

## BOARDING, LODGING AND VENUE OF THE PROGRAMME

The boarding and lodging arrangements will be made by Centre of Excellence in Disaster Mitigation and Management (CoEDMM), IIT Roorkee,

The programme will be held at **Continuing Education Center Guest House (trainee hostel)**, IIT Roorkee, Uttarakhand-247667. It will commence at 9am on Thursday, 05 December 2019 and will conclude on 5pm on Saturday, 07 December 2019. The duration of the training programme will be 3 days. All participants will be required to be present during the entire training programme. The deliberations during the training programme will be done primarily in English language.

## ABOUT NIDM

National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India is a premium institute and a Statutory Body (under Disaster Management Act 2005) for training, research, documentation, awareness and human resources and capacity development in the field of disaster mitigation and management. The institute lays emphasis on multi-stakeholder interdisciplinary cross-sectoral approach for an efficient proactive continuum disaster risk management based on participatory integrated multi-risk management concept. It aims towards a disaster free / resilient India.

## ABOUT CoEDMM

The Centre of Excellence in Disaster Mitigation and Management (CoEDMM) is the first center of disaster mitigation and management in India. It was established on March 27, 2006 with the aim of conducting educational programs, cutting edge research and training on disasters, vulnerability and its mitigation. Creation of a National Database for rapid dissemination of information and knowledge is also an objective. The Centre is a multidisciplinary research and education centre. The main aim of the educational program is to impart advanced knowledge on technical and managerial skills to the professionals to make them equipped with innovative technologies for effective mitigation and management of disasters for the overall benefit of the society. The CoEDMM aims to achieve excellence in key areas of education and research at par with international standards. Regional issues related to Earthquakes, Tsunamis, Floods, Cyclones, Fire, Avalanche, Land Slides, Cloud Burst and their early warnings are other focus areas. The Centre offers a two-year course in disaster mitigation and management specialization. The doctoral program is strongly supported by professors who are stalwarts in their field. The CoEDMM has faculty with domain expertise in Earthquakes, Landslides, Cyclones, Floods, Tsunamis Cyber Crime, Avalanches, Fires, Industrial disasters, CBRN (chemical, biological, radiological and nuclear) and Geomatics. Various research and consultancy projects are being carried out funded by Government of India and other National and International funding agencies.

## REGISTRATION

The delegates / participants of the programme will assemble in Training Hall / Conference Room, At **Continuing Education Center Guest House (trainee hostel)**, IIT Roorkee, Uttarakhand at 9 a.m. on Thursday, 05 December 2019 and will register themselves. IITR staff will assist them in Registration.

## ORGANIZING TEAM

### NIDM

**Major General Manoj Kumar Bindal, VSM**  
Executive Director, NIDM  
Email: ed.nidm@nic.in

### Programme Coordinators:

**Dr. Surya Parkash,**  
Head, Geo-Meteorological Risks Management Division

Email: surya.nidm@nic.in  
Phone: 011-23438293, Fax:011-23438287 /88

### Mr. Anil Kathait,

Young Professional, Geo-Meteorological Risks Management Division  
Email: kathaitanil@gmail.com  
Phone: 8750762136

### CoEDMM

### Programme Coordinator:

**Prof. Mahua Mukherjee**  
Head CoEDMM IIT Roorkee  
Dept. of Architecture and Planning  
Email : [mahua@iitr.ac.in](mailto:mahua@iitr.ac.in)

### Programme Co-Coordinator

**Prof. J das**  
Dept. of Earthquake Engineering  
Email: [jddasfeq@iitr.ac.in](mailto:jddasfeq@iitr.ac.in)

### Student Coordinator

**Dipti Dwivedi**  
Email : [dwivedepti@gmail.com](mailto:dwivedepti@gmail.com); [dkumaridwivedi@dm.iitr.ac.in](mailto:dkumaridwivedi@dm.iitr.ac.in)  
Contact no. : 9653799640

### Sandeep Sharma

Email: [ssharma@ar.iitr.ac.in](mailto:ssharma@ar.iitr.ac.in), [arsandeepsharma@gmail.com](mailto:arsandeepsharma@gmail.com)  
Contact No. 9418000416

### Logistics:

### NIDM

**Sh. Surender Thakur (Admin Incharge)**  
Email: [admofficer.nidm@nic.in](mailto:admofficer.nidm@nic.in), Ph. No. : +91-11-23438050  
**Sh. Vikram Gurjar, DC (Trg)**  
Email: [nidmtrgcell@gmail.com](mailto:nidmtrgcell@gmail.com), Ph. No. +91-9999265374  
**Mr. S. S. Bisht, Accounts Section, NIDM**  
**Mr. Hemant**, Comp. Prog. and Admn. Asstt. (I/O) NIDM  
**Ms. Pinky Thakur**, Steno, GMR Division, NIDM

### CoEDMM

**Mr. Tahir Hussain** Email: [coe\\_dmm@iitr.ac.in](mailto:coe_dmm@iitr.ac.in); Ph. No. +91-9149346198

### For further details or information, please contact the followings:

**Dr. Surya Parkash, Ph.D., PGT (Geneva), PGT (Skopje), SDT(Ankara)**  
Head, Geo-Meteorological Risks Management Division

**National Institute of Disaster Management (NIDM), MHA Government of India**

A-Wing, 4<sup>th</sup> Floor, NDCC-II Building,

Jai Singh Road, New Delhi - 110001

Ph.:- 011-2343 8293 Mobile: +91 98689 15226, +91 87507 62136

Fax: 011 2343 8290 / 8285 / 8288

Email: [surya.nidm@nic.in](mailto:surya.nidm@nic.in), [kathaitanil@gmail.com](mailto:kathaitanil@gmail.com)

Website: [www.nidm.gov.in](http://www.nidm.gov.in)

## National Level Training Programme on CLIMATE CHANGE, HILL AREA DEVELOPMENT AND LANDSLIDES MANAGEMENT

05-07 December 2019 at CoEDMM, IIT  
Roorkee, Uttarakhand



## Hill Area Development

*Climate Change  
Landslides Management*

*Organized jointly by*

**nidm**

Resilient India - Disaster Free India

**National Institute of Disaster Management**

**Ministry of Home Affairs, Govt. of India**

**A-Wing, 4<sup>th</sup> Floor, NDCC-II Building,**

**Jai Singh Road, New Delhi – 110 001**

**[www.nidm.gov.in](http://www.nidm.gov.in)**

*and*  
**Centre of Excellence in Disaster Mitigation  
and Management (CoEDMM),  
IIT Roorkee, Roorkee Uttarakhand**

#### **BACKGROUND**

NIDM has been mandated by **Sub-section 8 and 9, Section 42, Chapter 7 of Disaster Management Act 2005** to develop training modules and educational materials, undertake training, research, documentation and publication for capacity development and dissemination of knowledge / information related to disaster management, **assist in formulation of policies, plans, strategies and frameworks for disaster risk reduction and resilience** as well as promote awareness among different stakeholders for enhancing human capacity to avoid, prevent, mitigate, prepare, respond and recover efficiently in a proactive, holistic and integrated manner.

The Institute has been organizing various training courses and conducting seminars / workshops / conferences covering wide spectrum of themes at the national and international levels besides publishing several training modules and other documents including case studies, templates and disaster reports.

NIDM has been trying to bring various stakeholders at one platform through activities like India Disaster Management Conference, National Platform for Disaster Risk Reduction, South Asia Policy Dialogue, East Asia Summit for Earthquake Risk Reduction and Asia Ministerial Conference for Disaster Risk Reduction for better networking, linkages and coordination. The recent declarations at the international levels during the Sendai Framework for Disaster Risk Reduction, Prime Minister's 10 Point Agenda on DRR, Climate Change Action Plans, Urbanization Agenda and Sustainable Development Goals have also emphasized on collective synergized action and integrated approach for Climate and Disaster Resilient Safer Sustainable Development.

#### **INTRODUCTION**

India, the seventh-largest country in the world apropos of area, is persistently being knocked by landslides of varied magnitude throughout the history. According to the Geological Survey of India, the nodal agency for landslide hazard and risk management, about 0.42 million sq. km of our nation's land area is vulnerable to landslide hazard. The vulnerable areas are spread over 21 States and 4 Union Territories. Landslides are multifaceted phenomenon having a broad spectrum of magnitude and types that can be triggered by other disasters such as earthquakes, unprecedented precipitation, wildfires, cyclones, floods, glacial lake outburst floods, cloudburst and anthropogenic activities viz., unregulated cutting of hillsides, haphazard constructions of buildings and roads on fragile slopes and mining. Landslides are also responsible for inducing hazards like flash floods and tsunamis. Collapse of landslide dammed lakes can generate devastating flash floods. Similarly, episodes of submarine landslides are enough capable of producing huge tsunamis in coastal areas that can be potential threat to community and coastal ecosystem.

The rugged hilly terrains of country due to their peculiar geo-dynamics and geo-meteorological characteristics are prone to numerous disasters; inter alia, landslides, glacial lake outburst floods, cloud bursts, floods, flashfloods, and earthquakes. Further, the anthropogenic pressure attributed to urbanization on unstable natural as well as built slopes is fabricating new risks of these disasters in the hills. The climate change and its adverse impacts on temperature and precipitation patterns are indisputable and will further flame the quotient of disasters such as landslides, glacial lake outburst floods, cloud bursts, flashfloods and many others in hilly areas and will be constantly challenging our strategies of mitigation and management of those disasters.

In this regard, NIDM proposes a collaborative three days national level training programme on 05-07 December 2019 at CoEDMM, IIT Roorkee, jointly with Centre of Excellence in Disaster Mitigation and Management (CoEDMM), IIT Roorkee, for the officers / functionaries of the relevant Ministries/Departments/ Institutions to share and exchange knowledge/information on Disaster Risk Reduction and Resilience including some important national initiatives and international agreements / frameworks on DRR including Disaster Management Act, National Disaster Management Plan, National Disaster Management Policy, Standard Operational Procedures on Disaster Management and various Guidelines on different types of disasters and related functions, (SFDRR), Climate change (COP21), sustainable development (SDGs), urbanization agenda and Prime Minister's 10 point agenda in disaster management. The training programme will focus on preparation of Disaster Management Plan highlighting strategies to build back better for exiting development and build to last for upcoming development activities in the hilly terrains by the respective ministry/department/institute. The Ministry may constitute a working group of relevant officials / functionaries to formulate a draft DM plan with academic facilitation by NIDM faculty. NIDM can also collaborate with education / training / research institutes under the respective Ministry / Department for organizing trainings, workshops and meetings as well as publication and documentation / development of IEC materials with focus on various activities related to disaster risk reduction and resilience.

The programme involves senior level resource persons, experts, professionals and functionaries who have very long and meaningful experiences with vast knowledge on the subject. During the programme, there will be presentations, panel discussions and group exercises on planning for disaster management and its implementation issues with examples from India and abroad, sharing of ideas and expertise / skills related to disaster risk reduction and resilience with scope, advantages and limitations as well as issues, challenges and opportunities in managing disaster events including the ethical perspectives. Government of India has established a well-structured disaster management system defining roles, responsibilities and procedures for different stakeholders as well as allocation of adequate funds through different mechanisms for undertaking activities on DRR&R. It has also laid down guidelines, procedures and protocols for Disaster Management functionaries. The programme will provide information about such documents and key important points to be considered in disaster risk reduction and resilience.

The representatives from the respective Ministry / Department / Organization/Agencies would be encouraged to take necessary initiatives for preparation of disaster management plans for their respective geographical / territorial and functional regimes.

It is expected that the programme would serve as a milestone for further actions in enhancing our capacities to reduce disasters and their impacts as part of the national goal to make the country disaster resilient through proactive prior planning on disaster risk reduction and resilience at proper place and time.

#### **PROGRAMME DETAILS**

The programme details including the tentative schedule of the training and the likely resource persons will be provided separately before the programme.

#### **CERTIFICATE**

A Certificate will be awarded to the participants on successful completion of the course.

#### **EVALUATION OF THE PROGRAMME**

The training programme shall have a dedicated session for feedback and valediction. The participants will be provided with a valuation pro forma, which may be completed and handed over to the programme staff.

#### **OBJECTIVES**

- At the end of training workshop, the delegates/participants will be able to:
1. To develop better understanding about Disaster Risk Reduction and Resilience (DRR&R);
  2. To learn about the relevant Act, Policy, Plan, Guidelines and SOPs on Disaster Management in the country;
  3. To know about the important international agreements and declarations on disaster risk reduction, climate change, urbanization and sustainable development;
  4. To develop solutions for development of hilly terrains and mitigation and management of recurring disasters;
  5. To initiate activities on formulation of disaster management plan for their functional and geographical regimes;
  6. To discuss the collaboration and strengthening mechanisms for effective implementation of disaster management related activities at national, state as well as local level.

#### **BASIC COURSE LEARNING UNITS**

Contents of the course would touch upon following aspects, to achieve the objectives:

- Basic Concept of landslide risk management
- Climate change Disaster Management, Risk Reduction and Resilience
- Linkages among development, climate change, urbanization and disaster management in hilly area
- Investigation, Instrumentation, Monitoring and Early warning of a Landslide
- National Landslide Risk Management Strategy
- India Disaster Resources Network
- Suggestive Framework for preparation of DM Plan
- Group Exercise on Hazard, Vulnerability, Capacity and Risk Assessment ( HVCR)

#### **SUGGESTED READINGS**

- National Landslide Risk Management Strategy 2019,
- National disaster Management Plan 2016,
- NDMA Policy 2009.
- Guidelines on Management of Landslides and Avalanches,
- DM Act 2005 (<http://www.ndma.gov.in> )

- National Action Plan on Climate Change 2008 ([https://archivepmo.nic.in/drmanmohansingh/climate\\_change\\_english.pdf](https://archivepmo.nic.in/drmanmohansingh/climate_change_english.pdf))
- NDM Information and Communication System (<http://www.ndma.gov.in/images/guidelines/ndmandmicguidelines.pdf>)
- NDMA SOP for DM (<http://www.ndma.gov.in/images/policyplan/NDMA-SOP-for-Disaster-Management.pdf>)
- SOP for Responding to Disasters (<http://ndmindia.nic.in/>)

#### **TARGET GROUP**

The target group for this programme would be middle and senior level functionaries from the central and state governments representing particularly offices engaged with development in hill area as well as relevant institutes / organizations / agencies. The nodal officers for disaster management amongst them will be the key stakeholders to work in a coherent and coordinated manner with other ministries, departments and organizations as well as NDMA, MHA, NIDM, State Revenue and Disaster Management Department, SDMA, DDMA, SDRFs, QRTs, NDRF, ATIs, SIRDs, Police, Researchers, Academicians and other stakeholders working in this subject area.

**Tentative Schedule for Training Programme  
on  
CLIMATE CHANGE, HILL AREA DEVELOPMENT AND LANDSLIDES MANAGEMENT  
(05-07 December 2019 at CoEDMM, IIT Roorkee, Uttarakhand)**

Day/Date	Pre-Lunch Session					Post Lunch Session				
	0900-0930	0930-1030	1100-1200	1200-1300	1400-1500	1500-1600	1615-1715	17.15-18.15		
<b>Thursday 05.12.2019</b>	Registration of Participants	<b>Inaugural Session</b>	Keynote Address: Climate and Disaster Resilient Development in Hill States <b>R K Bhandari</b>	Introduction to Landslide, Factors and Causes <b>J Das</b>	<b>LUNCH BREAK (1300 – 1400 Hrs.)</b>	<b>Brainstorming Session</b>	Landslide Hazard Assessment <b>P S Champati Ray</b>	<b>Tea (1600 – 1615 Hrs.)</b>	Approach to evolve solutions for Slope Stabilisation & Rockfall Protection <b>A Gharpure</b>	<b>FAQ/ Discussion</b>
<b>Friday 06.12.2019</b>	Field Visit to <b>Himalayan Region on Rishikesh Devprayag road</b>		Field Visit will be accompanied by Experts and Instruments			Field Visit			Field Visit	
<b>Saturday 07.12.2019</b>	Recapitulation	Nature-based solutions & Introduction to Group Exercise <b>M Mukherjee</b>	National Landslide Risk Management Strategy <b>S Prakash</b>	Group Exercise on Landslide Risk Reduction and Resilience <b>SP, MM &amp; JD</b>		Group Exercise cntd. <b>SP, MM &amp; JD</b>	Presentation on Group Exercise <b>SP, MM &amp; JD</b>	Valedictory	High Tea <b>16.30-17.00 Hrs</b>	

**Resource Persons:**

Dr. R K Bhandari, CBRI Director (EX); & Distinguished Visiting Professor, CoEDMM, IIT Roorkee

Dr. J Das- Associate Professor, EarthQuake Department, IIT Roorkee & Associated Faculty, CoEDMM, IIT Roorkee

Dr. P S Champati Ray, Group Head, Geosciences and Disaster Management Group; Indian Institute of Remote Sensing (ISRO); Dehradun

Er. A. Gharpure, Managing Director, Genstru, Pune, P.E. (Maryland & California, USA); M.Tech. (Civil) IIT Kanpur, MBA (PGPM), ISB Hyderabad

Prof. M Mukherjee, Head, Coedmm

Dr. Surya Prakash, Head, Geo-meteorological Risks Management Division, NIDM & Centre in Charge of Centre for Hill Area Development

**NATIONAL INSTITUTE OF DISASTER MANAGEMENT (NIDM)**  
**Ministry of Home Affairs, Govt. of India**  
**&**  
**Centre of Excellence in Disaster Mitigation and Management (CoEDMM),**  
**IIT Roorkee, Roorkee**

**Nomination Form**

**Name of the Programme:** National Level **Training Programme** on **“Climate Change, Hill Area Development and Landslides Management”** at Centre of Excellence in Disaster Mitigation and Management (CoEDMM), IIT Roorkee; Roorkee – 247 667

**Date & Venue:** 05-07 December 2019 at CoEDMM, IIT Roorkee

**Name of the Nominee:** \_\_\_\_\_

**Designation:** \_\_\_\_\_ **Age:** \_\_\_\_\_

**Name and Address of the Organisation:** \_\_\_\_\_

\_\_\_\_\_

**Residential Address:** \_\_\_\_\_

\_\_\_\_\_

**Telephone: STD Code:** \_\_\_\_\_

**Office:** \_\_\_\_\_ **Residence:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Mobile:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Expectation from the Course:**

\_\_\_\_\_

**In what way do you think that this training workshop will be useful?**

\_\_\_\_\_

**Accommodation requirement during training workshop**

**(Required/Not required)** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Name, Designation and  
Signature of the Nominating Authority**

(Please fill all the details in Nomination form for NIDM data base record)

---

Address:  
NIDM, A-Wing, 4<sup>th</sup> Floor, NDCC-II Building, Jai Singh Road, New Delhi-110001, Phone: 011 – 23438293, Fax:  
011-23438290/8288 Email: [surya.nidm@nic.in](mailto:surya.nidm@nic.in)

&  
CoEDMM IIT Roorkee, Uttarakhand, India  
Email: [coe\\_dmm@iitr.ac.in](mailto:coe_dmm@iitr.ac.in) / Fax : +91-1332-286617 / Phone: +91-1332-286616  
Prof. Mahua Mukherjee (Head CoEDMM), Email: [mahuafap@iitr.ac.in](mailto:mahuafap@iitr.ac.in)  
Prof. Josodhir Das, Email: [jddasfeq@iitr.ac.in](mailto:jddasfeq@iitr.ac.in)