



## Centre for Disaster Management

Department of Geography  
(UGC DRS SAP-I & FIST Supported)  
Faculty of Natural Sciences  
Jamia Millia Islamia, New Delhi, India  
NAAC Accredited Grade “A”

*Organizes*

## International Conference (Online)

On

## Challenges of Disasters: Vulnerability, Adaptation and Resilience

March 02-03, 2021

in collaboration with



**National Institute of Disaster Management**  
New Delhi, India  
and



**Regional Remote Sensing Centre (North)**  
New Delhi, India

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## About the Conference

Disasters pose threats to social, economic and ecological environment. Millions of people globally are affected by natural and human induced disasters. Nearly 90% people residing in countries exposed to natural hazards are experiencing extreme impoverishment due to the subsequent disaster shocks. Every year these disasters also push around 25 million people into poverty and cause economic losses of \$100 billion. Inter-governmental Panel on Climate Change (IPCC) defines disasters as the stern changes in the normal functioning of society or community to the hazardous physical events after interacting with the social conditions resulting in huge environmental, social and economic losses that need quick response and effective support for recovery. Climate change has been identified as the major determinant of changes in the global conditions and alteration in the normalcy of the environmental functioning. These changes are driven by both the natural and anthropogenic processes. The outcomes of these changes are increase in the frequency of extreme weather events including droughts, floods, sea level rise, heat waves and cyclones in fragile ecosystems. Such changes are accelerating the vulnerability of the socio-ecological system and tend to put pressure on the socio-economic conditions. Recently COVID-19 has emerged as a global biological hazard with unprecedented pressure on health systems and made communities vulnerable. Diversity of the implications have hindered the treatment and affected the global healthcare system. Factual evidences on the virus are still lacking in actual representation of the ground realities.

## Celebrating 100 glorious years of Enlightenment, Empowerment and Nation-Building

Low-income economies are experiencing health complications due to high population, low testing rates and inadequate clinical measures adding to already otherwise vulnerable status. These concerns have created realization about the effective clinical and health measures for limiting the further outbreak of the virus.

Vulnerability reflects the inability of a system or individual to cope with the impacts of anthropogenic and natural disasters. It arises from the physical, environmental, social and economic factors. Earliest attempts for analyzing vulnerability to disaster were found associated with identifying the factors leading to vulnerability of socio-ecological system. Later on, World Meteorological Organization during 1980s has revealed relationship between the climate variability and vulnerability. Climate variability refers to the increase in extreme weather events and intense climate phenomena due to short-term fluctuations in the meteorological variables. Degree of vulnerability and resilience vary spatially and require effective modelling approach to analyze the susceptibility of the region. Earliest attempts on vulnerability assessment were carried out using pressure and release (PAR) and risk hazard (RH) models. Vulnerability to climate change was immensely discussed by the scientific community during 1990s. Concept of vulnerability later expanded including robustness, risk, exposure, adaptation and sensitivity. Thus, integrated approach was emphasized in disaster vulnerability assessment. Response mechanism is an integral part of disaster risk reduction. It is essential to articulate the interaction of human and natural systems. Resilience in other way helps in overcoming the hardships. Experiences from previous disasters, adopting alternate livelihoods, immunity, construction measures and accessibility to relief enhances the resilience to disaster.

Ideal response mechanism includes local groups, government and non-government organizations (NGOs) for effectual disaster response and recovery. Disaster Management Act (2005) of India clearly emphasized that stakeholders involved in disaster management must be effectively equipped for helping community to prepare, prevent and recover from the disasters (natural and man-made). Disaster management recovery guidelines are being developed to assist the functions and provide legislative support to national, regional and local level stakeholders. Mitigation and adaptation help in dealing with the climate change implication through cooperation and effectual policy at various scales with integrated response. Adaptation and mitigation are interrelated approaches effective in managing and reducing disaster risk. In disaster prone nations, financial relief, effectual response strategies, preparedness, adaptation and enhancing resilience are immensely significant. Promoting awareness among vulnerable communities, response mechanism, enhancing resilience and adaptive capacity are essential components of disaster risk reduction.

Various challenges are accompanied with disasters including inefficient planning, unstable infrastructural set up and inadequate financial support. One of the challenges associated with disasters is ensuring the provision of relief and related operations as per the intensity of the disasters. Man-made disasters are often accompanied with huge humanitarian and economic crisis. Such disasters are identified to be more destructive in case of developing rural economies. Making the healthcare system resilient is another concern to reduce the risk and achieve normalcy to disasters. Effective mitigation, proactive measure and effective post disaster planning may help in overcoming these challenges.

### Sub-Themes:

- Climate change induced disasters: risk identification and assessment
- Extreme weather events: frequency, intensity and impacts
- Man-made disasters: issues and challenges
- Pandemics: socio-economic challenges
- Lessons learnt from Corona virus Pandemic
- Ecological and socio-economic vulnerability: mapping and assessment
- Adaptation: policy discourse, strategies and governance
- Disaster management: recovery, risk transfer and capacity building
- Response mechanism: logistics, post-disaster response and recovery
- Role of geospatial technology for hazard mapping and risk analysis
- Role of media, education, public awareness and training
- Resources, early warning systems and funding
- Resilience and coping capacities
- Community sensitization for reducing vulnerability
- Policy, Programmes and governance for health, infrastructure and resilience

## Call for Papers:

## About Jamia Millia Islamia

Papers on theoretical, methodological and case studies of identified theme and sub-themes are welcome. The participants are requested to send their abstracts (not exceeding 500 words) with maximum of 5 keywords and font Times New Roman (size 10) and full paper to [icdmjmi@gmail.com](mailto:icdmjmi@gmail.com)

### Registration:

No Registration fee

Please register using following link:

[https://docs.google.com/forms/d/e/1FAIpQLSd4t0bM0WE8JvTkmr\\_s6\\_xl36rU-LxgLRHXml\\_UjHj\\_a\\_ymlIQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSd4t0bM0WE8JvTkmr_s6_xl36rU-LxgLRHXml_UjHj_a_ymlIQ/viewform?usp=sf_link)

### Important Dates:

Last date for online registration: **18.02.2021**  
Last date of abstract submission: **22.02.2021**  
Intimation of acceptance: **24.02.2021**  
Submission of full length paper: **28.02.2021**

Please contact for any query:

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Jamia Millia Islamia (JMI) came into existence at Aligarh in 1920 during the Khilafat and Non-cooperation movement in response to Gandhiji's call to boycott government supported educational institutions. JMI is one of the premier universities of national importance and amongst top ten universities of India as per National Institutional Ranking Framework (NIRF) 2020. The University has a multi layered educational system with 09 Faculties, 39 Departments and 27 Centres for Research and Excellence that have given an edge to it in terms of critical research.

### About the Department

The Department of Geography was established with Honours programme in Geography in 1971. The Department offers MA/M.sc, BA/ B..Sc (H), PG Diploma in Remote Sensing and GIS Applications, PG Diploma in Disaster Management (Evening) and Ph.D.

The Department comes under the Faculty of Natural Sciences. It is a pioneer in the country for imparting education in Remote Sensing at post graduate level. The ISRO, Government of India recognized it and supported the Department for the enhancement of the DIP/GIS labs. The DST also supported the Department as nodal facility in Delhi for conducting training programmes in Remote Sensing and GIS for university and college teachers. The DST accorded the Department FIST-1 status in 2016. A year later in 2017 UGC recognized the Department to support it under SAP DRS-1.

The **Centre for Disaster Management** was established in 2018. The aim of the centre is to train future managers and provide a platform for scientific research for making disaster resilient society. The centre offers M.Sc in Disaster Management and Climate Sustainability Studies. The course is a mix of scientific understanding of hazardous processes and policy interventions. The students are placed for one semester internship with reputed organizations like IIRS, Dehradun, Wadia Institute of Himalayan Geology, NIDM, IMD and NGOs.



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*With the hope to get fruitful discussion, deliberations and solutions for lessening the impact of disasters.*