DISASTER MANAGEMENT POLICY

2025

Centre of Excellence in Energy Science and Technology (CEEST)

Shoolini University of Biotechnology and Management Sciences,

Solan, Himachal Pradesh-173229

1. Preamble

Shoolini University recognises that natural and human-induced disasters can cause significant damage to human life, infrastructure, economic resources and the environment. Climate-related hazards, earthquakes, landslides, forest fires, floods and other emergencies pose particular challenges to institutions located in mountainous regions. The University is situated in the Western Himalayan region, which falls under Seismic Zone IV. Recognising its geographical and environmental vulnerability, Shoolini University is committed to strengthening disaster preparedness, risk reduction, mitigation and emergency response.

In alignment with the United Nations Sustainable Development Goals, particularly SDG 13: Climate Action, the University has established this Disaster Management Policy to promote a safe, resilient and disaster-prepared institutional environment. The policy provides a framework for disaster prevention, preparedness, response and recovery and applies to all university buildings, construction activities, infrastructure, operations and institutional activities before, during and after a disaster.

The University shall follow applicable disaster management guidelines and safety requirements issued by the Government of India, the Government of Himachal Pradesh and the relevant statutory authorities.

2. Policy Objectives

The objectives of this policy are to:

- Give priority to disaster risk reduction and institutional preparedness.
- Develop a culture of disaster awareness and responsibility among students, faculty, employees and the local community.
- Establish clear accountability for disaster prevention, response and recovery.
- Allocate appropriate institutional resources for disaster risk reduction and emergency preparedness.
- Ensure the implementation of relevant safety measures across university infrastructure and operations.
- Strengthen coordination with government departments, civil society organisations and relevant stakeholders.
- Promote awareness, training and educational activities on disaster management and climate-related risks.
- Minimise the potential loss of human life, property, infrastructure and environmental resources during disasters.

3. Scope and Applicability

This policy shall apply to:

- All academic, administrative and residential buildings of the University.

- New construction, renovation and infrastructure development projects.
- University laboratories, offices, hostels, classrooms and other facilities.
- University operations, events and institutional activities.
- Students, faculty members, non-teaching staff, contractors, visitors and other associated stakeholders.
- Disaster preparedness and response activities undertaken in collaboration with external agencies and local communities.

4. Disaster Management and Implementation Strategy

The University shall adopt an integrated approach to disaster management, covering prevention, mitigation, preparedness, response and recovery.

4.1 Disaster Prevention and Mitigation

The University shall undertake preventive and mitigation measures to reduce the potential impact of disasters and minimise institutional vulnerability.

The following measures shall be promoted:

- Creating awareness about potential natural and human-induced hazards and appropriate preventive measures.
- Educating students, faculty and employees about disaster preparedness and emergency response.
- Strengthening appropriate prediction, monitoring and early-warning arrangements wherever applicable.
- Encouraging the preparation of emergency and disaster response plans.
- Promoting the use of fire-resistant and fire-retardant construction materials.
- Identifying vulnerable locations and infrastructure requiring preventive intervention.
- Strengthening coordination and partnerships with central, state and local authorities for disaster risk reduction.
- Promoting community participation in disaster preparedness and awareness initiatives.
- Encouraging appropriate insurance coverage for institutional assets and infrastructure, wherever applicable.

4.2 Safe and Earthquake-Resistant Buildings

Considering the University's location in Seismic Zone IV and the hilly terrain of the Western Himalayan region, structural safety shall be an important consideration in all construction and infrastructure development activities.

4.2.1 Site Surveys and Soil Investigation

Before undertaking construction, appropriate site surveys and soil investigations shall be conducted by qualified geotechnical professionals.

The assessment shall consider:

- Soil profile and ground strata.
- Load-bearing capacity of the soil.
- Potential soil liquefaction.
- Ground stability and other relevant geotechnical conditions.

Where soil liquefaction or other ground-related risks are identified, suitable engineering measures shall be considered. These may include soil strengthening and appropriate foundation systems, including pile foundations wherever technically feasible.

4.2.2 Construction on Hilly Terrain

Special precautions shall be adopted for buildings constructed on hill slopes to minimise risks associated with landslides, slope instability and surface water flow.

Construction planning shall consider:

1. The possibility of landslides from the slope on which the building is located.
2. Debris and loose material falling from the uphill side.
3. Sliding of loose, fragmented or unstable rock layers.
4. Natural drainage channels and the flow of water along hill slopes.
5. Slope stability and the suitability of the proposed foundation system.

Where construction is undertaken on inclined terrain, appropriate structural and geotechnical measures shall be adopted. Foundation design, anchoring into competent rock and structural connections shall be assessed by qualified engineers.

4.2.3 Earthquake-Resistant Construction

All new residential, academic and administrative buildings shall be designed and constructed with due consideration to applicable earthquake-resistant building requirements.

The following principles shall be considered:

- Structural safety and stability.
- Functional suitability of the building.
- Sustainability and durability.
- Appropriate selection of structural materials and systems.
- Supervision by competent structural engineers.

Modern construction technologies and structural systems shall be implemented under the supervision of qualified professionals to ensure compliance with applicable safety requirements.

4.2.4 Earthquake-Resistant Building Design

Building design shall consider structural symmetry, regularity and stability to minimise the possibility of excessive torsional movement and structural damage during earthquakes.

Wherever practicable, simple and regular building configurations shall be preferred. Where irregular layouts, including L-, T- or C-shaped structures, are necessary, appropriate structural design measures shall be adopted to address potential weaknesses and stress concentration.

The structural design of buildings shall be undertaken by competent professionals in accordance with applicable earthquake-resistant design standards.

4.2.5 Foundations for Earthquake-Resistant Buildings

The foundation system shall be selected based on the geotechnical characteristics of the site, structural configuration and expected building loads.

The following considerations shall be taken into account:

- Selection of suitable shallow or deep foundation systems based on site conditions.
- Appropriate connection and strengthening of foundation elements.
- Special foundation design considerations for buildings located on slopes.
- Structural stability against differential movement and earthquake forces.
- Appropriate engineering calculations and professional supervision.

A qualified structural engineer shall be involved in the assessment and approval of foundation and structural design.

4.3 Fire and Electrical Safety

The University shall promote fire prevention and electrical safety across its buildings, facilities and infrastructure.

The following measures shall be implemented:

1. Fire-resistant or fire-retardant construction materials shall be used in large buildings wherever applicable.
2. Electrical installations shall be appropriately designed, installed and maintained.
3. Proper electrical earthing shall be ensured in buildings and facilities.
4. Applicable fire safety and electrical safety standards shall be followed.
5. Fire-related risks and electrical hazards shall be identified and addressed through appropriate preventive measures.
6. Relevant safety arrangements shall be maintained to support emergency response.

5. Disaster Preparedness and Emergency Management Plans

The University shall develop and maintain appropriate disaster management plans and emergency procedures to strengthen institutional preparedness.

Special attention shall be given to hazards relevant to the University's geographical location and hilly surroundings.

The University shall utilise available institutional resources and, wherever required, establish or designate a dedicated disaster management mechanism to coordinate preparedness and response activities.

The disaster management plans shall provide a framework for:

- Identifying potential hazards and vulnerable locations.
- Establishing emergency response procedures.
- Coordinating institutional responsibilities during emergencies.
- Facilitating communication and coordination with relevant authorities.
- Supporting the safety and evacuation of occupants, wherever required.
- Maintaining records of disaster-related incidents and preventive measures.

6. Disaster Relief and Emergency Support

In the event of a disaster, the University shall make appropriate arrangements for emergency assistance and relief in coordination with relevant government departments and other concerned agencies.

Subject to the nature and scale of the emergency, relief measures may include:

1. Temporary Shelter: Arranging safe temporary accommodation and basic facilities for affected individuals.
2. Food and Drinking Water: Providing essential meals and safe drinking water.
3. Emergency Supplies: Arranging essential supplies, including hygiene materials, tarpaulins, cleaning equipment and other necessary items.
4. Emergency Health Services: Facilitating first aid, medical assistance and access to essential healthcare services.
5. Emotional Support: Facilitating appropriate emotional and psychological support through trained personnel, wherever required.
6. Coordination and Assistance: Working with government departments, local authorities and relevant organisations to support disaster-affected individuals and communities.

7. Compliance with Standards and Regulations

All disaster management planning, construction activities and emergency operations shall comply with applicable statutory requirements, building codes and safety standards.

The University shall follow relevant provisions and updated guidelines issued by:

- National Disaster Management Authority (NDMA), Government of India.
- Relevant disaster management authorities of the Government of Himachal Pradesh.

- Applicable national building and earthquake-resistant construction codes.
- Relevant fire safety and electrical safety authorities.
- Other competent statutory and regulatory agencies.

8. Roles and Responsibilities for Implementation

Effective implementation of this policy shall be coordinated by the Director of Operations, who will oversee disaster preparedness, response coordination and maintenance of disaster-related records. The Director, Estate and Construction Department, shall ensure infrastructure safety, risk identification and coordination of technical assessments. CEEST shall monitor policy implementation under SDG 13, coordinate disaster risk reduction and awareness initiatives, and review institutional progress. All university departments, faculty, employees and students shall follow applicable safety measures and actively support disaster preparedness activities.

9. Policy Review and Revision

This Disaster Management Policy shall be reviewed every three years by the Centre of Excellence in Energy Science and Technology (CEEST), in coordination with the relevant university departments. The policy may be revised whenever necessary to incorporate updated regulatory requirements, institutional needs, emerging disaster risks and improvements in disaster management practices.

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