

## **National Level Training Programme on Climate Change, Hill Area Development and Landslides Management during 10 - 14 June 2019 at Thiruvananthapuram**

### **BACKGROUND**

Landslides occur in all hilly terrains in response to a wide variety of terrain conditions and triggering processes like heavy rainstorms, cloudbursts, earthquakes, floods and haphazard human activities. More than 5000 people are buried alive under landslides and economic losses of >4 bn USD are suffered every year globally (ICL and USGS Reports). In India, >15% of its territory (GSI Reports) is prone to various degrees of landslide hazard, frequently affecting the human life, livelihood, livestock, living places, structures, infrastructure, and natural resources in a big way. In addition to direct and indirect losses, landslides cause significant environmental damage, societal disruption and strategic concern. Landslides are spread over 22 States and 2 UTs including J&K, Himachal, Uttarakhand, Arunachal, Assam, Meghalaya, Mizoram, Manipur, Nagaland, Sikkim, Tripura, Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Goa, Maharashtra and Puducherry (NDMA Guidelines 2009). The most sensitive areas are Himalayan belt, Western and Eastern Ghats. Landslides constitute a serious hazard that causes substantial human and financial losses in the country. It is estimated that on an average about hundreds of lives and approximately hundreds of crores of rupees annually are lost directly or indirectly.

### **INTRODUCTION**

Landslides can happen not only in isolation but also along with or as a consequence of other disasters like earthquakes, floods, lightning, cloudburst, forest fires, dam / lake bursts etc. In such cases, landslide losses are normally included with the primary disaster and are not dealt separately. Hence, most of the reported estimates on landslides losses are found to be quite lower than the actual impacts of landslides on the society as a whole.

With growing population and human interventions in terms of developmental activities over unstable slopes, landslides pose increasing risk to human life, buildings, structures, infra-structures and environment. Large scale deforestation along with faulty management practices have led to high vulnerability to landslides in many regions of the country. Human activities relating to expansion on unsafe locations, unscientific mining, haphazard construction of roads, dams and river training works ignoring natural features contribute to increased intensity of landslides. The absence of large scale landslide hazard maps leads to people being caught unaware especially when the first time landslides strike.

As individual landslides usually affect limited local areas and residents, damage resulting from landslide hazards has not generally been recognized as a problem of national importance

and has not been addressed on a national basis. The absence of coordinated national approach to mitigating the detrimental effects of landslides has resulted in a reduced ability of the States and Local Government agencies to apply the important lessons learnt, often at considerable expense, in other parts of the country.

As a result, the need for a national strategy has been strongly felt and worked upon now by the National Disaster Management Authority through National Disaster Policy and Guidelines on Landslide. Being cognizant of the diversity of issues associated with national landslides problem that arise from both the regional considerations and of the considerable variations in the institutional capability and responsibility at regional and local levels, inputs from a wide variety of stakeholders are essential. Strengthening the process of landslide assessment, investigation, mapping and management will have far reaching effects in reducing landslide losses. NIDM, the nodal institute dealing with disasters is planning to undertake such projects in order to stimulate necessary activities across the country and create a nodal platform to deliver trainings on various aspects of landslides risk management and also create a network of resources persons / experts who can contribute in this activity. It would pave way for effective decision making and planning micro level mapping for various developmental and regulatory activities in hilly terrains.

NIDM, thus, aims to work in the following directions to make the hilly terrains and coastal areas free of landslide disasters.

- To promote the use of landslide risk analysis techniques to guide loss reduction efforts at the State and Local Levels.
- To play a vital role in evaluating methods, setting standards, and advancing procedures and guidelines for landslide hazard maps and assessments.
- To provide tools for landslide hazards mitigation and promote basic research on monitoring techniques and on aspects of landslide process mechanics.
- To improve education, training and awareness of landslide hazards and mitigation options for decision makers, professionals, and the general public.
- To produce the implementation and management plans that will provide the practical basis for an effective national strategy that can be applied at local levels.
- To develop workable partnerships with States, District and Local Level Governments and Non-Governmental Organizations as well as professional and other stakeholders.

### **OBJECTIVES**

At the end of the training program, the participants will be able to

1. To define the terms and concepts in landslides risk management
2. To characterize landslide dimension and features
3. To identify the causes and factors of landslides
4. To assess the consequences of landslides in terms of damages and losses
5. To enlist and discuss Indian Standards and Codes related to landslides

6. To describe application of technology, local resources/skills, and traditional wisdom in landslides management
7. To demonstrate through an exercise the process of landslide risk management
8. To integrate landslide risk management with development in a multi-hazard perspective with interdisciplinary cross-sectoral partnership approach
9. To provide a forum for networking, linkage and coordination among different stakeholders for exchange of ideas, information and experiences on landslides risk management

### **TARGET GROUP**

The target group for this programme would be senior and middle level functionaries of the central and state governments representing various departments and organizations including Revenue and Disaster Management, ATIs, SIRDs, PWD, NHAI, GSI, DGM, PRIs, Rural and Urban Development, ULBs, Town Planning, Mining, Hydel and Power Sectors, Researchers, Academicians and other stakeholders working in this area.

### **WHY THIS TRAINING?**

Lack of adequate knowledge, skills and information about disasters have aggravated the losses and prolonged the recovery process. Informed, skilled and trained human resources can play a significant role in disaster risk management and loss reduction. The training aims to fill this gap in a proactive mode through such courses.

### **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 effective and efficient proactive continuum disaster risk management based on participatory integrated multi-risk management concept. It aims towards a disaster free India.

### **ABOUT KSDMA**

Kerala State Disaster Management Authority is a statutory non-autonomous body under the Chairmanship of the Chief Minister of Kerala as per DM Act 2005. Vide Section 3 of the Kerala State Disaster Management Rules (KSDMR), 2007, the authority is composed of ten (10) members, chaired by Chief Minister and convened by Additional Chief Secretary, Revenue and Disaster Management. The Chief Secretary (inter alia Chairperson of the State Executive Committee) is the Chief Executive Officer of KSDMA vide Section 14 (4) of the DM Act, 2005.

## VENUE AND DURATION

The programme will be held at Harmony Hall, KTDC Mascot Hotel, Thiruvananthapuram, Kerala. It will commence from Monday, 10 June 2019 and will conclude on Friday, 14 June 2019. The duration of the training programme will be 5 days.

## REGISTRATION

The participants of the programme will assemble in Harmony Hall, KTDC Mascot Hotel, Thiruvananthapuram at 9:30 a.m. and will register themselves on Monday, 10 June 2019. KSDMA staff will assist them in registration.

## PROGRAMME DETAILS

The programme details including the Work Schedule and List of Resource Persons along with their contact details are given in the leaf on Tentative Schedule of the programme.

## EVALUATION OF THE PROGRAMME

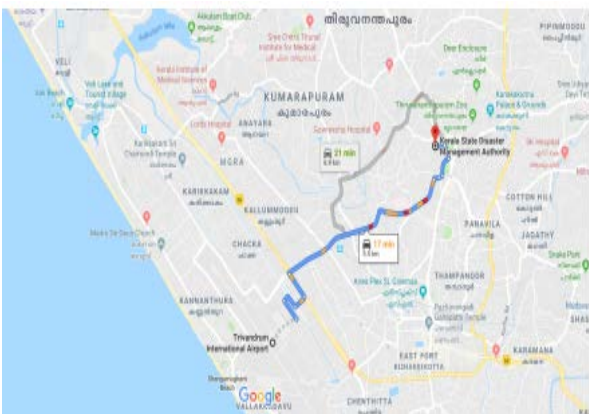
The final session of the programme will be devoted to evaluation and valediction. The participants will be supplied with an evaluation proforma, which may be completed and handed over to the Programme staff.

## CERTIFICATE

A Certificate will be awarded to each participant on the successful completion of the programme.

## HOW TO REACH the Training Venue?

The training venue is located at about 3.5 km from Railway Station and international airport is located at about 6 km from the venue.



## ORGANIZING TEAM

Overall Supervision & Guidance:  
**Maj. Gen. Manoj Kumar Bindal, VSM**  
Executive Director, NIDM

**Dr. V. Venu IAS**  
Principal Secretary, Revenue & Disaster Management  
State Relief Commissioner & Convener,  
Kerala State Disaster Management Authority

Coordinator: **Dr. Surya Parkash, Head,  
GMR Division, NIDM**

Coordinator: **Dr. Sekhar L. Kuriakose,  
Member Secretary, KSDMA**

Logistic Support: Mr. Rajakumaran Thampi, KSEOC, Kerala  
Mobile: 8848165979

Technical Assistance: Mr. Pradeep G S, Hazard Analyst, KSEOC  
Mobile: 9895817557

## FOR FURTHER DETAILS, PLEASE CONTACT

**Dr. Surya Parkash, Head,  
Geo-Meteorological Risks Management Division**  
National Institute of Disaster Management (NIDM),  
Ministry of Home Affairs, Government of India  
4<sup>th</sup> Floor, A-Wing, NDCC-II Building,  
Jai Singh Road, New Delhi - 110001  
Ph.:- 011-2343 8293 Mobile: 98689 15226  
Fax: 011 2343 8290  
Email: surya.nidm@nic.in, spnidm@gmail.com  
Website: www.nidm.gov.in

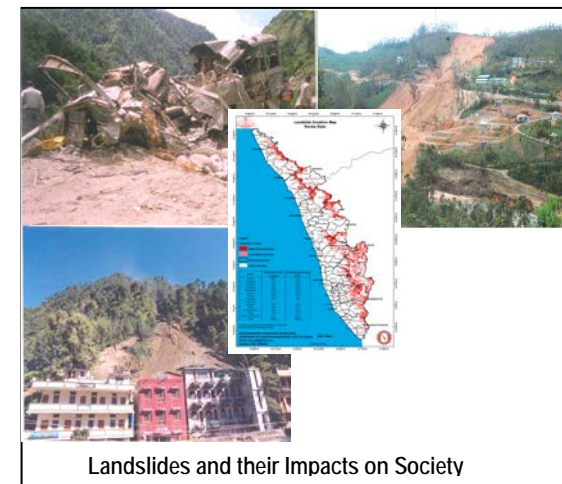
**Dr. Sekhar Lukose Kuriakose**  
Member Secretary,  
Kerala State Disaster Management Authority (ex-officio) &  
Head (Scientist), State Emergency Operations Centre  
Observatory Hills, Vikas Bhawan PO,  
Thiruvananthapuram, Kerala  
Mob: +91- 9400202927, 9446579222,  
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Brochure

## National Level Training Programme on

## CLIMATE CHANGE, HILL AREA DEVELOPMENT AND LANDSLIDES MANAGEMENT (10-14 June 2019 at KTDC Mascot Hotel, Thiruvananthapuram, Kerala)



Landslides and their Impacts on Society

Jointly organized by

**nidm**

Resilient India - Disaster Free India

**National Institute of Disaster Management**  
Ministry of Home Affairs, Govt. of India  
New Delhi – 110 001  
www.nidm.gov.in  
in collaboration with

**Kerala State Disaster Management Authority**  
Observatory Hills, Vikas Bhawan P.O.,  
Thiruvananthapuram – 695033, Kerala  
www.sdma.kerala.gov.in

**Tentative Schedule for the Training Course on  
CLIMATE CHANGE, HILL AREA DEVELOPMENT AND LANDSLIDES MANAGEMENT  
(10-14 June 2019 at Harmony Hall, KTDC Mascot Hotel, Thiruvananthapuram, Kerala)**

Day / Date	Pre-Lunch Session			Post-Lunch Session		
	930-1015	1015-1130	1145-1300	1400-1515	1530-1630	1630-1730
<b>Monday, 10 June 2019</b>	Registration of Participants	Welcome Course Introduction Intro by participants Address by Guest of Honour – Dr. K. Satyagopal, IAS Address by Chief Guest Vote of Thanks	Climate and Disaster Resilient Agricultural Development in Hill States  <b>Dr. K. Satyagopal, IAS, ACS / SRC, TN Govt</b>	Landslides Terminology, Types, Factors and Causes  <b>Sh. Muralidharan, DDG GSI (Retd)</b>	Investigation and Monitoring of a Landslide  <b>Dr. Sajin Kumar, Kerala University Campus</b>	Integrating Landslides Risk Reduction with Development and Climate Change  <b>Dr. Sajin Kumar, Kerala University Campus</b>
<b>Tuesday, 11 June 2019</b>	Recapitulation	Landslide Hazard Zonation vis-à-vis Landuse Planning and Development  <b>Sh. R. Sachin, GSI</b>	Morphological and Meteorological Features of the hills governing development, climate change and disasters <b>John Mathai, NCESS</b>	Challenges and Opportunities in managing Landslides along highways / roads <b>Dr. S. S. Porwal, ADG BRO (Retd)</b>	Landslide Prevention, Mitigation and Remediation  <b>Dr. S. S. Porwal, ADG BRO (Retd)</b>	
<b>Wednesday, 12 June 2019</b>	Recapitulation & Group Photograph	Monitoring, Early Warning and Communication on Landslides  <b>Dr. Surya Parkash, NIDM</b>	Geo-informatics for Landslides studies and Management  <b>Dr. G.P. Ganapathy, CDMM, VIT</b>	Role of Governance and Administration in Landslide Management  <b>Dr. Sekhar L K, KSDMA</b>	Siting, Construction and Management for Safety of Buildings against Landslides  <b>Dr. Surya Parkash, Head, GMRD, NIDM</b>	
<b>Thursday, 13 June 2019</b>	Recapitulation and Field Visit	Field Visit to Landslide Site  <b>NIDM, KSDMA and GSI</b>	Field Visit to Landslide Site  <b>NIDM, KSDMA &amp; GSI</b>	Orientation for Exercise on Landslide Risk Reduction and Resilience <b>Dr. Surya Parkash, Head, GMRD, NIDM</b>	Group Exercise on Landslide Risk Reduction and Resilience  <b>Dr. Surya Parkash, Head, GMRD, NIDM</b>	
<b>Friday, 14 June 2019</b>	Recapitulation	Presentation on Group Exercise  <b>Participants</b>	Safety of Infrastructure (Transportation, Communication, Power, Water Supply etc.) against landslides  <b>NIDM</b>	Integrating Landslides Risk Reduction with Development and Climate Change  <b>NIDM and KSDMA</b>	Feedback and Evaluation  <b>NIDM and KSDMA</b>	Address by <b>KSDMA</b> , Address by ED NIDM – <b>Maj. Gen. Manoj Kumar. Bindal</b> Valediction Address by Chief Guest – <b>Lt. Gen. N C Marwah, Member NDMA</b> Certification, Vote of Thanks

Tea (1130 – 1145 Hrs.)

LUNCH BREAK (1300 – 1400 Hrs.)

Tea (1515 – 1530 Hrs.)

**NATIONAL INSTITUTE OF DISASTER MANAGEMENT (NIDM)**  
**Ministry of Home Affairs, Govt. of India**

**Nomination Form**

**Name of the Programme:** National Level Training Programme on  
“Climate Change, Hill Area Development and  
Landslides Management” in collaboration  
with KSDMA, Kerala

**Programme Date & Venue:** 10-14 June 2019, Harmony Hall, KTDC Mascot  
Hotel, Thiruvananthpuram

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

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

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

\_\_\_\_\_

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

\_\_\_\_\_

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

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

**Mobile:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

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

**Expectation from the Course:**

\_\_\_\_\_

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

\_\_\_\_\_

**Accommodation requirement during training (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)