster management—prevention, preparedness, and response—to enhance the state's resilience to disasters. To assess this, the following URL can be used: <https://hpsdma.nic.in//admnis/admin/showimg.aspx?ID=3261>
6. A lot of focus was laid to promote safe construction practices for which TCP, UD, Rd and Technical Education departments have to play very active role.
7. All concerned Departments were requested to implement the provisions of “White Paper on Earthquake Mitigation” prepared and circulated in 2020 and send progress achieved in this regard so far.
8. In order to promote community-based disaster management, raise cadre of civil deference and general volunteers the department of Civil Defence, Home Guards, Fire Services and DDMA's have to play active role.
9. That the DM-Cell Department of Revenue, which had conducted the Hazard Vulnerability Risk Assessment (HRVA) for the State using the GIS Tool, the Departments should be utilize this platform while implementing their respective development schemes. This helps the departments take remedial measures according to the hazard profile of the areas and make development hazard resistant and reduce losses due to disasters.
10. The National Disaster Management Authority has developed a portal i.e. India Disaster Resource Network (IDRN) for maintaining the resource network to be utilized for disaster management. All departments should instruct their subordinate offices to share details of procured items, shifting of

officials with the respective DDMA for entry into the IDR portal on first week of every month to keep the repository updated. Additionally, the Chair directed that the Directorate of Transport may share the API of the e-Vahan portal with the department to integrate earth mover and heavy equipment data into the IDR portal.

11. It was informed that the Rural Development department has formulated draft guidelines for regulating construction in rural areas. The department was advised to expedite the process of finalizing the Guidelines so that unregulated construction in the rural areas can be avoided in the State. In addition, the department may take keen interest in implementing masons training programs so that capacity building can be done to promote safe construction practices in the State. The Department was also requested to take up training activities for PRIs members through their PRTIs.
12. That the HPSDMA has launched various DRR schemes. It has been observed that, compared to other state schemes, the "*Scheme for Hospital Safety - Safe Hospitals in Emergencies and Disasters*" scheme is lagging behind and has not met its set targets. The Health Department was instructed to expedite the implementation of the scheme's provisions to prepared hospitals for disasters and emergencies.
13. The NDMA/HPSDMA has launched various digital initiatives for real-time monitoring of losses and fund disbursements to districts and departments. However, it has been observed that the departments are not utilizing the platforms, i.e., NDMIS and HPSDMA Loss & Damage Portal, which undermines their purpose. The Chair directed that appropriate instructions be issued to the concerned offices to ensure data is entered into these portals. No request for release of funds by the departments will be entertained if data entry is not made in these platforms.
14. In order to prepare next generation for disasters and promote culture of safety, a School Safety Project is being implemented in the State through Education Department. The Department was requested to steer the whole project from the State and ensure preparation of School DMPs through the School Safety Mobile App. Schools may ensure conduct of mock drills at least four times a year.
15. The PWD, JSV, Agriculture, Horticulture, Urban Development, Rural Development, Education, Health, Fisheries, HPSEBL, and respective DDMA were instructed to suggestions on the items and norms of assistance issued by the Ministry of Home affairs on 11.07.2023 and circulated by State Government on 16.10.2023 to all District and Departments. The departments were requested that if any amendment is required in the relief norms the same may be submitted with proper justification to the DM-Cell within 7 days so that the matter can be taken up with the Ministry of Home Affairs, Gol accordingly.

16. Further, all the departments were requested to submit utilization certificate of the funds at the earliest so that the office of the Principal AG of HP can be apprised, accordingly and unnecessary audit objections can be avoided.

After thorough deliberation on all Agenda Points flagged in National Guidelines, HPSDMA & SEC Meeting, the Chair directed all stakeholder departments to submit their first Action Taken Reports within 15 days.

The meeting concluded with a vote of thanks.



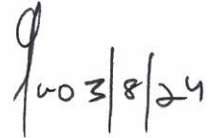
(DC Rana)
Director-cum-Ex Officio Special Secy (Rev-DM)
Government of Himachal Pradesh.

Endst. No. Rev (DMC) (F)-11-1/2022-SEC

Dated the 3 August 2024

Copy forwarded for information and necessary action to:-

1. All the Administration Secretary to the Govt. Of Himachal Pradesh.
2. The Private Secretary to the Chief Secretary to the Govt. of Himachal Pradesh
3. All the Divisional Commissioner of Himachal Pradesh.
4. All the Head of the department of the Himachal Pradesh.
5. All Deputy Commissioner of Himachal Pradesh.
6. All the Nodal Officers for DM in the Departments.
7. Guard File.



Director-cum- Ex Officio Special Secy (Rev-DM)
Government of Himachal Pradesh.

Annexure-A

List of Participants

1. .
2. Sh. S.D. Negi Addl. commissioner Transport (LA/RSC)
3. Sh. Rakesh Kumar Superintendent. EMRS TD.
4. Sh. Prem Raj Sharma Nodal Officer, TDD
5. Sh. Ravinder Singh JDA Director of Agricultural
6. Sh. Vishal Thakur AASO, Director of Agricultural H.P
7. Sh. Milap shandil Jt. Director F&S
8. Sh. Chander Mohan Deputy Director DES
9. Dr. Sunil Chauhan DD Of animal
10. Sh. Harshveer Singh JE, DOE
11. Dr. Sumesh Thakur, SSA)
12. Sh. Krishan Lal Negi Asst. Director H.P State Audit
13. Dr. Ashit Kashyap Sr. EE, DOE
14. Sh. Sanjey kumar Mkhaik AE. RDD Shimla-9
15. Dr. Ramesh Kumar Deputy Director
16. Sh. Sanjeet singh Assistant Commissioner to DIV. Commissioner
17. Sh. Kanchan Sharma Executive Engineer S&P Jal Shakti Vibhag
18. Sh. Vijay Kashyap SE(W) JSV
19. Sh. Omkar Singh Deputy Director Transport (LA/RSC)
20. Sh. Akshay Vrat Deputy Manager (Corporate Planning) HPPCL
21. Sh. Anjali Sharma Sr. Manager (E) HPPCL
22. Sh. Jayant Sharma JE(C/M) HPPCL
23. Sh. Prem Raj Chandel Principal PRTI Mashobhara
24. Dr. Vinay Kumar Instructor PRTI Mashobhara
25. Sh. Rahul Choudhary Horticulture Dev. Officer Deptt. Of Horticulture H.P 171002
26. Sh. Davinder Mista Architect O/O Chief Architect HPPWD
27. Sh. Manoj Chauhan CSO, HPSPCB Shimla
28. Sh. Varun Patial Deputy SP CTS Shimla
29. Sh. Dinesh Kumar Inspector CTS Shimla
30. Sh. Rohit Guleria CME (PMU) / AC(HPF & AS)
31. Sh. Aluakih Sharma IT specialist
32. Sh. Kuldeep Kapil Commander HG & CD
33. Sh. Karun Lata Principal (s) DHE
34. Dr. Renu Rana OSD(C) DHE Shimla-1
35. Sh. Sanjeev Kumar Chief Fire Officer H.P Shimla
36. Sh. Hemchand Sharma Joint Director Horticulture
37. Sh. Ajay Kapoor SE(works) HPPWD
38. Sh. Deeva Sain Negi Deputy Divisional Manager Traffic HRTC
39. Sh. Usha Sharma Superintendent G-1 Director & Prosecution
40. Dr. Rohti Chauhan GIS & RS
41. Sh. Rajeev Sharma Additional Director (IT) DDTG
42. Sh. Vinod Sharma ACF DM Cell
43. Sh. Parveen Bhardwaj DMS, DM Cell
- Virtually Connected**
44. Chanchal Thakur ADF
45. Dr. Prabhakar Mishra
46. o/o DC L&S
47. o/o ADM Pooh
48. o/o DD CWC Shimla
49. o/o 14TH BN NDRF
50. o/o HPSEB
51. o/o SP SDRF
52. o/o DRO Kinnaur
53. o/o SDM kaza
54. o/o Director ABVIMAS
55. o/o DDEE
56. o/o TCP deptt.
57. o/o DDMA
58. o/o Dsp. Sdrp Shimla
59. o/o Directorate Sainik Welfare
60. o/o DDMA Solan
61. o/o DDMA Shimla
62. o/o TKHEP
63. o/o Directorate of Industry
64. o/o Sub fire officer reckpie
65. o/o DPO Solan
66. o/o JSV keylong
67. DRO Sirmaur
68. o/o SCERT
69. o/o DRO Una
70. o/o GM DIC
71. SM(C/M) Sainj
72. DIET Solan
73. SKHEP
74. SDK Arki
75. DEOC Kinnaur
76. Sh. Sudhir Bhatia
77. Environment ST & CC
78. EE NH Rampur
79. DDH solan



HP State Disaster Management Authority

Department of Revenue

Disaster Management Cell

State Level Workshop on DRR

Discussion on various Directions/Decisions of the National Disaster Management Authority (NDMA), HP State Disaster Management Authority (HP SDMA) and State Executive Committee (SEC)

Agenda Notes

List of Guidelines issued by the NDMA for Implementation

1. Implementation of Guidelines & Technical Documents issued by the NDMA

- National DM Authority has issued Guidelines under the provisions of DM Act 2005.
- These guidelines are mandatory in nature and legally binding.
- Besides NDMA has also issued Technical Documents on various aspects.
- List is at **Annexure I**.

2. Adoption of Incident Response System (IRS) Guidelines of NDMA in the State

- IRS is not implemented in accordance with the National Guidelines. It is expected from the department to coordinate department responsibility from the DEOC/SEOC for better response
- The SDMA has also issued SOP for responding to Disasters in 2012 (<https://hpsdma.nic.in/index1.aspx?lsid=15&lev=1&lid=12&langid=1>)
- The SDMA has also issued Emergency Support Functions in 2012 and further revised in 2018 – There is need to institutionalise these ESFs till the last mile (**Annexure – II**).

Action By

All Departments

Directions Issued by the HP SDMA & Agenda Points from HPSDMA Meetings

3. Integrating and Mainstreaming DRR Into Development Planning and Programmes.

- Implementations of Guidelines issued by the HP SDMA in 2012 (**Annexure III**).
- Special safety measures be taken while constructing Schools and Hospitals being the most critical infrastructure.
- Hon'ble Chairman desired that all Government Buildings in the State be constructed with earthquake/hazard resistant features. It was decided that the Department of TCP would repeat instructions already issued in this regard to all concerned. Hon'ble Chief Minister also desired that all Departments would also ensure adherence of the hazard resistant features while undertaking construction of buildings.
- Efforts would also be made to popularise hazard resistant designs and safe construction practices in the State to ensure safety of our built-up environment
- Integration of Development schemes with Disaster Risk Reduction

Action By	All Departments
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4. Implementation of Off-Site Industrial Disaster Management Plans and their implementation.

- Implementation of provisions of Off-Site Emergency Management Plan three Districts namely, Sirmaur, Solan & Una (<https://hpsdma.nic.in/index1.aspx?Isid=14&lev=1&lid=11&langid=1>)
- Preparedness of On-site DM Plans
- Conduct of Fire Audit & Awareness Activities
- Conduct of On-site and Off-site Mock Drills
- Compilation of list of MAH units

Action By	L&E, Industries, Health, PCB, DDMA, FS, SDRF and NDRF, Crisis Management Committees
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5. Need to Strengthen Monitoring Network & EWS in the State

- Suppling of the monitoring stations/observatory data with Indian Meteorology Department, Central for generation of accurate warning hydro-meteorological disasters

Action By	JSV, Energy
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6. Strengthening of Civil Defence Structure in the State for DRR

- The Civil Defence structure shall be implemented in all the district of the State utilizing the set up and infrastructure of Home Guard.

Action By	HG&CD
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7. Ensuring Safe Construction Practices & Reducing Build up Risk and mitigating effects of the other Hazards in the State.

- Need to regulate construction activities for key activities to be implemented to make the state disaster resilient.
- The Department of UD, TCP & RD and other department were directed to take action immediately.

- TCP regulation and provisions of fire Act should be applicable for all commercial activities being undertaken in rural areas
- The Guidelines for DRR integration were approved for fresh circulation and strict implementation by all the Departments,

Action By	UD/TCP/RD
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8. Identification & Development of sites for Muck Disposal

Action By	UD, Executing Agencies such as PWD
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9. Raising of SDRF in the State as per Sanctioned Strength

- Raising of SDRF as per sanctioned strength
- Training and capacity building of SDRF
- Purchase of equipment for which funds have been released
- Risk allowance of 15% for the personnel of HP-SDRF.
- Proper recruitment-transfer Policy for SDRF
- Implementation of Vision Document
- Deployment made on NDRF Pattern
- FCA cases of lands
- Raising construction at Palampur

Action By	Home and SDRF
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Agenda Points from State Executive Committee Meetings

10. Regular Up-dation of India Disaster Resource Network (IDRN)

- All departments must provide the information on the resources available with them including manpower, equipment and Funds earmarked for DM enabling uploading in IDRN website by DDMA's at regular intervals.
- Using of IDRN Portal
- Details of Departmental Fund proposed for DRR

Action By	All Department
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11. Model Building Bye laws to be implemented by the UD/TCP as approved by SEC in 2012

- The Building Bye-laws as approved by the SEC be implemented immediately by TCP and UD and compliance reported.
- Further, these Building Byelaws be re-examined in view of current requirements, and need be amended and implemented in due course of time.

Action By	UD & TCP Departments
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12. TCP Department to ensure safe construction practices in rural areas and commercial activities to be brought under ambit of TCP. RD to promote safe construction practices in Rural Areas

- TCP Department to ensure safe construction practices in rural areas commercial activities to be brought under the ambit of TCP.
- RD to promote safe construction practices in rural areas as already directed.
- DDMA's to ensure safe construction practices in their respective jurisdiction and take steps to deal with vulnerable structures as per law.

Action By	RD & Town & Country Planning Department
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13. Proposal on Hospital Safety Program

- Implementation of Retrofitting of critical building (HP-PWD)
- The Health Department is directed to appoint a nodal officer for the implementation of the Hospital Safety Schemes across the State and work closely with DMC (Health)
- Activities under Hospital Safety Scheme to be implemented – Assessment of Hospitals, Training & Capacity Building, Preparation of Hospital DMPs, Conduct of evacuation and mock drills, etc.

Action By	Health Department
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14. New Programme on School Safety Scheme

- Preparing Disaster Management plans in School Safety Mobile App by all educational institutions up to 12th Standard and their updating.
- Training and Capacity Building Activities
- Activities on Bag Free Day
- Designing of Reading Material on DRR for Schools
- Revisions of Text Books of Class 9 and 10 standards
- Introduction of DM as subject from early years of education.
- Preparation DMPs through School Safety App

Action By	Higher/Elementary Education, SCERT & SSA
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15. Need of Regulation of Construction in Rural Areas

- Need to regulate construction in Rural Areas
- The Draft Bill submit by the TCP department needs to be finalized
- Development of database of retired engineers willing to promote safe construction practices in rural areas

Action By	RD
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16. Comprehensive compliance report regarding the status of Implementation of Recommendation stated in White Paper

- The SEC approved White Paper on Earthquake Mitigation in the year 2020 (Annexure – IV).
- ATR awaited from all Departments despite repeated reminders.

- Implementation of White Paper is important to reduce seismic risk.

Action By	All Department
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17. Dam Safety & EWS

- Establishment of EWS by the Specific Dam Authorities as per the CWC guidelines 2015 and as per the provision of Dam Safety Act 202.
- All Dams owned by HPSEBL, HPPCL and other entities need to install EWS
- EWS need to be checked and monitored by DDMA's and DoE.

Action By	Energy, MPP & Power, HPPCL, HPSEBL
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18. Monsoon Disaster, 2023; Lessons learnt and need for Building Resilience

- The HP SDMA conducted PDNA studies post 2023 Monsoon Disaster (<https://hpsdma.nic.in/index1.aspx?lsid=5106&lev=2&lid=5002&langid=1>)
- Report contains Department wise recommendations report of which is awaited
- Lessons of 2023 Monsoon Disaster compiled and shared with Departments for corrective measures, ATR awaited.

Action By	All Department
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19. Improving Emergency Response-Designation of Response Centres:

- The SEC granted in principal approval for the proposal and directed that before initiating the proposal, site-specific requirement of Equipment be prepared by the HP-SDRF in consultation with HHG, CD and Fire Services and NDRF
- All 356 aforementioned locations of government agencies are proposed to be designated or notified as response centres to ensure quick and efficient response to potential incidents/disasters.
- SDRF may prepare the list of equipment required for response centres and to ensure the equipment list is comprehensive and up-to-date.
- To develop detailed SOPs for the response centre including maintenance and storage of equipment as may be updated in accordance with the lessons learned from real incidents and mock exercises.
- Designing of training programs based on the specific needs and challenges of each response centre including practical, hands-on exercises to enhance the skills. Furthermore, to provide refresher courses and continuous training to keep updated on new technologies and best practice.
- Continues capacity building of response centres for effectiveness and sustainability of disaster management.

Action By	HP SDRF, HHG, CD & FS, Directorate Mountaineering and Allied Sports and NDRF
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20. Up-dation of Departmental Disaster Management Plans.

- The Department has prepared the Disaster Management Plan of 39 department in 2020.
- As the DM Act these plans need to updated annually in accordance with NDMP SDMP, DDMP & National/State Policy.

Action By	All Department
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21. Risk Assessment and Vulnerability Mapping and Implementation of HRVA in all Development schemes & Programs

- The HP SDMA has completed out State-wide HRVA in 2025
- The Report in GIS format is available in HP SDMA website
- The report should be utilised by all the Departments for planning and DRR integration

Action By	All Department
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22. Using HPSDMA portal to feed the loss & Damage Data on daily basis.

- The HP SDMA has created online platform for damage and loss reporting.
- UN and PW have been shared with all Departments
- Departments may feed data regularly

Action By	All Department
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Training & Capacity Building

23. Implementation of Training Needs Assessment (TNA) for DRR

- The HP SDMA prepared TNA for DM in 2012 which was further revised in 2017
- The Documents has been shared with all Departments regularly
- All Departmental Training Institutes have to carry out training and capacity building activities regularly – Pre-Service and In-Services
- The Departments can seek assistance of SDMA in training Master Trainers and Developing Training Modules
- Maintaining Database of Trained manpower and sharing it with DDMA's and SDMA

Action By	All Department
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24. River Search & Rescue Training initiatives

- Training of personnel from SDRF, HHG, FS

Action By	SDRF / Fire & Home Guard
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25. To Review a training module that has already been prepared for Panchayati Raj – Community based disaster risk reduction; the institution needs to roll out the program at the Panchayat level.

- Initiation of training programs in all PRTIs

Action By	Panchayati Raj Training Institute (PRTI)
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26. Strategy for Capacity Building of Masons, Carpenter and Bar Binders at Panchayat Level for Safe Construction in Himachal Pradesh.

- Slow progress of Scheme

Action By	DDMAs HIMCOSTE / RD / PWD
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27. Proposal required from ABVIMAS for training and capacity building of youth in mountain search and rescue

- Proposal not received yet

Action By	ABVIMAS
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28. Site specific requirement of equipment be prepared by HP-SDRF in consultation with HHG, GD & FS and NDRF for the conversion of the 356 identified centres into the Designation of Response Centres

- Proposal to be shared by HP SDRF

Action By	HPSDRF
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Information Technology and MIS:

29. NDMIS

- Data Entry in NDMIS Portal for funds released and assistance rendered/works executed
- Data Entry by Districts

Action By	Jal Shakti, Public Work, Horticulture, Agriculture, Urban Development, HPSEBL & Rural Development, Health & Family Welfare
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30. RMS (Relief)

- Completion of Project: Automation of relief application in Himachal Pradesh.
- Full operationalisation of the RMS Module
- Monitoring by DCs, SDMs, Tehsildars

Action By	DIT and DIV COM Shimla, DDMA
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31. Daily Loss and Damage Portal

- Data entry in Loss and Damage Forms and any update in Portal
- Generation of Annual Reports

Action By	Jal Shakti, Public Work, Horticulture, Agriculture, Urban Development, HPSEBL & Rural Development, Health & Family Welfare; Eco & Stat Department
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32. Setup of Early Warning System in 23 Major DAMs

- Completion of EWS setup in DAMs
- Implementation of EWS
- Monitoring of EWS by DoE, SDMA and DDMA
- Sharing of Geo-coordinates of monitoring and EWS network

Action By	Department of Energy
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State Disaster Mitigation Fund

33. Work sanctioned under SDMF

- Submission of PPRs and DPRs as per the Mitigation Guidelines
- Initiation of Project activities in sanctioned projects
- Monitoring of Projects in the field – DDMA & Departments
- Technical Assistance for big projects from Teaching/R&D Institutions
- UC against the work sanctioned under SDMF need to be submit to DDMA and HPSDMA
- Development of Decision Support System – Geo database to be shared by the Departments.

Action By	DDMA/PWD/JSV/TCP/UD/Education
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34. Structural drawings for 20 district-wise identified earthquake retrofitting buildings.

- To provide structural drawings for 20 district-wise identified earthquake retrofitting buildings.
- If drawings are unavailable, area details to be provided to DDMA/HPSDMA.

Action By	PWD/JSV/Education/Health/HPSEBL/BSNL/Police
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35. Implementation of National Geospatial Policy, 2022

In accordance with the geospatial policy & provisions, Departments/Societies/councils/organizations are requested to share geospatial data freely with each other for the benefit of the community. HPSDMA is urged to prioritize transparency and cooperation in sharing geospatial data, recognizing its critical role in promoting public safety, sustainable development, and overall community well-being as under:-

- Departments/boards/councils shall share existing GIS databases for the development of early warning systems to save lives.
- Historical hazard profiles should be maintained and shared with relevant authorities like HPSDMA for risk assessment and vulnerability mapping. The HPSDMA may prioritize the vulnerable site with the respective departments for the mitigation works.
- Property (individual house) data can be utilized, especially during earthquakes/Landslide/flashflood, to identify the number of houses and people living in affected areas, aiding in rescue and relief efforts.
- International agencies may request HPSDMA for GIS databases to analyze the impact of hazards, emphasizing the importance of sharing geospatial data globally.
- GIS databases are valuable for monitoring and evaluating adaptive strategies, enabling authorities to make informed decisions for disaster mitigation and response.

Action By	All Department/Council/Board/Societies
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
Finance and Budget

36. Discussion on Revised list of Items and Norms of Assistance.

- Strict adherence to the SDRF/NDRF norms in the field
- Submission of UCs
- Suggestions about revisions of the norms of assistance and restoration

Action By	All Departments
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Annexure I

S No.	Title	Release Date	Download
1	Updated National Guidelines For Mental Health and Psychosocial Support Services in Disasters - 2023	Dec 2023	Download(17 MB) 
2	National Guidelines For Preparation of Action plan – Prevention and Management of Cold Wave and Frost 2021	Oct 2021	Download(7 MB) 
3	Simplified Guideline for Earthquake Safety of Building from National Building Code of India 2016	May 2021	Download(10 MB) 
4	Cool Roof : House Owners' Guide to alternate roof cooling solutions	May 2021	Download(8.30 MB) 
5	Guidelines on Management of Glacial Lake Outburst Floods (GLOFs)	Oct 2020	Download(11.21 MB) 
5.a	Compendium of Task Force Report on NDMA Guidelines on Management of Glacial Lake Outburst Floods (GLOFs)	Oct 2020	Download(12.70 MB) 
5.b	Summary for Policy Makers on NDMA Guidelines on Management of GLOFs	Oct 2020	Download(04.01 MB) 
6	Guidelines for Preparation of Action Plan - Prevention and Management of Heat Wave	Oct 2019	Download(45.74 MB) 
7	Landslide Risk Management Strategy	Sept 2019	Download(12.48 MB) 
8	Guidelines on Disability Inclusive Disaster Risk Reduction	Sept 2019	Download(64.63 MB) 
9	Guidelines on Temporary Shelters for Disaster-Affected Families	Sept 2019	Download(09.86 MB) 
10	Guidelines on Prevention & Management of Thunderstorm & Lightning/Squall/Dust/Hailstorm & Strong Winds	March 2019	Download(09.55 MB) 
11	Guidelines on Boat Safety	Sept 2017	Download(04.40 MB) 
12	Guidelines on Cultural Heritage Sites and Precincts	Sept 2017	Download(21.45 MB) 
13	Guidelines on Museums	May 2017	Download(02.12 MB) 
14	Guidelines on Minimum Standards of Relief	Feb 2016	Download(03.00 MB) 
15	Guidelines on Hospital Safety	Feb 2016	Download(03.22 MB) 
16	Guidelines on School Safety Policy	Feb 2016	Download(02.50 MB) 
17	Guidelines on Seismic Retrofitting of Deficient Buildings and Structures.	June 2014	Download(01.25 MB) 
18	Guidelines on Scaling, Type of Equipment and Training of Fire Services	April 2012	Download(02.61 MB) 
19	Guidelines on National Disaster Management Information and Communication System	Feb 2012	Download(06.00 MB) 
20	Guidelines on Management of Drought	Sept 2010	Download(01.40 MB) 
21	Guidelines on Management of Urban Flooding	Sept 2010	Download(14.35 MB) 
22	Guidelines on Management of Dead in the Aftermath of Disaster	Aug 2010	Download(01.40 MB) 
23	Guidelines on Management of Tsunamis	Aug 2010	Download(01.40 MB) 
24	Guidelines on Incident Response System	July 2010	Download(08.97 MB) 
25	Guidelines on Psycho-Social Support and Mental Health Services in Disasters	Dec 2009	Download(0748 KB) 
26	Guidelines on Management of Landslides and Snow Avalanches	June 2009	Download(03.39 MB) 
27	Guidelines on Management of Nuclear and Radiological Emergencies	Feb 2009	Download(01.65 MB) 
28	Guidelines on Management of Biological Disasters	July 2008	Download(03.23 MB) 
29	Guidelines on Management of Cyclones	April 2008	Download(04.52 MB) 
30	Guidelines on Management of Floods	Jan 2008	Download(05.84 MB) 
31	Guidelines on Medical Preparedness and Mass Casualty Management	Oct 2007	Download(60.24 MB) 
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HP STATE DISASTER MANAGEMENT AUTHORITY

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 channeled from the district both 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 member.
 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. An inventory of all the resources with details shall be maintained by each of the designated authority for each of the ESF.
5. The designated authority for each of the ESF will also enter into pre-contracts for 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.

Primary and Secondary Agencies

The designated primary agency, acting as the State agency shall be assisted by one or more support agencies (secondary agencies) and shall be responsible for managing the activities of the ESF and assisting the district in the rescue and relief activities and ensuring that the mission is accomplished. The primary and secondary agencies have the authority to execute response operations to directly support the needs of the affected districts.

Agency for Each Emergency Support Functions and Roles to be performed

ESF No.	ESF	Primary Agency	Secondary Agency	Responsibilities of Primary Agency	Activities for Response	Role of Secondary Agency
1.	Communication	BSNL	Police Units of Armed Forces in the area	Coordination of national actions to assure the provision of telecommunication support the state and district; Coordinate the requirement of temporary telecommunication in the affected areas.	Responsible for coordination of national actions to assure the provision of telecommunication support the state and district response elements; Coordinate the requirement of temporary telecommunication in the affected areas.	Make available police wireless network at the affected locations; Coordinate for the other networks available such as Ham Radios or HPSEB network etc.;; The units of armed

Emergency Support Functions (ESFs) | 2011

						forces in the area would provide communication network on the request of the competent authority.
2	Public Health	Department of Health and Family Welfare	Department of Ayurveda	<p>To coordinate, direct and integrate State level response;</p> <p>Direct activation of medical personnel, supplies and equipment;</p> <p>Coordinate the evacuation of patients;</p> <p>Provide human services under the Dept of health;</p> <p>To prepare and keep ready Mobile Hospitals and stock;</p> <p>To network with private health service providers;</p> <p>To provide for mass decontamination;</p> <p>Check stocks of equipment and drugs.</p>	<p>Provide systematic approach to patient care;</p> <p>Perform medical evaluation and treatment as needed;</p> <p>Maintain patient tracking system to keep record of all patients treated;</p> <p>Mobilization of the private health services providers for emergency response.</p> <p>In the event of CNBR disaster to provide for mass decontamination of the affected population;</p> <p>Maintain record of dead and arrange for their post mortem.</p>	<p>To perform the same functions as assigned to the primary agency;</p> <p>Provide manpower to the primary agency wherever available and needed;</p> <p>Make available its resources to the primary agency wherever needed and available.</p>
3.	Sanitation/ Sewerage Disposal	Urban Development and Rural	Irrigation and Public Health	Make arrangement for proposal disposal of waste in their respective areas;	Ensure cleanliness and hygiene in their respective areas;	Repair the sewer leakages immediately;

Emergency Support Functions (ESFs) | 2011

		Development		<p>Arrange adequate material and manpower to maintain cleanliness and hygiene.</p>	<p>To arrange for the disposal of unclaimed bodies and keeping record thereof;</p> <p>Hygiene promotion with the availability of mobile toilets;</p> <p>To dispose off the carcass.</p>	<p>Provide bleaching powder to the primary agencies to check maintain sanitation.</p>
4.	Power	HPSEB Ltd.	Himurja	<p>Provide and coordinate State support until the local authorities are prepared to handle all power related problems;</p> <p>Identify requirements of external equipment required such as DG sets etc;</p> <p>Assess damage for national assistance.</p>	<p>Support to Local Administration;</p> <p>Review the total extent of damage to the power supply installations by a reconnaissance survey;</p> <p>To provide alternative means of power supply for emergency purposes;</p> <p>Dispatch emergency repair teams equipped with tools, tents and food;</p> <p>Hire casual labour for the clearing of damaged poles etc.</p>	<p>Make arrangement for and to provide the alternative sources of lighting and heating to the affected populations and for the relief camps.</p>
5.	Transport	Department of Transport	HRTC, Civil Aviation, GAD	<p>Overall coordination of the requirement of transport;</p> <p>Make an inventory of vehicles available for various purposes;</p>	<p>Coordinate arrangement of vehicles for transportation of relief supplies from helipads/airports to the designated places;</p>	<p>Make available its fleet for the purpose of SAR, transportation of supplies, victims etc;</p> <p>Act as stocking place for</p>

Emergency Support Functions (ESFs) | 2011

				Coordinate and implement emergency related response and recovery functions, search and rescue and damage assessment.	Coordinate arrangement of vehicles for transportation of SAR related activities.	fuel for emergency operations; Making available cranes to the Distt. Administration; GAD and Civil aviation will coordinate for helicopter services etc. required for transportation of injured, SAR team, relief and emergency supplies.
6.	Search and Rescue	Civil Defence, Home Guards, Fire and Emergency Services	NDRF, SDRF, Armed and Para military forces, Police, Red Cross, VOs, Volunteers and 108.	Establish, maintain and manage state search and rescue response system; Coordinate search and rescue logistics during field operations; Provide status reports of SAR updates throughout the affected areas.	GIS is used to make an estimate of the damage area and the deployment of the SAR team in the area according to the priority; Discharge all ambulatory patients for the first aid which has the least danger to health and others transported to safer areas.	108 and Red Cross to make available ambulances as per requirement; SDRF, VOs and Volunteers to assist the primary agency in SAR; NDRF, Armed and para military forces to provide assistance to civil authorities on demand; Police to arrange for the transportation and postmortem of the dead.
7.	Public Works	HP PWD	CPWD,	Emergency clearing of	Establish a priority list of roads	Making machinery and

Emergency Support Functions (ESFs) | 2011

	and Engineering		National Highways Authority of India, MES, BRO	<p>debris to enable reconnaissance;</p> <p>Clearing of roads;</p> <p>Assemble casual labour;</p> <p>Provide a work team carrying emergency tool kits, depending on the nature of disaster, essential equipment such as</p> <ul style="list-style-type: none"> • Towing vehicles • Earth moving equipments • Cranes etc. <p>Construct temporary roads;</p> <p>Keep national and other main highways clear from disaster effects such as debris etc.;</p> <p>Networking with private services providers for supply of earth moving equipments etc.</p>	<p>which will be opened first;</p> <p>Constructing major temporary shelters;</p> <p>Connecting locations of transit/relief camps;</p> <p>Adequate road signs should be installed to guide and assist the relief work;</p> <p>Clearing the roads connecting helipads and airports;</p> <p>Restoring the helipads and making them functional;</p> <p>Rope in the services of private service providers and secondary services if the department is unable to bear the load of work.</p>	manpower available to the PWD and to keep national highways and other facilities in functional state.
8.	Information	Department of	Department	Operate a Disaster Welfare	Documentation of response/	Render necessary

Emergency Support Functions (ESFs) | 2011

	and Communication	Revenue through EOC	State	of IT/NIC	Information (DWI) System to collect, receive, and report and status of victims and assist family reunification; Apply GIS to speed other facilities of relief and search and rescue; Enable local authorities to establish contact with the state authorities; Coordinate planning procedures between district, the state and the centre; Provide ready formats for all reporting procedures as a standby.	relief and recovery measures; Situation reports to be prepared and completed every 3-4 hours.	assistance in terms of resources, expertise to the primary agency in performing the assigned task.
9.	Relief Supplies	Department of Revenue	of	Department of Food and Civil Supplies	To collect, process and disseminate information about an actual or potential disaster situation to facilitate the overall activities of all responders in providing assistance to an affected area in consultation; Coordinate activities	Support to Local Administration; Allocate and specify type of requirements depending on need; Organize donation (material) for easy distribution before entering disaster site.	To assist the primary agency in arranging and supplying relief supplies; To assist the primary agency in running the relief camps.

				<p>involved with the emergency provisions;</p> <p>Temporary shelters;</p> <p>Emergency mass feeding;</p> <p>To coordinate bulk distribution of emergency supplies;</p> <p>To provide logistical and resource support to local entities;</p> <p>In some instances, services also may be provided to disaster workers;</p> <p>To coordinate damage assessment and post disaster needs assessment.</p>		
10.	Food & Supplies	Department of Food and Public Distribution	Department of Cooperation	<p>Requirement of food and clothing for affected population;</p> <p>Control the quality and quantity of food, clothing and basic medicines;</p> <p>Ensure the timely distribution of food and clothing to the people;</p>	<p>Make emergency food and clothing supplies available to population;</p> <p>Ensure the provision of specific nutrients and supplementary diet for the lactating, pregnant women and infants.</p>	<p>Ensuring the distribution of food supplies to the affected population through the PDS network etc.</p>

Emergency Support Functions (ESFs) | 2011

				Ensure that all food that is distributed is fit for human consumption.		
11.	Drinking water	Department of I & PH	Department of Urban Development	<p>Procurement of clean drinking water;</p> <p>Transportation of water with minimum wastage;</p> <p>Special care for women with infants and pregnant women;</p> <p>Ensure that sewer pipes and drainage are kept separate from drinking water facilities.</p>	<p>Support to local Administration;</p> <p>Water purification installation with halogen tablets etc.</p>	To assist the primary agency wherever ULB is associated in the distribution of potable water.
12.	Shelter	Department of Revenue	HIMUDA, HP PWD, UD and Panchayati Raj	<p>Provide adequate and appropriate shelter to all population;</p> <p>Quick assessment and identifying the area for the establishment of the relief camps;</p> <p>Identification of public buildings as possible shelters;</p> <p>Identifying the population which can be provided with</p>	<p>Support to Local Administration;</p> <p>Locate adequate relief camps based on survey of damaged houses;</p> <p>Develop alternative arrangements for population living in structures that might be affected even after the disaster.</p>	<p>HIMUDA and HP PWD would assist the primary agency in establishing temporary shelters of larger dimensions;</p> <p>Department of Panchayati Raj through local Panchayats would assist the primary agency in establishing shelters of smaller dimensions.</p>

				<p>support in their own place and need not be shifted reallocated;</p> <p>Locate relief camps close to open traffic and transport links.</p>		
13.	Media	Department of Public Relations	Local DD and AIR	<p>To Provide and collect reliable information on the status of the disaster and disaster victims for effective coordination of relief work at state level;</p> <p>Not to intrude on the privacy of individuals and families while collecting information;</p> <p>Coordinate with DOCs at the airport and railways for required information for international and national relief workers;</p> <p>Acquire accurate scientific information from the ministry of Science and Technology;</p> <p>Coordinate with all TV and radio networks to send news flashes for specific</p>	<p>Use and place geographical Information to guide people towards relief operation;</p> <p>Use appropriate means of disseminating information to victims of affected area;</p> <p>Curb the spread of rumours;</p> <p>Disseminate instructions to all stakeholders.</p>	To assist the primary agency in discharge of its role.

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Emergency Support Functions (ESFs) | 2011

				<p>needs of Donation;</p> <p>Respect the socio-cultural and emotional state of the disaster victims while collecting information for dissemination.</p>		
14.	Help lines	Department of Revenue	Department of Public Relations	<p>To receive distress calls from the affected people and coordinate with the control room;</p> <p>To facilitate the optimization of donations received in kind;</p> <p>Co-ordinate, collect, process, report and display essential elements of information and to facilitate support for planning efforts in response operations;</p> <p>Co-ordinate pre-planned and event-specific aerial reconnaissance operations to assess the overall disaster situation;</p> <p>Pre-positioning assessment teams headed by the State coordinating officer and deployment of other</p>	<p>One of the most critical needs will be having a simplified way of identifying and tracking victims and providing assistance;</p> <p>Identify locations for setting up transit and relief camps, feeding centres and setting up of the Help lines at the nodal points in the state and providing the people the information about the numbers.</p>	<p>To assist the primary agency in performing its job effectively and provide its manpower and resources for the purpose.</p>

Emergency Support Functions (ESFs) | 2011

				<p>advance elements;</p> <p>Emergency clearing of debris to enable reconnaissance of the damaged areas and passage of emergency personnel and equipment for life saving property protection and health and safety.</p>		
15.	Animal Care	Department of Animal Husbandry	Department of Panchayati Raj	<p>Treatment of animals;</p> <p>Provision of vaccination;</p> <p>Disposal of dead animals.</p>	<p>To arrange for timely care and treatment of animals in distress;</p> <p>Removal of dead animals to avoid outbreak of epidemics.</p>	To assist the primary agency in performing its role.
16.	Law and Order	Police	Home Guards	<p>Having sound communication and security plan in place to coordinate law and order issues;</p> <p>Training to security personnel in handling disaster situations and issues related to them.</p>	<p>To maintain law and order;</p> <p>To take measure against looting and rioting;</p> <p>To ensure the safety and security of relief workers and material;</p> <p>To take specific measure for the protection of weaker and vulnerable sections of the society;</p> <p>To provide safety and security at relief camps and temporary</p>	To assist the primary agency by making available manpower.

Emergency Support Functions (ESFs) | 2011

					shelters.	
17.	Removal of trees and fuel wood	Forest	Forest Corporation	<p>Removal of fallen trees;</p> <p>To provide fuel wood for the relief camps and public;</p> <p>Have adequate storage of fuel wood and make arrangement for distribution thereof;</p> <p>To provide fuel wood for cremation.</p>	<p>Arrange for timely removal of trees obstructing the movement of traffic;</p> <p>Arrange for timely removal of trees which have become dangerous;</p> <p>Make arrangement for fuel wood for the relief camps and for general public;</p> <p>Provide fuel wood for mass cremation etc.</p>	To support and supplement the efforts of the primary agency.

Additional Emergency Support Functions 2020 – COVID 19

ESF No.	ESF	Primary Agency	Secondary Agency	Activities for Response
1	Medical Preparedness (COVID-19)	Health & Family Welfare	Ayurveda Civil Supplies Corporation	<ul style="list-style-type: none"> • Development of worst-case scenario and action plan to deal with the situation • Creation and management of isolation of ward (Action Plan – Health Institution wise – manpower, PPE, equipment, food, clothing, reception/triage area and other logistics) • Identification of temporary hospitals • Identification of Isolation/Quarantine Facilities (Action Plan – Health Institution wise – manpower, PPE, equipment, food, clothing, supply chain and other logistics); designating I/c of these centers. • Maintenance of supply chain to health institutions in view of countrywide lockdown • Mobilization of additional equipment, material and supply and manpower to deal with the worst-case scenario for additional facilities created/to be created • Constitution of Surveillance & rapid response teams • Shifting of serious cases outside the State – logistics • Transportation of affected people – ambulances and other modes of transportation (PPE and disinfectant for staff etc.) • Dealing with the Dead • MIS system for logistics, treatment and tracing of affected/treated/possible contact people • Training and capacity building of Staff – Health, Police, Municipal, and other Department to deal with Biological Disasters (COVID-19 specifically) – handling, testing, etc. • Tie-up with Private Health Institutions • Tie-up with CPMF and Army for quarantine/isolation and treatment facilities • Tie-up for supplies
2	Maintenance of Essential Supplies	Food and Civil Supplies	Marketing Board, Agriculture, Horticulture, Milkfed, Civil	<ul style="list-style-type: none"> • Maintenance of essential supplies of food items, LPG, etc. • Maintaining supplies of milk, bread and likewise other essential commodities • Action against hoarding and overcharging

			Corporation, etc.	<ul style="list-style-type: none"> • Making available food supplies, vegetables, etc. at nearest points to the general public.
3	Law and order	Home (Police)	Home Guards, Civil Defence, & Fire Services	<ul style="list-style-type: none"> • Action against rumour mongers • Regulation in boarders, restricted places • Maintenance of law and order • Expansion of communication network • Assistance in enforcement of regulations and directions • Providing PPE for Police and Fire Personnel
4	Media management and IEC	I & PR	Health & Family Welfare	<ul style="list-style-type: none"> • Preparation of IEC on various aspects emergency and related areas • IEC activities till the last mile • Dealing with fake news & rumours • Sharing of essential information with the general public • Active role by AIR, DD and FM Channels • Regular media briefings on current situation and steps being taken to be done by Health Department
5	Coordination	Revenue – Disaster Management Cell		<ul style="list-style-type: none"> • Active role by SDMA, SEC and DDMA • Creation of Multi-Department Task Force • Use of SEOC and DEOCs • Deployment of Staff in EOCs • Nodal Officers at State and District Level to perform Key Tasks and maintaining supply chain • Promoting Volunteerism – Red Cross, DM volunteers, NGOs, religious organizations, etc. • Implementation of Emergency Support Functions (ESFs)
6	Disinfection and Sanitization of Public Places and Facilities	Urban Development	Rural Development HRTC Transport	<ul style="list-style-type: none"> • Disinfection of public places, buildings, transport and facilities, etc. • Disinfection of shops, restaurants, hotels, offices, and other places • Identification of supplies, manpower, vehicles and machinery • Provision of PPE for sanitation workers
7	Miscellaneous	All Departments		<ul style="list-style-type: none"> • Taking action to reduce queues and contacts • Promoting Social Distancing • Livelihood issues of vulnerable communities
8	Information Management System	Information Technology	NIC	<ul style="list-style-type: none"> • Preparation of MIS • Generation of critical reports and inputs for decision making



GUIDELINES FOR VARIOUS DEPARTMENTS

UNDER

THE DISASTR MANAGEMENT ACT, 2005

HP State Disaster Management Authority

Government of Himachal Pradesh

Disaster Management Cell, Department of Revenue.

CHAPTER – 01

Introduction

Hazard Profile of Himachal Pradesh – A Brief Overview

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.

2. 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 hazard that affects the state is forest fires. 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.

3. 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 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.

Disaster Risk in Himachal Pradesh

4. As stated above, the State of Himachal is prone to various hazards – natural and manmade - namely earthquakes, flash floods, riverine floods, landslides, snow storms and avalanches and dam failures, fires – domestic and wild, road accidents etc. However, the hazard which poses biggest threat to the State is the earthquake hazard. The State has been shaken by more than 80 times by earthquakes having a magnitude of 4 and above on the Richter Scale as per the recorded history of earthquakes. According to seismic zoning map of the state five districts, namely Chamba (53.2%) Hamirpur (90.9%), Kangra (98.6%), Kullu (53.1%), Mandi (97.4%) have 53 to 98.6 percent of their area liable to the severest design intensity of MSK IX or more, the remaining area of these districts being liable to the next severe intensity VIII. Two districts, Bilaspur (25.3%) and Una (37.0%) also have substantial area in MSK IX and rest in MSK VIII. The remaining districts also are liable to intensity VIII.

5. Unfortunately, inspite of the probable maximum seismic intensities being high, the house types mostly fall under Category A, consisting of walls of clay mud, unburnt bricks or random rubble masonry without any earthquake resisting features. Now all such houses are liable to total collapse if intensity IX or more actually occurs in future and will have severe damage called “destruction” with very large cracks and partial collapses even in Intensity VIII areas. Also, the burnt-brick houses, classified as Category B, as built in Himachal Pradesh do not have the earthquake resisting features, namely good cement mortar seismic bands and roof typing etc. therefore, they will also be liable to severe damage under intensity IX as well as in VIII whenever such an earthquake would occur. This became quite evident even in M 5.7 Dharamshala earthquake of 1986.

Paradigm Shift in Disaster Management

6. On 23rd December, 2005, the Government of India took a defining step by enacting the Disaster Management Act, 2005, which envisaged creation of the National Disaster Management Authority (NDMA) headed by the Prime Minister, State Disaster Management Authorities (SDMA) headed by the Chief Ministers, and District Disaster Management Authorities (DDMA) headed by the District Magistrates or Deputy Commissioners as the case may be, to spearhead and adopt a holistic and integrated approach to disaster management (DM). There will be a paradigm shift, from the erstwhile relief-centric response to a proactive prevention, mitigation and preparedness-driven approach for conserving development gains and to minimize loss of life, livelihood and property.

7. Section 2 (e) of the Act defines disaster management as follows:-

“Section 2(e) "disaster management" means a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for-

- (i) prevention of danger or threat of any disaster;
- (ii) mitigation or reduction of risk of any disaster or its severity or consequences;
- (iii) capacity-building;
- (iv) preparedness to deal with any disaster;
- (v) prompt response to any threatening disaster situation or disaster;
- (vi) assessing the severity or magnitude of effects of any disaster;
- (vii) evacuation, rescue and relief;
- (viii) rehabilitation and reconstruction;”

8. The definition encompasses the cycle of disaster management which has the elements of pre-disaster phase such as prevention, mitigation, preparedness and capacity building and post disaster phase such as prompt response, evacuation, search, relief, rehabilitation and reconstruction. The present system of disaster management is relief centric and needs to prepare itself for other aspects of disaster management which are equally important.

Disaster Management – A Multi-Agency Function

9. Disasters affect various aspects of life and development. Disasters destroy infrastructure, affect the mobility and communication, livelihood and severely impair the response capacity of the system. Therefore, disasters risk reduction and disaster management is a multi-agency function. Hence disaster management is a concern and responsibility of all the departments and agencies of the State and Central Government. The Disaster Management Act, 2005 mandates the State Government, SDMA and the SEC to issue guidelines to all the department of the State vis a vis training and capacity building, preparation of disaster management plans (DMPs), integration of measures of disaster risk reduction (DRR) into development planning, programmes and policies, and preparedness for disaster response. In view of the provisions of the Act, the following guidelines covering all the above major aspects are given in the succeeding chapters.

CHAPTER - 02

Imparting of Training to Government Functionaries and Other Stakeholders

10. And Section 22 (i) mandates the SDMA to “...promote general education, awareness and community training 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..” Keeping in view the requirement of Act and for effective handling of disasters and building capacity at all level – Government machinery and other stakeholders - training needs to be imparted at various levels according to the needs and requirement of respective departments and other stakeholders. A “Training Needs Assessment” (TNA) workshop was organized by the Department of Revenue through HP State Council for Environment, Science and Technology on 25-26th April 2011. The Nodal Officers appointed by various departments for disaster management participated in the workshop. The findings of the workshop were presented before the Chief Secretary, Secretaries and HODs. The training needs of the departments has been worked out and as per the direction of the HP SDMA given by it in its first meeting held on 7.12.2011 every department is to ensure that the disaster management related training needs are incorporated into the training curriculum of the respective departments. General guiding principles for the departments would be as under:-

- i) Training would be provided as per the TNA of the respective department.
- ii) Disaster Management Cell, HIPA has been designated as a Nodal Agency to impart and coordinate training programmes in DM. HIPA would initiate the training process as per the DPR on training already approved by the State Executive Committee (SEC).
- iii) Every Department would train a cadre of Master Trainers in consultation with HIPA and HP SDMA at the designated specialized training institute or the training can be organized at the State Level after arranging suitable faculty.
- iv) SDMA and HIPA would provide necessary assistance to the departments for preparation their training material and modules. All trainings would be organized as per standard training modules.
- v) Wherever possible the issues of disaster management would be incorporated in the regular training programmes of respective departments such as training of teachers in SSA/RMSA, training of health officers/workers in NHRM, trainings under the rural development department schemes etc. However, if the departments feel to organize training of DM separately, or if it is not possible to club DM trainings with other training programmes they are free to do so.
- vi) The departmental training institutes would be fully utilized by the respective departments to impart training in DM. The existing capacity of the departmental training institutes would be upgraded so as to meet the requirement of DM related training.
- vii) Database of trained officials to be prepared and put in the departmental website;
- viii) Arrangement of training for local level also needs to be made for field level officials;
- ix) Focus would be hands on and practical training such as use of fire equipment, basics of search and rescue, medical first aid, etc. and
- x) Any other instruction issued by the NDMA, SDMA or the SEC from time to time.

CHAPTER - 03

Preparation of Disaster Management Plans by the Departments

11. Disasters occur with unfailing regularity in India and Himachal Pradesh causing loss of life, assets and livelihood. The increasingly shifting paradigm from a reactive response orientation to a proactive prevention mechanism has put the pressure to build a fool-proof system, including within its ambit, the components of prevention, mitigation, rescue, relief and rehabilitation. Pre-disaster planning is crucial for ensuring an efficient response at the time of a disaster. A well-planned and well-rehearsed response system can deal with the exigencies of calamities and also put up a resilient coping mechanism. Optimal utilisation of scarce resources for rescue, relief and rehabilitation during times of crises is possible only with detailed planning and preparation.

Legal Provision

12. Section 23 of the Disaster Management Act, 2005 mandates that there shall be a plan for disaster management for every State to be called the State Disaster Management Plan (DMP). Copies of the State Plan shall be made available to the departments of the Government of the State and such departments shall draw up their own plans in accordance with the State Plan. Besides, as per Section 40 of Act every department of the State Government, in conformity with the guidelines laid down by the State Authority, shall draw up their own disaster management plans. The SEC as per Section 22 (2) (c) of the Act would lay down guidelines for preparation of disaster management plans by departments of the State and District Authorities. Further as per Section 38 (2) (g) of the Act, the State Government shall ensure the preparation of disaster management plans by different departments of the State in accordance with the guidelines laid down by the National Authority and the State Authority.

Note: The copy of the State DMP is available at: www.hpsdma.nic.in

13. **Brief guidelines for the departments for the preparation of DMPs are as under:-**

- i) The departments of the State, Centre located in the State and other Agencies of the State/Centre Government would draw their DMPs on the basis of State DMP;
- ii) The plans of the departments/agencies would depend upon the role they have in the disaster management - Emergency Support Functions (ESFs);

(For ESF Plan please refer to the EOC manual which is available at: www.hpsdma.nic.in However, the copies of the ESF plans stand shared with all the departments)

- iii) The DMPs would contain all aspect of DM as enshrined in the definition of DM under Section 2 (e) of the Act e.g. prevention, mitigation, preparedness, capacity building, response, etc. and other provisions of the Act;
- iv) The Guidelines issued by the NDMA for the management of various disasters and the roles assigned to various departments would be taken into consideration while preparing the plans. The guidelines issued by the NDMA are available at: www.ndma.gov.in and the actionable points of the guidelines are available at: www.hpsdma.nic.in);
- v) The plans would be regularly (at least once a year) improved and updated;
- vi) Nodal officers at all levels would be appointed to activate and implement the plans;
- vii) Financial provisions would be made within the normal programmes, schemes, and budgetary allocation of the department to implement the provisions of the DM Plan; and
- viii) Any other instruction issued by the NDMA, SDMA or the SEC from time to time.

CHAPTER – 04

Disaster Risk Reduction - Mainstreaming of Disaster Risk Reduction into Development Planning, Programmes and Policies

A. Introduction – Disaster and Development

14. Natural disaster risk is intimately connected to processes of human development. Disasters put development at risk. At the same time, the development choices made by individuals, communities and nations can generate new disaster risk. But this need not be the case. Human development can also contribute to a serious reduction in disaster risk. The destruction of infrastructure and the erosion of livelihoods are direct outcomes of disaster. But disaster losses interact with and can also aggravate other financial, political, health and environmental shocks. Such disaster losses may setback social investments

aiming to ameliorate poverty and hunger, provide access to education, health services, safe housing, drinking water and sanitation or to protect the environment as well as the economic investments that provide employment and income.

How can development increase disaster risk?

15. There are many examples of the drive for economic growth and social improvement generating new disaster risks. Rapid and unplanned urbanisation is an example. The growth of informal settlements and inner city slums, whether fuelled by international migration or internal migration from smaller urban settlements or the countryside, has led to the growth of unstable living environments. These settlements are often located in ravines, or steep slopes, along flood plains, sinking areas or adjacent to noxious or dangerous industrial or transport facilities. Rural livelihoods are put at risk by the local impacts of global climate change or environmental degradation. Coping capacity for some people has been undermined by the need to compete in a globalising economy, which at present rewards productive specialisation and intensification over diversity and sustainability.

Can development planning incorporate disaster risk?

16. The frequency with which our country and state experience natural disaster should certainly place disaster risk at the forefront of development planners' minds. This agenda differentiates from two types of disaster risk management. *Prospective disaster risk management* should be integrated into sustainable development planning. Development programmes and projects need to be reviewed for their potential to reduce or aggravate vulnerability and hazard. *Compensatory disaster risk management* (such as disaster preparedness and response) stands alongside development planning and is focussed on the amelioration of existing vulnerability and reduction of natural hazard that has accumulated through past development pathways. Compensatory policy is necessary to reduce contemporary risk, but prospective policy is required for medium – to long-term disaster risk reduction.

B. The Legal Context

17. As per the DM Act, 2005 the States have been mandated to take measures for prevention/mitigation of disasters and to ensure that appropriate preparedness measures for integration disaster management into development plans and projects are taken and further allocation of funds for prevention, mitigation, preparedness for disaster and capacity building are also made available. Since disaster management is not a function of DM department alone but of all departments hence mitigation concern must be addressed by

the respective departments in all aspects of development. The issue of DRR integration is also contained in the National Policy on Disaster Management, 2009. The Five Year Plan specifically contained the following provisions:-

- i) Do “no harm” approach;
- ii) Focus on integration of DRR in development
- iii) Finance Ministry has announced mandatory requirement to the effect that all new projects to be screened from a DM angle.
- iv) Multi-hazard profile needs to be considered while deciding the locations of projects
- v) Adequate mitigation features to be incorporated in the ongoing programmes.

18. Under clause (d), Sub Section (2) of Section 18 of the Disaster Management Act, 2005, the SDMA has been mandated to “lay down guidelines to be followed by the departments of the Government of the State for the purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefor” and to “review the development plans of the different departments of the State and ensure that prevention and mitigation measures are integrated therein {Section 18 (2) (g)}. Similarly, the State Executive Committee (SEC) headed by the Chief Secretary has been held responsible to “monitor the implementation of the guidelines laid down by the State Authority for integrating of measures for prevention of disasters and mitigation by the departments in their development plans and projects {Section 22 (2) (e)}.

19. Under Section 38 (2) (e) of the Act the State Government is to ensure that the integration of measures for prevention of disaster or mitigation have been incorporated by the departments of the Government of the State in their development plans and projects. The State Government is further to ensure integration of measures to reduce or mitigate the vulnerability of different parts of the State to different disasters in the state development plan {38 (2) (f)}.

20. The Act also prescribes for preparation of State Plan and for incorporation of measures suggesting as to how mitigation shall be integrated into development plans and projects. The Act states that the State DMP shall prescribe “the manner in which the mitigation measures shall be integrated with the development plans and projects”. The DMPs of departments at State and district level shall also have provisions for prevention of disaster and mitigation of its effects or both in the development plans and programmes as provided for in the State DMP and as is assigned to the department or agency concerned.

C. Mainstreaming DRR into Development

Mainstreaming has three purposes:-

- To make certain that all the development programmes and projects that originate from or funded by Government are designated with evident consideration for potential disaster risks to resist hazard impact
- To make certain that all the development programmes and projects that originate from or are funded by Government do not inadvertently increase vulnerability to disaster in all sectors: social, physical, economic and environment.
- To make certain that all the disaster relief and rehabilitation programmes and projects that originate or are funded by Government are designed to contribute to development aims and to reduce future disaster risk.

Mainstreaming DRR into Development Sectors

21. DRR refers to the measures used to reduce direct, indirect and intangible disaster losses. The measures may be technical, economic or social. DRR encompasses the two aspects of a disaster reduction strategy: 'mitigation' and 'preparedness'. Mitigation refers to measures aimed at reducing the risk, impact or effects of a disaster or threatening disaster situation, whereas, preparedness refers to the measures undertaken to ensure the readiness and ability of a society to forecast and take precautionary measures in advance of imminent threat, and respond and cope with the effects of a disaster by organising and delivering timely and effective rescue, relief and other post-disaster assistance. 'Mainstreaming DRR' describes a process to fully incorporate the concerns of disaster preparedness, prevention and mitigation into development and post disaster recovery policy and practice. It means completely institutionalizing DRR within the development and recovery agenda. Accordingly, the following broad objectives of mainstreaming DRR into Development will be encouraged:

- Ongoing schemes and projects of the Ministries and Departments of GoI and State Governments, as well as of all Government agencies and Institutions, including Public Sector Undertakings, will be selectively audited by designated government agencies for ensuring that they have addressed the disaster risk and vulnerability profiles of the local areas where such schemes and activities are being undertaken.
- At conceptualization or funding stage itself, the development schemes will be designed with consideration of any potential hazardous impact associated with it and incorporate measures for mitigation of the same.
- All the development schemes will be pragmatic, incorporating the awareness of local disaster risk and vulnerability, and ensuring that the schemes have addressed these concerns and included specific provisions for mitigating such disaster concerns; and
- DDMA will ensure that all the disaster relief and recovery programmes and projects that originate from or are funded by any agency satisfy developmental aims and reduce future disaster risks.

D. Approaches for mainstreaming

22. There are three suggested approaches of mainstreaming disaster management into the development process and disaster management plans-

1. Structural Measures
2. Non Structural Measures
3. Disaster Mitigation Projects

23. Based on the suggested approaches the specific action would involve:-

- a. Adopting a Sectoral approach and identification of Key sectors for mainstreaming.
- b. Within each sector, key programmes/projects would have to be identified.
- c. This has to be followed by indentifying the entry points within the programmes/projects for integration.
- d. It would also involve work at the policy and planning level be it national, state and district level.
- e. It would also need a close coordination with State Planning Commission and Finance Department for promoting DRR into all development programmes and involve working with different departments to mainstream DRR into the Departmental Plans and policies.
- f. Advocacy would have to be done for allocation of dedicated budget for DRR within the Departmental plans.
- g. Further appropriate guidelines for different sectors would have to be development and for it to be effective and sustainable it has DRR would have to be ultimately integrated to the development plans of various departments at the district and sub-district levels.

E. Sector Specific Illustrations of DRR Integration (Source: NDMA Guidelines)

i) Integrating DRR in Shelter & Infrastructure:

24. In every disaster huge losses happen due to destruction of shelter and infrastructure and pose challenges to quick recovery. Focus on disaster resilient shelter and infrastructure can reduce the impact of disaster to a great extent.

Shelter and Infrastructure

Policies & Legislation

- Quality standards & guidelines for infrastructure focus on hazard-resistant construction
- Land-use planning technique is used in pre-planning an affected village area

Advocacy & Awareness

- Implementing agencies and beneficiaries are aware
- Implementing agencies and people are aware of new disaster resilient construction techniques
- Affected people, including the most vulnerable, are aware of their land and housing rights
- Public information on entitlements has been spread
- Families are encouraged to prepare household disaster preparedness plans

Coordination & Capacity development

- Institutional arrangements are in place to promote use of calamity-resistant techniques including retrofitting
- Necessary technical training is imparted to implementing staff and inspectors, district and local government and NGOs, on DRR in reconstruction (e.g. hazard analysis for site location, awareness on how to monitor hazard resistant construction etc.)
- Masons are trained in hazard resistant construction

Risk-proofing & Monitoring

- Land is allotted by the district administration to the private sector or NGOs provided they undertake disaster resistant construction
- Retrofitting of existing houses
- Quality of construction is monitored through regular inspections

Engagement of Local Bodies & Communities

- Following the owner driven reconstruction principle, self-help groups, including the most vulnerable, are organised and engaged in construction with assistance in the form of finances, building materials, and DRR engineering services
- Communities are trained in quality monitoring

ii) Integrating DRR in Restoration of Livelihoods:

25. Integrating DRR into livelihoods is a key challenge to sustain the socio-economic development achieved in the development process.

Restoration of Livelihood

Policies & Legislation

- Land-use planning technique is used for livelihood planning

Advocacy & Awareness

- Institutions like ICAR study and prepare development plans as a long term strategy for improved livelihoods, development of livestock, and overall agricultural development
- Vocational training is imparted to affected people including women and the most vulnerable
- Small entrepreneurs have developed business contingency plans
- Coordination & Capacity development
- Economic programmes are launched for masons, entrepreneurs and self-employed
- Maximum support is given to revitalization of dairy, handicraft, handloom & small Industries with special focus on women and disadvantaged groups
- Use of locally available material and traditional livelihoods is supported and encouraged
- There are provisions in government programmes (e.g. NREGA for disaster-affected areas)
- Partnerships have been formed with Micro Finance Institutions on micro-credits and Micro-insurance

Risk-Proofing & Monitoring

- Income-generation activities are piloted for upscaling
- Comprehensive risk assessment of the agricultural land /livestock is done

- There are changes in crop pattern and growing of resistant/ alternative crops
- Alternative viable livelihoods are mapped, including market linkages
- There is the option of cash for work in reconstruction of key infrastructure for informal sector workers
- Access to financial tools for risk reduction is improved (e.g. insurance is offered to small enterprise owners and workers on livelihood assets; agreements in place with MFIs on reduced interest rates or grace period for loan repayments etc.)

Engagement of Local Bodies & Communities

- Self-help groups are organised and covered under Swarn Jayanti Swarojgar Yojana for developing livelihoods
- Women have been trained in handloom and other economic activities
- Youth groups are trained in preparedness, response, mitigation, etc.
- Contingency funds at the local government and community level are created
- Vulnerable groups are prioritized in service provision

iii) Integrating DRR in Food Security and Nutrition:

26. Food insecurity and malnutrition adversely affect poor households and their vulnerability further gets aggravated in post-disaster situations. Elderly, disabled, women and children are usually the worst affected in disaster situations. Special efforts must be made to ensure that the needs of these groups are assessed carefully.

Food Security and Nutrition

Policies & Legislation

- Adequate safety net for poor in the situation of acute food crisis in the policy mostly in disaster prone areas
- Long term strategy for draught management
- Introduction of insurance schemes for the poor for covering post disaster losses (post floods, earthquake, cyclone, etc.)

Advocacy & Awareness

- Public information campaign on existence and content of Govt. agricultural livestock schemes and entitlement/access to them.
- Awareness raising of the risk to food crops from hazards & from environmental degradation – those currently experienced and those likely to appear in future through climate change
- Making the vulnerable community aware of the nutritious content of the local food which is cheap and accessible to them
- Creating awareness among people on climate variability and impact of human induced extreme weather events in disaster zone

Coordination & Capacity development

- Training of farmers in alternative farming methods, crop types & varieties, and water resource management
- Training of mothers and adolescent girls on preventive measures of maternal & child

nutrition especially in disaster situation

- Training of SHG women members in preparedness and post disaster response for food security
- Proper engagement of ICDS in multi hazard zone and train the staff accordingly
- Training of MPW, FHW and AWW to take up special counselling for mothers and family members on maternal and child nutrition in multi hazard zone before the onset of disaster

Risk-proofing & Monitoring

- Increased cultivation of drought (or flood) resistant crop types or varieties; revival of traditional crops and varieties which are more hazard tolerant.
- Diversification of crops grown in different seasons of the year
- Introduction of water-conservation farming systems, e.g. minimal tillage, mulching, contour bunding (using earth or stones), half-moon pits, terraces, etc.; afforestation and pastureland development for soil and water conservation
- Small scale irrigation systems such as cross dams, sub-surface dams, and hand, foot or animal-operated pumps
- Community grain banks.

Engagement of Local Bodies & Communities

- Formation or strengthening of farmers co-operatives (for access to Govt. schemes, bulk purchase of inputs, grain banks, etc.).
- Awareness raising of women SHG members, youth club and schoolchildren to increase engagement of vulnerable groups in preparedness/post disaster
- Involvement of local Govt. (Gram Sabha) in schemes to manage natural resources – e.g. building cross dams, managing grazing or reducing environmental damage.

iv) Health Services:

27. Health services are very important during disasters but often get badly affected by disasters. Integrating DRR into health services is of utmost importance.

Health

Policies & Legislation

- Quality standards & guidelines for infrastructure focus on hazard-resistant construction of hospitals and health facilities/ centres
- Land use planning technique used for planning for location of new hospitals/health centres

Advocacy & Awareness

- Health workers are aware of NDMA Guidelines on medical preparedness and mass casualty management for disasters
- Hospital Disaster Management Toolkits, Community Health Workers manuals etc. are available for health workers to use

Coordination & Capacity development

- Health training: Anganwadi workers, health volunteers are trained on various aspects of health and hygiene during emergencies
- Anganwadi centres are strengthened (e.g. safe structure, adequate stocks of medicines/

- emergency kits, DRM training for workers, more staff during risk prone season etc.)
- Health workers are involved in disaster preparedness efforts (e.g. inclusion of disaster management and first aid into MPW and FHW training curriculum, MPW, FHW workers part of Village Disaster Management Teams etc.)
 - A Contingency plan exists for health services and delivery during the monsoon season (e.g. equipping paramedical staff in villages that are hard to reach)
- Risk-proofing & Monitoring**
- Primary health centres and Community health centres are fully equipped to continue functioning during disasters
- Engagement of Local Bodies & Communities**
- Communities are trained in counselling skills to deal with post-disaster trauma

v) Water - Sanitation –Hygiene:

Water - Sanitation - Hygiene

- Policies & Legislation**
- Policy on WASH recovery includes provisions on upgrading facilities in terms of hazard resistant and accessibility
- Advocacy & Awareness**
- Awareness at various level on safe WASH practices
 - Disaster Risk Reduction is integrated into Watershed programme (e.g. Nirmal Gram)
- Coordination & Capacity development**
- A Contingency plan exists for service delivery system for WASH for monsoon season
- Risk-proofing & Monitoring**
- Risk assessment is done for site-location of water pumps, supply systems, drainage & sewage systems, sanitation facilities etc.
 - Construction of community drainage systems, sanitation facilities, waste management system etc. is risk-proof
- Engagement of Local Bodies & Communities**
- Quality control is exercise by the community by participating in the risk proof creation of community drainage systems, sanitation facilities, waste management etc.

vi) Education:

Education

- Policies & Legislation**
- Land use hazard zoning technique used for planning for new schools
 - Schools have disaster management plans -
 - Quality standards & guidelines for hazard-resistant construction of schools
 - Retrofitting policy for disaster resistant strengthening of existing school buildings
 - Retrofitting policy for Non-structural building components (falling hazards) in schools
- Advocacy & Awareness**

- DRR lessons in school curriculum advocate safe behaviour
- Coordination & Capacity development**
- Education & training on disaster risk management including for teachers
 - Schools conduct disaster preparedness programmes (e.g. mock drills, first aid, search and rescue, swimming and crowd management training)
 - A Contingency plan exists for continuing education during the monsoon and winter season
- Risk-proofing & Monitoring**
- School safety norms are followed in construction of safe schools
 - Risk assessment done in site-selection and building new schools
 - Retrofitting of existing schools
- Engagement of Local Bodies & Communities**
- Engaging community in design and monitoring of education program

vii) Environment and Disaster Management:

Environment and Disaster management

- Policies & Legislation**
- Environment regulations are adhered to and include hazard considerations (e.g. EIAs for recovery projects incorporate disaster risk assessments)
 - Institutions to update state, district and local disaster management plans reflect current needs and priorities for recovery
- Advocacy & Awareness**
- Safe reconstruction of embankments is advocated
 - Public information on quality control is spread
 - There is awareness on climate change mitigation (energy saving) and adaptation
- Coordination & Capacity development**
- Capacity development on updating disaster management plans
 - Knowledge transfer to duty-bearers esp. DDMCs on factoring and monitoring risk Reduction into reconstruction, livelihoods programs and restoration of ecosystems
 - Risk-proofing & Monitoring:
 - EIA incorporate Disaster impact assessment
 - Eco-systems that contribute to risk reduction are restored (eg. forestation)
 - There is a public investigation into embankment construction underway
- Risk-proofing & Monitoring**
- All projects can be evaluated and audited from the design to commissioning phases for risk proofing
- Engagement of Local Bodies & Communities**
- Quality control by beneficiaries
 - Community-based risk assessments are done
 - Community Early warning systems are in place
 - CBOs are trained on embankment monitoring

F. Illustrations of Mainstreaming DRR into ongoing Flagship Programmes

28. More specifically some of the following flagship programmes for Government of India could be used as an entry point for mainstreaming the DRR in development plans and the following steps may be undertaken:-

Sl. No.	Name of The Programme	Department/ Sector	Proposed Strategies for DRR Integration into the Flagship Programmes
1.	Indira Awas Yojana	Rural Development	<ul style="list-style-type: none"> i. Inclusion of such measures like application of Hazard resistant design in construction of IAY houses, appropriate sitting of IAY housing in guideline of IAY ii. Development of model design for IAY houses which could be easily referred to by DRDAs at district level and used for community awareness depending on the geographical location. iii. Capacity Building of Rural masons on safe construction. iv. Capacity Building of PRIs. v. Community Awareness. vi. Capacity Building Programmes for DRDA officials on Disaster Risk Reduction issues.
2.	Mahatma Gandhi National Employment Guarantee scheme	Rural Development	<ul style="list-style-type: none"> i. Utilisation of MGNREGS funds to reduce the vulnerability of Panchayat vis a vis natural hazards such as landslide, drought, forest fire, cloud burst, flash floods, earthquake etc. ii. Giving priority to those works which reduce the vulnerability of area over the works which enhances the vulnerability of the area to natural hazards. iii. Identified works are available which take into account the hazard profile and offer continuous employment opportunities in the event of disasters to ensure livelihood security in the event of disasters. iv. Works which reduce disaster risk are given priority in plans-such as local mitigation works etc. v. Any other implement able suggestion within the ambit of the scheme.
3.	Pradhan Mantri Gram Sadak Yojana	PWD	<ul style="list-style-type: none"> i. The Master Plan for rural roads, the district rural road plan and identification of core network under the planning process of this scheme should, which the overall guidelines of its preparation, explicitly address the disaster risk reduction concerns and accord priority to connect the vulnerable habitations. ii. The technical guidelines should explicitly provide for suitable protection and inclusion of disaster risk concerns explicitly - while provision of cross drainage, slope stabilization, protection works are already included, in multi-hazard and especially flood and landslide prone areas fair weather roads need to be upgraded on a priority basis. iii. The maintenance guidelines are modified to ensure that in case of disasters these roads get provision for restoration to ensure all weather connectivity.

4.	Sarva Siksha Abhiyaan	Education	<ul style="list-style-type: none"> i. Development of a Policy paper of school safety. ii. Introducing school safety as a part of the guidelines of SSA which is currently focusing on inclusive development. iii. Developing model structurally safe designs for schools. iv. Introducing School Safety in the Teacher's Training Curriculum. v. Training of Rural Engineers appointed under SSA Scheme as well as the SSA State Coordinators. vi. Training of masons in rural areas. vii. Construction of Technology Demonstration Units. viii. Community Awareness.
5.	Jawahar Lal Nehru Urban Renewal Mission	Urban Development	<ul style="list-style-type: none"> i. Strengthening of the compliance mechanism at the detail project report submission and appraisal stage in case of infrastructure projects as well as housing scheme to ensure structural safety. ii. Emphasis on disaster risk audit at the stage of preparation of detail project reports. iii. Inclusion of amending of building byelaws to ensure structural safety as a mandatory reform in the Mission cities to ensure safe habitat development.(Both structural safety and fire safety norms). iv. Inclusion of disaster management as a function of the Urban Local Bodies and allocate resources. v. Inclusion of Disaster Resistant features in the houses being constructed under the BSUP component as well as promote development of safe habitat. vi. Inclusion of strategies for disaster management in the City Development Plans. vii. Training and Capacity Building Programmes for municipal officers on disaster risk reduction.
6.	Rajiv Awas Yojana	Urban Development	<ul style="list-style-type: none"> i. Since Rajiv Awas Yojana is focusing on developing slum free cities and Capacity Building and Community Mobilization is also an important component of RAY, through this programme attempts can be made towards community level disaster preparedness as slum dwellers often become the most vulnerable community during such disasters as floods, fire and high wind speed. The 30 cities selected on a plot basis can be targeted to initiate community based disaster preparedness activities. ii. Also the Housing Programmes to be implemented in these selected cities can ensure incorporation of hazard resistant features and safe sitting.
7.	National Rural Health Mission	Health and family welfare	<ul style="list-style-type: none"> i. Ensure that the village Health Plan and the District health plan explicitly address the disaster risk reduction concerns in the vulnerable habitations and the vulnerable districts and the disaster management plan as per DM Act 2005 takes links itself to the District and village Health plans. ii. Provide training to the ASHA workers on disaster health preparedness and response. iii. Strengthening of Disease Health Surveillance System in rural areas. iv. Ensuring structural safety of the CHC/PHC and other health care service delivery centers in rural areas. v. Training of doctors and hospital staffs on mass casualty management and emergency medicine. vi. Community awareness on disaster management.

29. The list given in the above table is an indicative one and many more line departments can be added to it. DRR planning needs to be done at Municipal and Panchayat

levels with the involvement of local community representatives; and simultaneously the resource and responsibility to manage would be in the domain of the local authorities. Decentralised planning can enhance local participation along with improved efficiency and equitable benefits.

G. Mainstreaming DRR into Development Planning – Approaches

30. Disasters are basically unresolved problem of development. Development can increase vulnerability. Development can reduce vulnerability. The outcome rests on developmental choices. The seeds of disasters are often sown in development patterns: poor land use planning, environmental management and lack of regulatory mechanisms. It is due to this reason that despite having almost similar exposures disaster has greater impact on humans in developing or low developed countries than the developed countries. Therefore, disaster risk can best be addressed through integrating into the developmental planning, programmes and processes.

31. Mapping of hazards, identification of elements at risk and exposure data assist in quantifying risk. Thereafter risk reduction initiatives can be taken. Mainstreaming DRR is a prerequisite for safe and sustainable development. Mainstreaming as a term is used to describe the consideration of DRR elements in national and regional decision making process (Policy, planning and budgeting etc.). DRR integration leads to addition of specific measures to the development plans, programmes and strategies. Some of the key sector where mainstreaming/integration of DRR can be done with illustrations is as under:-

a) Public Infrastructure:-

- i) Incorporate disaster risk impact assessment as a part of the planning process before the construction starts.
- ii) Site analysis and risk sensitive land-use planning (either avoid development in hazard prone areas or adopt treatment and mitigation measures)
- iii) Strengthen compliance to the various provisions of the codes – set up hazard safety cell for advice and monitoring
- iv) Disaster resistant technologies mandatory in case of all construction using public/corporate funds.
- v) Training and capacity building of the department and functionaries.

b) Housing – Rural and Urban

- i) Application of hazard resistant designs
- ii) Prepare construction guidelines for rural areas, Nagar Panchayats and Municipal Councils.
- iii) Amendment of Building bye-laws, Zoning regulations and Development Control Regulations.
- iv) Strengthening the enforcement of techno-legal and managerial regime.

- v) Training of masons, engineers, architects, contractors, promoter and builders.
- vi) Sensitization of the banking and financial institutions.
- vii) Promotion of disaster insurance in housing sector.
- viii) Having a housing reconstruction policy.

c) Health Sector

- i) Ensure hospitals and health facilities are not located in hazard-prone areas.
- ii) Analyze the internal and external vulnerabilities of existing health care facilities during emergencies.
- iii) Retrofitting of the critical hospitals.
- iv) Prepare and implement hospital preparedness plan.
- v) Training of doctors on mass casualty management, trauma care and emergency medicine.
- vi) Training of health workers on emergency preparedness and response.
- vii) Strengthening of disease surveillance system.

d) MGNREGS – Scope of work – Some illustrations

- i) Water conservation and water harvesting;
- ii) Drought proofing, including forestation and tree plantation;
- iii) Irrigation canals, including micro and minor irrigation works;
- iv) Plantation and horticulture;
- v) Renovation of traditional water bodies, including de-silting of tanks;
- vi) Land development;
- vii) Flood-control and protection works, including drainage in water logged areas; and
- viii) Rural connectivity to provide all weather access.

e) Indira Awas Yojna

- i) Study IAY housing typology and develop hazard resistant model design (taking into consideration of available local materials and culture).
- ii) Training of DRDA officials and engineers.
- iii) Awareness generation among villagers and PRIs members and community mobilization campaign.
- iv) Construction of sample IAY units for promoting the technology.
- v) Training of Masons and community members on hazard resistant technology.

CHAPTER - 05

Schools and Hospitals Safe from Disasters

32. In addition to the general guidelines as given above for the health and education sector, guidelines for school and health safety are as under:-

A. Schools Safe from Disasters

33. Few would disagree that our children deserve the right to a safe education yet time and again we fail our children with unsafe schools. Schools are vulnerable to disasters and in the past thousands of children have been killed/injured in schools and large number of school buildings have been damaged or destroyed during disasters. School safety is important because children are the most valuable segment of any culture or society since the future rests in their hands. Moreover, children, the ill and the elderly are generally the most vulnerable segments of society. Children have no choice when they are exposed to unacceptable high levels of risk in their school buildings. Schools which are unprepared to face disaster respond with fear, panic, disorder, confusion, lack of proper response and unnecessary consequences. On the other hand schools which are prepared have less fear, fewer loss of life takes place, injuries are prevented, evacuation is organized and devastating consequences of disasters are reduced and lives are saved. Steps for safe school are:-

- i) Basic disaster awareness and sensitization;
- ii) Conduct hazard hunt and secure hazards at school (structural and non-structural);
- iii) Preparedness of Emergency Preparedness Plans;
- iv) Conduct of Mock drills to test the plans and organized response;
- v) Discuss emergency plan with parents;
- vi) Link school safety with community, SMC, PTAs etc. and
- vii) Discuss earthquake safety at home.

34. Himachal Pradesh has over 44% land are in Seismic Zone V and the rest in Zone IV. Earthquakes will cause injury, loss of life, disruption and economic damage related to schools. There are thousands of children in schools who may be in danger. If no action is taken, the problem will only get worse due to population growth and redistribution and our greater emphasis on “Education for All” initiatives. That each unsafe classroom added to our building stock will put 40-50 more children at risk.

35. Some suggestions for mainstreaming actions for school safety are as under :-

- a) Establish clear and measurable objectives for school seismic safety that can be implemented and supported by the community with timeline.
- b) Define the level of earthquake hazard and establish norms for school buildings in each zone.
- c) Set forth expectations or objectives that define the desired ability of school buildings to resist earthquakes – All school buildings designed, constructed or retrofitted to prevent collapse and prioritize school buildings with pre-defined post-earthquake roles should remain functional.
- d) Address all schools regardless of the ownership – private or public.

- e) Give initial priority to make new schools safe. A longer timeframe should be established to correct seismic weakness of existing school buildings – set standards for new schools and assess the existing school buildings.
- f) Establish programmes as long-term undertakings with a strong commitment to sustained effort rather than one-time action.
- g) Adopt multi-hazard approach to school safety with earthquake mitigation strategies that complement and enhance disaster counter-measures for other hazards.
- h) 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.

B. Hospitals Safe from Disasters

36. When it comes to disaster mitigation, hospitals need special attention due to the vital functions they perform, their high level of occupancy, and the role they play during disaster situation. But time and again, these facilities fail the communities they were to serve in the most critical “golden hours”. The aims and objectives of DRR mainstreaming into health sector includes –

- a) to protect lives of patients and health workers by ensuring that the structural resilience of health facilities;
- b) to improve the risk reduction capacity of health workers and institutions; and
- c) to ensure health facilities and services continue to function in the aftermath of emergencies.

37. That in case of hospitals structural mitigation is important. But earthquake resistant hospital buildings are not enough for the facilities to remain functional. The non-structural elements – all those other elements that without forming part of the structure, but enable the facility to function such as equipment, services or lifelines - also need to remain operational. The main ingredients for a functional hospital are:-

- safe buildings,
- hospital staff is safe and prepared,
- medical equipment are functional,
- utility system is functional,
- communication is functional and
- supplies are available.

38. And the questions which health facility administrators must ask from themselves:-

- 1) Is there any earthquake hazard where we are?
- 2) Are our hospital buildings safe?
- 3) What can be done to reduce earthquake risk in existing hospital buildings?
- 4) Do we need retrofitting? What performance are we looking at?

- 5) How do we increase our capacity for effectively responding to emergencies involving mass casualties?
- 6) How safe are our equipment?

Steps for safe hospital are:-

- i) Basic disaster awareness and sensitization;
- ii) Conduct hazard hunt and secure hazards at hospital (structural and non-structural);
- iii) Preparedness of Emergency Preparedness Plans;
- iv) Conduct of Mock drills to test the plans and organized response;
- v) Discuss emergency plan with all stakeholders;

CHAPTER – 06

Preparedness for Disaster Management

Legal Provision

39. As per Section 38 (2) (i) of the Act the State Government shall ensure that different departments of the Government of the State and the District Authorities take appropriate preparedness measures to deal with disasters. The Act further says the SDMA shall review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government and issue such guidelines as may be necessary {18 (2) (h)}.

Brief Guidelines for the Departments:-

1. The departments shall critically assess their present level of preparedness, availability of trained manpower and equipment to perform the roles and responsibilities envisaged for them as per the provisions of the Act, guidelines issued by the NDMA, SDMA and SEC;
2. The departments shall also evaluate their capabilities and preparedness as per the State ESF Plan and guidelines issued by the NDMA vis a vis various disasters;
3. An action plan to improve the capacity and level of preparedness of the department would be chalked out and implemented in a time bound manner;
4. The departments would also ensure office level planning and preparedness and conduct regular mock drills for various hazards such as fire and earthquake;

5. Nodal Officer DM of the department can be entrusted with this responsibility; and
6. Any other instruction issued by the NDMA, SDMA or the SEC from time to time.

For more information please contact:

HP State Disaster Management Authority
Department of Revenue, Disaster Management Cell,
HP Secretariat, Shimla – 171 002.

Website: www.hpsdma.nic.in

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*Empowered lives.
Resilient nations.*

Compiled under GOI-UNDP Disaster Risk Reduction Programme (2009-12)

White Paper on Earthquake Risk Mitigation in the State

State of Himachal is prone to various hazards both natural and manmade. Main hazards consist of earthquakes, landslides, flash floods, snow avalanches, droughts, fires— domestic and wild, accidents— road, stampedes, etc. However, the hazard which poses biggest threat to the state is earthquake hazard. The state has been shaken by more than 80 times by earthquakes having a magnitude of 4.0 and above on the Richter scale as per the recorded history of earthquakes. As per the Bureau of Indian Standard (BIS) seismic zoning map five districts of the state, namely Chamba (53.2%) Hamirpur (90.9%), Kangra (98.6%), Kullu (53.1%), Mandi (97.4%) have 53 to 98.6 percent of their area liable to the severest design intensity of MSK IX or more, the remaining area of these districts being liable to the next severe intensity VIII. Two districts, Bilaspur (25.3%) and Una (37.0%) also have substantial area in MSK IX and rest in MSK VIII. The remaining districts also are liable to intensity VIII.

The threat of an impending earthquake in the state hangs like the proverbial Damocles sword over the large number of people residing in this region as well as adjoining states. An earthquake shaking may not only bring down the structures but the objects inside the buildings will also fall and topple. Research in the subject of earthquake effects indicate that over 50% of the losses in an earthquake are due to falling hazards or nonstructural hazards (i.e. the contents of the building falling down and causing injuries and damage). As opposed to other lifeline buildings, this aspect is critical when it comes to hospitals which houses lifesaving and expensive equipment within a comparatively small area.

In the year 2013 a study was conducted by the National Disaster Management Authority (NDMA), Government of India with the technical support of a team of earthquake engineering experts from Indian Institutes of Technology (IIT), Mumbai and Madras on the likelihoods of deaths due to a hypothetical earthquake of Mw 8.0. The projected deaths and injuries due to this earthquake are astounding. It has been estimated that there could be around 2.3% casualties (1,60,000) and up to 16% injuries (11,00,000) if the event takes place during

midnight. The deaths and loss estimates are based on the state level data from Census of India (2011).

The scenario is frightening and urgent steps are needed to reduce losses. The State marked the 1905 Kangra earthquake by organizing various events. A national level workshop was also organized on 3-4 April, 2019 at Dharamshala in association with the Central University, HP. One of the recommendations of the workshop was that the State may come up with a white paper on earthquake mitigation.

Accordingly, a white paper on the earthquake risk mitigation is proposed as under:-

A. Reducing the Existing Risk			
Sr. No.	Action	Responsible Department	Timeline
1	Securing the lifeline structures	Concerned Department	2022
2	Making Hospitals safe and disaster resilient	Health & Family Welfare	2025
3	Making schools safe and disaster resilient	Education	2030
4	Structural Audit of all critical and remedial action, if any	PWD	2025
5	Resilient Electric Network	MPP and Power	2030
6	Dismantling of unsafe public and private structures	Govt. Building – Concerned Department Private: concerned PRI and ULB	2030
7	Reducing the risk of landslides in lifeline roads	CPWD and PWD	2030
8	Strengthening of vulnerable infrastructure	Concerned Department	2025
9	Improving Dam Safety	Dam Authorities	2025
10	Securing of water supply network	I & PH	2025

B. Stop Building More Risk			
11	Promoting Safe construction practices in Private Sector	TCP, UD and PR and RD	Immediately
12	Ensuring building hazard resistant infrastructure and buildings in public sector	All Departments and organizations of the Govt.	Immediately
13	Regulation of commercial and institutional structures in rural areas	TCP and PR and RD	2020 onwards
14	Training and Capacity Building of Masons, Carpenters in safe construction practices	DDMAs and DMC	2025
15	Strengthening of Techno-legal regime (Building bye-laws, land use planning, etc.)	TCP, UD and PR & RD	2025
16	Implementation of DMPs	SDMA, DDMAs and All Departments	Regularly
C. Improving Response Capacity			
17	Raising of State Disaster Response Force	HHG and DMC	2020
18	Improving EOC network	SDMA & DDMAs	2021
19	Development of Fire Services as Multi-hazard response Force& increasing its density and reach	Fire	2030
20	Strengthening of SDMA and DDMAs	DMC	2021
21	Creating a Task Force of Youth Volunteers	DDMAs	2025
22	IEC activities	SDMA & DDMAs	Regularly
23	Creating and Strengthening Inter-Agency Coordination	SDMA and DDMAs	2022
24	Improving and Strengthening Early Warning Network in the State	CWC, IMD, SASE, GSI, SDMA and DDMAs	2025
25	Improving the inventory of SAR equipment	DDMAs and SDMA	2025
26	Conduct of mock drills in all	Education	Regularly

	educational Institutions – 4 times a year (One on the eve of 1904 Kangra Earthquake and IDDR and 2 as per the convenience of the institutions)	Department	
27	Promotion of Ham Radio & Community Radios	SDMA and DDMA's	2022
28	Hazard mapping, scenario development and mitigation activities	SDMA, DDMA's and All Departments	Regularly