## **TRAINING REPORT**

# REGIONAL CAPACITY BUILDING TRAINING PROGRAMME FOR ACADEMICIANS OF NORTH-EAST INDIA

ON

# **"INSPIRING THE MINDS FOR DISASTER RISK REDUCTION"**

26<sup>th</sup> March to 28<sup>th</sup> March 2024 (Tuesday-Thursday)









# REGIONAL CAPACITY BUILDING TRAINING PROGRAMME FOR ACADEMICIANS OF NORTH-EAST INDIA

On

# "Inspiring the minds for Disaster Risk Reduction."

organised by

Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-NIDM) National Institute of Disaster Management (NIDM)

Ministry of Home Affairs (MHA), Govt. of India

In collaboration with

# North-Eastern Hill University, Umshing, Mawkynroh

Shillong – 793022, Meghalaya

Date: 26<sup>th</sup> March to 28<sup>th</sup> March 2024 (Tuesday-Thursday)

# Venue: Geology Department, NEHU Campus







Group Photo @ NEHU

# Preface

Under the Disaster Management Act 2005, NIDM has been assigned nodal responsibilities for human resource development, capacity building, training, research, documentation, andpolicy advocacy in the field of disaster management. The Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-NIDM) has been established by NIDM pursuant to Government of India directions and more specifically in conformity to the agenda-6 of the 10 point agenda for Disaster Risk Reduction(DRR) by the Honorable Prime Minister of India, Global issues on Climate Change Adaptation (CCA), Sendai Framework for Disaster Risk Reduction, innovative technology and research, facilitate capacity development, and contribute to decision making for addressing local risks and the needs of the most vulnerable sections of community affected by various disasters. IUINDRR-NIDM envisions in building nations and communities safe and resilient to disasters, through education, knowledge creation, research, technology, and dissemination. The network also aims to exchange information among the universities and develop a pool of experts in the areas of disaster management.

The North-Eastern Hill University Act (24 of 1973) passed by both Houses of Parliament received the assent of the President of India on May 26th, 1973. It was published in the Gazette of India (Extraordinary) on May 26th, 1973, together with the First Schedule of the Act incorporating the Statutes of the University. The North-Eastern Hill University Act (24 of 1973) passed on May 26th, 1973. The objectives of the University, as laid down in the act, are "to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit; to pay special attention to the improvement of the social and economic conditions and welfare of the people of the hill areas of the North-eastern region, and in particular, the intellectual, academic and cultural advancement."

North- Eastern Hill University has hosted the series-3: Regional Capacity Building Training Programme for academicians of North-East India on "INSPIRING THE MINDS FOR DISASTER RISK REDUCTION.". The Training Programme is a comprehensive initiative aimed at equipping educators and scholars from the North-Eastern region of India with the knowledge and skills necessary to effectively address and mitigate the challenges posed by natural disasters. This program recognizes the unique geographical and environmental vulnerabilities of the North-Eastern states and seeks to empower academic professionals to play a pivotal role in disaster risk reduction. Through a combination of theoretical sessions, practical exercises, and interactive workshops, participants will gain a deeper understanding of disaster risk management, resilience-building, and the integration of disaster risk reduction into educational curricula. By fostering a community of knowledgeable and proactive academicians, this program ultimately aspires to enhance disaster preparedness, response, and recovery efforts in the North-Eastern region, contributing to the overall safety and wellbeing of its inhabitants while promoting sustainable development. This initiative reflects a commitment to harnessing the intellectual and academic potential of the region to inspire innovative solutions and policies for disaster risk reduction, ultimately reducing the impact of natural disasters on the communities of North-East India.

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#### BROCHURE

#### Training Methodology:

- Lecture-cum-Discussion
- Presentation of case Study
   Group Discussion
- Field Study
- Audio-Visual Show

#### Topics to be covered:

- Conceptual Framework of Disaster Management
  Disaster Profile of India with special reference
- to North-East India
- Disaster Preparedness Planning, Resilience and long term mitigation
   Application of Geo-Informatics in Disaster
- Management
- Foundation Course curriculum on DRR
  Regional Issues of Disaster Risk Reduction
- Regional issues of Disaster hisk Reduction

#### Course Fee, accommodation and other arrangements: There is no course fee for the programme.

Lodging and Boarding are to be provided to the participants in the NEHU Guesthouses during the period of training programme.

#### Duration of the Programme:

Three days. 26<sup>th</sup> March to 28<sup>th</sup> March 2024

#### Participants:

Faculty Members of Universities/Institutions of North-Eastern Region

#### Nominations:

cc:

The nominations are invited from each university of north-eastern region from any stream. The Vice-Chancellor/Registrar of the concerned university is to nominate two faculties (Assistant Professor/Associate Professor) to participate in the programme. After the completion of programme, trained faculties are to impart training on foundation course on DRR to other academicians in their respective universities.

## Nomination letter dully signed by VC/ Head of the institute shall be emailed to:

hodgeology@nehu.ac.in geologynehu@gmail.com

#### For any query, please contact to:

 Prof. Devesh Walia Dean, School of Human & Environmental Sciences, NEHU Ph: 9436163641

North-Eastern Hill University Umshing Mawkynroh, Shillong - 793022 Cell- 98355 96500

E-mail: hodgeology@nehu.ac.in

# nidm 🙇 🧔

#### "INSPIRING THE MINDS FOR DISASTER RISK REDUCTION"

Regional Capacity Building Training Programme for Academicians of North-East India

26<sup>th</sup> March to 28<sup>th</sup> March 2024



#### Organized by

Indian Universities and Institutions Network on Disaster Risk Reduction (UINDRR-NIDM) National Institute of Disaster Management (NIDM) Ministry of Home Affairs (MIHA), Govt, of India

in collaboration with

North-Eastern Hill University Umshing Mawkynroh Shillong – 793022, Meghalaya

Backdrop:

The National Institute of Disaster Management (NIDM) was constituted under an Act of Parliament with a vision to play the role of a premier institute for capacity development in India and the region. The efforts in this direction that began with the formation of the National Centre for Disaster Management (NCDM) in 1995 gained impetus with its redesignation as the National Institute of Disaster Management (NIDM) for training and capacity development. Under the Disaster Management Act 2005, NIDM has been assigned nodal responsibilities for human resource development, capacity building, training, research, documentation and policy advocacy in the field of disaster management.

The Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-NIDM) has been established by NIDM pursuant to Government of India directions and more specifically in conformity to the agenda-6 of the 10 point agenda for Disaster Risk Reduction(DRR) by the Honorable Prime Minister of India, Global issues on Climate Change Adaptation (CCA), Sendai Framework for Disaster Risk Reduction (2015-2030), and Sustainable Development Goals (SDG), for promoting education, innovative technology and research, facilitate capacity development, and contribute to decision-making for addressing local risks and the needs of the most vulnerable sections of community affected by various disasters.

IUINDRR-NIDM envisions in building nation and communities safe and resilient to disasters, through education, knowledge creation, research, technology and dissemination. The network also aims to exchange information among the universities and develop a pool of experts in the areas of disaster management. The North-Eastern Hill University Act (24 of 1973) passed by both Houses of Parliament received the assent of the President of India on May 26th, 1973.

The objectives of the University, as laid down in the act, are "to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit; to pay special attention to the improvement of the social and economic conditions and welfare of the people of the hill areas of the North-eastern region, and in particular, the intellectual, academic and cultural advancement".

#### Need of the programme:

In order to act upon the direction led by the Hon'ble Prime Minster of India, NIDM took step forward under the India Universities and Institution Network (IUINDRR-NIDM) and formulated model curriculums on Disaster Risk Reduction and Management. For the first time, experts came up at one platform from across the country and in consultation of academia, model curriculums at UG & PG level have been developed. The objective of these curriculums to train students on the issues related to disaster management. The proposed model curriculums of Foundation Course on Disaster Risk Reduction which has included elements of disaster related issues to build the knowledge, skills and capacity of the young generation to achieve National objective of 10 point agenda 6 of Hon'ble Prime Minister of India. UGC also has sent notification to every University and College vide D.O No. 2-9/2022 (CPP-II), dated 24th February, 2022 to implement DRR courses in their curriculums. Hence, to build the capacity of academician of North-East region on "Foundation/Multi-disciplinary Course Curriculum" which has to be integrate with every stream of Higher Education, IUINDRR-NIDM organizes "Regional Capacity Development Programme on

Disaster Risk Reduction". Such trainings will help develop a culture of more sensitive, accurate and holistic disaster preparedness. In the long run, this will help develop more resilient communities as the next generation will become better trained.

It is in the above context, in order to develop the capacity of academicians on Disaster Risk Reduction at regional platform, IUINDRR-NIDM, National Institute of Disaster Management, MHA, GOI is proposing 3 days offline Regional Capacity Development training programme in collaboration with North-Eastern Hill University on "INSPIRING THE MINDS FOR DISASTER RISK REDUCTION" during 26 March to 28 March 2024. North-Eastern region of India will be covered for present programme.

#### **Objectives of the Programme:**

- To impart knowledge and concepts of Disaster, Disaster Management and Disaster Risk Reduction.
- To enhance the academician's understanding on Hazard Vulnerability and Risk Analysis
- To develop positive attitude towards practical response to different stages of Disaster Management by adopting advance technology and sustainable development.
- To ensure disaster response skills in assessment, analysis, intervention, and evaluation in the Practice of reducing disaster risk.
- To equip the academician on how to integrate Disaster Management curriculum and To make aware resiliate and reduce the potential disaster risk for better preparedness of institutions.

#### **ABOUT THE INSTITUTE**



Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-NIDM)

National Institute of Disaster Management (NIDM) Ministry of Home Affairs (MHA), Govt. of India.

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#### North-Eastern Hill University (NEHU)



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instructional and research facilities in such branches of learning as it may deem fit; to pay special attention to the improvement of the social and economic conditions and welfare of the people of the hill areas of the North-eastern region, and particularly the intellectual, academic and cultural advancement".

Initially, the academic departments and administration of the University at Shillong functioned from hired buildings. Very soon, however, NEHU acquired two prime properties in the city, one belonging to the former Maharaja of Mayurbhanj and the other to the Rani of Bijni. The academic departments then moved to these two sites. Meanwhile, the Government of Meghalaya acquired,

for the University, а substantial plot of land (measuring about 1225 acres) in Umshing, a little outside the city limits, for setting up its permanent campus. This picturesque land, gentlyundulating and thickly wooded - a perfect location for the University - was a gift from the Government ٥f Meghalaya. The survey of the land and the master plan for the University were



completed during the VI Five Year Plan; and construction activities began in a modest way during the VII Plan period. By the year 1991, with the completion of the construction of several residential quarters for the faculty, hostels for men and women, a ring road, a modern workshop for the University Scientific Instruction Centre, a building for the Regional Sophisticated Instrumentation Centre, and Guest House-cum-Seminar Complex, a complex of buildings for the science departments and with our own electricity and water

supply system in place, the campus took the visible shape of an attractive University in the making.

At present there are fifty-three undergraduate colleges affiliated to the University including eight professional colleges. The University Central Library whose membership includes university and college teachers, postgraduate and undergraduate honors students and members of the non-teaching staff has a collection of close to 2,00,000 books, 38,000 bound periodicals and it subscribes to 316 foreign and 366 Indian current journals.



Our students have done well in life after leaving the University. Many have been taken into the Central Civil Services, Banking Services and into the University System. Several have been awarded scholarships and fellowships by both national and foreign organizations. The percentage of our students clearing the NET, GATE and other national tests is quite high. The number of students turning in for their master's degrees and research students working for their M.Phil. and Ph.D. degrees is close to 1700. The undergraduate colleges affiliated to the University enroll about 18,000 students. Our faculty strength is just over 300.

In a short span of about 50 years NEHU has matured into an institution with a serious academic and social and cultural agenda and a clear vision for its future growth.



**NEHU Central Library** 

#### **FACULTY PROFILE**

The training sessions were guided by highly qualified and eminent resource persons and keynote speakers who covered the topics outlined in the course module. The following experts have been invited to participate in the training program based on their outstanding knowledge.

#### **IUINDRR-NIDM FACULTY**



DR. SUSHMA GULERIA Assistant Professor, NIDM Email: <u>Sushma.nidm@nic.in</u>

A Ph. D in Disaster Management and B. Ed, she has been associated with this institute since 2006. Earlier, she worked on World Bank project on School Environmental Education in India with the Ministry of Environment and forests, Government of India. She is also the

recipient of the World Bank's Young Researcher's Grant Award for Disaster Risk Reduction for the year 2005-06. Currently looks after the Centre for Climate Resilience and Environment and Centre for Water and Land DRR.

## DR. PREETI SONI Senior Programme Consultant IUINDRR-NIDM

Dr. Preeti Soni is a Senior Programme Consultant in National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India and a Secretariat in India Universities and Institutions Network for Disaster Risk Reduction IUINDRR. She has made an immense effort and facilitated this training programme to its successful completion.

#### **NEHU, SHILLONG FACULTY**



## PROF. DEVESH WALIA Executive Committee Member, IUINDRR, Dean, SHES, NEHU

Prof. Walia is an M. Tech. in Applied Geology and Ph. D. in Geological Sciences and has completed number of research projects funded by various agencies such as North-Eastern Council, Shillong; Department of Science and Technology, Government of India, New Delhi; Ministry of Earth Sciences, Government of India, New Delhi; BARC-BRNS, DAE, Mumbai; DST- RFBR joint research project. He has

been 2/Lt and Lt, 20 Miz Indep Coy NCC as NCC Officer; Head, Department of Geology, PUC, Mizoram University; Head, Department of Environmental Studies, NEHU. He is a Life fellow and Executive Committee member of Geological Society of India; Indian Geophysical Union and life fellow of Indian Society of Remote sensing and life member of a number of academic and professional bodies including Indian Geological Congress; Indian Science Congress Association; The Geological, Mining and Metallurgical Society of India; Indian Society of Earth Sciences; Indian Association of Earth Scientists; Indian Seismological Research Society; Indian Association of Hydrologists; Indian Geomorphologists Institute; Indian Geomatics Society; Indian Society for Remote Sensing (ISRS); Secretary, Indian Society For Training And Development (ISTD). Additionally, He is an Expert Committee member, Landslide Hazard Mitigation, DST, New Delhi; Expert member, District Level Environmental Impact Assessment Authority (DIEAA), East Khasi Hills, District; Advisory Group Member on Benefit Sharing Strategy for the Meghna Basin (Bangladesh and India) by International Union for Conservation of Nature. Chief Coordinator, Deen Dayal Upadhyay Community College; Member, Incubation Centre, NEHU, Management Committee; Member, Planning Committee, NEHU.



DR. ATUL KUMAR SINGH Assistant Professor Geology Department, NEHU

Dr. Atul holds a PhD from the Indian Institute of Science Education and Research Kolkata, awarded in 2020, with a thesis titled "Luminescence Chronology of Late Quaternary Terraces in Darjeeling-Sikkim Himalaya: Implications to Climate and Tectonics,". With over 10 years of research

and teaching experience, he has worked as an Assistant Professor at NEHU since September 2023 and previously served as a Scientist-B at IUAC, New Delhi, from August 2019 to September 2023. His research interests encompass Quaternary Geology, Geomorphology, and Sedimentology, and he has extensive experience in geological fieldwork and the use of various scientific instruments and software, including OSL dating methods, ICP-MS, and XRF. Additionally, he has received awards and fellowships, including the Young Scientist Award in 2023 for his work on Accelerator Mass Spectrometry Radiocarbon Dating. He has also taught courses in Geomorphology and Geodynamics, Sedimentology, Geoinformatics, and more, and has a wide range of geological field experiencesacross India.



## DR. R.R. KUMAR Assistant Professor Geology Department, NEHU

Dr. Ravi Ranjan Kumar specializes in Petrology and his research interest includes the geodynamic processes and tectonometamorphic evolution of various geological complexes within the Central India Tectonic Zone (CITZ). His research focuses on regions like the Chhotanagpur Granite Gneissic Complex, Shillong Meghalaya Gneissic Complex, and others. He employs advanced analytical techniques such as petrochemistry, geochronology, and mineral chemistry to unravel Earth's crustal evolution. Dr. Kumar's

doctoral thesis explored granulite facies rocks in Jharkhand, India, while his expertise extends to understanding the geodynamic evolution of the Mylliem Granitoid in Northeast India. He actively contributes to academic societies and has served as a reviewer for prestigious journals. Dr. Kumar's academic journey includes fellowships from the University Grant Commission (UGC) and successful qualification in exams like GATE and CSIR-UGC NET JRF. Additionally, he has contributed to academia as a teaching assistant and through participation in competitive examinations. His multifaceted contributions reflect his commitment to advancing geoscience knowledge.



#### **DR. SHIKHAR KUMAR**

#### Geology Department, NEHU.

Dr. Shikhar Kumar obtained a Ph.D. in Geology (Hydrogeology) from Mizoram University, Aizawl. He has expertise in the fields of Water Chemistry, Water Quality Analysis, Rivers Arsenic Speciation, Remote Sensing, and GIS. He has 3 years of teaching and 8 years of research experience. Worked as a research fellow at the Department of Engineering Geology and Hydrogeology, RWTH Aachen

University, Germany.



#### **DR. PRERONA DAS**

#### Assistant Professor

#### Geology Department, NEHU.

Dr. Prerona Das works on interaction between surface water and groundwater in urban aquifers and contaminant migration. Her investigation includes multifaceted approach in delineating hydrological interaction with specialization on geochemistry, stable isotopic signatures, piezometric fluctuations, statistical analysis, thus securing long term sustainable water availability. She has experience of rigorous hydrological field works which include bore-well construction, water sampling, monitoring well installation, river bathymetry, pump test, tracer tests, etc. Besides, she also have handled high end instruments for hydrological sample analysis.

#### ABOUT THE TRAINING PROGRAMME

#### Need of the programme:

To act upon the direction led by the Hon'ble Prime Minster of India, NIDM took step forward under the India Universities and Institution Network (IUINDRR-NIDM) and formulated model curriculums on Disaster Risk Reduction and Management. For the first time, experts came up at one platform from across the country and in consultation of academia, model curriculums at UG & PG level have been developed. The objective of these curriculums is to train students on the issues related to disaster management. The proposed model curriculums of Foundation Course on Disaster Risk Reduction which has included elements of disaster related issues to build the knowledge, skills, and capacity of the young generation to achieve National objective of 10-point agenda 6 of Hon'ble Prime Minister of India. UGC also has sent notification to every University and College vide D.O No. 2-9/2022 (CPP-II), dated 24th February, 2022 to implement DRR courses in their curriculums. Hence, to build the capacity of academician of North-East region on "Foundation/Multi-disciplinary Course Curriculum" which must be integrate with every stream of Higher Education, IUINDRR-NIDM organizes "Regional Capacity Development Programme on Disaster Risk Reduction". Such training will help develop a culture of more sensitive, accurate and holistic disaster preparedness. In the long run, this will help develop more resilient communities as the next generation will become better trained.

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- To develop positive attitude towards practical response to different stages of Disaster Management by adopting advanced technology and sustainable development.

• To ensure disaster response skills in assessment, analysis, intervention, and evaluation in the Practice of reducing disaster risk.

• To equip the academicians on how to integrate Disaster Management curriculum and to makeaware resilience and reduce the potential disaster risk for better preparedness of institutions.

#### **Training Methodology:**

- Lecture-cum-Discussion.
- Presentation of case Study
- Group Discussion
- Field Study
- Audio-Visual Show

#### **Topics covered:**

- Conceptual Framework of Disaster Management
- Disaster Profile of India with special reference to North-East India
- Disaster Preparedness Planning, Resilience, and long-term mitigation
- Application of Geo-Informatics in Disaster Management
- Foundation Course curriculum on DRR
- Regional Issues of Disaster Risk Reduction

### Course Fee, accommodation, and other arrangements:

There is no course fee for the programme. Lodging and Boarding are to be provided to the participants in the NEHU Guesthouses during the period of the training programme.

#### **Duration of the Programme:**

Three days. 26th March to 28<sup>th</sup> March 2024.

### **Participants:**

Faculty Members of Universities/Institutions of North-Eastern Region.

#### DETAILED PROGRAMME SCHEDULE











Regional Capacity Building Training Programme for Academicians of North-East India

on

## "INSPIRING THE MINDS FOR DISASTER RISK REDUCTION"

organized by Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-NIDM) National Institute of Disaster Management (NIDM) Ministry of Home Affairs (MHA), Govt. of India

> in collaboration with North-Eastern Hill University, Umshing, Mawkynroh Shillong – 793022, Meghalaya

Date: 26<sup>th</sup> March to 28<sup>th</sup> March 2024 (Tuesday-Thursday) Time: 09:30 – 17:00 hours

#### **Programme Schedule**

Day 1 (26.03.2024)					
	Inaugural Session				
S. No.	Time	Topic Guest / Resource Person			
	10:00-10:05	Welcome Address	Dr. R.R. Kumar		
			Teacher-in-charge, Dept. of Geology, NEHU		
	10:05-10:10	Introductory Remarks & Objectives of the Program	Prof. Devesh Walia		
			Executive Committee Member, IUINDRR		
			Dean, SHES, NEHU		
I	10:10-10:25	Address by the Chief Guest	Prof. D.K. Nayak		
			Senior most Professor, Geography Department		
			NEHU, Shillong		
	10:40-10:45	Vote of Thanks	Mr. Mrinal Kanti Pathak		
			Geology Department, NEHU		
	10:45-11:00	Tea Break			

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		Towards Thematic Session	18		
		Discussion on the process for delivering the contents			
	11:00-12:00	Discussion on Foundation Course on curriculum Disaster Risk Reduction	<b>Prof. Devesh Walia</b> Executive Committee Member, IUINDRR Dean, SHES, NEHU		
	12:00-13:00	Methodology of Delivering Content: Pedagogy	<b>Prof. Devesh Walia</b> Executive Committee Member, IUINDRR Dean, SHES, NEHU		
	13:00-14:00	Lunch Break			
Them	atic Session-1	Disaster Management			
ш	14:00-15:00	Disaster Management: Challenges and Opportunities	<b>Prof. Devesh Walia</b> Executive Committee Member, IUINDRI Dean, SHES, NEHU		
	15:00-15:15	Tea Break			
Thematic Session-2		Mental well-being and Disasters			
IV	15:15-16:15	Mental well-being and psycho social care and counselling (A Disaster Management Perspective)	<b>Dr. Sushma Guleria</b> Assistant Professor, NIDM		

		Day-2 (27.03.2024)		
10:00-10:15		Recapitulation of Day 1		
10	:15-10:30	Constitution of Groups with Tasks		
Thematic Session-3		Community Based Disaster Risk Reduction		
		Concepts: Hazard and Disasters,	Prof. Devesh Walia	
	10:30-11:00	Vulnerability and Risks, Risk management	Executive Committee Member, IUINDRR	
V		and post-disaster responses	Dean, SHES, NEHU	
	11:00 11:30	Eland A Case Study of Diver Kasi	Dr. R.R. Kumar	
	11.00-11.50	Flood - A Case Study of River Rosi	Geology Department, NEHU	
	11:30-11:45	Tea Break		
Thematic Session-4		Causes and Impacts of Disasters		
	11:45-12:45	Causes and Impacts of Disasters - Impact		
VI		on natural eco-system: physical,	Dr. Atul Singn Geology Department NEHIL	
<b>VI</b>		psychological and social systems	Geology Department, NEHO	
	12:45-13:00	DISCUSSION		
		Lunch Break		
Them	atic Session-5	Disaster Vulnerability	Profile of India	
VII	12.20 14.20	Disaster Profile of North-East India and	Dr. Prerona Das	
VII	13:30-14:30	Disaster Risk with Climate Variability	Geology Department, NEHU	
Them	atic Session-6	Field Visit		
VIII	14-20 16-20	Classroom on Earthquake and Field Visit	Dr. Meghali Baruah, Dr. Prerona Das,	
VIII	14:30-16:30		Dr. Atul Singh & Dr. R.R. Kumar Geology Department, NEHU	

		Day-3 (28.03.2024)		
	10:00-10:15	Recapitulati	on of Day 2	
Thematic Session-7		Geo-informatics in Disaster Management		
v	11.00 12.00	Application of Geo-informatics in	Dr. Shikhar Kumar	
	11.00-12.00	Disaster Management Part - I	Geology Department, NEHU	
IX	10:15-11:00	Field visit discussion and presentation	All Participants	
		Tea Break		
XI	12:00-13:00	Disaster Management: Role of Educational Institutes and Way Forward	Prof. Devesh Walia	
			Executive Committee Member, IUINDRR	
			Dean, SHES, NEHU	
	13:00-14:00	13:00-14:00 LUNCH BREAK		
Thematic Session-8		Disaster Safety		
	14:00-15:00		Prof. Devesh Walia & Dr. Atul Singh	
VII		Seven Steps for Safety: Post Disaster	Executive Committee Member, IUINDRR	
лп		Needs Assessment	Dean, SHES, NEHU	
			Geology Department, NEHU	
	15:00-15:15	FEEDBACK FROM THE PARTICIPANTS		

Valedictory Session – 15:15 to 16:00 hrs				
	Wolcomo Addross	Dr. R.R. Kumar		
	welcome Address	Teacher-in-charge, Dept. of Geology, NEHU		
		Prof. Devesh Walia		
	Report by the Convener	Executive Committee Member, IUINDRR		
		Dean, SHES, NEHU		
	<b>Concluding Remarks and</b>	Remarks and Dr. Sushma Guleria		
XIII	way forward	Assistant Professor, NIDM		
[	Feedback by the Participants			
	Address by Chief Guest	Sri G.C. Kesari		
		ADG, GSI-NER, Shillong		
	Distribution of Certificates			
		Mr. Marcel Lyngdoh		
	vote of 1 nanks	Geology Department, NEHU		
ТЕА				

#### **TRAINING SUMMARY**

A regional capacity building training programme for academicians in the Northeast was held at the Department of Geology, Nehu, Shillong on 'Inspiring minds for disaster risk reduction', which began from March 26th, 2024, and lasted till March 28th, 2024.

The three-day programme is organised by Indian Universities and Institutions Network on Disaster Risk Reduction- National Institute of Disaster Management (IUINDRR-NIDM), Ministry of Home Affairs (MHA), Govt. of India in collaboration with North-Eastern Hill University (NEHU), Shillong, Meghalaya.

The training programme focused on imparting knowledge on concepts of Disaster, Disaster Management and Disaster Risk Reduction, preparing the academicians on how to integrate Disaster Management curriculum and to make aware resilient and reduce the potential disaster risk for better preparedness of institutions.

Out of total 60 participants, 37 delegates from Meghalaya participated in the training programme.

#### **INAUGURAL SESSION**

The programme started by felicitation of the esteem guest, Prof. D. K. Nayak, Seniormost Professor, Department of Geography, NEHU, and speakers such as Prof Devesh Walia, Dean of the School of Human & Environmental Sciences, NEHU and Dr. R.R. Kumar, Teacher-in-Charge, Department of Geology, NEHU.

**Welcome Address:** The Inaugural Session started with a welcome address by Dr. R.R. Kumar, Teacher-in-Charge, Department of Geology, NEHU. Dr. Kumar welcomed the esteemed guests and participants, encouraging them to embark on a journey to equip educators with the knowledge and tools necessary to foster resilience and preparedness in the face of disasters, thereby shaping the future of disaster risk reduction through collaborative learning and innovation. Dr. Kumar closed his speech with a call to action: inspire minds, protect communities, and work together to create a more resilient future.

**Introductory Remarks & Objectives of the Program:** Prof Devesh Walia, Dean of the School of Human & Environmental Sciences, NEHU, delivered the inaugural remarks and highlighted the Program's objectives, one of which is Disaster Preparedness. Prof. Devesh Walia emphasized the significance of disaster risk resilience and the importance of incorporating disaster risk reduction (DRR) into our day to day lives, emphasizing its important role in lessening the impact of high-impact disasters. He mentioned that the training program has been organized twice, specifically for Meghalaya, with the primary focus on inspiring the thought of disaster risk resilience, which is of utmost importance. Prof. Walia urged all participants to actively engage in the training program and to take a proactive attitude towards disaster management, highlighting the collective responsibility in maintaining the safety and resilience of our communities.

Address by the Chief Guest: Prof. D. K. Nayak, Seniormost Professor, Department of Geography, NEHU, delivered the program's keynote address, emphasising the important distinction between hazards and disasters. He stressed the need of prioritising resilience and capacity building over scientific understanding, as well as their significance in effectively facing and controlling future threats. Prof. Nayak delved into the critical issue of why hazards frequently escalate into disasters, emphasising the enormous potential for disasters to devastate nations, and how preparedness and information can lessen their effects.

He also noted an encouraging trend of decreasing fatalities despite ongoing significant property destruction, emphasising the significance of resilience in capacity-building activities. Prof. Nayak emphasised the importance of incorporating resilience and capacity development into educational frameworks, stating that these proactive approaches are critical in protecting communities from the ever-changing hazards of natural disasters.

Prof. Madho Singh Bisht and Prof. S. S. Chaturvedi from the Department of Environmental Science, NEHU, added prestige and honour to the program with their gracious presence. Their participation elevated the gathering, contributing to its significance and success.

**Vote of Thanks:** Mr. Mrinal Kanti Pathak, Research Scholar, Department of Geology, NEHU, expressed profound gratitude to Chief Guest Prof. D. K. Nayak and other respected guests for their insightful remarks, as well as all attendees for their participation in the event. He expressed enthusiasm for the opportunity to exchange ideas and viewpoints, emphasising the necessity of joint efforts in advancing knowledge and preparedness in the field of disaster management.

DAY-1 (26.03.2024)

**Towards Thematic Sessions** 

Ice Breaking Session: Discussion on the process for delivering the contents.

Prof. Devesh Walia, Executive Committee Member, IUINDRR; Dean, School of Human and Environmental Sciences, NEHU.

Topic: Discussion on Foundation Course on curriculum Disaster Risk Reduction. Methodology of Delivering Content: Pedagogy.

Professor Devesh Walia led an engaging discussion on the Foundation Course curriculum for Disaster Risk Reduction, focusing on how to effectively deliver the content through pedagogy. During the session, various teaching methods were explored to engage learners and impart crucial knowledge about disaster risk reduction. The discussion encompassed interactive approaches, case studies, simulations, and group activities to enhance understanding and application of the subject matter. Prof. Walia emphasized the importance of dynamic pedagogy in equipping learners with the necessary skills and knowledge to mitigate risks and respond effectively to disasters. Overall, the session aimed to equip educators with effective strategies for teaching disaster risk reduction in an engaging and impactful manner.



**Ice Breaking Session** 

#### **Thematic Session-1 Disaster Management**

## Prof. Devesh Walia, Executive Committee Member, IUINDRR Dean, SHES, NEHU. Topic: Disaster Management: Challenges and Opportunities.

Methodology: PowerPoint Presentation and Discussion.

**Objectives:** To educate participants about the complex dynamics of disasters, highlighting both the obstacles and potential avenues for effective management and mitigation.

**Lecture:** Prof. Devesh Walia's enlightening lecture on "Disaster Management: Challenges and Opportunities," shed light on the multifaceted nature of this critical field. Prof. Walia articulated the complex challenges that confront disaster management professionals, ranging from natural calamities like earthquakes, hurricanes, and floods to human-made disasters such as industrial accidents. He emphasized the necessity for a holistic approach that encompasses preparedness, response, recovery, and mitigation strategies to effectively address these challenges. Moreover, Prof. Walia stressed the importance of interdisciplinary collaboration among government agencies, non-governmental organizations, academia, and the private sector to enhance disaster resilience and minimize the adverse impacts on communities.

Furthermore, he underscored the growing demand for skilled professionals capable of devising innovative solutions to mitigate the impact of disasters and build resilient communities. Prof. Walia highlighted the significance of education and training in equipping individuals with the necessary knowledge and skills to pursue rewarding careers in disaster management. By fostering a culture of preparedness and resilience, he emphasized how professionals in this field can make a meaningful difference in safeguarding lives, livelihoods, and the environment in the face of adversity.



Prof. Devesh Walia, Executive Committee Member, IUINDRR Dean, SHES, NEHU

#### Thematic Session-2 Mental well-being and Disasters

#### Dr. Sushma Guleria, Assistant Professor, NIDM

Topic: Mental well-being and psychosocial care and counselling (A Disaster Management Perspective).

Methodology: Power point presentation and Discussion.

**Objective:** To explore the importance of addressing the psychological impacts of disasters and providing effective support and counseling to affected individuals and communities.

Lecture: Dr. Sushma Guleria's lecture on "Mental well-being and psychosocial care and counselling (A Disaster Management Perspective)" encompassed a comprehensive insight into essential aspects of addressing mental health concerns in disaster management settings. With her knowledge, Dr. Guleria highlighted the significance of not just meeting the physical requirements of disaster victims, but also recognizing and addressing their psychological well-being. She emphasised the importance of psychosocial support networks and counselling services in reducing the negative effects of traumatic situations. Dr. Guleria's emphasised the critical role of mental health experts in disaster response, advocating for a comprehensive approach that includes both physical and psychological care to support the entire well-being of affected communities.

In conclusion, Dr. Sushma Guleria's address the importance of incorporating mental health care into disaster management plans. Communities that prioritize mental well-being alongside physical safety can develop resilience and recovery in the aftermath of crises, resulting in a more complete and effective response to future disasters.

#### DAY 2 (31.10.2023)

Thematic Session-3 "Community based Disaster Risk Reduction"

Prof. Devesh Walia, Executive Committee Member, IUINDRR, Dean, SHES, NEHU Topic: Concepts; Hazard and Disasters, Vulnerability and Risks, Risk management and postdisaster responses.

Methodology: Power point presentation and Discussion.

**Objective:** To understand and effectively mitigate the impacts of natural and human-induced hazards on communities by analyzing vulnerability, assessing risks, implementing risk management strategies, and coordinating post-disaster responses.

Lecture: Prof. Devesh's lecture included a wide range of important areas of risk analysis as well as disaster management teachings. Beginning with the distinction between hazards and disasters, the lecture explained the complex relationship between hazards, vulnerability, and disasters, emphasising the significance of comprehending these elements in disaster risk assessment. The lecture presented examples to show the relationship between risk and vulnerability, emphasising the importance of vulnerability assessments. It also addressed the topic of whether education plays an important role in disaster management and explored techniques for motivating people to take preventive measures, emphasising that disasters affect everyone.

It urged for preventative actions before disasters struck, addressing human reaction flaws and the risk perception gap. Emphasizing hazard reduction and disaster resilience, the lecture delved into strategies such as site response and Collapsed Structure Search and Rescue (CSSR). It called for a qualitative shift in India's disaster management policy, emphasising pillars such as mitigation and preparedness. Lastly, it recommended efforts targeted at preventing large loss of life and property in future disasters, emphasising the necessity of disaster management policies that prioritize preparedness and proactive measures.

## Dr. R.R. Kumar, Teacher-in-charge, Dept. of Geology, NEHU Topic: Flood - A Case Study of River Kosi

Methodology: Power point presentation and discussion.

**Objective:** To analyze the specific factors and dynamics contributing to flooding along the river Kosi, aiming to derive insights for effective flood management strategies.

Lecture: Dr. Ravi's presentation explored the multidimensional character of floods, with an emphasis on Bihar's Kosi River. He investigated both natural and artificial causes of flooding, focusing on difficulties such as the river's unpredictable course fluctuations, which are compounded by factors such as non-uniform rainfall and seepage from embankments. The historical context of floods in Bihar, the recurring devastation caused by the Kosi River, highlighted the critical need for integrated flood management systems and early warning measures. Government interventions, like embankments, were reviewed, as well as their limitations and the lessons to be learned from other flood-prone areas, such as China's River Hwang Ho.

The lecture emphasised the importance of a comprehensive flood control strategy, utilising technologies such as GIS-based analysis and flood damage curves, while also addressing difficulties such as high siltation, which causes river migration and floods.

Ultimately, recommendations were offered to mitigate the impact of floods and transform them from a bane into a boon for Bihar's inhabitants.



Dr. R.R. Kumar, Teacher-in-charge, Dept. of Geology, NEHU

Thematic Session-4 "Causes and Impacts of Disasters"

Dr. Atul Singh, Geology Department, NEHU

Topic: Causes and Impacts of Disasters – Impact on natural eco-system: physical, psychological, and social systems.

Methodology: Power point presentation and Discussion.

**Objective:** To explore the causes and consequences of disasters, emphasizing their effects on natural ecosystems as well as the physical, psychological, and social systems of human societies. **Lecture:** In his presentation on "Causes and Impacts of Disasters," Dr. Atul Singh discussed several natural disasters, beginning with the fundamental distinction between hazards and disasters. He defined hazards as a wide spectrum of potential threats such as earthquakes, floods, tsunamis, landslides, and volcanic eruptions. Dr. Singh explained the geological origins and causes of earthquakes, emphasising the significance of researching seismic waves such as

Compressional (P) waves, Shear (S) waves, Rayleigh waves, and Love waves to locate their epicentres.

He highlighted earthquake predictions for both the long and short term, using the April 2015 Nepal earthquake as an example. Dr. Singh also discussed earthquake-induced geohazards and the enormous impact they can have on populations. Moving on to floods, he discussed issues like discharge and recurrence intervals, emphasising their origins and consequences. Tsunamis, with their physical characteristics and deadly consequences, were also a focus, followed by a study of landslides and volcanic eruptions, explaining their causes and consequences. Throughout the session, Dr. Singh emphasised the necessity of disaster preparedness and described "Seven Steps to Earthquake Safety" that should be followed before, during, and after these calamities occur, providing participants with critical knowledge to reduce risks and damage.



Dr. Atul Singh, Geology Department, NEHU

Thematic Session-5 "Disaster Vulnerability Profile of India"

#### Dr. Prerona Das, Geology Department, NEHU

#### Topic: Disaster Profile of North-East India and Disaster Risk with Climate Variability.

Methodology: Power point presentation and Discussion.

**Objective:** To analyze the specific vulnerabilities and challenges faced by the North-East region of India in relation to disasters, particularly in the context of climate variability.

Lecture: Dr. Prerona Das presented an insightful lecture titled "Disaster Profile of North-East India and Disaster Risk with Climate Variability," which shed light on the fundamental issues posed by climatic variability in India's North-East region. She provided an in-depth talk on Northeast India's diverse climatic challenges, emphasising the region's vulnerability to catastrophic weather events. Dr. Das also delved into the complexities of earthquakes, distinguishing between natural and man-made seismic events and emphasising earthquake management measures such as resilient design, retrofitting, and raising awareness and preparedness. Cyclones are another significant danger, with causes ranging from meteorological conditions to human activity, leading measures such as the National Cyclone Risk Mitigation Project and the Integrated Coastal Zone Management Project to reduce hazards. Floods, whether natural or man-made, necessitate a diverse management strategy that includes structural and non-structural measures, as well as schemes such as the Aapada Mitra Scheme and the National Flood Risk Mitigation Project. Urban floods, exacerbated by the urban heat island effect and meteorological conditions, require individualized management solutions, whilst flash floods necessitate targeted mitigation initiatives. Drought, divided into five categories by the IMD, provides its own set of issues, with causes including occurrences like El Niño. NDMA recommendations advocate for effective mitigation and adaptation strategies, both structural and non-structural. Dr. Das's extensive analysis emphasised the importance of holistic disaster management approaches tailored to the specific problems of Northeast India's climate extremes.



Dr. Prerona Das, Geology Department, NEHU

#### **Thematic Session-6 Field Visit**

#### **Classroom on Earthquake and Field Visit**

#### **Topic: Building Assessment**

The participants were divided into three groups to enable a comprehensive exploration of building assessment methods. Each group set out on a field visit in the campus of NEHU to analyze and evaluate structures enhancing their understanding of earthquake resilience in buildings.

## Group1: Pre-Earthquake. EVS Department Building, NEHU Group2: During Earthquake. Science Cluster Classrooms, NEHU Group3: Post-Earthquake. Science Seminar Hall, NEHU

The survey including the parameters of Rapid Visual Screening to assess the risk in the infrastructure including the Departmental Building, Science Cluster Classrooms and Science Seminar Hall, was conducted by the participants. After the thorough survey participants presented the pertinent points observed during the survey and discussed the concerns with the remedial measures. Further, it was observed that both structural and non-structural elements in the surveyed infrastructure need immediate attention, even the fire extinguishers are old and need replacement. The leakage in the water tank is also worrisome. The participants have been requested to carry out the survey/ RVS and implement the remedial measures in their respective institutions as a safety measure.

## Day-3 (28.03.2024)

#### **Thematic Session-7 Geo-informatics in Disaster Management**

#### Dr. Shikhar Kumar, Geology Department, NEHU

#### Topic: Application of Geo-informatics in Disaster Management Part – I

Methodology: Power point presentation and discussion.

**Objective:** To demonstrate how geospatial technology can be effectively utilized to enhance disaster preparedness, response, and recovery efforts.

**Lecture:** Dr. Shikhar Kumar delivered an insightful presentation on the extensive application of Geo-informatics in Disaster Management, emphasizing the pivotal role of Remote Sensing. He explained the advantages of Remote Sensing, such as its ability to provide comprehensive and timely data for disaster monitoring and response. However, Dr. Kumar also highlighted the limitations of Remote Sensing, including its dependence on weather conditions and atmospheric interference. He traced the history of Remote Sensing from Niepce's groundbreaking Heliograph in 1826 to Tournachon's aerial photograph in 1858, showcasing its evolution over time. Delving into the basic principles, he explained the components of the electromagnetic wave and the electromagnetic spectrum, crucial for understanding Remote Sensing. He spoke on spectral signatures and their curves, concentrating on the spectral signature of soil and vegetation, which includes elements like organic matter, moisture content, texture, structure, and iron oxide content.

Dr. Kumar also looked at the spectral signature of rocks, minerals, and water, offering insights into their unique properties. To show off useful functions, Landsat 8 bands and combinations were highlighted. He also discussed the application of remote sensing, including several methods and the creation of Early Warning Systems (EWS) for disasters like earthquakes, describing their features and the forecasting organisations that are engaged. Ultimately, providing a complete grasp of its principles, applications, and implications for proactive disaster mitigation methods, Dr. Kumar's extensive presentation highlighted the critical role of remote sensing in disaster management.



Dr. Shikhar Kumar, Geology Department, NEHU

## Field visit discussion and presentation: All Participants

# **Group 2 Presentation**



## **Group 3 Presentation**



#### Prof. Devesh Walia, Executive Committee Member, IUINDRR, Dean, SHES, NEHU

#### **Topic: Disaster Management: Role of Educational Institutes and Way Forward**

Methodology: Power point presentation and Discussion.

**Objective:** To emphasize the importance of integrating disaster preparedness and response strategies into educational institutions' curricula and policies.

Lecture: In his presentation on "Disaster Management: Role of Educational Institutes and Way Forward," Prof. Devesh Walia underscored the critical importance of education in disaster management, particularly in regions like the North-East (NE) of India, which are highly susceptible to various natural calamities including earthquakes, floods, landslides, and cyclones. Highlighting specific instances such as the 2020 floods in Mas Dihiri, Dhemaji district, as well as incidents in West Kameng, Arunachal Pradesh, Wokha, Nagaland, and Chungthang, Sikkim, Prof. Walia emphasized the urgency of proactive measures. He outlined the Prime Minister's ten-point agenda for Disaster Risk Reduction, stressing the need for mitigation strategies like early warning systems, emergency kits, and trained task forces. Moreover, he discussed the indispensable role of academicians and higher education institutions throughout the disaster management cycle, from mitigation and preparedness to response and recovery. Prof. Walia advocated for specific actions such as fostering community resilience, developing contingency plans, and stockpiling emergency materials. He concluded with a forward-looking perspective, acknowledging the challenges ahead but also recognizing the significant opportunity for educational institutions to lead the way towards sustainable solutions and resilience-building initiatives.

### **Thematic Session-8 Disaster Safety**

Prof. Devesh Walia, Executive Committee Member, IUINDRR, Dean, SHES, NEHU.

#### **Topic: Seven Steps for Safety**

Methodology: Power point presentation and Discussion.

**Objective:** To educate individuals on practical measures to mitigate risks and enhance safety during earthquakes.

Lecture: Prof. Devesh Walia presented "Seven Steps for Safety, Seven Steps to Earthquake Safety," a thorough approach to prepare, protect against, and recover from an earthquake. The first step emphasised the importance of immediately protecting one's surroundings, including fixing heavy furniture, and securing anything that could pose risks during tremors. Step two emphasised the importance of developing a well-thought-out plan to ensure that everyone understands what to do in the case of an earthquake, including evacuation routes and planned meeting spots. Step three advocated the creation of disaster kits comprising necessities such as food, water, first aid supplies, and essential documents. The fourth step emphasised the importance of critically evaluating one's environment to identify potential risks and reinforce structural flaws.

Moving on to the protection phase, step five emphasised the instinctive action of falling, covering, and hanging on during earthquakes to reduce damage risk. During the recovery phase, step six encourages extensive post-earthquake inspections to assess damage and assure that structure was intact before reentering structures. Finally, step seven emphasised the need of open communication and collaboration throughout the recovery process to properly coordinate

support efforts. Prof. Walia's presentation was a timely reminder of the need for preparedness and proactive actions in reducing the impact of earthquakes on individuals and communities alike.

#### Dr. Atul Singh, Geology Department, NEHU

#### **Topic: Post Disaster Needs Assessment**

Methodology: Power point presentation and Discussion.

**Objective:** To outline a systematic approach for evaluating the immediate and long-term requirements for recovery and reconstruction following a disaster.

**Lecture:** Dr. Atul Singh's lecture shed light on the critical framework of Post Disaster Needs Assessment (PDNA), highlighting its rationale, implementation, and important stakeholders. PDNA is an important tool for assessing the effects of disasters and guiding successful response and recovery operations. The assessment incorporates a wide range of actors, including National and State Government and its Institutions, National Disaster Management Systems, the Line Ministries and the State and Local Governments, Civil Society, Private Sector, Technical and Academic Institutions, and EU, WB, UNDG and other International Partners. The coordination structure is crucial to the process since it ensures a methodical approach across multiple sectors and subsectors. UN agencies play an important role in assisting evaluations and the subsequent implementation phases. The assessment of non-economic consequences is central to the PDNA technique, particularly in sectors such as health. For example, the health sector's assessment includes damage to infrastructure.

The assessment of non-economic consequences is central to the PDNA technique, particularly in sectors such as health. For instance, the health sector's assessment incorporates damage to infrastructure, disruption of services, and health implications on the population, ensuring a complete understanding of post-disaster needs beyond simply economic considerations.

#### **VALEDICTORY SESSION**

**Welcome Address:** Dr. R.R. Kumar, Teacher-in-charge, Dept. of Geology, NEHU, in his welcome address, expressed gratitude to all attendees for their participation and contributions throughout the event. He highlighted the significance of the discussions held and emphasized the importance of continued collaboration in furthering the objectives of the training program.

**Report by the Convener:** Prof. Devesh Walia, Executive Committee Member, IUINDRR Dean, SHES, NEHU, serving as the convenor, presented a comprehensive report during the valedictory session, summarizing the key highlights and outcomes of the training program. He outlined the themes covered, the notable speakers, and the insights shared during various sessions. Prof. Walia also expressed gratitude to NIDM, the organizing committee, participants, and sponsors for their support in making the event successful. Additionally, he underscored the importance of implementing the ideas discussed to drive positive change in the respective fields and to fulfill the 10-point agenda of PM on Disaster risk Reduction.

**Concluding remarks and way forward:** In her concluding remarks, Dr. Sushma Guleria, Assistant Professor, NIDM eloquently outlined the way forward for the Regional Capacity Building Training Programme for Academicians of North-East India on "Inspiring the Minds for Disaster Risk Reduction." Emphasizing the crucial role of education in mitigating the impacts of disasters, she underscored the importance of fostering a culture of resilience and preparedness within academia. Dr. Guleria highlighted the necessity for interdisciplinary collaboration, innovative approaches, and community engagement to effectively address the complex challenges of disaster risk reduction in the region. She emphasized the need for sustained efforts in integrating disaster risk reduction into educational curricula and research agendas. Furthermore, she encouraged ongoing dialogues and knowledge sharing among stakeholders to enhance collective understanding and response to disaster risks. Dr. Guleria's insightful remarks provided a clear pathway towards building a more resilient future for North-East India, driven by informed academia and collaborative action.

**Feedback from the participants:** Participants offered overwhelmingly positive feedback, commending the organization for the seamless execution of the event and the quality of presentations. Many expressed appreciations for the diverse range of topics covered and the opportunity to engage in fruitful discussions with experts in their respective fields. Some participants also suggested areas for improvement, such as increasing interactive sessions and providing more networking opportunities for attendees to connect and collaborate. Overall, the feedback reflected a strong sense of satisfaction with the conference experience.

Address by Chief Guest: During his address, Chief Guest Shri G.C. Kesari proposed a one-day extension program in the coming days, involving the same participants, to discuss and share their initiatives, challenges faced, and lessons learned in disaster management collaboration with other departments. Shri Kesari discussed the importance of scientifically understanding the hazards so that scientific methods be proposed and implemented for mitigating them. He emphasized the importance of documenting these experiences, raising awareness about best practices, and outlining do's and don'ts to mitigate the impact of disasters. Such an extended program would foster a deeper understanding of effective collaboration strategies and enhance preparedness for future calamities, ultimately contributing to more resilient communities.

Furthermore, Shri Kesari emphasized the crucial role of educators in encouraging students to pursue studies in geology, thereby fostering a new generation of geologists equipped to address future challenges.

**Distribution of Certificates**: Certificates were distributed to all participants as a token of appreciation for their active involvement and valuable contributions during the training program. This gesture aimed to recognize their dedication and commitment to the event's success.

**Vote of Thanks:** Mr. Marcel Lyngdoh, Research Scholar, Geology Department, NEHU extended sincere appreciation to esteemed guests and speakers for their invaluable insights and contributions, which greatly enriched the event. He emphasized the significance of their presence and involvement in fostering meaningful discussions and fostering a spirit of collaboration. In the end, He expressed heartfelt gratitude to all attendees for their participation and contribution throughout the event.

## **PHOTO GALLERY**



Registration



Tea Break

#### **INAUGURAL SESSION**



Mr. Mrinal Kanti Pathak, Research Scholar, Geology Department





Felicitation of the Esteem Guests



Prof. D.K. Nayak, Seniormost Professor, Geography Department, NEHU, Shillong

#### **FIELD VISIT**

## Group 1: Pre-Earthquake (Environmental Studies Department Building, NEHU)

















# Group 2: During Earthquake (Science Cluster Classroom, NEHU)



Training Programme on "INSPIRING THE MINDS FOR DISASTER RISK REDUCTION."

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# Group 3: Post-Earthquake (Science Seminar Hall, NEHU)



#### **VALEDICTORY SESSION**



## Felicitation of Guests



Dr. Sushma Guleria, Assistant Professor, NIDM



# Feedback by the Participants





## Distribution of Certificates



Mr. Marcel Lyngdoh, Research Scholar, Geology Department, NEHU

#### FEEDBACK FROM THE PARTICIPANTS

l think the structure and organization of the course fulfilled the objectives of the Training programme. मुझे लगता है कि पाठ्यक्रम की संरचना और आयोजन प्रशिक्षण कार्यक्रम के उद्देश्यों को पूरा करता है। 60 responses



l think the contents of course were relevant मुझे लगता है कि पाठ्यक्रम की विषय वस्तु प्रासंगिक थी 60 responses





l believe this will help me in my future job related to Disaster management मुझे विश्वास है कि यह आपदा प्रबंधन से संबंधित भविष्य के नियोजन में मेरी मदद करेगा 60 responses



l feel this inspires me to take up assignments related to disaster management) मुझे लगता है कि इससे मुझे आपदा प्रबंधन से संबंधित कार्य करने के लिए प्रेरणा मिलेगी 60 responses







Your overall impression of the training programme प्रशिक्षण कार्यक्रम के बारे में आपकी समग्र राय 60 responses



You comment on administrative arrangements (Just select the option that expresses you truly): प्रशासनिक व्यवस्थाओं पर आपकी टिप्पणी (केवल उसी विकल्प) को चुने जो सही मायने में आपकी प्रतिक्रिया व्यक्त करता है)



ndly indicate how effective the following assessions/topics to you were: कृष्ण्या बताएँ कि निप्रशिक्षित सत्र / विषय आपके शिए कितने उपयोग



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