

**Patron**  
**Prof. R. Pradeep Kumar**  
Director  
CSIR-CBRI, Roorkee

### Advisory Committee

Prof. Abhay Karandikar (Secretary, DST)  
Shri Rajendra Singh (Member & Head of Dept., NDMA)  
Dr. M. Ravichandran (Secretary, MoES)  
Shri Krishna S. Vatsa (Member NDMA)  
Lt Gen Syed Ata Hasnain (Member NDMA)  
Shri. Asit Saha (DG,GSI)  
Dr. Shailesh Nayak (Director, NIAS)  
Dr. H.K. Gupta (Former Director, CSIR-NGRI)  
Dr. R.K. Bhandari (Former Director, CSIR-CBRI)  
Prof. C.V.R. Murty (Professor, IIT Madras)  
Dr. D. Srinagesh (former Chief Scientist, CSIR-NGRI)  
Sh. Safi Ahsan Rizvi (Adviser NDMA)

### Organising Committee

Ar. S.K.Negi (Chair)  
Dr. D.P.Kanungo (Co-Chair)  
Dr. Harpal Singh  
Dr. Ajay Chourasia  
Prof. S.K.Singh  
Sh. Nadeem Ahmad  
Dr. S.K. Panigrahi  
Dr. P.C.Thapliyal  
Dr. R.K.Verma

**Organising Secretary**  
**Dr. Rajesh Kumar Dash**  
Project Scientist  
CSIR-CBRI, Roorkee

 **Venue- Juniper Hall, Indian Habitat Centre, Lodhi Road, New Delhi**

### Contact Details

Dr. D. P. Kanungo



9412073009



dpkanungo@cbri.res.in

Dr. Rajesh Kumar Dash



9853123933



rajesh.geol92@gmail.com

## Brainstorming Workshop

on

## Towards Developing a National Plan for Climate Change Impacts on Avalanches, GLOFs, and Landslides

27<sup>th</sup> November, 2024 (Wednesday)



**Organised By**

**CSIR-Central Building Research Institute, Roorkee**  
**Ministry of Science & Technology**  
**Government of India**  
**Uttarakhand-247667, India**



 <http://www.cbri.res.in>

 <https://www.linkedin.com/in/csircbri>

 <https://www.youtube.com/c/CbriResIn-roorkee>

 <https://www.facebook.com/csircbri>

 [https://www.instagram.com/csir\\_cbri/](https://www.instagram.com/csir_cbri/)

 [https://twitter.com/CSIR\\_CBRI](https://twitter.com/CSIR_CBRI)

## About the Event

The main objective of the brainstorming workshop on “**Towards Developing a National Plan for Climate Change Impacts on Avalanches, GLOFs, and Landslides**” is to appraise and discuss the emerging issues of avalanches, GLOFs and landslides in Indian Himalayas. The workshop is intended to address the proposal and initiative of CSIR-CBRI in order to draw attention to the need for increased funding for research and development, capacity building, specialized organizations and institutes on mountain hazards, and national and international collaboration to address such emerging issues.

## CSIR-CBRI, Roorkee, India

The Council of Scientific and Industrial Research (CSIR) is the largest public-funded research establishment in India and Central Building Research Institute (CSIR-CBRI) is one of the 37 research laboratories of CSIR. The Central Building Research Institute, Roorkee has been vested with the responsibility of generating, cultivating and promoting building science and technology in the service of the country. Since its inception in 1947, the institute has been assisting the building construction and building material industries in finding timely, appropriate and economical solutions to the issues of materials, rural and urban housing, energy conservation, efficiency, fire hazards, structural and foundation problems and disaster mitigation. CSIR-CBRI under one of the disaster mitigation thrust areas, contributes in engineering geological investigations, landslide hazard-vulnerability-risk assessment, landslide dynamics through instrumentation and monitoring, landslide modeling, landslide early warning, debris flow modeling and hazard assessment, UAV based landslide mapping & monitoring, and remote sensing & GIS application.

## Workshop Schedule

Session-I (11.20-12.15)	Monitor and Measure <b>Focus</b> : Remote Monitoring in high altitude, Processing of Signals, Heat Maps
Session-II (12.15-13.15)	Quantify and Forecast <b>Focus</b> : Understanding Geological Processes, Variability in Modelling, Scenario Development (Infrastructure and Economy)
Session-III (14.15-15.30)	Mitigate and Prepare <b>Focus</b> : Hardened Structures, Development Planning and Techno-legal Measures, Risk Communication and Community Awareness
Session-IV (15.45-17.15)	Panel Discussion : Issues & Way Forward Host & Moderator : Prof. R. Pradeep Kumar (Director, CSIR-CBRI)

## International Collaborators

Swiss Agency for Development and Cooperation SDC  
WSL institute for Snow and Avalanche Research SLF, Davos, Switzerland

## Invited Organisations

### Ministry/Departments

Ministry of Earth Sciences (MOES)  
Geological Survey of India (Ministry of Mines)  
Ministry of Environment, Forest and Climate Change (MOEF)  
Ministry of Human Resource Development (MHRD)  
Ministry of Road Transport and Highways of India (MoRTH) NHAI, NHIDCL  
All India Council for Technical Education (AICTE)  
Department of Science and Technology (DST)  
India Meterological Department (IMD)  
Ministry of Railways  
Ministry of Tourism

### National Disaster Management Authority (NDMA)

### National Institute of Disaster Management (NIDM)

### State Disaster Management Authority

Uttarakhand, Himachal Pradesh, J&K, Sikkim, Ladakh, Arunachal Pradesh, Kerala

### Council of Scientific and Industrial Research (CSIR) Labs

CSIR-National Geophysical Research Institute (NGRI), Hyderabad  
CSIR-Central Road Research Institute (CRRI), New Delhi  
CSIR-Central Institute of Mining and Fuel Research (CIMFR), Dhanbad  
CSIR-Fourth Paradigm Institute (CSIR-4PI), Bengaluru  
CSIR-Central Scientific Instruments Organisation (CSIO), Chandigarh  
CSIR-Central Electronics Engineering Research Institute (CEERI), Pilani  
CSIR-Structural Engineering Research Centre (SERC), Chennai

### Indian Institute of Technology (IIT)

Roorkee, Mandi, Patna, Indore, Jammu, Gawahati

### Research Institutes

National Remote Sensing Centre (NRSC), Hyderabad  
Defense Geoinformatics Research Establishment (DGRE), Chandigarh  
Wadia Institute of Himalayan Geology (WIHG), Dehradun  
Indian Institute of Remote Sensing (IIRS), Dehradun  
University of Kashmir, Jammu & Kashmir  
National Institutes of Hydrology (NIH), Roorkee  
Indian Institute of Science (IISC), Bangalore