

“First Workshop on Projection and Mitigation of Mega-Geo-Disasters under Changing Climate”

Akama Hotel, Dhumbarahi, Kathmandu

Day 1: Thursday 14 March 2024

Room: Sanima Hall (First Floor)

8:30-9:30	Registration	
9:30-10:30	Inaugural session	
	Master of Ceremony	
	Dr. Ranjan Kumar Dahal (<i>Central Department of Geology, Tribhuvan University, Nepal</i>)	
	9:30-9:40	Welcome and Chair Prof. Dr. Deepak Aryal (<i>Central Department of Hydrology and Meteorology, Tribhuvan University, Nepal</i>)
	9:40-9:50	Program Highlight Prof. Dr. Toru Terao (<i>Kagawa University, Japan</i>)
	Remarks:	
	9:50-9:55	Guest 1. Mr. Anil Pokhrel (<i>NDRRMA, Nepal</i>)
	9:55-10:00	Guest 2. Prof. Dr. Shuichi Hasegawa (<i>Kagawa University, Japan</i>)
	10:00-10:05	Guest 3. Dr. Jagadish Karmacharya (<i>Department of Hydrology and Meteorology, Nepal</i>)
	10:05-10:10	Guest 4. Prof. Dr. Ajit Tyagi (<i>South Asian Meteorological Association, India</i>)
10:15-10:20	Guest 5. Prof. Dr. Binil Aryal (<i>Dean, Institute of Science and Technology, Tribhuvan University, Nepal</i>)	
10:20-10:30	Chief Guest 6. Prof. Dr. Keshar Jung Baral (<i>Vice Chancellor, Tribhuvan University, Nepal</i>)	
10:30-10:35	Vote of Thanks 7. Prof. Dr. Dinesh Pathak (<i>Tribhuvan University, Nepal</i>)	
10:35-11:00	Tea break	
Keynote Session 1:		Session Chair: Binil Aryal Session Co-Chair: Subrat Kumar Panda
11:00-11:30	Keynote Speech: "Changing Dynamics of Disaster Risk in Nepal: Observations and Lessons" by Anil Pokhrel (<i>NDRRMA, Nepal</i>)	
11:30-11:45	Rapidly Increasing Extreme Rainfall Events and Critical Heat Stress Events Double Climate Change Disaster Potential over NEI by B.N. Goswami (<i>Cotton University, India</i>) - Online	
11:45-12:00	Importance of Field-scale Soil Moisture For Monitoring Hydro-Meteorological Extremes by M. Mujumdar (<i>IITM, India</i>) - Online	
12:00-13:00	Panel Discussion: Development of Hydro-meteorological Network in Asia	
	Moderator: Dr. Dhiraj Pradhananga (<i>Tribhuvan University</i>)	
	Panelists:	
	1.	Dr. Madal Lall Shrestha (<i>Nepal Academy of Science and Technology, Nepal</i>)
	2.	Dr. Samarendra Karmakar (<i>Bangladesh Meteorological Department, Bangladesh</i>)
3.	Prof. Dr. Ajit Tyagi (<i>South Asian Meteorological Association, India</i>)	
4.	Prof. Dr. Tetsuzo Yasunari (<i>Research Institute for Humanity and Nature, Japan</i>) - Online	
13:00-14:00	Lunch break	

Keynote Session 2:		Session Chair: Yaoming Ma
		Session Co-Chair: Binod Pokharel
14:00-14:30	Keynote Speech: "Swing Climate Extremes and the Societal Double & Pathways to Resilience" by Simon Wang (Utah State University, USA)	
14:30-15:00	Keynote Speech: "Promotion of Geoparks for Sustainable Development in the Himalayan Range" by Shuichi Hasegawa (Kagawa University, Japan)	
15:00-15:30	Keynote Speech: "Himalayan Weather and Climate" by A.P. Dimri (Indian Institute of Geomagnetism, India)	
15:30-15:45	Migration history and landscape changes in Indo-Bhutan border area by Haruhisa Asada (Nara Women's University, Japan) - Online	
15:45-16:00	Tea break	
Keynote Session 3:		Session Chair: Binod Pokharel
		Session Co-Chair: Shabista Yildiz
16:00-16:30	Keynote Speech: "Insight from the Highest weather stations in the world" by Baker Perry (Appalachian State University, USA) - Online	
16:30-17:00	Keynote Speech: "The energy and water exchange and its effect on the weather and climate over the Tibetan plateau and surrounding region" by Yaoming Ma (Chinese Academy of Sciences, China)	
17:00-17:30	Keynote Speaker: "CREST-HIMAL: A way to mitigate the impacts of Meteorological Hazards under Changing Climate" by Someshwar Das (SAMA, India)	
18:00-20:00	Networking Dinner	
End of Day 1		

Day 2: Friday 15 March 2024

Room: Sanima Hall (First Floor)

8:30-9:00	Registration	
Keynote Session 4:		Session Chair: Sadhana Pradhanang Kayastha
		Session Co-Chair: Shiori Sugimoto
9:00-9:30	Keynote Speech: "Asian Precipitation Experiment and Mega-geo Hazards under Changing Climate" by Toru Terao (Kagawa University, Japan)	
9:30-10:00	Keynote Speech: "Early Warning of Rainfall Induced Landslides: A Case Study from India" by Maneesha Vinodini Ramesh (Amrita Vishwa Vidyapeetham, India)	
10:00-10:30	Keynote Speech: "Climate Hazards in the Himalayan Cryosphere" by Koji Fujita (Nagoya University, Japan)	
10:30-11:00	Tea break	
11:00-11:30	Keynote Speech: "Predictive understanding of extreme precipitation over the Himalayan region under global warming" by R. Krishnan (IITM, India) - Online	
11:30-11:45	Impacts of topography resolution on diurnal cycle in simulated precipitation over the Himalayas by Shiori Sugimoto (Japan Agency for Marine-Earth Science and Technology, Japan)	
11:45-12:00	Status of glacier lakes and GLOF modelling in Nepal by Rijan Bhakta Kayastha (Kathmandu University, Nepal)	
12:00-13:00	Lunch break	

Parallel Sessions:

Room: Sanima Hall

Session 1A: Mega-Geo Hazards in the changing climate

Chair: Devesh Sharma

Co-Chair: Binod Dawadi

13:00-14:30

13:00-13:15	Toward unraveling precipitation systems around the glacierized catchment in the Himalayas in summer by Hatsuki Fujinami (<i>Nagoya University, Japan</i>) - Online
13:15-13:30	Political and Economic Changes in a "Frontier" Region: Limestone Trade in Northeastern India by Sayako Kanda (<i>Keio University, Japan</i>) - Online
13:30-13:45	Impact of climate change on Extreme Rainfall Events & summer monsoon rainfall over North-East India by Rahul Mahanta (<i>Cotton University, India</i>)
13:45-14:00	Changes in Flood Risk in Bangladesh due to climatic and Socio-economic changes by Md. Shahjahan Mondal (<i>Bangladesh University of Engineering and Technology, Bangladesh</i>)
14:00-14:15	Meteorological Disasters in the South Asia by Taiichi Hayashi (<i>Kyoto University, Japan</i>)
14:15-14:30	Extreme humid areas of the Indian sub-continent in changing climate scenarios by H.J. Syiemlieh (<i>North Eastern Hill University, India</i>) - Online

Room: Tamor Hall

Session 1B: Mitigation of Mega-Geo Hazards

Chair: Fatima Akter

Co-Chair: Dibas Shrestha

13:00-14:30

13:00-13:15	Adaptation to climate change based on topographical analysis and local and Indigenous Knowledge by Atsuko Nonomura (<i>Kagawa University, Japan</i>)
13:15-13:30	Challenges of evacuation preparedness and evacuation routes under frequent GLOF environment: a case of Dolakha, Nepal by Teiji Watanabe (<i>Hokkaido University, Japan</i>)
13:30-13:45	Unusual Weather Patterns in Nepal and Possible Association with Climate Change by Archana Shrestha (<i>Department of Hydrology and Meteorology, Nepal</i>)
13:45-14:00	Climate Change, Impacts and Adaptation Strategy of Smallholders Farmers in South Asia by Prem Sagar Chapagain (<i>Tribhuvan University, Nepal</i>)
14:00-14:15	Drought Assessment in Karnali River Basin of Nepal by Madan Sigdel (<i>Tribhuvan University, Nepal</i>)
14:15-14:30	Terrestrial Evapotranspiration Controlling Precipitation-Flood-Precipitation Cycle in Eastern Himalaya by Subashisa Dutta (<i>IIT, Guwahati, India</i>)

14:30-15:00

Tea break

Room: Sanima Hall		
15:00-16:15	Session 2A: Numerical Simulation of Extreme Weather Hazards	
	Chair: Shuichi Hasegawa	
	Co-chair: Ramesh Prasad Sapkota	
	15:00-15:15	Hydrometeorological Hazard Prediction Using Advanced Numerical Modeling by Mohan Kumar Das (<i>National Oceanographic And Maritime Institute, Bangladesh</i>)
	15:15-15:30	Simulation of Extreme Rainfall Events in Bangladesh using NWP Models by Md. Abul Kalam Mallik (<i>Bangladesh Meteorological Department, Bangladesh</i>)
	15:30-15:45	Numerical Modeling of Lightning Potential Index and Optimal Threshold of Thunderstorm Indices Lightning Events over India Using WRF by Subrat Kumar Panda (<i>Central University of Rajasthan, India</i>)
15:45-16:00	Novel Aspects of Complex Granular Slides and Flow-Obstacle-Interaction with Mathematical Model by Parameshwori Kattel (<i>Tribhuvan University, Nepal</i>)	
16:00-16:15	Application of Hydrometeorological Approach for Simulation of Extreme Rainfall Events and Streamflow over Mahi River Basin In India by Devesh Sharma (<i>Central University of Rajasthan, India</i>)	
Room: Tamor Hall		
15:00-16:15	Session 2B: Hydrometeorological hazards	
	Chair: Md. Shahjahan Mondal	
	Co-chair: Tomonori Sato	
	15:00-15:15	Insights of Summer Monsoon Season over Northeast India by Prolay Saha (<i>Cotton University, India</i>)
	15:15-15:30	Winter precipitation in Nepal its teleconnection with Global Climatic Index by Binod Dawadi (<i>Tribhuvan University, Nepal</i>)
	15:30-15:45	A Remote Impact of Indian Monsoon Heating to East Asian Summer Monsoon Within Intraseasonal Timescale by Tomonori Sato (<i>Japan Agency for Marine-Earth Science and Technology</i>)
15:45-16:00	Control of low-level wind on the diurnal cycle of tropical coastal precipitation by Shunsuke Aoki (<i>Kyoto University, Japan</i>)	
16:00-16:15	Glaciers monitoring in the Himalayas -Changes in glacier regime associated with debris-cover and proglacial lake evolution by Yota Sato (<i>Japan Agency for Marine-Earth Science and Technology, Japan</i>)	

Room: Sanima Hall		
16:15-17:00	Session 3A: Early Warning of Mega-Geo Hazards	
	Chair: Rajesh Kumar	
	Co-chair: Suresh Marahatta	
	16:15-16:30	Development of a Machine Learning Model for Predicting River Water Levels Using Effective Rainfall and Proposal for a Method to Assess the Remaining Capacity of Piers Subjected to Local Scour by Shin'ichiro Okazaki (<i>Kagawa University, Japan</i>) - Online
	16:30-16:45	Can we predict forest fires in Nepal? by Binod Pokharel (<i>Tribhuvan University, Nepal</i>)
16:45-17:00	Climate Change: A threat multiplier to national and global security By Shrijan Bahadur Malla (<i>NDRRMA, Nepal</i>)	
Room: Tamor Hall		
16:15-17:25	Session 3B: Socio-economic Impacts of Mega-Geo-Disasters	
	Chair: Bhim Dhoj Shrestha	
	Co-chair: Jiban Mani Poudel	
	16:15-16:30	Unveiling the Unseen: An Analysis of Loss and Damage from Geo Hazards on Bakarwal Pastoralists in the Pir Panjal Range by Priya Rajput (<i>Central University of Rajasthan, India</i>)
	16:30-16:45	Living with Uncertainty in the Himalayas: Climate change, Market and Governance by Binod Pokharel (<i>Tribhuvan University, Nepal</i>)
	16:45-17:00	Cultural Mapping of Climate change in Dolpa by Yojan Basnet (<i>Tribhuvan University, Nepal</i>)
	17:00-17:15	Living with flood: An ethnographic study from Koshi river basin by Raja Ramchandra Timilsina (<i>Tribhuvan University, Nepal</i>)
17:15-17:25	Infotainment session by Lakpa Lama (<i>Tribhuvan University, Nepal</i>)	
Day 2 End		