



SUMMARY REPORT OF

One Week Training Programme

On

Multi-Hazard Risk Management in Changing Climate:

Sustaining Economic Development and Livelihood in Western Himalaya

8th to 12th November 2021

Jointly organized by

**Department of Geography
and Disaster Management,**

University of Kashmir,
Hazratbal Srinagar,
Jammu and Kashmir – 190 006
<http://geogrd.uok.edu.in>

**National Institute of Disaster
Management (NIDM),**

Ministry of Home Affairs, Government of India,
4th Floor, 'A' Wing, NDCC Building,
Jai Sing Road, New Delhi – 110001
<http://nidm.gov.in>



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1. INTRODUCTION

Department of Geography and Disaster Management, University of Kashmir in collaboration with the National Institute of Disaster Management (NIDM) organized One Week Training Programme entitled “Multi-Hazard Risk Management in Changing Climate: Sustaining Economic Development and Livelihood in Western Himalaya” from 8th -12th November 2021. The aim and objective was to assess multi-hazard risk and propagate climate & disaster risk awareness vis-à-vis earth observation technology for disaster risk reduction in the fragile Himalayan region for sustainable livelihood and economy. The focus of this programme was risks associated with multiple hazards including hydro-meteorological hazards under the changing climate impacting the livelihood and local economy. The objectives were met with the involvement of best experts in the field of climate and disaster risk management from India as resource persons in the offline mode at University of Kashmir. It particularly highlighted the challenges and need of short and long-term mitigation strategies in a multi-hazard environment. The training programme was attended by more than 100 participants across Jammu and Kashmir, coming from varied backgrounds, especially government officials from various departments such as Revenue, Health, Education, Rural Development Public Works, Fire and Emergency Services/DM professionals from State Disaster Management Authority/ students/ research scholars/ media persons/ and others dealing with subject in different capacities. The course content was developed & presented in the best possible way so that all participants understand complex concepts in a simpler way. There were practical sessions/demonstration and mock exercises by the people from State Disaster Response Force (SDRF) as well as from Fire and Emergency Department. Acknowledging the overwhelming response from the participants about the Programme and the arrangements made at the venue & keeping in view our long association with NIDM, we at University of Kashmir believe that similar programmes of national and international importance can be organized in the future.



This offline training program was key in propagating the current scenario of climate change in the region as well its consequences as well emerging challenges on local economy and livelihoods of people. Innovative solutions were discussed threadbare with support from case studies of countries/ places facing similar situations. Data gaps were identified and thrust was also given on the local implementation of International frameworks such as Sendai Framework 2015-30 as well as taking notice of IPCC reports on climate change. A need of comprehensive database, robust climate modelling and food security were seen as preconditions to move forward viz-a-viz adaptive strategies in the environmental, social and cultural context in order to resist abnormal situations.



ABOUT UNIVERSITY OF KASHMIR

The University of Jammu and Kashmir was founded in the year 1948. In the year 1969, it was bifurcated into two full-fledged Universities: University of Kashmir at Srinagar and University of Jammu at Jammu. The University of Kashmir is situated on the eastern side of world famous Dal Lake at Hazratbal in Srinagar. Over the Years University of Kashmir has become a multi-campus University by establishing Satellite Campuses at various parts of Kashmir and Ladakh region to make higher education more accessible to people living in remote areas of the region.



The University is committed to provide an intellectually stimulating environment for productive learning to enhance the educational, economic, scientific, business and cultural environment of the region. The University offers programmes in all the major faculties; Arts, Business & Management Studies, Education, Law, Applied Sciences & Technology, Biological Sciences, Physical & Material Sciences, Social Sciences, Medicine, Dentistry, Engineering, Oriental Learning and Music & Fine Arts. It has been constantly introducing innovative/ new programmes to cater to the needs and demands of the students and the society. Over the years, the University has marked towards excellence in its programmes and activities. It has been re-accredited as Grade-A+ University by the National Assessment & Accreditation Council (NAAC) of India. This is recognition and reflection of the high standard of quality in teaching and research at the University of Kashmir.





ABOUT DEPTT. OF GEOGRAPHY & DISASTER MANAGEMENT

The “Department of Geography and Regional Development” now being rechristened as “Department of Geography and Disaster Management” was established in 1979 has carved a niche for itself in the recent years. The Department runs two Postgraduate Degree Programmes in Geography (1979) and Disaster Management (2014). Besides, the Department offers Research Programmes in Geography and Disaster Management. The Department aspires to achieve a distinctive place in the domain of Geo-Spatial Sciences and its applications in disaster management studies by offering innovative programmes for learning and research pursuits to build a highly qualified and professionally trained capital of human resources.

It aspires further to impart quality education to its students and conduct applied research so as to be active partners in formulation of policy planning in achieving social and regional development.

The department is conducting research in various fields of geography and disaster management with major thrust areas in Applied Geomorphology/Glacial Studies, Urbanization & Spatial Development Planning, Climate Change Studies, Environment, Health, Tourism, Developmental Planning, Hydrology, Disaster Studies, Remote Sensing and GIS Applications in Resource Evaluation and Appraisal. The Department has received extra mural funds under DST-FIST AND UGC- SAP Sponsored Programmes.

The thrust areas identified under UGC-SAP at the level of DRS-I and II are:

- I. Natural Resource Appraisal (Western Himalayan Region)/ Hill Area Development with special reference to Kashmir Region
- II. Disaster Vulnerability and Mountain Resource Planning

The department has contributed largely in the development of scientific knowledge and capacity building through various research publications, conferences/seminars and training programmes.



The important programmes conducted by the department are:

- I. One week training programme on “SAARC Regional Training on Children’s Safety with inclusion of Children with Special needs” in collaboration with SAARC Disaster Management Centre, New Delhi.
- II. One week training programme on “Psychosocial Care in Disaster Management” in collaboration with NIDM, New Delhi.
- III. One week training programme on “Application of Remote Sensing, GIS and GPS in Resource Management” sponsored by UGC SAP.
- IV. One week workshop on “Disaster Mitigation: Approaches and Strategies” in collaboration with NIDM New Delhi.
- V. 21 days refresher course on “Disaster Management” in collaboration with UGC-Human Resource Development Centre. University of Kashmir.

ABOUT NATIONAL INSTITUTE OF DISASTER MANAGEMENT (NIDM)

National Institute of Disaster Management, Ministry of Home Affairs, Government of India, is the premier institute and statutory body under Disaster Management Act, 2005 for training, research, awareness and capacity building in the field of disaster mitigation and management in the region. The institute lays emphasis on multi-stakeholder interdisciplinary cross- sectoral approach for an effective and efficient pro-active continuum disaster risk management based on participatory integrated multi hazard risk management concept.

OBJECTIVES

1. To develop an understanding on climate change and the emerging challenges in Western Himalayas among the participants.
2. To develop an understanding of climate change impacts on livelihood & local economy as well as seek opportunities to resist such a situation.
3. To build people’s capacities to mitigate problems related to climate change-induced disasters through risk-informed appropriate strategies.
4. To develop network among participants.



COURSE CONTENT

1. Climate change: Challenges, adaptations and future
2. Climate modelling at a regional scale
3. Climate change, disaster risk and its impacts.
4. Climate change impact on livelihood and economy in Himalayas;
5. Sustainable livelihood: Opportunities and Challenges.
6. Glacial Recession and Glacial Lake Outburst Floods (GLOFs).
7. Multi-Hazard Approach.
8. Ground Water Management and Food Security.
9. Resilience to environmental disasters in fragile mountainous areas.
10. Green Infrastructure and Nature-based solutions to disaster risk reduction.
11. Seismic activity and assessment of climate-induced landslides.
12. Multihazard disaster management and early warning system.
13. Risk Assessment: Potent tools, and techniques.
14. Earth observation technology and Disaster Risk Management.



2. TRAINING PROGRAMME SCHEDULE

Day 1 – 08.11.2021 (Monday)

| TIME (IST) | SESSION |
|----------------------|---|
| 10:30 am – 11: 00 am | Registration |
| 11:00 am – 12:00 pm | Lead Lecture Prof. Anil K. Gupta Head of Division, Environment, Climate and Disaster Risk Management, NIDM, Delhi. |
| 12:00 pm – 1:00 pm | Lecture Ms. Fatima Amin Young Professional, NIDM, Delhi-GoI. |
| 1:00 pm – 2:00 pm | Lunch Break |
| 2:15 pm – 3:30 pm | Inaugural Session |
| | Topic |
| | Dignitaries |
| | Welcome Address Prof. Shamim Ahmad Shah Head, Dept. of Geography & Disaster Management, & Programme Convener (UoK) |
| | Introduction to the Training Programme Prof. Pervez Ahmed Programme Coordinator |
| | Special Remarks Prof. Anil K. Gupta Programme Convener (NIDM) |
| | Guest of Honour (Virtual Mode) Major General M. K. Bindal Executive Director, NIDM, Delhi. |
| | Presidential Address by Chief Guest Prof. Talat Ahmad Hon'ble Vice Chancellor, University of Kashmir |
| | Vote of Thanks Dr. Javed Ahmad Rather Senior Assistant Professor, University of Kashmir |



Day 2 – 09.11.2021 (Tuesday)

| TIME(IST) | EXPERTS / FACULTY |
|---------------------|---|
| 11:00 am – 12:00 pm | Interactive Lecture Prof. M. Sultan Bhat Professor, Department of Geography & Disaster Management, University of Kashmir, Srinagar. |
| 12:00 pm – 1: 00 pm | Lecture Mr. Kanhaiya Yogi Assistant Commandant, National Disaster Response Force (NDRF) |
| 1:00 pm – 2: 00 pm | Lunch Break |
| 2:00 pm – 3: 00 pm | Lecture Dr. G. M. Dar Associate Professor, Institute of Management, Public Administration & Rural Development (IMPARD), J&K. |
| 3:00 pm – 4:00 pm | Lecture Dr. Riyaz Ahmad Mir Senior Geologist, Geological Survey of India. |

Day 3 – 10.11.2021 (Wednesday)

| | |
|---------------------|--|
| 11:00 am – 12:00 pm | Interactive Lecture Er. Aamir Ali Nodal Officer, J&K State Emergency Operation Centre |
| 12:00 pm – 1:00 pm | Emergency Drill J&K State Disaster Response Force |
| 1:00 pm – 2: 00 pm | Lunch Break |
| 2:00 pm – 3: 00 pm | Lecture Prof. A. R. Dar Professor, Dept. of Civil Engineering, N. I. T. Srinagar, J&K (UT). |
| 3:00 pm – 4:00 pm | Lecture Mr. Waseem Shafi & Mr. Mohmad Suhail Wani Disaster Management Consultants, Department of Disaster Management, Relief, Rehabilitation and Reconstruction (DMRRR), J&K. |



Day 4 – 11.11.2021 (Thursday)

11:00 am – 12:00 pm

Lecture

Prof. Anil K. Gupta

Head of Division,
Environment, Climate and Disaster Risk Management,
NIDM, New Delhi

12:00 pm – 1:00 pm

Lecture

Prof. Bikram Singh Bali

Professor,
Department of Earth Sciences,
University of Kashmir, Srinagar.

1:00 pm – 2:00 pm

Lunch Break

2:00 pm – 3:00 pm

Lecture

Dr. Akhtar Alam,

Assistant Professor,
Department of Geography & Disaster Management,
University of Kashmir, Srinagar.

3:00 pm – 3:30 pm

Lecture

Ms. Fatima Amin

Young Professional,
NIDM, Delhi-GoI.

3:30 pm – 4:00 pm

Lecture

Mr. Ashiq Hussain Rather

Department of Fire & Emergency Services
J&K (UT).

Day 5 – 12.11.2021 (Friday)

11:00 am – 12:00 pm

Lecture

Dr. Mohammad Shafi Bhat

Senior Assistant Professor,
Department of Geography & Disaster Management,
University of Kashmir.

12:00 pm – 1:00 pm

Lecture

Dr. Bashir Ahmad

Department of School Education Kashmir,
J&K (UT).

1:00 pm – 2:00 pm

Lunch Break

3:00 pm – 4:00 pm

Valedictory



| 3:00 pm – 4:00 pm | Valedictory | Topic | Dignitaries |
|-------------------|--|--|--|
| | | Welcome Address | Prof. Shamim Ahmad Shah Head, Dept. of Geography & Disaster Management, & Programme Convener (UoK) |
| | | Training Programme Proceedings | Prof. Pervez Ahmed Programme Coordinator |
| | Feedback from Participants | | |
| | | Special Remarks by Guest of Honour (Virtual) | Major General M. K. Bindal Executive Director, NIDM, New Delhi. |
| | | Special Remarks by Guest of Honour | Dr. Nisar Ahmad Mir Registrar University of Kashmir |
| | | Presidential Address by Chief Guest | Prof. Farooq Ahmad Masoodi Dean Academic Affairs University of Kashmir, Srinagar |
| | Certificate Distribution (Resource Persons & Participants) | | |
| | | Vote of Thanks | Dr. Javed Ahmad Rather Senior Assistant Professor, University of Kashmir |



3. DAY-WISE SUMMARY

One Week Training Programme on “Multi-Hazard Risk Management in Changing Climate: Sustaining Economic Development and Livelihood in Western Himalaya”, November 08th-12th 2021.

DAY 1: 08th November, 2021

One Week Training Programme on the theme “Multi-Hazard Risk Management in Changing Climate: Sustaining Economic Development and Livelihood in Western Himalaya” a joint initiative of Department of Geography & Disaster Management, University of Kashmir and National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Govt. of India, New Delhi commenced on 08th of November, 2021. The inaugural ceremony which was scheduled in the morning in normal circumstances but it had to be delayed to afternoon due to busy schedule of the Chief Guest. In this aftermath, two lectures were straightaway delivered in the morning session.

Prof. Anil K Gupta delivered the first lecture of the training programme 11:00-12:00 am, entitled “Localizing Climate Resilience Agenda Post-2030” wherein he explained about the future roadmap post-2030, after the accomplishment of sustainable development goals of agenda 2030. While implementation of agendas primarily occurs at national level, their success depends on progress achieved at local levels. He emphasized that substantial attention has to be paid to localize any climate agenda or plan implementation through increased efforts to make an inclusive environment for local stakeholders.



The lecture also included how multilevel climate policies can be implemented where governments will work closely with local and regional authorities to achieve better climate resilience. Ten minutes at the end were purposely set for Q/A session. A few questions were asked related to the challenges faced by local authorities in development and implementation of the frameworks that meet the local conditions and problems at a micro-level. Answers were provided to add more details on the subject and clear any confusion.

It was followed by **Miss Fatima Amin's** lecture on topic "Introduction to Projects in Progress at ECDRM Division, NIDM" wherein she gave brief details about the main ongoing projects at Environment, Climate & Disaster Risk Management (ECDRM) NIDM. The participants were overwhelmed to know about the works conducted by NIDM and ECDRM Division in Particular at the national level to cater problems spread across the length and breadth of India.

In the afternoon, the training programme was inaugurated by **Hon'ble Vice-Chancellor, University of Kashmir Prof. Talat Ahmad**, who was the Chief-Guest and also presided over the occasion. **Maj Gen M K Bindal, Executive Director NIDM**, who was the Guest of Honour in the inaugural session couldn't attend the session due unavoidable circumstances. The programme was attended by all the registered participants including top government administrative officers and senior officials from different departments of J&K including Revenue, Fire & Emergency, Health, Education, DM&RRR, Rural Development and Civil Defence belonging to almost all the districts of Kashmir Province.



Prof. Shamim Ahmad Shah, Head of the Department, Geography and Disaster Management, University of Kashmir, in the capacity of programme Convener welcomed all the dignitaries, invited speakers and participants as well as introduced the theme of the training programme to the audience. He further highlighted the importance of organising such a training programme in collaboration with NIDM, and acknowledged their support. He also highlighted the various activities taken by Department of Geography and Disaster management from time to time in the field of Research and Development as well as capacity building and training.

Prof. Anil K Gupta, NIDM (Programme Convener) in his special remarks highlighted the significance of conducting an in-person training programme on a theme very pertinent and region-specific. He highlighted the works being taken by his core team at NIDM. He further said climate change is impacting everyone and all sectors be it livelihood, businesses, health etc., as well as makes people more vulnerable to multiple hazards. In the backdrop of our understanding of disasters, and climate change as a known aggravate in case of hydro-meteorological disasters, and its linkages with non-climatic stresses, climate change adaptation is an important area that needs attention, he said.

Prof. Pervez Ahmed (Programme Coordinator, UoK) deliberated on the programme agenda in detail as well as highlighting the importance of such training programmes. Reflecting on the theme he said that anthropogenic activities from past few decades have accelerated the rate of climate change that has increased vulnerability of people to multi-hazards especially in the mountainous areas such as Himalaya.



Prof. Talat Ahmad, in his presidential address, discussed in depth the mechanism of multiple hazards and also talked about the vulnerability of Himalayas to various hazards in general, geological and hydro-meteorological hazards in particular compared to other parts of the country. Discussing about the multi-disciplinary nature of the subject of disaster management, involving areas of geology, seismology, social sciences etc., he stressed the importance of field studies for students for proper understanding of various aspects of disaster management including better mitigation and proper preparedness. He also emphasized the need of such sensitisation programmes and the role of academia to mitigate the impacts of disasters particularly in this part of Himalayas.

Dr. Akhtar Alam, moderated the inaugural session and which concluded with the formal vote of thanks presented by **Dr. Javeed Ahmad Rather**.

The Inaugural function of Online Training Programme was attended by more than 100 participants from different parts of Jammu and Kashmir (UT) coming from diverse backgrounds.

DAY 2: 09th November, 2021

The Second day of the training programme started at 11:00 am with the interactive lecture of **Prof. M. Sultan Bhat** from the Department of Geography and Disaster Management on a burning issue entitled "Climate Change and Disasters – An Appraisal of Regional Concerns."



Mr. Kanhaiya yogi (Assistant Commandant NDRF) delivered the 2nd lecture of the day from 12:00-1:00 pm entitled “Introduction to NDRF- It’s Roles and Responsibilities.” As obvious from the title itself Mr. Yogi discussed about the origin of National Disaster Response Force and explained how disaster management act 2005 paved the way for establishing the hierarchy of disaster response forces at national, state and district levels. He also discussed about the structure of and constitution of NDRF. While highlighting the roles and responsibilities of NDRF Mr. Yogi explained that their personnel are specially trained in search and rescue operations, deep diving, and nuclear emergencies and also in chemical and biological emergencies. He also discussed the various problems faced by their personnel during emergency response in various disasters and how they overcome those problems using their equipment and their expertise.

The afternoon session started with lecture of **Dr. G. M. Dar (J&K IMPA)** entitled “Introduction to Disaster Management Cycle and Lessons Learnt from Past” from 2:00-3:00 pm. Evident from the title the Dr. Dar discussed the concept of disaster management cycle, stages of the disaster cycle, stages in disaster management, paradigm shift In disaster response in India from mitigation to preparedness planning.

Dr. Dar also discussed the correlation between disasters and development. He also discussed, with examples, various issues in disaster response particularly in UT J&K.



The last lecture of Day 2 was delivered by **Dr. Reyaz Ahmad Mir (Senior Geologist, Geological Survey of India)**. In his lecture entitled “Landslide Zonation and Mapping across NH-44” Dr. Mir gave a detailed overview of the Landslide susceptibility of National Highway that connects Srinagar to Jammu and causes major road accidents along this busy stretch that proves to be the last journey for many. He further highlighted the role of Geological Survey of India and works carried out by this reputed national agency in order to mitigate climate-induced landslides. There were some questions raised by the participants related to the methodology used to assess the landslides. Answers were provided that allowed participants to understand it much better.

DAY 3: 10th November, 2021

On Day 3, the entire first session was dedicated to the **Emergency Mock Drill** that was performed by specialized & trained personnel from **State Disaster Response Force (SDRF)** from 11:00 am-1:00 pm. The personnel demonstrated the first aid responses in case of various medical emergencies like spinal and other serious injuries including broken bones and in case a victim drops or is found unconscious. They explained and demonstrated the procedures of CPR. They also demonstrated various fireman rescue techniques. The personnel provided a demo about the functioning of various equipments used during the rescue operations. This session was very interesting for the participants who were also given the opportunity to mimic what was been delivered to them.



Prof. A. R. Dar (NIT, Srinagar) followed the suit from 2:00-3:00 pm with his lecture entitled “Role of Civil/Structural Engineering in Earthquake Disaster Mitigation” wherein he explained the common violations of engineering guidelines and their implications on the seismic vulnerability of buildings and how these seismically poor architectural designs become the reason for destruction and death. He highlighted how earthquake engineering can help reduce the risks associated with earthquakes. He discussed the importance of following earthquake resistant measures in engineered constructions.

Mr. Wasim Shafi (J&K SDMA) delivered a lecture on “community based disaster management” with first-hand experience from ground. He highlighted the role of people who happen to be first responders in case of such emergencies. This was followed by the lecture of **Mr. Mohammad Suhail Wani (J&K SDMA)** entitled “multi-hazard risk management in the changing climate.” Mr. Wani deliberated on the concept of multi-hazard approach and role of different stakeholders to make disaster risk reduction related initiatives a success on the ground level.

DAY 4: 11th November, 2021

The Day 4 of the training programme started at 11:00 am with the lecture of **Prof. Anil. K Gupta** entitled “Environment, Climate and Disaster Risk Management”. The inherent linkages between the environment, the climate and the disaster risk management were discussed in detail. Prof. Gupta explained the effects of climate change on key sectors like water, food, industry, settlement, health and disasters. He further explained that it is the combination of exposure, vulnerability and ill prepared community that turn hazards into disasters.



He also discussed the role of implementation of disaster risk reduction strategies and identifying the need to promote the integration of risk reduction associated with climate change in disaster risk reduction through Hyogo-framework for action. It was followed by a Q/A session.

Successively, **Prof. Bikram Singh Bali (Professor, UoK)** continued from 12:00-1:00 pm with his lecture entitled “Earthquake and Crustal Deformation Studies Using GPS” wherein he discussed the seismic vulnerability of Kashmir valley with the help of seismic gap studies and historical earthquake records. Use of GPS in earthquake studies was started in 2008, by Prof. Bali at department of earth sciences in collaboration with Colorado University, USA. They have established a network of 20 GPS observatories in Kashmir valley and Ladakh. Discussing the components and functioning of GPS Prof. Bali explained how data from GPS can be processed to calculate the kinetic energy accumulated from the stress due to crustal movement.

The afternoon session started with the lecture of **Dr. Akhtar Alam (Assistant Professor, UoK)** from 2:00 pm, entitled “Multiple Hazard Risk Assessment: A case of Hurricanes” wherein he explained the meaning and purpose of multiple hazard risk assessment along with the methodology used for this purpose with special reference to Hurricanes. Followed by modelling and simulation of Hurricanes susceptibility of with the help of GIS softwares.

Miss Fatima Amin (YP, NIDM) delivered a talk on the “impact of climate change on agricultural sector.” She highlighted the issues with food and water that the country is facing and how it could worsen in the coming times with no serious attention being given to the agriculture sector.



Mr. Aashiq Hussain Rather (Master Trainer, Department of Fire and Emergency Services) delivered a talk entitled “Fire Hazard Risk Assessment in Kashmir Valley- Preparedness, Perception and Mitigation Measures” with a demonstration of fire extinguishers and its use in the time of a fire emergency. This was an interactive lecture which received appreciation from the participants as well. It was as well the concluding lecture of day 4 of the training programme.

DAY 5: 12th November, 2021

The Day 5 (final day) of the training programme began with the interactive lecture by **Dr. Mohd. Shafi** entitled “Securing Livelihoods- A Key for Building Disaster-Resilience.” The lecture started with immense literature survey and substantiated the theme with sound statistical facts and figures regarding the disaster implications at global level on livelihood. Dr. Shafi proceeded to discuss in detail the disaster resilience-livelihood security of Bangladesh explaining how Bangladesh has diversified livelihood from agricultural to manufacturing and service sector. He further explained how they have achieved diversification in on-farm and off-farm activities. The lecture proceeded to discuss disaster resilience in India, over dependence on agriculture and its impacts, farmer suicides particularly in Maharashtra. Further into the lecture livelihood security for disaster resilience in J&K was discussed where few strategies like multi-cropping, climate compatible cropping pattern, crop insurance, installation of hail-nets and sustainable tourism was discussed.



The second lecture of the final day was delivered by **Dr. Bashir Ahmad (School Education Department)** entitled “Natural Hazard Scenario of Kashmir Valley.” He presented the historical records of earthquakes, floods, epidemics and extreme climatic events and discussed how historical records are imperative for understanding hazard vulnerability and for hazard evaluation of region like Kashmir. He portrayed the geological events that have taken place within the region in past by citing some significant literary works and historical chronicles.

The **valedictory session** for the training programme started at 2:30 pm on the same day.

Prof. Shamim Ahmad Shah (Head, Department of Geography and Disaster Management) formally welcomed the guests and participants. He also briefed the audience about the significance of organising such collaborative programmes with a prestigious institution like NIDM.

The proceedings of the entire training programme was presented by **Prof. Pervez Ahmed (Programme Coordinator)**.

The valedictory session was presided over by **Professor Farooq Ahmad Masoodi, Dean Academic Affairs, University of Kashmir at Gandhi Bhawan**. The Chief-Guest on this occasion expressed his satisfaction at the successful conduct of the training programme. He impressed upon the participants to implement the lessons learnt about mitigating effects of disasters effectively during the programme in their daily lives.



Major General M. K. Bindal, Executive Director NIDM, was the Guest of Honour, who was present in the session in virtual mode. In his address he stressed on the importance of such capacity building training programmes especially in ecologically disadvantaged regions which are prone to various different disasters. He assured the department of geography and disaster management, the support of NIDM in conducting such programmes in future as well.

The guest of honour on the occasion, **Dr. Nisar A Mir (Registrar, University of Kashmir)** congratulated Prof. Pervez Ahmed, programme coordinator and the Department of Geography and Disaster Management for the successful conduct of this programme. He also expressed his gratitude to NIDM for their support and assistance.

Five participants, namely **Sheikh Tariq Ahmad, Nazir Ahmed, Riyaz Ahmed, Dr. Syed Ejaz Farid and Er. Rahil** gave the feedback about the training programme.

This was followed by the distribution of certificates among the participants as well as the resource persons after the successful conduct of the training programme.

Dr. Akhtar Alam moderated the valedictory function. The training programme concluded with the formal vote of thanks by **Dr. Javeed Ahmad Rather**.

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4. KEY RECOMMENDATIONS

1. Inclusion of more practical/fieldwork aspects such as exposure visits to disaster sites in order to give the participants first-hand experience of identifying problems and providing solutions to them.
2. Advanced or specialized training is key for developing trainers who can then propagate or spread their experiences at the grassroots level to build capacity.
3. Establish monitoring mechanisms for snow, ice, and water; downscaling climate models; applying hydrological models to predict groundwater availability - by taking water demand and socioeconomic development into account as well as livelihood opportunities.
4. Promote the use of Earth observation technology assess the risks from multi-hazards.
5. Promote research on monitoring & management of risks by employing all-hazard approach
6. Develop multi-hazard early warning systems by involving multi-stakeholders.
7. Longer duration training programmes that should include participants across India so that the best practices are discussed and there is exchange of ideas.



5. ORGANIZING TEAM/FLYER





ONE WEEK TRAINING PROGRAMME
ON
**Multi-Hazard Risk Management in Changing Climate:
Sustaining Economic Development & Livelihood in Western Himalaya**
08th – 12th November, 2021



| PATRONS | | SPEAKERS | | |
|--|--|--|--|---|
|  Prof. Talat Ahmad Vice Chancellor University of Kashmir |  Maj. Gen. Manoj K. Bindal Executive Director National Institute of Disaster Management (NIDM) Delhi |  Prof. M. Sultan Bhat Dept. of Geography & Disaster Management University of Kashmir |  Er. Aamir Ali Nodal Officer J&K State Emergency Operation Centre |  Prof. A. R. Dar Dept. of Civil Engineering National Institute of Technology, Srinagar |
| CONVENERS | | | | |
|  Prof. Shamim Ahmad Shah Head, Dept. of Geography & Disaster Management, University of Kashmir |  Prof. Anil K. Gupta Head, ECDRM, National Institute of Disaster Management (NIDM) Delhi |  Mr. Kanhaiya Yogi Assistant Commandant National Disaster Response Force (NDRF) |  Prof. Bikram Singh Bali Department of Earth Sciences University of Kashmir |  Dr. G. M. Dar Institute of Management, Public Administration & Rural Development (IMPARD), J&K |
| PROGRAMME COORDINATOR | | | | |
|  Prof. Pervez Ahmed Dept. of Geography & Disaster Management University of Kashmir | |  Dr. Mohammad Shafi Bhat Dept. of Geography & Disaster Management University of Kashmir |  Dr. Riyaz Ahmad Mir Senior Geologist Geological Survey of India |  Dr. Bashir Ahmad Senior Lecturer Dept. of School Education Kashmir |
| MODERATORS | | | | |
|  Dr. Akhtar Alam Dept. of Geography & Disaster Management University of Kashmir |  Ms. Fatima Amin Young Professional NIDM Delhi |  Mr. Waseem Shafi Senior Consultant Dept. of Disaster Management & RRR, J&K |  Mr. Mohamad Suhail Wani Consultant Dept. of Disaster Management & RRR, J&K |  Mr. Ashiq Hussain Rather Department of Fire & Emergency Services, J&K (UT) |
| Jointly Organised By: Department of Geography & Disaster Management, University of Kashmir, Srinagar, & National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India, Delhi. | | | | |
|  |  |  |  | |



6. LIST OF PARTICIPANTS

| S. No. | Participant Name | Email | Department / Affiliation |
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| 02 | Dr. Khursheed Ahmad Parray | Kaparray2006@gmail.com | Sr. Asst. Prof. Higher Education, Srinagar |
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| 36 | DR. Aamir | | Medical Officer, Health Department |
| 37 | Bader Iqbal | | VLW, Rural Development Department |
| 38 | Bashir ahmad yattoo | | Lease Incharge DFO Office, Langate |
| 39 | Mohd. Sadiq Khan | | SGCT, Police Department |
| 40 | Nazir Ahmad Mir | | I/C Disaster Management Kupwara |
| 41 | Jaffer Hussain | | Data Entry Operator, NDRM |
| 42 | Zahoor Ahmad Bhat | | Fireman, Fire & Emergency Services, Bandipora |
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| 47. | Irfan Jeelani | | DM 4 nd Sem. |
| 48. | Irfan Ahmad Bhat | | DM 4 nd Sem. |
| 49. | Javaid Gulzar | | DM 4 nd Sem. |
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| 50. | Mudasir Hussain Bhat | | DM 4 nd Sem. |
| 51. | Aamir Javaid | | DM 4 nd Sem. |
| 52. | Irfan Ahmed Dar | | DM 4 nd Sem. |
| 53. | Snober Gul | | DM 4 nd Sem. |
| 54. | Ayman Mehraj | | DM 4 nd Sem. |
| 55. | Aarif Aziz | | DM 4 nd Sem. |
| 56. | Huma Yaseen | | DM 4 nd Sem. |
| 57. | Yawar Latif | | DM 4 nd Sem. |
| 58. | Aasifa Sharief | | DM 4 nd Sem. |
| 59. | Gowhar Rehman Ganaie | | DM 4 nd Sem. |
| 60. | Bisma Amin Dar | | DM 4 nd Sem. |
| 61. | Snowber Javid | | DM 4 nd Sem. |
| 62. | Basrah Basharat | | DM 4 th Sem. |
| 63. | Gowhar Farooq Wani | | Research Scholar, DM |
| 64. | Noureen | | Research Scholar, DM |
| 65. | Mohmad Akbar | | Research Scholar, DM |
| 66. | Mir Sumaira | | Research Scholar, DM |
| 67. | Hilal Ahmad Khawaja | | Research Scholar, DM |
| 68. | Aashiq Hussain Rather | | Research Scholar, DM |
| 69. | Er. Tatheer Manzoor | | AEE (Civil), University of Kashmir |



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| 73. | Mr. Toufiq Gazi | | JKAS |
| 74. | Mr. Mumtaz Ahmad | | JKAS |
| 75. | Mohmad Jaffar Malla | | Fire and Emergency, Sgr. |
| 76. | Assadullah Lone | | -do- |
| 77. | Irshad Ahmad Bhat | | Research Scholar |
| 78. | Shafkat Ahsan | | -do- |
| 79. | Peer Jeelani | | -do- |
| 80. | Umar Maqbool | | -do- |
| 81. | Mohmad Saleem Wani | | -do- |
| 82. | Farzana Ahad | | -do- |
| 83. | Huma Rashid | | -do- |
| 84. | Nazia Bano | | -do- |
| 85. | Mohmad Suhail Wani | | -do- |
| 86. | Farooz Ahmad Hajam | | -do- |
| 87. | Shakir Ahmad Wani | | -do- |
| 88. | Bilquees Shah | | -do- |
| 89. | Mohd. Saleem | | -do- |
| 90. | Hilal Ahmad Parry | | -do- |
| 91. | Irshad Ahmad Thokar | | -do- |
| 92. | Iffat Jehan | | -do- |
| 93. | Aabid hussain | | -do- |
| 94. | Aabid Farooq | | -do- |
| 95. | Sumaira | | -do- |
| 96. | Umar Hamza Lone | | -do- |
| 97. | Hilal Ahmad Sheikh | | -do- |
| 98. | Adnan Ahmad Lone | | -do- |
| 99. | Aijaz Ahmad Khanday | | -do- |
| 100. | Qurat ul Ain | | -do- |



7. PHOTOGRAPHS

DAY 1: INAUGURAL SESSION









DAY 2







DAY 3







DAY 4

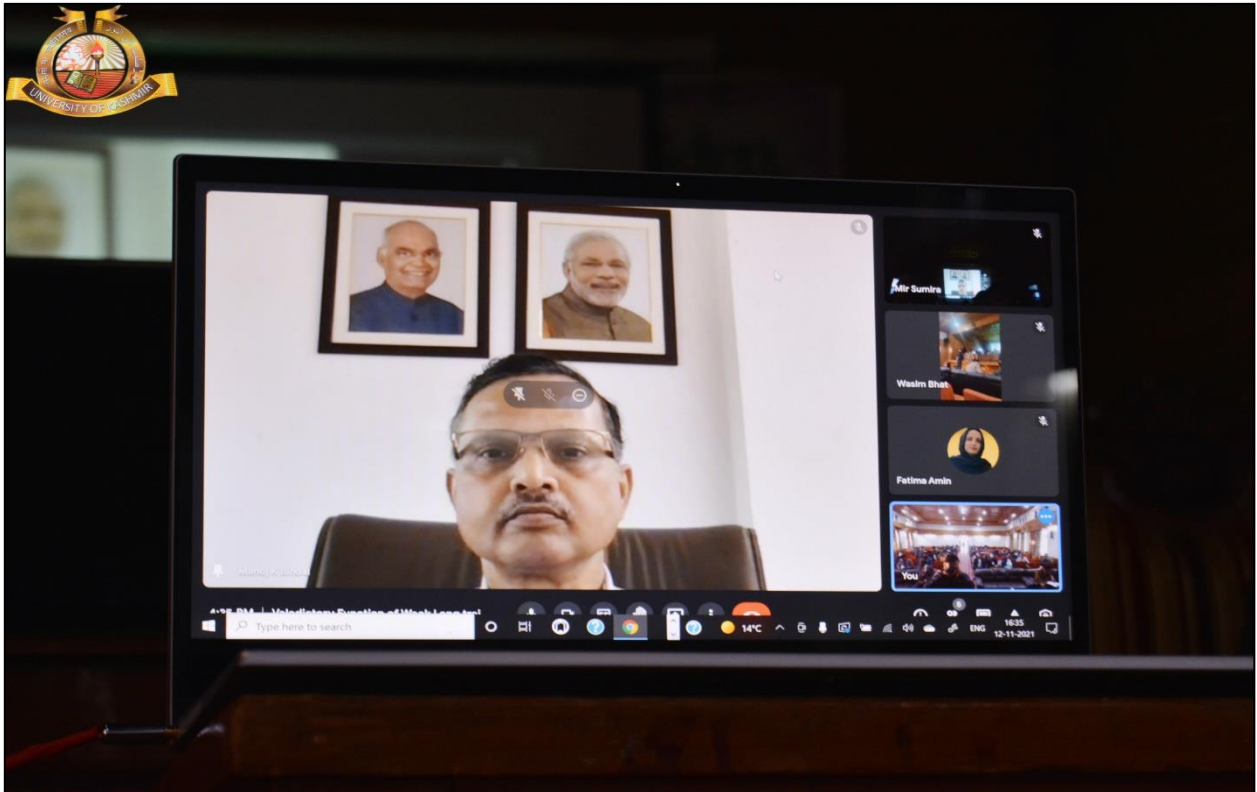




DAY 5
VALEDICTORY SESSION













8. MEDIA COVERAGE

Prof Talat inaugurates week-long training programme in disaster management



SRINAGAR: Vice-Chancellor University of Kashmir Prof Talat Ahmad on Monday inaugurated a week-long training programme in disaster management. The programme titled "Multi-Hazard Risk Management in Changing Climate: Sustaining Economic Development and Livelihood in Western Himalaya" has been organised by the varsity's Department of Geography and Disaster Management (DGDM) in collaboration with National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India.

In his presidential address, Prof Talat said the Himalayas, compared to other parts of the country, are more vulnerable to various types of disasters. He said it is important to hold field trips for students of disaster management to facilitate their grassroots learning and understanding of various disasters and their causes.

"Disaster management is a multi-disciplinary subject which involves a host of critical areas, including social sciences, geology and seismology etc. It is therefore important for students to spend time in the field to understand various aspects of disaster management for better mitigation and preparedness," he said. Prof Anil Kumar Gupta from NIDM said the subject of disaster management is directly related with the society, with saving the lives of people in times of disasters.

"With such sensitisation programmes, if we are able to reduce the risk by even one percent or two percent, we will deem our endeavours as successful," he said. Head DGM Prof Shamim Ahmad Shah referred to the launch of disaster management courses in the University of Kashmir.

"This part of the Himalayas is more prone to disasters and there is a larger role of academia and other stakeholders on the ground to sensitise people and try to mitigate the impact of disasters," he said.

Professor Pervez Ahmed from DGDM said the training programme has been conceptualised in the backdrop of the vulnerability of the people living in the entire Himalayan belt to different types of disasters.

"The natural causes have been accentuated by anthropogenic factors as a result of which properties and lives of millions of people in the fragile area have become more vulnerable in the past few decades," he said.

Apart from some top administrative officers, more than 70 senior officials from different departments of J&K UT including Revenue, Social Welfare, Health, Disaster, Fire and Emergency Service, Civil Defence and Forests are participating in the training programme.

Prof Pervez said in April next year, an MoU between the University of Kashmir and NIDM will be signed to further enhance the capacity-building of officials and students apart from launching of various national-level courses in disaster management.

Prof Talat inaugurates week-long training prog on disaster management

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The event was covered by daily newspapers of Jammu and Kashmir with a detailed account on the proceedings of the One Week training programme organized by Deptt. Of Geography & Disaster Management, University of Kashmir in Collaboration with National Institute of Disaster Management, New Delhi, from 08th to 12th November, 2021.



9. CERTIFICATE OF PARTICIPATION



NATIONAL INSTITUTE OF DISASTER MANAGEMENT
(Ministry of Home Affairs, Govt. of India, New Delhi)

Certificate of Participation

This is to certify that

Prof./Dr./Er./Mr./Mrs./Ms. Abid Hussain

has participated in *One Week Training Programme on*
"Multi-Hazard Risk Management in Changing Climate: Sustaining Economic Development and Livelihood in Western Himalaya"
jointly organized by the Department of Geography & Disaster Management, University of Kashmir, Srinagar
and National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Govt. of India
from 08th-12th November, 2021 at the University of Kashmir, Srinagar.

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|  Prof. Anil K. Gupta Programme Convener National Institute of Disaster Management |  Prof. Pervez Ahmed Programme Coordinator University of Kashmir |  Prof. Shamim Ahmad Shah Head, Deptt. of Geography & Disaster Management University of Kashmir |
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