# TRAINING REPORT

# SERIES-3: REGIONAL CAPACITY BUILDING TRAINING PROGRAMME FOR ACADEMICIANS OF NORTH-EAST INDIA

ON

# "INSPIRING THE MINDS FOR DISASTER RISK REDUCTION."

30th October to 1st November 2023 (Monday-Wednesday)

















# SERIES-3: 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: 30th October to 1st November 2023 (Monday-Wednesday)

**Venue: Shillong Science Centre, 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, 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 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 Northeastern region, and in particular, the intellectual, academic and cultural advancement."

North Eastern Hills 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.

TABLE OF CONTENTS	Page No
Brochure	1
About the Institute	2
Faculty Profile	5
About the Training Programme	8
Detailed Programme Schedule	10
Inaugural Session	14
Thematic Sessions	16
Valedictory Session	32
Media Coverage	33
List of Participants	35
Course Feedback	36
Key Takeaway of the Training Programme	37
Organising Team	39
Photo Gallerv	40

#### 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

### 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. 30<sup>th</sup> October to 01<sup>st</sup> November 2023

### Participants:

Faculty Members of Universities/Institution of North-Eastern Region

#### Nominations:

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 iuindrr.nidm@gmail.com

### For any query, please contact to:

- Dr. Preeti Soni
   IUINDRR-NIDM Secretariat
   Ph: 9717735481
- Prof. Devesh Walia Head, Department of Geology, NEHU Ph: 9436163641

### North-Eastern Hill University

Umshing Mawkynroh, Shillong - 793022 Cell- 98355 96500

E-mail: hodgeology@nehu.ac.in







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

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

30th October to 1st November 2023



#### Organized by

Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-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 022 to implement DRR courses in their curric Hence, to build the capacity of academic 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 30 August to 01 September 2023. 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 in particular, 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, 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, gently undulating and thickly wooded - a perfect location for the University - was a gift from Government the 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**



PROF. SANTOSH KUMAR
Head, G&IDRR, NIDM
Email: santosh.nidm@nic.in

A Disaster Risk Reduction, Policy Planning and Capacity Development expert with 25 years of experience in different positions in the Development Planning and DRR Sector. A PhD. in Economics, he studied Gender & Development in IDS, Sussex, UK and received professional

training in Disaster risk Management from Israel, backed with international work exposure at The World Bank and Intergovernmental body of SAARC. He has also worked at state levels in different capacities. He is an experienced hand in designing, Planning, and implementing mitigation and long-term disaster recovery plans and projects. He brings with him a rare combination of operations and academia. His experience of working at the grass root to national to international level in all aspects spanning DRR is an added value. He specializes in disaster management planning, Post disaster loss and need assessment, Recovery, and inclusive Disaster Risk Reduction. His insight of bringing development into disaster risk reduction has also allowed new thinking in the framework. He has provided his years of experience to the trainees in the form of lectures and informal discussions which have been very helpful for academicians to understand the core objectives of this training.



**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
HoD, Geology Department, 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 experiences across India.



**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.

### ABOUT THE TRAINING PROGRAMME

# Need of the programme:

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- To equip the academician on how to integrate Disaster Management curriculum and to make aware 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. 30th October to 1st November 2023.

# **Participants:**

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

# **DETAILED PROGRAMME SCHEDULE**











# Series-3: 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: 30<sup>th</sup> October to 1<sup>st</sup> November 2023 (Monday-Wednesday) Time: 09:30 – 17:00 hours

### **Programme Schedule**

Day 1 (30.10.2023)				
S. No.	Time	Topic	Guest / Resource Person	
	Inaugural Session			
		Welcome Address	Prof. Devesh Walia	
	10:00-10:05		Executive Committee Member, IUINDRR	
			HoD, Geology Department, NEHU	
	10:05-10:10	Introductory Remarks &	Prof. Santosh Kumar	
	10.03-10.10	Objectives of the Program	Head, GIDRR & Director-IUINDRR- NIDM	
	10:10-10:25 Address by the Chief Gue	Address by the Chief Guest	Prof. Prabha Shankar Shukla	
I		Address by the Chief Guest	Vice-Chancellor, NEHU, Shillong	
	10:25-10:30 Address by the Guest of Honor	Address by the Guest of Honor	Shri G.C. Kesari	
			ADG, GSI-NER	
		Dr. Bhaskar Basu		
	10:30-10:35	Address by the Guest of Honor	RD, AMD-NER	
	10:35-10:40	Address by the Chairperson	Prof. L. Zehol	
-			Dean, SHES, NEHU	
	10:40-10:45	Vote of Thanks	Dr. Preeti Soni	
			SPC, IUINDRR-NIDM	
	10:45-11:00	Tea Break		

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Towards Thematic Sessions			
	11:15-11:30	Ice Breaking Session	<b>Dr. Preeti Soni</b> SPC, IUINDRR, NIDM
	Discussion on the process for delivering the contents		
п	11:00-12:00	Discussion on Foundation Course on	Prof. Santosh Kumar
111	11.00-12.00	curriculum Disaster Risk Reduction	Head, GIDRR & Director-IUINDRR- NIDM
	12:00-13:00	Methodology of Delivering Content:	Prof. Santosh Kumar
	12.00-13.00	Pedagogy	Head, GIDRR & Director-IUINDRR- NIDM
	13:00-14:00	Lunch Break	
Them	atic Session-1	c Session-1 Financial Resilience to Disaster	
III	14:00-15:00	<ul> <li>Building financial resilience against natural disasters</li> <li>Increasing the financial resilience of disaster affected populations (5 Minutes Feedback)</li> </ul>	Prof. Santosh Kumar Head, IUINDRR & Senior Advisor, NIDM
	15:00-15:15	Tea Break	
Them	atic Session-2	2 Causes and Impacts of Disasters	
IV	15:15-16:15	Psychological First- aid and Effective Communication: an humanitarian approach	<b>Dr. Preeti Soni</b> SPC, IUINDRR, NIDM
	16:15-17:00	Experience Sharing by Participants (5 Minutes Feedback)	

		Day-2(UNIT-I) (31.10.2023	)	
Them	Thematic Session-3 Community Based Disaster Risk Reduction			
V	10:00-11:00	<ul> <li>Hazard and Disasters – Concepts</li> <li>Vulnerability and Risks</li> <li>Hazard and Disaster Type</li> <li>Phases of disasters, risk management and post-disaster responses</li> <li>(5 Minutes Feedback)</li> </ul>	Prof. Devesh Walia Executive Committee Member, IUINDRR HoD, Geology Department, NEHU	
Them	atic Session-4	Field Vi	sit	
VI	11:00-12:00	Field Visit	Dr. Meghali Baruah, Dr. Shikhar Kumar, Dr. Atul Singh & Dr. R.R. Kumar Geology Department, NEHU	
	10:50-11:10	Tea Break		
Them	atic Session-5	Causes and Impact	s of Disasters	
VI	12:15-13:00	Causes and Impacts of Disasters - Impact on natural eco-system, physical, psychological and social impact (5 Minutes Feedback)	<b>Dr. Atul Singh</b> Geology Department, NEHU	
		Lunch Break		
Them	atic Session-6	Disaster Vulnerability Profile of India		
VIII	14:00-15:15	Disaster Profile of North-East India and Disaster Risk with Climate Variability (5 Minutes Feedback)	Prof. Devesh Walia Executive Committee Member, IUINDRR HoD, Geology Department, NEHU	
Them	atic Session-7	Disaster Preparedn	ess Planning	
IX	15:15-15:45	Application of Geo-informatics in Disaster Management Part - I (5 Minutes Feedback)	<b>Dr. Shikhar Kumar</b> Geology Department, NEHU	
	15:50-16:15	Tea Break		
Them	atic Session-8	Disaster Preparedn	ness Planning	
X	16:15-17:00	Application of Geo-informatics in Disaster Management Part - II (5 Minutes Feedback)	<b>Dr. Shikhar Kumar</b> Geology Department, NEHU	

		Day-3 (01.11.2023)		
Thema	Thematic Session-9 Disaster M		anagement	
	10:00-10:45	Role of Education and Lesson learnt: Community Mapping/ Risk Analysis (5 Minutes Feedback)	<b>Dr. Preeti Soni</b> SPC, IUINDRR, NIDM	
	10:45-11:45	Disaster Vulnerability of India with special reference to Northern regions and states of India. Standards (5 Minutes Feedback)	Prof. Santosh Kumar Head, IUINDRR & Senior Advisor, NID	
4		Tea Break		
Group	Presentations (	Topics: Concepts of Hazard, Risk & Vulner	ability, Disaster Intervention Practices and	
		Components of DM)		
XVIII	12:00-13:00	<ul><li>Presentations by Groups</li><li>Way Forward</li></ul>	Prof. Santosh Kumar Head, GIDRR & Director-IUINDRR- NIDM & Prof. Devesh Walia	
			Executive Committee Member, IUINDRR HoD, Geology Department, NEHU	

Valedictory Session – 13:00 to 14:00 hrs				
	Welcome Address	<b>Prof. L. Zehol</b> Dean, SHES, NEHU Shillong	5 Minutes	
	Report by the Convener	Prof. Devesh Walia Executive Committee Member, IUINDRR HoD, Geology Department, NEHU	5 Minutes	
XIX	Concluding Remarks and way forward	Prof. Santosh Kumar Head, IUINDRR & Senior Advisor, NIDM	15 Minutes	
	Feedbac	10 Minutes		
	Address by Chief Guest	Brigadier Vijayant Mahadik Group Commander of Shillong Group NCC	10 Minutes	
	Valedictory Address by	<b>Dr. Bhaskar Basu</b> Regional Director, AMD-NER	10 Minutes	
	Vote of Thanks			
LUNCH				

### TRAINING SUMMARY

More than 60 delegates participated in the training program from North-Eastern states of India viz. Mizoram, Manipur, Tripura, Assam, and Meghalaya.

### **INAUGURAL SESSION**

The programme started by felicitation of the esteem guests, Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM, Prof. Prabha Shankar Shukla, Vice-Chancellor, NEHU, Shillong, Dr. Bhaskar Basu, Regional Director, Atomic Minerals Directorate — North Eastern Region, Shillong, Prof. Lucy T. V. Zehol, Dean, School of Human and Environmental Sciences, NEHU, Shillong, Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM and Prof Devesh Walia, Executive Committee Member, IUINDRR, HoD, Geology Department, NEHU.

Welcome Address: The Inaugural Session started with a welcome address by Prof. Devesh Walia, Head, Department of Geology, North Eastern Hill University, Shillong, emphasizing the importance of Disaster Risk Reduction (DRR) and how societies can significantly reduce the impact of disasters and save lives by integrating DRR into development practises, improving early warning systems, and enhancing community preparedness. Disaster Risk Reduction (DRR) is a holistic method to mitigating the impact of natural and man-made disasters. It entails identifying and assessing vulnerabilities, encouraging resilience in communities and infrastructure, implementing early warning systems, establishing effective preparedness and response mechanisms, and incorporating sustainable development principles to reduce risk. DRR emphasizes the importance of thorough risk assessment, education, and policy creation to promote a culture of safety and disaster resilience, with the goal of protecting lives and livelihoods while minimizing economic and environmental losses in the case of catastrophes.

Introductory Remarks & Objectives of the Program: Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM, in his address stated that Disaster Risk Resilience is critical because it saves lives, protects communities and economies, and ensures that societies can recover and thrive in the face of disasters. Individuals, communities, and nations can reduce vulnerabilities, improve preparedness, and create a safer, more sustainable future by investing in resilience. The IUINDRR is the result of the Prime Minister's vision (Agenda No.6 of the 10-point Agenda for Disaster Risk Resilience) and the NIDM to prepare for Disaster Risk Resilience. IUINDRR is registered with 216 universities. Creating a network of universities and academic institutions dedicated to disaster-related issues can be extremely beneficial. Each university in the network can specialize in specific aspects of disaster management and risk reduction relevant to their geographical location or academic strengths. The combined impact of these institutions has the potential to result in more effective disaster preparedness, mitigation, and response strategies, ultimately benefiting communities and societies worldwide. He informed the participants about the National Platform for Disaster Risk Reduction (NPDRR) and other funding opportunities for disaster risk reduction studies.

Address by the Chief Guest: Chief Guest of the programme Prof. Prabha Shankar Shukla, Vice-Chancellor, NEHU, Shillong, addresses the gathering to interrogate critically about the developmental practises currently used in the Northeastern hilly region and understand how they are impacting society in the long term. North East India is prone to natural disasters and faces a number of regional issues. Prof. Shukla encouraged young researchers who are interested in preparing hypotheses for research in this region to focus on related issues and

formulate hypotheses for research that address specific aspects, providing valuable insights and contributing to solutions in North East India. He also emphasized that resilience can only be achieved by adapting to climate adaptive solutions, taking a greener approach, and building local community capacity by involving stakeholders and empowering communities to lead and undertake activities to mitigate the impact. He further stated that NEHU is prepared to take on any challenge to safeguard and protect life and livelihood, and he welcomed such activities in the interest of the NEHU community and the region.

Address by the Guest of Honor: Guest of honor of the program Dr. Bhaskar Basu, Regional Director, Atomic Minerals Directorate - North Eastern Region, Shillong, emphasized the use of geoscience in an inclusive manner so that youths are equipped with the skills required to work unsustainable approaches for making future developmental practises more sustainable and safer for the community. We can empower the next generation to work towards a future where development is environmentally sustainable and safe for all members of the community by incorporating geoscience into education, encouraging youth engagement, and promoting sustainable practises. These initiatives can contribute to a more resilient and prosperous world. He also mentioned the mission of the National Institute of Disaster Management (NIDM), which is to improve the capacity of various stakeholders, such as government agencies, non-governmental organizations (NGOs), and communities, to effectively prepare for, respond to, and mitigate the impact of disasters.

Address by the Chairperson: Prof. Lucy T.V. Zehol, Dean, SHES, NEHU, Shillong, emphasized in her chairpersons' remarks that incorporating resilience in our society must be addressed at three levels: the global or earth system, the social system comprising infrastructure and industrial capability, and the human system. Incorporating resilience at these three levels necessitates collaboration between governments, businesses, communities, and individuals. Policies, investments, and behavioral changes are all critical components in creating a resilient society that can withstand various shocks and stresses, whether they are local or global in nature. She also used the analogy of our minds as parachutes and challenged the young minds to learn and not to view life as a sprint race, but rather to form teams and work together. Disasters often require collaborative efforts, and working as a team is essential for effective response and recovery. It is not only about individual capabilities, but also about how we can combine our resources and knowledge to meet the challenges that disasters present. In disaster management, teamwork, collaboration, and continuous learning are essential components of a successful and resilient response to crises. Encouraging young minds to adopt this mindset can lead to a more coordinated and effective approach to disaster preparedness and response.

**Vote of Thanks:** Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM proposed the vote of thanks where she expressed gratitude to the patrons of the training program, Rajendra Ratnoo, IAS Executive Director, NIDM and Prof. Prabha Shankar Shukla, Vice Chancellor, North Eastern Hill University, Shillong for their support and guidance, showing respect and acknowledgment for their contributions.

### SUMMARY OF THE THEMATIC SESSIONS

DAY-1 (30.10.2023)

### **Towards Thematic Sessions**

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

Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM.

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

Methodology: Discussion, Experience sharing and Activity.

**Objectives:** To provide participants with a comprehensive understanding of the principles, concepts, and practices related to DRR.

Activity: Prof. Santosh Kumar discussed the Foundation Course on Disaster Risk Reduction (DRR) which is crucial for building a resilient society and mitigating the impacts of disasters. A well-structured Foundation Course on Disaster Risk Reduction equip individuals with the knowledge and skills needed to contribute to disaster risk reduction efforts at the community, national, and international levels. He used a creative pedagogy that combined balance theoretical knowledge with practical experiences, fosters critical thinking and problem-solving skills, and encouraged the participants to engage with the complexities of disaster risk reduction in a holistic manner. He also emphasized the beauty of multidisciplinary subjects which lies in their capacity to synthesize and leverage the collective wisdom of diverse academic backgrounds.



**Ice Breaking Session** 

### Thematic Session-1 Financial Resilience to Disaster

Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM.

**Topic: Disaster Risk Financing: Finance Commissions.** 

**Methodology:** Power point presentation, discussion and experience sharing.

**Objectives:** To educate and equip participants with the knowledge and skills necessary to understand, plan for, and effectively manage financial aspects related to disaster risk.

Activity: Prof. Santosh Kumar discussed how building financial resilience against natural disasters and increasing disaster-affected populations' financial resilience is critical for mitigating the economic and social impacts of these events He also mentioned the Guiding Principles for the FC-XV and Subsequent Finance Commissions, which state that the 15th Finance Commission report is guided by four principles and has made recommendations on all aspects of disaster risk financing based on a review of established practises, both national and international. India's disaster risk financing strategy has evolved to include a mix of traditional relief mechanisms, dedicated funds, insurance products, and international collaborations. The goal is to improve disaster financial management and ensure a more effective response to reduce human suffering and economic losses.



Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM

# **Thematic Session-2 Causes and Impacts of Disasters**

# Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM

Topic: Psychological First- aid and Effective Communication: a humanitarian approach.

**Methodology:** Power point presentation, experience sharing and activity (group exercises). **Objective:** To make participants understand how to provide immediate, practical, and compassionate assistance to individuals who have been affected by a disaster.

**Activity:** Dr. Preeti Soni gave a lecture with group exercises on Psychological First Aid (PFA). During a natural disaster, psychological first aid (PFA) and effective communication are critical components of a humanitarian response. PFA is a compassionate, supportive, and practical approach to assisting individuals in coping with the emotional impact of a crisis or traumatic event. Effective communication is critical in delivering PFA and facilitating a more organised and compassionate response to disaster victims. During a natural disaster, a humanitarian approach combines psychological first aid with effective communication to address survivors' emotional needs, provide practical support, and ensure that everyone affected by the disaster feels heard, cared for, and empowered to cope and recover.

The participants were divided into two groups, A and B, as the Counsellor and the Victim, with the victims communicating their horrific experiences by pretending to be actual victims of a disaster.

Another group exercise was conducted to demonstrate the significance of communication during a disaster.



Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM

Lecture by Kosygin Leishangthem, Assistant Professor, Department of Civil Engineering, MANIPUR TECHNICAL UNIVERSITY.

Topic: "Construction Techniques as per Indian Standards"

Methodology: Power point presentation and discussion.

**Objective:** To provide participants with a comprehensive understanding of the construction industry, methods, and practices in India, in accordance with the relevant Indian Standards and regulations.

**Activity:** Mr. Kosygin gave a very exciting and engaging lecture on the Construction Techniques as per Indian Standards which are set by the Bureau of Indian Standards (BIS). BIS is the national standards body in India responsible for the formulation and publication of standards for various industries, including construction. Professionals in the construction field, including architects, engineers, contractors, and builders, must adhere to these standards to ensure the safety, quality, and durability of construction projects in India. It's important to consult the latest versions of these standards, as they are periodically updated to reflect advancements in construction technology and best practices.



Kosygin Leishangthem, Assistant Professor, Department of Civil Engineering, MANIPUR TECHNICAL UNIVERSITY

# DAY 2 (31.10.2023)

Thematic Session-3 "Community based Disaster Risk Reduction"

Prof Devesh Walia, Executive Committee Member, IUINDRR, HoD, Geology Department, NEHU.

**Topic:** • Hazard and Disasters – Concepts

- Vulnerability and Risks
- Hazard and Disaster Type
- Phases of disasters, risk management and post-disaster responses

Methodology: Power point presentation and discussion.

**Objective:** To empower participants with the knowledge and tools to actively engage in community-based disaster risk reduction efforts.

Activity: Prof. Walia delivered an enlightening lecture on Community-based Disaster Risk Reduction (CBDRR), a disaster risk reduction approach that puts communities at the center of efforts to reduce vulnerability and enhance resilience to disasters. It acknowledges that local communities are frequently the first to respond to disasters, and that their knowledge, resources, and social networks are valuable assets in disaster preparation and response. Community based Disaster Risk Reduction is not a one-size-fits-all solution because it considers the unique characteristics and needs of each community. It is especially important in areas prone to natural disasters like earthquakes, floods, hurricanes, and droughts, but it can also be applied to other types of hazards like those caused by climate change. By empowering communities to take an active role in disaster risk reduction, Community based Disaster Risk Reduction can contribute to more effective and sustainable resilience-building efforts. He further elaborated on some insights into the concepts related to hazards, disasters, vulnerability, risks, types of hazards and disasters, phases of disasters, risk management, postdisaster responses, and capacity building. Understanding these concepts is crucial for effective disaster management. Capacity building plays a key role in enhancing a community's ability to prepare for and respond to disasters while minimizing their impact.

### **Thematic Session-4 Field Visit**

Dr. Meghali Baruah, Dr. Shikhar Kumar, Dr. Atul Singh & Dr. R.R. Kumar, Geology Department, NEHU

In campus assessment exercise, trainees were divided into two groups, each assigned with a specific topic to explore around the NEHU campus.

### **Topic:**

Group A: Architectural and Engineering Aspects of the Buildings of the Campus (Social Science Cluster Classrooms, NEHU Campus)

Group B: Architectural and Engineering Aspects of the Buildings of the Campus (Science Center, NEHU Campus)

After conducting their assessments, each group presented their findings, and experts provided valuable suggestions based on these presentations.

Thematic Session-5 "Disaster Vulnerability Profile of India"

Prof Devesh Walia, Executive Committee Member, IUINDRR, HoD, Geology Department, NEHU.

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

Methodology: Power point presentation and discussion.

**Objective:** To empower participants with the knowledge and skills required to assess, mitigate, and manage the complex interplay between climate variability and disaster risks in the specific context of North-East India, ultimately contributing to a more resilient and prepared community and region.

Activity: Prof Walia delivered an informative talk on India's Disaster Vulnerability Profile, stating that India is a country with a complex and diverse landscape that is vulnerable to a wide range of natural and man-made disasters. Several factors influence India's disaster vulnerability profile, including its geographical location, climate, population density, and socioeconomic condition. He then discussed the Disaster Profile of North-East India and Disaster Risk with Climate Variability. Mountainous terrain and dense forests characterize India's northeastern region. It is vulnerable to a variety of natural disasters, and climate change contributes to the risks. Early warning systems, community-based disaster management, and efforts to improve infrastructure resilience are examples of these. Addressing the disaster risks associated with climate variability in the region, on the other hand, is an ongoing and complex challenge that necessitates a multi-sectoral and multi-disciplinary approach, considering the northeastern states' unique characteristics and vulnerabilities.



Prof Devesh Walia, Executive Committee Member, IUINDRR, HoD, Geology Department, NEHU

Thematic Session – 6 "Causes and Impacts of Disasters"

Dr. Atul Singh, Assistant Professor, Geology Department, NEHU

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

Methodology: Power point presentation and discussion.

**Objective:** To develop the knowledge and skills of participants necessary to mitigate and respond to disasters, minimize harm to the environment, and provide effective support to affected individuals and communities in disaster management.

**Activity:** Dr. Atul delivered lectures on the causes of disasters and their effects on the natural ecosystem, as well as the physical, psychological, and social consequences. Natural or man-made disasters have profound and far-reaching effects on various aspects of our world. First and foremost, they devastate natural ecosystems, upsetting the delicate balance of flora and fauna, resulting in habitat destruction, and sometimes causing long-term biodiversity damage. Furthermore, disasters can have a profound psychological impact on individuals and communities, causing trauma, anxiety, and grief, and frequently leading to long-term mental health issues. On a societal level, they can strain social structures, disrupt livelihoods, and increase inequalities, disproportionately affecting vulnerable populations.



Dr. Atul Singh, Assistant Professor, Geology Department, NEHU

# Thematic Session – 7 "Disaster Preparedness Planning"

Dr. Shikhar Kumar, Geology Department, NEHU

**Topic: Application of Geo-informatics in Disaster Management** 

Methodology: Power point presentation and discussion.

**Objective:** To enhance the participants' capacity to use geo-informatics effectively in disaster preparedness planning, leading to more resilient and adaptive disaster management strategies that can help mitigate the impact of disasters on communities and environments.

Activity: Dr Shikhar gave a very insightful lecture on the Application of Geo-informatics in Disaster Management which plays a pivotal role in providing critical tools and insights to mitigate, respond to, and recover from natural and man-made disasters. Geographic Information Systems (GIS) enable the creation of accurate and up-to-date spatial databases that facilitate real-time monitoring and assessment of disaster-prone areas. These systems are instrumental in creating hazard maps, which identify areas that are vulnerable to various types of disasters such as earthquakes, floods, wildfires, hurricanes, and landslides. These maps aid in the comprehension of potential risks and vulnerabilities in specific regions. Geoinformatics allows for the assessment of vulnerability and exposure to various hazards. It aids in the quantification and prioritization of risks, which is necessary for developing effective disaster mitigation strategies. It is also used in early warning systems, which provide real-time information and warnings about impending disasters.



Dr. Shikhar Kumar, Geology Department, NEHU

# DAY 3 (01.11.2023)

Thematic Session - 8 "Disaster Management"

Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM

Topic: Role of Education and Lesson learnt: Community Mapping/Risk Analysis.

**Methodology**: Power point presentation, experience sharing, discussion and activity (group exercises).

**Objective:** To empower participants with the knowledge, skills, and tools necessary to enhance community preparedness, resilience, and effective disaster management through education, community mapping, and risk analysis.

Activity: Dr. Preeti gave an enlightening talk on the role of education and lessons learned in community mapping and risk analysis which is pivotal in the field of disaster management. Education equips individuals with the knowledge and skills to effectively collect and analyze data, allowing communities to identify potential hazards, vulnerabilities, and resources. Lessons learned from past disasters provide valuable insights into what works and what doesn't, helping communities refine their mapping and risk analysis processes. By promoting education and drawing on past experiences, disaster management efforts can become more proactive, resilient, and better equipped to protect lives and property during crises. She also mentioned the relationship between hazard, vulnerability, and disaster is crucial for effective disaster risk management and planning to protect communities and mitigate the impact of potential disasters.

She went on to say that experiences teach us things. Individuals consistently underestimate the risks they face and neglect to take prompt preventive action. She discussed the reasons for failure and the lessons discovered after the disasters using the Bhuj Earthquake, AMRI Hospital, COVID 19 and other case studies as examples.

### **Group Exercise**

The participants were divided up into three groups for a group exercise where presentations on the Role of Higher Education in the Disaster Management Cycle were given.

### **Topics:**

Group 1 Preparedness
Group 2 Response
Group 3 Recovery

# **Group 1 Preparedness**



- 1. Conduct regular awareness campaigns and drills to educate the public about emergency procedures.
- 2. Train and mobilize Community Emergency Response Teams (CERTs) in local neighborhoods to assist in emergency response and provide first aid.
- 3. Maintain emergency stockpiles of essential supplies, including food, water, medical resources, and communication equipment to prevent shortages during disasters.
- 4. Establish a system for prioritizing vulnerable populations, such as the elderly and individuals with disabilities.
- 5. Implement a reliable communication system for first responders and emergency services.
- 6. Enforce strict building codes and conduct regular inspections to ensure that structures are earthquake, flood, and fire-resistant.
- 7. Identify and designate safe zones in vulnerable areas for immediate shelter during disasters.
- 8. Plan urban development with disaster resilience in mind, avoiding construction in high-risk zones.
- 9. Establish a centralized emergency command center for coordination and information dissemination.
- 10. Provide regular training for emergency service personnel to improve their preparedness and response capabilities.
- 11. Implement early warning systems for natural disasters, such as tsunami alerts, earthquake sensors, and flood monitoring.
- 12. Involve local communities in disaster preparedness and planning to ensure that the response strategies are tailored to their specific needs and vulnerabilities.

# **Group 2 Response**



- 1. First, we must look for shelter to protect ourselves.
- 2. We can make a team of volunteers.
- 3. to evacuate the people trapped" them Brien an open field.
- 4. Provide first and to the injured.
- 5. Contact the nearby hospital and the dispensary for the treatment of the injured.
- 6. Inform the local authorities involved in disaster relief.
- 7. Arranging food & water for the victims.
- 8. Temporary shelters.
- 9. Counselling of the people who lost their dear ones.
- 10. Contact the National Service Scheme (NSS) Team.

# **Group 3 Recovery**



- 1. Trauma Counselling: Immediate and after 6 months to 1 year.
- 2. Collection of data of the impacts Assistance to accordingly suggestions.
- 3. Collections of reports/suggestions from Engineers and Geologists.
- 4. Reaching out to the affected people (quick communication) and giving assistance accordingly.
- 5. Prepare Detailed Project Reports (DPR) per recommendations.
- 6. Collection of data for insurance and help accordingly.
- 7. Lesson learned from the sufferers.
- 8. Radio as communicator.

Thematic Session-9 "Disaster Management"

Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM.

Topic: Disaster Vulnerability of India with special reference to Northern regions and states of India. Standards.

Methodology: Power point presentation and discussion.

**Objective:** To empower participants with the knowledge and skills needed to assess, plan for, respond to, and mitigate the impact of disasters in the northern regions and states of India, ultimately contributing to improved disaster resilience and preparedness in these areas.

Activity: Prof. Santosh had a very interactive session with the participants on Disaster Vulnerability of India with special reference to Northern regions and states of India. India's vulnerability to natural disasters is a complex issue, especially in its northern states and regions. Natural and man-made disasters, including earthquakes, floods, landslides, and extreme weather, can occur in the northern region of India. Because the Himalayan region is situated where the Indian and Eurasian tectonic plates are converging, it is particularly vulnerable to earthquakes. These seismic hazards are particularly present in the heavily populated states of Uttarakhand, Himachal Pradesh, and Jammu and Kashmir. In many areas of northern India, the yearly monsoon rains also bring about destructive landslides and floods that result in a loss of life and property. Inadequate infrastructure and preparedness for disasters in these areas increase vulnerability. Addressing these challenges through proactive disaster management and mitigation measures is essential to reduce the impact of disasters in northern India.

### **GROUP WISE PRESENTATIONS FROM THE FIELD VISIT**

The participants were divided into two groups and assigned the following topics.

### **Topic:**

Group A: Architectural and Engineering Aspects of the Buildings of the Campus (Social Science Cluster Classrooms, NEHU Campus).

Group B: Architectural and Engineering Aspects of the Buildings of the Campus (Science Center, NEHU Campus).





**Group A Presentation** 

**Group B Presentation** 

- 1. The building is divided into small clusters.
- 2. Symmetrical Building.
- 3. Appreciable beam and column size.
- 4. No emergency staircase.
- 5. Not enough emergency exits, Emergency exits are in the wrong place.
- 6. Not enough fire extinguishers.
- 7. Not enough expansion gap.
- 8. Bended beams.
- 9. Column joints are not at same angles.
- 10. Irregular joints (should be perpendicular).
- 11. Concrete quality is poor.
- 12. The maintenance of the building is poor.
- 13. The quality of the paint is poor.
- 14. Plants begin to grow in between the cracks in the building.
- 15. Sustainable site planning should include considerations for preserving green spaces and managing water resources.
- 16. The architectural design of academic buildings should consider factors like natural lighting, ventilation, and energy efficiency to create a comfortable and sustainable environment.

- 17. The arrangement of spaces should be carefully considered to meet the specific needs and functions of the facility while also promoting efficiency and functionality.
- 18. The use of space without overcrowding should be maximized.
- 19. Corridors, hallways, and pathways should be designed to provide efficient and clear circulation between different spaces.
- 20. The buildings should be ensured that they are structurally sound and capable of withstanding natural disasters.
- 21. Proper plumbing and sanitary systems should be considered.
- 22. Ensure the campus has a reliable utility infrastructure, including water supply, sewage systems, fire extinguishers and power distribution.
- 23. Buildings with durable materials and low maintenance requirements should be designed to reduce long-term operational costs.

### **WAY FORWARD**

# Prof. Devesh Walia, Executive Committee Member, IUINDRR, HoD, Geology Department, NEHU.

- 1. Disaster must be catered to not only at a National Policy level but at the implementation of the areas where it has got the maximum impact.
- 2. Integrate Disaster Risk Reduction (DRR) into development practices.
- 3. Improve early warning systems and enhance community preparedness!
- 4. Actively involving the young researchers to interrogate critically about the developmental practices currently used in the Northeastern hilly region and understand how they are impacting the society in long term.
- 5. The use of geoscience in an inclusive manner so that the youths are equipped by the skills required to work unsustainable approaches for making the future developmental practices more sustainable and safer for the community.
- 6. Incorporate resilience in our society at three levels viz. the global or the earth system, the social system comprising of infrastructure, and industrial capability and the human system.
- 7. Build financial resilience against natural disasters.
- 8. Increase the financial resilience of disaster affected populations.
- At the planning stage itself, architects and structural engineers must work together to ensure that the unfavorable features are avoided, and a good building configuration is chosen.
- 10. Reduce (mitigate) the hazards through scientific study, population education through such initiatives, changes in engineering/building practices, and management plans and hazard response scenarios.
- 11. Enhance Resilience by implementing robust disaster management system.
- 12. Members of a Community must put into practice early and effective actions. If residents, agencies, and organizations take meaningful and intentional actions before an event, communities can reestablish stability after an event.
- 13. Community needs to Learn Own Safety and Safety of Trapped Neighbor.
- 14. Formulation and implementation of the concrete policy on national, sub-regional, local and community levels.
- 15. To focus on providing immediate psychological support to individuals affected by disasters and ensuring effective communication in such situations.

- 16. Form multidisciplinary teams that include mental health professionals, social workers, and trained volunteers to provide Psychological First Aid (PFA).
- 17. Comprehensive needs assessment should be conducted to understand the specific needs and challenges of academic institutions and academicians in the North-East region of India regarding disaster risk reduction (DRR).
- 18. A curriculum that covers the essential concepts, principles, and practices of disaster risk reduction should be developed. This should include a mix of theoretical knowledge and practical skills, focusing on the unique challenges and vulnerabilities of the North-East region.
- 19. Academicians should be encouraged to share their experiences and insights and facilitate discussions on best practices in DRR.
- 20. A more resilient and responsive multi-hazard early warning system should be created by taking a holistic approach that combines technological innovation, community involvement, and effective governance.

#### **VALEDICTORY SESSION**

The valedictory programme was held at the Auditorium of the Shillong Science Centre, NEHU Campus, North-Eastern Hill University, Shillong on the occasion. The training programme served as a platform for inspiring academicians to take an active role in disaster risk reduction by providing them with information, resources, and a platform for discussion.

The valedictory programme, started with welcome address by Prof. Lucy T.V. Zehol, Dean, School of Human and Environmental Sciences, NEHU, Shillong followed by a short report on this three-day training programme by Prof. Devesh Walia Executive Committee Member, IUINDRR, Head, Geology Department, NEHU.

Prof. Santosh Kumar, Head, IUINDRR & Senior Advisor, NIDM in his concluding remarks mentioned that disaster management planning is essential for reducing the human, economic, and environmental impacts of disasters. It also helps build resilient communities, ensures efficient resource allocation, and facilitates effective coordination among various stakeholders. Ultimately, it saves lives, reduces suffering, and promotes the well-being of individuals and societies when confronted with emergencies and disasters.

The Chief Guest of the programme Brigadier Vijayant Mahadik, Group Commander of Shillong Group NCC, highlighted that Disaster Risk Resilience enhances national security and stability as resilience in critical infrastructure and systems is essential to the continued functioning of a country during and after disasters. He also stressed that increased investments in multi-hazard early warning systems as well as expanding coverage, particularly in India, is essential in reducing fatalities. Early warning systems can also decrease disaster losses by up to 60 per cent, offering a remarkable tenfold return on investment.

Dr. Bhaskar Basu, Regional Director, Atomic Minerals Directorate – North Eastern Region, Shillong in his valedictory address highlighted the use of geoscience in an inclusive manner so that the youths are equipped by the skills required to work on sustainable approaches for making the future developmental practices more sustainable and safer for the community.

Feedback from the participants was very positive and emphasized that the training programme will benefit everyone desired that NIDM and Department of Geology, NEHU, Shillong to regularly organize such programs.

The Valedictory session ended with the Vote of Thanks by Dr. Shikhar Kumar, Department of Geology, NEHU, Shillong. He indebted his gratitude to Shri Rajendra Ratnoo, IAS Executive Director, NIDM for unequivocal support to organize this training programme, and acknowledged Prof. Prabha Shankar Shukla, Vice Chancellor, North-Eastern Hill University, Shillong for all the support and cooperation.

## **MEDIA COVERAGE**







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EDITORIAL SPORTS

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/ WRITERS COLLININ

LETTERS TO THE EDITOR Q

# Programme on disaster risk reduction in NEHU

by HP News Service — October 31, 2023 in East Kheel Hills



















The three-day programme is being organised by North Eastern Hill University (NEHU) and Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR NIDM) along the theme "Inspiring the minds for

In an era marked by growing environmental challenges and the increasing frequency of natural disasters, a collaborative effort to inspire and empower minds for disaster risk reduction has taken centre stage, a press release said today.

The three day training programme will focus on key considerations and raising awareness, educating the public and encouraging community engagement in disaster risk reduction efforts. More than 60 delegates participated in the training programme from Mizoram, Manipur, Tripura, Assam and Meghalaya.

The inaugural session started with a welcome address by Prof Devesh Walia, the Head of NEHU's Department of Geology, and emphasised that by integrating disaster risk reduction into development practices, improving early warning systems and enhancing community preparedness, societies can significantly reduce the impact of disasters and save lives.

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Residents of 44 localities in Shillong drink unsafe water

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# Training on disaster reduction for academicians from NE at NEHU













#### By Our Reporter

SHILLONG, Oct 30: A three-day regional capacity building training programme for academicians of Northeast on 'Inspiring the Minds for Disaster Risk Reduction', jointly organised by North-Eastern Hill University, Shillong, and Indian Universities and Institutions Network on Disaster Risk Reduction (IUINDRR-NIDM), Ministry of Home Affairs (MHA), kicked off on Monday.

The training programme commenced with an inaugural programme at the auditorium of the Shillong Science Centre, NEHU Campus here that marked the culmination of intensive learning and collaboration.

In an era marked by growing environmental challenges and the increasing frequency of natural disasters, a collaborative effort to inspire and empower minds for disaster risk reduction has taken centre stage. The three-day training programme will focus on key considerations and raise awareness educating the public and encouraging community engagement in disaster risk reduction efforts. More than 60 delegates participated in the training programme from the Northeastern states including Mizoram, Manipur, Tripura, Assam and Meghalaya.

During the inaugural session, Head of GIDRR and Director of IUINDRR- NIDM, Prof Santosh Kumar, in his address, highlighted that disaster risk resilience is of paramount importance because it saves lives, protects communities and economies, and ensures that societies can recover and thrive in the face of

There are 216 institutions registered for IUINDRR, he added.

Chief guest of the programme, Vice-Chancellor of NEHU Prof Prabha Shankar Shukla, in his special address, advised the young researchers to interrogate critically about the developmental practices currently used in the North eastern hilly region and understand how they are impacting the society in long term.



Tree day regional capacity building training for academicians for N.E India was held in NEHU

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The valuelicitary programme was held at the Auditorium of the Stationg Science Centre, NEHU Campus, North-Eastern

The training programme served as a platform for inspiring academicians to take an active role in dissolar risk neduction by providing them with information, resources, and a gitaform for discuss

This Bress-day Institut programme focused on key considerations and situal-gles required for Breschild Headisers, it Dissable, contributing-based Dissabler High Heduction, Dissabler Vultrandrilly (Yndfe of India, Dissabler (Ymparechesa Planning and Dasabir Management, More than 60 delegates participated in the training program from North-Eastern

The training programme comprised of lectures by the invited guest from IUNDHIR-NOM as well as faculty from the NEPSU Instantly and covered the various lights relabel to financial Realismos to Dissaler, Cusives and Impacts of Dissalers, Flood Forecasting, Early Weening and Emergency Response Briough Remote Serving and GES.

Clemate Variability, Community Magging' Halk Analysis, Usualise Vulnariability of India with special reference to

around the NEMU campus. These topics included the general campus profile with a focus on the architectural and engineering features of campya buildings such as the Edwice Center, and Qualer classrooms. After conducting the

The valuebolary programme, started with valoroms extress by Prof. Lucy TV, Zahor, Dean, School of Human and Denselt Walls Executive Committee Member, IUT/CF61, Heat, Geotopy Department, NEHU.

Prof. Santosh Kurrar, Head, ILUNDHN & Sensor Advisor, NDM in his conducting remarks mentioned that class planeings wavefilef for reducing the human, economic, and environmental impacts of closelens. It also ellent communities, ensures efficient resource advocation, and facilitates effective coordination among various stakeholders

The Chief Guest of the programme Brigader Visyant Mahadik, Group Commander of Shifting Group NCC. This Child Guiss in the programmic sequence years in memory and a labelity as resilience in highlighted that Danisler Hast Hestlances enhances national ascurity and stability as resilience in and systems to execution to the continued functioning of a country during and after dissolvers.

cularly in India, to exceed all in reducing fabilities. Early warning exclume can also dec

desired that NIDM and Department of Geology, NEHU, Shifting to regularly organize such programs

The Unladitiony assessment ended with the Vide of Thanks by Dr. Shikher Kumar Department of Geology, NDHU, Shiking the individual Na graditude to Stat Nejendra Halton, IAS Executive Director, NIDM for unequivocal support to on this training programme, and acknowledged Prof. Probles Shankar Shukta, Wor Chancelor, North-Eaufarn Hill

All admissions from 2010 to 2013 at CMJ University are The GCC of Mechalics want the District council to pass

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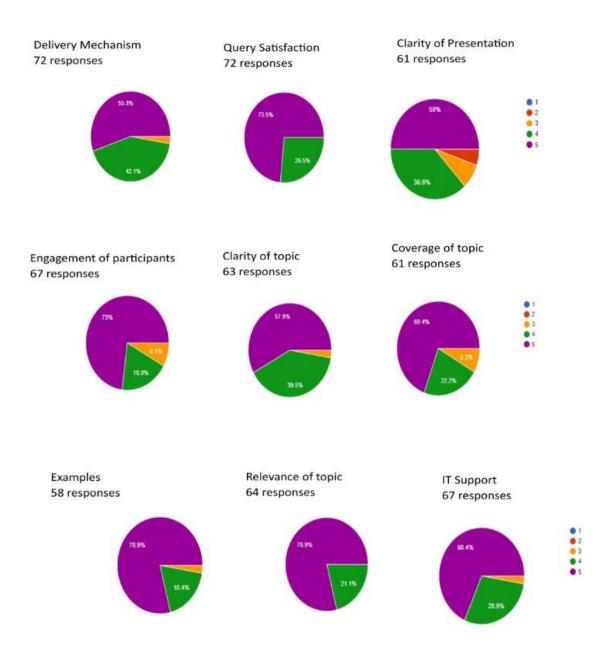
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## COURSE FEEDBACK



#### KEY TAKEAWAYS OF THE TRAINING PROGRAMME

- 1. Risk assessment and education are essential components of DRR, with the aim of protecting lives and livelihoods while minimizing economic and environmental losses.
- 2. Individuals, communities, and nations can reduce vulnerabilities, improve preparedness, and create a safer, more sustainable future by investing in resilience.
- 3. Each university in the India Universities and Institutions Network for Disaster Risk Reduction (IUIN-DRR) can specialize in specific aspects of disaster management and risk reduction relevant to their geographical location or academic strengths.
- 4. Resilience can only be achieved by adapting to climate adaptive solutions, taking a greener approach, and building local community capacity by involving stakeholders and empowering communities to lead and undertake activities to mitigate the impact.
- 5. The use of geoscience should be emphasized in an inclusive manner so that youths are equipped with the skills required to work unsustainable approaches for making future developmental practises more sustainable and safer for the community.
- 6. Incorporating resilience in our society must be addressed at three levels: the global or earth system, the social system comprising infrastructure and industrial capability, and the human system.
- 7. Policies, investments, and behavioral changes are all critical components in creating a resilient society that can withstand various shocks and stresses, whether they are local or global in nature.
- 8. In disaster management, teamwork, collaboration, and continuous learning are essential components of a successful and resilient response to crises.
- 9. Multidisciplinary subjects offer the power to synthesize diverse academic backgrounds, promoting innovative thinking and equipping individuals to tackle complex issues through a holistic and adaptable approach to knowledge and problem-solving.
- 10. Building financial resilience against natural disasters and increasing disaster-affected populations' financial resilience is critical for mitigating the economic and social impacts of these events.
- 11. Increasing financial resilience in the face of natural disasters and aiding with disaster-affected populations necessitates a multifaceted approach involving individuals, communities, businesses, and governments at various levels.
- 12. To reduce overall vulnerability to disasters, it is critical to balance short-term emergency responses with long-term strategies.
- 13. The Guiding Principles for the FC-XV and Subsequent Finance Commissions, which state that the 15th Finance Commission report is guided by four principles and has made recommendations on all aspects of disaster risk financing based on a review of established practises, both national and international.
- 14. India's disaster risk financing strategy has evolved to include a mix of traditional relief mechanisms, dedicated funds, insurance products, and international collaborations.
- 15. During a natural disaster, psychological first aid (PFA) and effective communication are critical components of a humanitarian response.
- 16. PFA is a compassionate, supportive, and practical approach to assisting individuals in coping with the emotional impact of a crisis or traumatic event.
- 17. Bureau of Indian Standards (BIS) ensure that construction practices in India meet safety, quality, and performance requirements.

- 18. Professionals in the construction field, including architects, engineers, contractors, and builders, must adhere to the Bureau of Indian Standards (BIS) to ensure the safety, quality, and durability of construction projects in India.
- 19. It's important to consult the latest versions of the Bureau of Indian Standards (BIS), as they are periodically updated to reflect advancements in construction technology and best practices.
- 20. Local communities are frequently the first to respond to disasters, and their knowledge, resources, and social networks are valuable assets in disaster preparation and response.
- 21. Community based Disaster Risk Reduction is especially important in areas prone to natural disasters like earthquakes, floods, hurricanes, and droughts, but it can also be applied to other types of hazards like those caused by climate change.
- 22. By empowering communities to take an active role in disaster risk reduction, Community based Disaster Risk Reduction can contribute to more effective and sustainable resilience-building efforts.
- 23. Understanding the concepts related to hazards, disasters, vulnerability, risks, types of hazards and disasters, phases of disasters, risk management, post-disaster responses, and capacity building is crucial for effective disaster management.
- 24. Capacity building plays a key role in enhancing a community's ability to prepare for and respond to disasters while minimizing their impact.
- 25. Several factors influence India's disaster vulnerability profile, including its geographical location, climate, population density, and socioeconomic condition.
- 26. The multifaceted nature of India's vulnerability to disasters makes effective response an ongoing and complex challenge.
- 27. India's northeastern region is vulnerable to a variety of natural disasters, and climate change contributes to the risks since it is characterized by mountainous terrain and dense forests.
- 28. Addressing the disaster risks associated with climate variability in the northeastern states is an ongoing and complex challenge that necessitates a multi-sectoral and multi-disciplinary approach, considering the region's unique characteristics and vulnerabilities.
- 29. The far-reaching consequences of disasters highlight the critical importance of disaster preparedness, resilience, and global cooperation in addressing and mitigating their effects.
- 30. Geo-informatics is an indispensable tool in disaster management, helping authorities and organizations prepare for, respond to, and recover from disasters more efficiently and effectively.
- 31. GIS empowers decision-makers with valuable spatial information that can save lives and reduce the economic and social impact of disasters.
- 32. Education equips individuals with the knowledge and skills to effectively collect and analyze data, allowing communities to identify potential hazards, vulnerabilities, and resources.
- 33. Lessons learned from past disasters provide valuable insights into what works and what doesn't, helping communities refine their mapping and risk analysis processes.
- 34. India must implement a comprehensive disaster risk reduction strategy, with a particular emphasis on its northern regions. This strategy must improve early warning systems, strengthen infrastructure resilience, encourage community-based preparedness for disasters, and address the socioeconomic factors that increase vulnerability.
- 35. India can lessen the effects of natural disasters and safeguard the lives and livelihoods of its citizens in these vulnerable areas by implementing a multifaceted approach to disaster management.

## **Organising Team**

## **Patrons:**

- Shri Rajendra Ratnoo, IAS Executive Director, NIDM.
- > Prof. Prabha Shankar Shukla, Vice-Chancellor, NEHU, Shillong.

## **Programme Directors:**

- > Prof. Santosh Kumar, Head, IUINDRR & Senior Advisor, NIDM.
- Prof Devesh Walia, Executive Committee Member, IUINDRR, HoD, Geology Department, NEHU.

## **Programme Coordinators & Convener:**

- > Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM.
- > Dr. Shikhar Kumar, Geology Department, NEHU.
- > Dr. Meghali Baruah, Geology Department, NEHU.
- Mr. Naba Kumar Bori, Geology Department, NEHU.
- Mr. Mrinal Kanti Pathak, Geology Department, NEHU.
- Ms. S Phalneihat Haokip, Geology Department, NEHU.

# **PHOTO GALLERY**



Registration



## **INAUGURAL SESSION**









**Felicitation of the Esteem Guests** 



Prof. Santosh Kumar, Head, GIDRR & Director-IUINDRR- NIDM



Prof. Prabha Shankar Shukla, Vice-Chancellor, NEHU, Shillong



Dr. Bhaskar Basu, Regional Director, Atomic Minerals Directorate - North Eastern Region, Shillong



Prof. Lucy T.V. Zehol, Dean, School of Human & Environmental Sciences (SHES), NEHU, Shillong



Dr. Preeti Soni, Senior Programme Consultant, IUINDRR-NIDM

## **GROUP EXERCISE**



Group Exercise 1: The participants were divided into two groups, A and B, as the Counsellor and the Victim, with the victims communicating their horrific experiences by pretending to be actual victims of a disaster.



Group Exercise 2: a) Demonstrating the significance of communication during a disaste.r



b) Demonstrating the significance of communication during a disaste.



Lunch Break

## **FIELD VISIT**

Group A: Architectural and Engineering Aspects of the Buildings of the Campus (Social Science Cluster Classrooms, NEHU Campus).





**Bended Beams** 



Irregular Joints (should be perpendicular) and Column Joints are not at same angle.



Emergency exits are in the wrong place.



Plants are starting to grow in between the cracks.



Not Enough Space in the center of the building.



The quality of the concrete is poor.



Windowpanes without iron bars.

Group B: Architectural and Engineering Aspects of the Buildings of the Campus (Science Center, NEHU Campus).



#### **VALEDICTORY SESSION**









Feedback from the Participants



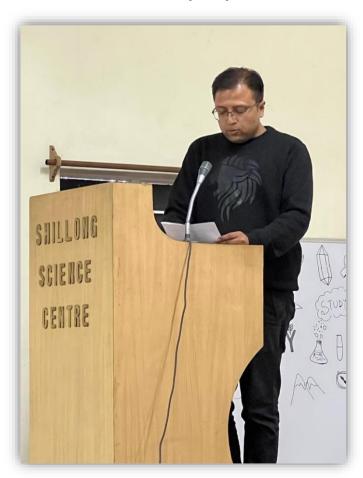
Brigadier Vijayant Mahadik, Group Commander of Shillong Group NCC



Dr. Bhaskar Basu, Regional Director, AMD-NER



Distribution of Certificates



**Vote of Thanks**