

7th Global Summit of G A D R I

21-23 July 2025

Converging Disaster Research and Stakeholder-Engagement for Resilience



Venue

Center for Risk-based Community Resilience Planning, Colorado State University Fort Collins, USA

Table of Contents



Concept Note	3
Program—Day 1	4
Program—Day 2	<u>6</u>
Program—Day 3	8
Message from the Organizers	
Day 1—21 July 2025	<u>11</u>
Speakers at the Opening Ceremony	
Plenary Session I	14
Panel Discussion Session I	
Priority Area 1—Understanding disaster risk	
Priority Area 2—Strengthening disaster risk governance to manage disaster risk	17
Priority Area 3—Investing in disaster risk reduction for resilience	
Priority Area 4—Enhancing disaster preparedness for effective response and to "Build Back Better"	19
Poster Presentations	21
Seed and needs—Networking with Institutes	22
Oral Presentations on Advancing Global Disaster Risk Reduction and Resilience	23
Day 2—22 July 2025	24
Plenary Session II: Engagement, partnerships, communication, and resulting policy	25
GADRI Regional Alliances	27
Current Status Report from GADRI Committees	27
Plenary Session III: Understanding the need for fundamental research, and	
focus on advances in disciplinary and transdisciplinary research	

Panel Discussion Session II: Understanding and improving the relationship	
between science and technology, policy, and community	<u> 30</u>
Convergence approaches in research and implementation	<u> 30</u>
Focus on engagement, partnerships, communications, and resulting policies	<u> 31</u>
Understanding the need for fundamental research, and focus on advances in disciplinary and transdisciplinary research	32
Day 3—23 July 2025	33
Oral Presentations on Advancing Global Disaster Risk Reduction and Resilience	33
Wrap-up and closing session and the 4th General Assembly of GADRI	35
Members of the Board of Directors of GADRI	36
Geographical Distribution of GADRI	37
Floor Layout, Lory Student Center	<u> 38</u>
2	

Concept of the 7th Global Summit of GADRI



The 7th Global Summit of GADRI under the theme of Converging Disaster Research and Stakeholder-Engagement for Resilience will be organized by the Center for Risk-Based Community Resilience Planning, Colorado State University, USA; the Disaster Prevention Research Institute (DPRI), Kyoto University; and the Global Alliance of Disaster Research Institutes (GADRI).

Objective:

Communities, regions, and countries across the globe continue to struggle with natural and anthropogenic hazards with certain vulnerable populations often disproportionately affected, and struggle to recover following moderate to severe events. The science and technology behind community and regional resilience has been developing for several decades with the most progress made over the last decade, but there is still a significant gap between that science and related research, and its implementation into policy to have positive effects on communities.

ensure intergenerational risk equity and equitable risk transfer; and therefore there is key involvement and leadership by younger hazards and disaster researchers throughout the program. Ultimately, how do we take good resilience science, create policy, and then get solutions and decision-support into the hands of stakeholders and decision-makers at community, regional, and national levels.

We know, regardless of county, the engagement of stakeholders early in the process is key since the mathematically optimal solution for communities is often impractical from a social, political, and economic standpoint. This, in turn, necessitates a convergence approach - focusing on disciplines and methodologies - to facilitate implementation of research for improving resilience of communities. The 7th Global Summit will have three subthemes with each being a track for the parallel sessions following plenary sessions each morning.

Subtheme 1 - Focuses on convergence approaches in research and implementation including methodological convergence such as combining field studies with experimental tests or numerical analysis and extending to disciplinary convergence which brings together key disciplines to collaborate to solve a problem that cannot be solved by one discipline alone. Essentially, beginning with the motivation for such novel approaches to solve disaster risk reduction challenges and solve real problems.

Focus and Themes:

The Seventh Global Summit of the Global Alliance of Disaster Research Institutes (GADRI) will take place at Colorado State University in Fort Collins, Colorado, with the Center for Riskbased Community Resilience Planning serving as host in collaboration with the Disaster Prevention Research Institute from Kyoto University. The focus of this 7th Global Summit is on understanding and improving the relationship between science and technology, policy, and community in the context of the elements of the UNDRR Sendai Framework for Disaster Risk Reduction and the UNCC Paris Agreement, with both at their approximate midpoints. GADRI recognizes the disproportionate effects of past decisions on future generations, and therefore a focus on gender equity, youth equity, and how we as disaster research institutes can provide science and methods to help

Subtheme 2 - Focuses on engagement, partnerships, communication, and resulting policy; underscoring the fact that stakeholder engagement is critical to implementing research and turning it into policy to ensure communities don't just survive but thrive.

Subtheme 3 - Underscores the need for fundamental research and focuses on advances in disciplinary and transdisciplinary research for natural hazards, cascading hazards, the resulting disasters, and models to reduce adverse impacts.

Program

DAY 1-21 JULY 2025

MC: Prof. John van de Lindt and Ms. Connie Hale

9:00	Registratio	n <u>Venue: Ballroom C</u>	
	Opening Ce	-	MC: Prof. Norio Maki and Prof. Jamie Kruse
9:30-11:00	 University Welcome Act Greetings, P Video Messa Reduction, U Greetings, P Loss Reducti Overview of General, GAI 	rof. John van de Lindt, Co-Director, Center dress, Prof. Marion K. Underwood, Provos rof. Tomoharu Hori, Director, Disaster Prev ge Greetings, Mr. Kamal Kishore, UN Spe hited Nations Office for Disaster Risk Redu rof. Paul Kovacs, Chair of the Board of Dire on (ICLR), Western University, Canada GADRI Activities; and Structure of the 7 DRI; and Professor, DPRI, Kyoto University	ectors of GADRI; and Executive Director, Institute for Catastrophic th Global Summit of GADRI, Prof. Hirokazu Tatano, Secretary-
	Group Photog	raph	
11:00-11:30		Coffe	e Break
	Plenary Ses	sion I <u>Venue: Ballroom C</u>	
	(including method extending to disc solved by one dis	plinary convergence which brings together	on eld studies with experimental tests or numerical analysis and key disciplines to collaborate to solve a problem that cannot be
11:30- 12:30	Keynote 1	- .	Sendai Framework for Disaster Risk Reduction – outcome m for Disaster Risk Reduction, Dr. Yuki Matsuoka, Head,

	Keynote 2 Keynote 3	Advancing Community and Regional Resilience: Addressing Infrastructure Impacts on Societal Recovery and Stability, Prof. Therese (Terri) McAllister, Deputy Chief, Materials and Structural Systems Division, National Institute of Standards and Technology (NIST), USA Global Earthquake Disaster Assessments and Reconstruction, Dr. H. Kit Miyamoto, CEO and Lead
	Reynole 3	Structural Engineer, Miyamoto International, USA
12:30-13:30	Lu	Lunch Break - Venue: Ballroom D Inch with keynote speakers - sign-up required - Venue: LSC 304, LSC 308, and LSC 312

Panel Discussion Session I

Progress and challenges for the final years of implementation of the Sendai Framework in several or more countries (Participants are required to select a panel discussion session.)

		Priority Area 2:		Priority 4: Enhancing
		Strengthening disaster	Priority Area 3: Investing in	disaster preparedness
	Priority Area I:		disaster risk reduction for	for effective response
	Understanding disaster risk:	risk governance to		and to "Build Back
	Marginalized Voices in Risk	manage disaster risk:	resilience: Exploring strategies for	Better": From "Every
	Assessment and Response	Evidence-based Policy	strengthening global DRR efforts	-
	Venue: LSC306	Making in Disaster Risk	through enhanced networking and	Day Counts" to Lasting
	Vende. 200000	Reduction Venue:	collaboration Venue: LSC322	Resilience
		LSC310		Venue: LSC324
	Chair: Dr. Roger Baars,	Chair: Prof. Yuichi Ono,	Chair: Prof. Hirokazu Tatano,	Chair: Prof. Kaushal
	Graduate School of Global	IRIDeS, Tohoku	GADRI; DPRI, Kyoto University,	Keraminiyage,
	Environmental Studies	University, Japan	Japan	University of Salford, UK
	(GSGES), Kyoto University,	Panelists:	Co-Chair: Prof. Katarina Holla,	Co-Chair: Prof. Paul
	Japan	ranensis.	University of Zilina, Slovakia	Kovacs, GADRI; and
	Panelists:	 Prof. Andrew Collins, 	Panelists:	ICLR, Canada
	Fallensis.	DDN, Northumbria	Strongthoning Deciliones with	Panelists:
	 Indigenous people's risk 	University Newcastle,	Strengthening Resilience with	Draf David Kausaa
	perception. Using	United Kingdon	Risk Financing: Analyzing the	Prof. Paul Kovacs
13:30-	participatory rural	 Governance and 	Impact on Disaster Recovery and	Prof. Michinori
15:00	appraisal methods to	Emergency	Mitigation, Prof. Kakuya	Hatayama, DPRI,
	evaluate hazard risks,	Management for the	Matsushima, Kyoto University,	Kyoto University,
	Prof. Peter Sammonds,	Public Good, Prof. Lori	Japan	Japan
	University College London,	Peek, Director, NHC,	 DCNA Science Plan 2030+: 	Disaster Recovery to
	United Kingdom	University of Colorado	Shaping the Future of Disaster	Resilience, Prof. Md
	Community participation	Boulder, USA	Risk Reduction in Austria,	Munsur Rahman,
	Community participation	Boulder, USA	Dr. Christian Resch, Disaster	,
	in post-wildfire recovery:	 Prof. Kaoru Takara, 	Competence Network Austria	IWFM, Bangladesh
	Insights from a couple of	President, National	·	University of
	Chilean cases, Dr.	Research Institute for	Translating DRM knowledge and	Engineering and
	Marcelo González Galvez,	Earth Science and	partnerships into action at the	Technology (BUET),
	Pontificia Universidad	Disaster Resilience	World Bank - Introducing the	Bangladesh
	Catolica de Chile	(NIED), Japan	Japan – World Bank program for	Integrating Climate
	 Institutionalizing 		mainstreaming DRM in	Science into
	Disaster Risk Reduction	Informing Planning	developing countries (Tokyo	Building Back
	in Africa: Traditional	through Community	DRM Hub) , Dr. Keiko Saito, The	Better: Lessons from
	Knowledge and	Engagement and	World Bank, GFDRR, Tokyo,	Southern Africa,
	Traditional Leaders'	Modeling, Prof. John	Japan <mark>(ONLINE)</mark>	Prof. Desmond
	Role, Dr. Julia Munsaka,	van de Lindt, Colorado	 Expanding the Range of Benefits 	Manatsa, Bindura
	Colorado State University,	State University, USA	of Disaster Risk Reduction, Prof.	University of Science,
	USA		Adam Rose, Director Emeritus of	Zimbabwe
	00/1		USC's CREATE (ONLINE)	
15:00-				
15:00-		С	offee break	
15:15 -	Poster: and Seeds an	d needs Networking	with Institutions Sessions	
16:30	Chairs: Prof. Toshio Fujimi,	•	Venue: Ballroom D	
	Oral Presentations Ad	lvancing Global Disa	ster Risk Reduction and Resi	lience
	Session A—Chair: Dr. Kit Mi	yamoto and Prof. Terri	Session B—Chair: Prof. Tetsuya Take	mi and Prof. Lori Peek

McAllister Venue: Longs Peak Venue: Theatre Room

Wind Resilience in Coastal Louisiana: A Social Equity Post-Event Functional Recovery and Decision • • Approach to Enhanced Building Code Practices, Rubayet Support through Hybrid Mechanics-Informed Model-Bin Mostafiz, Louisiana State University, USA Sensor Fusion, Milad Roohi, University of Nebraska-Lincoln, USA Social, Temporal and Spatial Risk Analysis of Lightning • 16:30-Fatalities in Bangladesh Using News Media Monitoring and 18:00 Development and Application of a tool towards GIS Techniques, Juel Mia, Texas State University, USA Assessing the Feasibility of Permeable Pavement as one of the significant Flood Management Evaluation of DRR researcher's work beyond publication, • Strategy, Mark M. Morales, and Dina Magnaye, Yuichi Ono, IRIDeS, Tohoku University, Japan Philippines Austrian Science Plan for Disaster Risk Reduction 2030+, • Cyclone disaster resilient community-based Christian Resch, Disaster Competence Network Austria housing and shelter plans- a proposal, Edris Alam, Rabdan Academy, Abu Dhabi 18:00-**Welcome Reception** Venue: Ballroom D MC: Prof. John van de Lindt 19:30

DAY 2-22 JULY 2025

Colorado Mountain Daylight Time

MC: Dr. Genta, Nakano

9:00-10:30	Group discussion session summary of outcomes and recommendations Panel Discussion Session I - Progress and challenges for the implementation of the Sendai Framework (in several or more countries) Chairs: Prof. Yuki Matsushi and Prof. Gretchen Kalonji Venue: Ballroom C Invited speakers from each group to summarize group discussion session outcomes within 5-8 minutes. Presentations by each group member Comments by the panelists Discussion/Comments by the audience				
10:30-11:00		Coffee break			
11:00-12:00	Plenary Session II Venue: Ballroom C Engagement, partnerships, communication, and resulting policy (underscoring the fact that stakeholder engagement is critical to implementing research and turning it into policy to ensure communities don't just survive but thrive.) Chair: Dr. Yuki Matsuoka and Prof. Michinori Hatayama Keynote 4 Catalyzing Resilience: Strengthening Global DRR Education & Action through Synergy, Prof. Saini Yang, Executive Director, International Center for Collaborative Research on Disaster Risk Reduction (ICCR-DRR), Beijing Normal University, China (ONLINE)				
11.00-12.00	Keynote 5	Participatory Convergence: Advancing Science and Reducing Risk Through Community Participation, Prof. Lori Peek, Director, Natural Hazards Center (NHC), Institute of Behavioral Science, University of Colorado Boulder, USA			
	Keynote 6	UNDRR/ISC Hazard Information Profiles Update 2025 , Prof. Virginia Murray, Head, Global Disaster Risk Reduction, UK Health Security Agency, United Kingdom			
	Keynote 7	Applied Academic Research to Prevent Wind Hazard from Becoming Disasters, Prof. Kishor Mehta, Emeritus P. W. Horn Professor, Department of Civil, Environmental and Construction Engineering, Texas Tech, USA			
12:00-13:00	Lunch	Lunch Break - Venue: Ballroom D with keynote speakers - sign-up required - Venue: LSC 304, LSC 308, and LSC 312			
	GADRI Regional Alliances Session - Introduction of Regional Alliances - Showcasing Collaboration and Research: Workflow and Opportunities Chair: Prof. Paul Kovacs, and Prof. Tetsuya Takemi <u>Venue: Ballroom C</u>				

13:00-15:00

- North American Alliance of Hazards and Disaster Research Institutes (NAAHDRI): Empowering Communities to Prevent Natural Hazards from Becoming Disasters Together - Prof. Grace Yan, Chair, NAAHDRI
- Latin American and the Caribbean Disaster Research Institutions (LACARDI) Dr. Rodrigo Cienfuegos, Director, CIGIDEN, and Associate Professor, Pontificia Universidad Católica, Chile
- African Alliance for Disaster Research Institutes (AADRI) Prof. Desmond Manatsa, President, AADRI; and Executive Dean, Faculty of Science and Engineering, Bindura University of Science, Zimbabwe
 - South Asia Alliance of Disaster Research Institutes (SAADRI) Prof. Mahua Mukherjee, Secretary-General, SAADRI; and Professor, IIT Roorkee, India
 - UK Alliance for Disaster Research (UKADR) Prof. Andrew Collins, Advisor, UKADR; and Disaster and Development Network, Northumbria University Newcastle, UK
 - **4th World Bosai Forum, March 2024-Outcomes and Recommendations** Prof. Yuichi Ono, Director, IRIDeS, Tohoku University, Japan

13:00-15:00	 Current Status Reports from GADRI Committees Networking with Institutions - Collection of World Databases - GADRI Member search, Prof. Katarina Holla, University of Zilina, Slovakia; and Dr. Toshio Fujimi, DPRI, Kyoto University, Japan 			
	Science and Technology Roadmap, Prof. Hirokazu TatanoInstitutional Capacity Building, Prof. Gretchen Kalonji, CBAS, China; and Prof. Desmond Manatsa, President, AADRI; and Dean, Bindura University of Science, Zimbabwe			
	Data and Inform	nation Sharing, Prof. A	Andrew Collins, DDN, Northumbria Universion	sity Newcastle, United Kingdom
	• Advocacy, Prof.	Paul Kovacs, Chair, B	oard of Directors of GADRI; and Executiv	e Director, ICLR, Canada
15:00—15:30			Coffee Break	
	Plenary Session	n III	Venue: Ballroom C	
	research for natural		esearch, and focus on advances in disc azards, the resulting disasters, and mo lirokazu Tatano	
15:30— 16:30	Keynote 8	• •	Research for Natural Hazards, Prof. Pete RDR), University College London, UK	er Sammonds, Department of Risk and
	Keynote 9	Dance in Harmony with the Twister: One Step Back and Two Steps Forward toward Tornado Resilience, Prof. Grace Yan, Department of Civil, Architectural and Environmental Engineering, Missouri University of Science and Technology, USA		
	Keynote 10 Risk Reduction Beyond Borders: Science-Based Policy and Community Resilience in Mexico, Mr. Enrique Guevara, General Director, National Disaster Prevention Center (CENAPRED), Federal Government of Mexico			-
	Panel Discussio	on Session II:		
	-		ship between science and technology, ndai Framework for Disaster Risk Redu	
	A: Convergence app research and implen Venue: LSC306		B: Focus on engagement, partnerships, communication, and resulting policies: Strengthening societal resilience for disasters: Strengthening societal resilience for disasters Venue: LSC310	C: Underscoring the need for fundamental research and focuses on advances in disciplinary and transdisciplinary research Venue: LSC322
	Chair: Prof. Lisa Wai University, Norfolk, V Panelists:	•	Chair: Prof. Kaushal Keraminiyage, University of Salford, UK	Chair: Prof. Elaina Sutley, University of Kansas, USA Panelists:
	The Value of Loc	esearch: Lessons	Co-Chair: Dr. Yuki Matsuoka, Head, UNDRR Kobe Office, Japan	 Dr. Ali Nejat, Texas Tech University
16:30-18:00	Correa, University Notre Dame, India	of Notre Dame,	 Panelists: A Kaleidoscope of Initiatives in Asia Pacific to navigate 	Lessons from the Field: Observing the Need to Advance Resilience Globally, Dr. Remy Lequesne, University
	to reduce the imp hazard , Prof. Delo Tech University, L	ong Zuo, Texas	dynamic Resilience-scapes and Unpredictable Risk, Prof. Mahua Mukherjee, Indian	of Kansas • Dr. Shiling Pei, Colorado

- USA
- Dr. Jong Sung Lee, National Center for Supercomputing Applications (NCSA), Univ. of Illinois at Urbana-Champaign, Illinois, USA
- From Hazards to Recovery: A Network-Based Lens on Community Resilience, Dr. Chia-Fu (Joey) Liu, University of Kansas, Lawrence, Kansas, USA
- Institute of Technology (IIT), Roorkee, India
- From Scenario Simulation to Policy Dialogue: Enhancing Inclusive Recovery through Evidence-Based Planning, Prof. Kenji Koshiyama, Kyoto University, Japan
- Prof. Jamie Kruse, Colorado State University, USA
- Prof. Virginia Murray, UKSA, UK

- School of Mines
- Disciplines Bridging and ٠ Supporting Teams: Leveraging the Natural Hazards Center and CONVERGE Facility to Interdisciplinary Advance Disaster Science, Dr. Jennifer Tobin, Natural Hazards Center, University of Colorado Boulder

9:00- 10:30		scussion Session II - A convergence approach – s – to facilitate implementation of research for <u>Venue: Ballroom C</u> • Comments by the panelists
10:30— 11:00		fee Break
11:00—	Parallel Oral Presentations Advancing Glob	al Disaster Risk Reduction and Resilience
12:00	Session A—Chair: Prof. Yoshihiro Ito, DPRI, Kyoto University, Japan; and Prof. Desmond Manatsa <u>Venue:</u>	Session B—Chair:Prof. Amit Dhiman, Head, Center of Excellence in Disaster Mitigation and Management, Indian Institute of Technology (IIT), Roorkee, India; and Prof. Gretchen KalonjiVenue: Longs Peak Room
	 International Frameworks and Local Realities: Land Use Planning and Disaster Risk Management in Rwanda, Shelley McMullen, University of Colorado Denver, USA 	Innovative Approaches to Disaster Awareness and Risk Reduction: The Role of Art, Technology, and Community Engagement in Chile, Rodrigo Cienfuegos, CIGIDEN, Chile
	• Enhancing Urban Resilience: Lessons learned from three pilot cities in disaster preparedness and response, Katarina Holla, University of Zilina, Slovakia	From Informality to Formality: Resilient Settlement Development Actions for Local Government-Unit Administered Resettled Communities in Highly Urbanized Cities of Metro Manila, Dina Magnaye, University of the
	 A data-driven risk-based design to support community resilience objectives through high- performing buildings, Mohsen Zaker Esteghamati, Utah State University, USA 	 Philippines Total water level prediction for military installation resilience, Jack Puleo, University of Delaware, USA
12:00-	Lunch Break - \	/enue: Ballroom D
13:00	Lunch with keynote speakers - sign-up req	uired - Venue: LSC 304, LSC 308, and LSC 312
13:00- 14:00	 Parallel Oral Presentations Advancing Glob Session A—Chair: Prof. Mehta Kishor; and Prof. Tomoharu Hori <u>Venue:</u> Integrating Local Knowledge and Environmental Simulation in Post-Disaster Recovery: A Convergent Framework for Vernacular Settlements, Qiushan Li, Sichuan University, China Use of Cyclone Classifier Model: A Next Generation Approach for Enhancing Community Resilience against Cyclonic Storm Surges, Munsur Rahman, BUET, Bangladesh Research on the Risk Formation Mechanism of Carbon Markets under Major Shocks, Xu Zhou, Beijing Institute of Technology, China 	 Session B—Chair: Dr. Roger Baars; and Prof. Grace Yan Venue: Longs Peak Room IN-CORE Studio: Visual Model Builder for Community Resilience, Jong Sung Lee, NCSA, University of Illinois, USA Earthquake and Tsunami Risk Assessment in Chilean coastal cities, Rosita Junneman, CIGIDEN, Chile Climate Change and Sustainable Development: A Community Approach in India, Jagbir Singh, University of Delhi, India
14:00 - 15:00	Wrap-up and Closing Session Chair: Paul Kovacs Venue: Ballroom C Presenters: John van de Lindt, Andrew Collins and Hirokazu Tatano Hirokazu Tatano	 Draft Resolution and the final outcomes Adoption of the Final Outcomes Closing Session
15:00 - 15:30	Cof	fee Break
	4th General Assembly of GADRI	
15:30— 17:00	4th Meeting of the GADRI General Assembly <u>Venue: Ballroom C</u> Registration - At least, one member from GADRI Member institutes to attend this session. Chairs: Paul Kovacs and Hirokazu Tatano	 Introduction of Members of the Board of Directors of GADRI Outcomes of the 7th Global Summit of GADRI; and member contributions Disaster and Risk Research: GADRI Book Series Venue for the 8th Global Summit of GADRI in March 2027 - DPRI, Kyoto University, Japan
17:00 - 19:00	Closing Reception MC: Prof. Hirokazu Tatano, Prof. John van de Lindt, and I 8	Dr. Toshio Fujimi Venue: Ballroom D

Sponsors, Supporters and Partners



Kyoto University, Kyoto, Japan



Disaster Prevention Research Institute (DPRI), Kyoto University, Uji Campus, Kyoto, Japan



Colorado State University Fort Collins Colorado, USA



Center of Excellence for Risk-Based Community Resilience Planning, Colorado State University, Fort Collins, USA



United Nations Office for Disaster Risk Reduction (UNDRR)



Institute for Catastrophic Loss and Reduction (ICLR), Western University, Ontario, Canada



Centre of Excellence in Disaster Mitigation and Management, Indian Institute of Technology (IIT) Roorkee, India



Stockholm Environment Institute (SEI), Sweden



South Asia Alliance of Disaster Research



Sendai Frame for Disaster risk Reduction

2015-2030



The World Bank, Tokyo Office, Japan



Institute of Geography, National Autonomous University of Mexico (UNAM), Mexico



International Research Institutes of Disaster Science, Tohoku University, Japan



Research Center for Disaster Resilience, University of Salford, Manchester, United Kingdom,



NIS

National Institute of Standards and Technology (NIST, USA



Disaster Research Center, University of Delaware



Asia Disaster Preparedness Center (ADPC), Thailand



African Alliance of Disaster Research Institutes (AADRI), Geography Department, Bindura University of Science, Zimbabwe



United Kingdom Alliance for Disaster

North American Alliance of Hazards and Natural Hazards Center (NHC), University Disaster Research Institutes (NAAHDRI)

Unidad Nacional para la Gestión del Riesgo de Desastres (UNGRD)



Graduate School of Global Environment Studies, Kyoto University, Japan



Disaster and Development Network (DDN), Department of Geography and Environmental Sciences, Northumbria University, Newcastle upon Tyne, United Kingdom





Institutes (SAADRI)

of Colorado-Boulder, USA

research



UCL





UK Health Security Agency (UKHSA), United Kingdom

Department of Risk and Disaster Reduction Miyamoto International Inc., USA (RDR), University College London, United Kingdom

9

International Research on Disaster Risk (IRDR), Beijing, China



MISSOURI





Texas Tech University, USA

Missouri University of Science and Technology, USA

National Disaster Prevention Center (CENAPRED), Mexico

University of Žilina, Slovakia

A Message from the Organizers



Prof. John van de Lindt, Host Institute and Co-Director, Center for Risk-based Community Resilience Planning, Colorado State University, Fort Collins, Colorado, USA



Prof. Paul Kovacs, Chair, Board of Directors of GADRI; and Executive Director, Institute for Catastrophic Los Reduction, Western University, Canada



Prof. Hirokazu Tatano, Secretary-General, GADRI; and Professor, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan

Welcome to the 7th Global Summit of GADRI!

We are pleased to welcome you to the 7th Global Summit of GADRI: Converging disaster research and stakeholderengagement for resilience hosted by the generous support of the Colorado State University, Fort Collins, Colorado, USA from 21 to 23 July 2025. This is the first time for GADRI to hold its Global Summits series outside of Japan. We are happy to see you all at the Lory Student Center, Colorado State University, Fort Collins.

The focus of the 7th Global Summit is on understanding and improving the relationship between science and technology, policy, and community in the context of the elements of the UNDRR Sendai Framework for Disaster Risk Reduction and the UNCCC Paris Agreement, with both at their approximate midpoints. Recognizing the disproportionate effects of past decisions on future generations, and considering how we as disaster research institutes can provide science and methods to help ensure intergenerational risk equity and equitable risk transfer, the 7th Global Summit of GADRI provides a platform to address and debate on these issues. The program has specifically encouraged involvement and leadership by younger hazards and disaster researchers.

Focus of the three sub-themes of the conference will be delivered by a carefully selected array of experts highlighting their experiences and advice.

Plenary session I: "Convergence approaches in research and implementation" including methodological convergence such as combining field studies with experimental tests or numerical analysis and extending to disciplinary convergence which brings together key disciplines to collaborate to solve a problem that cannot be solved by one discipline alone.

Plenary session II: "Engagement, partnerships, communication, and resulting policy" underscoring the fact that stakeholder engagement is critical to implementing research and turning it into policy to ensure communities don't just survive but thrive.

- Priority Area 1- Understanding disaster risk: Marginalized Voices in Risk Assessment and Response
- Priority Area 2 Strengthening disaster risk governance to manage disaster risk: Evidence-based Policy Making in Disaster Risk Reduction
- Priority Area 3 Investing in disaster risk reduction for resilience: Exploring strategies for strengthening global DRR efforts through enhanced networking and collaboration
- Priority Area 4 Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction: From "Every Day Counts" to Lasting Resilience

The three sub-themes of the summit will be discussed in Panel discussion session II under the theme of understanding and improving the relationship between science and technology, policy, and community in the context of the elements of the UNDRR Sendai Framework for Disaster Risk Reduction and the UNCCC Paris Agreement, with both at their approximate midpoints.

- Session A: Convergence approaches in research and implementation
- Session B: Focus on engagement, partnerships, communication, and resulting policies: Strengthening societal resilience for disasters
- Session C: Underscoring the need for fundamental research and focuses on advances in disciplinary and transdisciplinary research

Results of the discussion sessions will be shared the following day.

In order to encourage involvement and leadership by younger hazards and disaster researchers, we have incorporated oral and

Plenary session III: Underscoring the need for fundamental research, and focus on advances in disciplinary and transdisciplinary research for natural hazards, cascading hazards, the resulting disasters, and models to reduce adverse impacts

There will be two panel discussion sessions addressing the Priority Areas of the Sendai Framework Agenda; and a further debate on the three sub-themes of the conference:

Panel discussion session I on Progress and challenges for the final years of implementation of the Sendai Framework in several or more countries

poster presentations, and a seed and needs session with institutions.

We encourage you to participate in all sessions of the conference; share your valuable inputs and insights; endeavor to take good resilience science and practices, policies, and get solutions and decision-support into the hands of stakeholders and decisionmakers at community, regional, and national levels.

Enjoy the 7th Global Summit of the Global Alliance of Disaster Research Institutes (GADRI).

DAY 1: 21 JULY 2025

MC: CSU



9:00—Registration

- 9:30—11:00—Opening Ceremony
- 11:00—11:30—Coffee break
- 11:30—12:30—Plenary Session I—Convergence approaches and research and implementation
- 12:30—13:30—Lunch break—Lunch with speakers
- 13:30—15:00—Panel Discussion I—Progress and challenges for the final years of the Sendai Framework Agenda
- 15:00—15:15—Coffee break
- 15:15—16:30—Poster Session
 - —Seed and Needs Networking with Institutions
- 16:30—18:00—Oral presentations—Advancing Global Disaster Risk Reduction and Resilience
- 18:00—19:30—Welcome reception

Opening Ceremony Chaired by: Prof. Norio Maki and Prof. Jamie Kruse

Venue: Ballroom C

The morning will be devoted to the Opening Ceremony which will be attended by:

- Prof. John van de Lindt, Host, 7th Global Summit of GADRI
- Prof. Marion K. Underwood, Provost and Executive Vice President, Colorado State University, USA
- Prof. Tomoharu Hori, Director, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan
- Mayor, City of Fort Collins;

Video message by Mr. Kamal Kishore, Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction, and Head of the United Nations Office for Disaster Risk Reduction (UNDRR)

- Prof. Paul Kovacs, Chair, Board of Directors of GADRI
- Prof. Hirokazu Tatano, Secretary-General, GADRI; and Professor, DPRI, Kyoto University; and
- Dr. Genta Nakano, Associate Professor, DPRI, Kyoto University, Japan

The opening ceremony will be followed by a group photograph.



John van de Lindt, Professor, Harold H. Short Endowed Chair

Co-director, Center of Excellence (COE) for Risk-Based Community Resilience Planning, Colorado State University, Fort Collins, USA

John W. van de Lindt is the Harold H. Short Endowed Chair Professor in the Department of Civil and Environmental Engineering at Colorado State University. Over the last two decades, van de Lindt's research program has focused on performance-based engineering and test bed applications of buildings and other systems for earthquakes, hurricanes, tsunamis, tornadoes and floods. He has led data collection efforts following hurricanes, earthquakes, floods, and tornadoes with the most recent being the December 2021 Midwest tornado outbreak.

Professor van de Lindt is the Co-director for the National Institute of Standards and Technology-funded Center of Excellence (COE) for Risk-Based Community Resilience Planning headquartered at Colorado State University in its tenth year. A major portion of the COE is to develop a computational platform IN-CORE to enable communities to measure their resilience to natural hazards. He has published more than 450 technical articles and reports, including 250 journal articles. He currently serves on a number of journal editorial boards worldwide and is the Editor-in-Chief for the ASCE Journal of Structural Engineering.



Marion K. Underwood, Provost and Executive Vice President, Colorado State University, Fort Collins, USA

Provost and Executive Vice President Marion K. Underwood is Colorado State University's Chief Academic Officer and second in command within the University's administration under President

Amy Parsons. In addition to the Office of the Provost's broad scope of vice provost reporting areas and key student and faculty success initiatives, Dr. Underwood oversees the deans of all eight academic colleges, the Libraries, and Graduate School; the offices of the Vice President for Research and the Vice President for Student Affairs; and the Office of the Chair of the Faculty Council. Dr. Underwood joined CSU in 2024 from Purdue University, where she served as Dean of the College of Health and Human Sciences (HHS) and Distinguished Professor of Psychological Sciences. At Purdue, she led the college through a period of strong enrollment growth and increased student success, oversaw a research portfolio for the college of \$32 million during the 2021-22 academic year, collaborated with the University Senate to create a new winter term, and led a universitywide cluster hire in Public Health, Health Equity, and Health Policy to attract faculty members to enhance expertise in diversity.



Tomoharu Hori

Professor and Director

Disaster Prevention Research Institute, Kyoto University

He has published extensively, and widely contributed to national water resources policy through several academic and societal positions held as Auditor and Vice-President, Japan Society of Hydrology and Water Resources; Director, Japan Society of Civil Engineering; and Public Works Evaluation and Monitoring Committee. Prof. Hori urges the society to integrate disaster preparedness into daily life, especially as climate change introduces new, unprecedented hazards. Prof. Hori has earned numerous accolades and the most recent is an Outstanding Discussion Award from the Committee on Hydraulic Engineering, Japan Society of Civil Engineering.

Tomoharu Hori is a distinguished leading expert in

the field of hydrology and water resources engineering. A graduate of Kyoto University with a PhD in Engineering, he was appointed as the Director of the Disaster Prevention Research Institute (DPRI), Kyoto University in April 2024. Prior to the appointment at DPRI, Prof. Hori has held key academic positions within the civil and environmental engineering departments of Kyoto University.



Kamal Kishor, Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction, and Head, United Nations Office for Disaster Risk Reduction (UNDRR), Geneva, Switzerland

Mr. Kishore brings to this position nearly three decades of experience in disaster risk reduction, climate action and sustainable development at the global, regional, national and local levels, having worked in government, the United Nations and civil society organizations. Prior to joining UNDRR, Mr. Kishore was the Head of Department of the National Disaster Management Authority of India, where he led the G20 Working Group on Disaster Risk Reduction and contributed to the development of the Coalition for Disaster Resilient Infrastructure. Mr. Kishore spent nearly thirteen years with the United Nations Development Programme (UNDP) in New York, Geneva, and New Delhi where he contributed to advancing policy and supported post-disaster recovery in Bangladesh, Iran, Maldives, Myanmar, Pakistan, the Philippines, and Sri Lanka.



Paul Kovacs, Chair, Board of Directors of GADRI; and Executive Director, Institute for Catastrophic Loss Reduction, Western University, Canada

Professor Paul Kovacs is founder and Executive Director of the Institute for Catastrophic Loss Reduction at Western University. Since 1996 Paul has been a contributing author to the Intergovernmental Panel on Climate Change (IPCC), the world's leading forum for the study of climate issues. The Panel won the 2007 Nobel Peace Prize "for their efforts to build up and disseminate greater knowledge about man-made climate change". He is Canada's leading authority on insurance and climate change and has been a contributing author to numerous international and Canadian reports on reducing the risk of loss from earthquakes, flood and severe wind.



Hirokazu Tatano, Secretary-General, GADRI; and Professor, Kyoto University, Japan

Professor Hirokazu Tatano is a renowned scholar in disaster risk management, economic

impact analysis of infrastructure and disasters. He currently serves as Professor and Head of the Research Centre for Climate Change Adaptation Strategy, Disaster Prevention Research Institute (DPRI), Kyoto University; and is Secretary-General of the Global Alliance of Disaster Research Institutes (GADRI) which is hosted by DPRI, Kyoto University since March 2015. He has over 150 peer-reviewed papers, 20 books, and more than 100 conference papers to his credit. His recent research focuses on the societal impacts of critical infrastructure damages, disaster risk management, and climate change adaptation strategies. As an alumnus of the Kyoto University, Prof. Tatano completed his Ph.D. in Engineering. He holds several academic positions as Vice-President of the International Society of Integrated Disaster Risk Management (IDRiM Society), President of the Japan Society for Natural Disaster Science; Japan Society for Civil Engineers and many others. His outstanding contributions have earned him several prestigious awards, including the Sir Richard Stone Prize of the International Input-Output Association, and IDRiM Society Distinguished Research Award.



Genta Nakano, Associate Professor, Kyoto University, Japan

Dr. Genta Nakano is an Associate Professor at the Disaster Prevention Research Institute (DPRI), Kyoto University from which he also graduated with a Ph.D. in informatics. Prior to joining Kyoto University in 2019, he has worked for nearly three years, on community-based disaster risk management and disaster risk reduction policy in El Salvador as a JICA project formulation advisor as well as at the Japan Overseas Cooperation Volunteers. Dr. Nakano specializes in action research on disaster risk reduction education and community-based disaster risk management. His primary research fields are in Kochi Prefecture in Japan, Nepal, and Mexico. His goal is to motivate community members to take an active role in disaster risk reduction, and engage in practicebased research in collaboration with local schools and governments.

Plenary Session I: Convergence Approaches in Research and Implementation

The first plenary session will be on sub-theme one which focuses on convergence approaches in research and implementation including methodological convergence such as combining field studies with experimental tests or numerical analysis and extending to disciplinary convergence which brings together key disciplines to collaborate to solve a problem that cannot be solved by one discipline alone. Essentially, beginning with the motivation for such novel approaches to solve disaster risk reduction challenges and solve real problems.

Keynote Speakers

Accelerating the Implementation of the Sendai Framework for Disaster Risk Reduction – Outcome of the 8th Session of the Global Platform for Disaster Risk Reduction

Abstract:

The eighth session of the Global Platform for Disaster Risk Reduction took place from 2 to 6 June 2025 in Geneva, Switzerland. The Global Platform, organized under the theme of "Everyday Counts, Act for Resilience Today," sought to rally governments and stakeholders to accelerate the implementation of the Sendai Framework in the remaining five years until 2030.

Successes over the last ten years in the implementation of the Sendai Framework are a cause for optimism, especially as local actors and communities are inspiring the world with examples of how they are managing risks. As the cost of disasters increases and international assistance dwindles, urgent, more concrete actions are needed in the next five years to sustain progress towards achieving the expected outcome and goal of the Sendai Framework by 2030, thereby contributing to meeting the goals of the 2030 Agenda, and post-2030 considerations.

This presentation will share the outcome of the Global Platform including "the Geneva Call for Disaster Risk Reduction" and will urge participating science and technology stakeholders to further contribute to accelerating the implementation of the Sendai Framework towards 2030.



Yuki Matsuoka, Head, United Nations Office for Disaster Risk Reduction (UNDRR), Kobe Office, Japan

Dr. Matsuoka joined the UNDRR Headquarters (Geneva) in 2004 as a Programme Officer, and then served as Special Assistant to Director, before

assuming the current position. She was engaged in the overall coordination of the Second UN World Conference on Disaster Reduction (January 2005 in Kobe) and the Third UN World Conference on Disaster Risk Reduction (March 2015 in Sendai), including the processes to develop the Hyogo Framework for Action 2005-2015 and the Sendai Framework for Disaster Risk Reduction 2015-2030. Prior to joining UNDRR, she worked as Special Adviser of the Ministry of Foreign Affairs of Japan (at the Permanent Mission of Japan to the International Organizations in Geneva). In cooperation with stakeholders around the world, she has been working on promoting the implementation of Sendai Framework. She holds a PhD in Global Environmental Studies.

Advancing Community and Regional Resilience: Addressing Infrastructure Impacts on Societal Recovery and Stability

Abstract:

Community and regional resilience provide a path to reduce the societal consequences that are occurring too frequently by addressing the intersection of engineering, social science, economics, and other disciplines to improve how communities prepare for, resist, respond to, and recover from hazard events. Buildings and infrastructure systems play a critical role in assuring the resilience of communities through their performance and impacts on societal and economic functions. While the adoption and enforcement of codes and standards are necessary, they may not be sufficient to achieve resilience goals. Additionally, current building and infrastructure standards address historical, stationary hazards. Looking forward, design methods need to address future nonstationary variations in temperatures, sea level elevations, precipitation, floods, and wind events. Future hazard events and conditions can lead to a greater likelihood of damage to the built environment, increased social and economic losses, and reduced public safety. Motivations, progress, and challenges for resilience planning and execution will be considered, including approaches for assessments (frameworks, analysis tools, field studies) and decision making.



Therese (Terri) McAlister

Deputy Chief, Materials and Structural Systems Division | Research Structural Engineer, Community Resilience Group, National Institute of Standards and Technology (NIST), USA

Dr. Therese McAllister is the Deputy Chief of the Materials and Structural Systems Division and a Research Structural Engineer in the Community Resilience Group of the Engineering Laboratory (EL) at the National Institute of Standards and Technology (NIST). She is also the Technical Point of Contact for the NIST-funded Center of Excellence, Center for Risk-Based Community Resilience Planning, led by Colorado State University. Dr. McAllister conducts research on community resilience, with a focus on the integrated performance of physical infrastructure systems and social and economic systems, and future hazards and conditions. She has expertise in structural reliability, risk assessment, and failure analysis of buildings and infrastructure systems. She conducted detailed studies of the WTC disaster, Hurricane Katrina flooding in New Orleans, and Hurricane Sandy flood effects on infrastructure systems. She received the 2021 ASCE Walter P Moore, Jr award and 2018 ASCE Ernest E Howard Award for her research on structural codes, standards and resilience.

Venue: Ballroom C

Global Earthquake Disaster Assessments and Reconstructions

Abstract:

This session covers global earthquake disaster response and reconstruction efforts, focusing on case studies from Turkey, Afghanistan, and the impacts on Bangkok following the 2025 Myanmar earthquake. It examines the devastating 2023 Turkey earthquakes, which caused massive human and economic losses, emphasizing vulnerabilities stemming from dangerous construction practices. It highlights rapid shelter solutions and sustainable rebuilding efforts in Afghanistan after the 2022 earthquake, showcasing the resilience and effectiveness of vernacular construction. The session also projects the effects of the 2025 Myanmar earthquake, particularly its threat to Bangkok's high-rise built environment, and outlines urgent next steps for risk reduction through innovative technologies and financial strategies to restore investment confidence.



H. Kit Miyamoto, Chief Executive Officer, Miyamoto International, California, USA

Dr. H. Kit Miyamoto is CEO and Lead Structural Engineer of Miyamoto International, a California-based global engineering and disaster management firm with 30 offices across five continents. He

leads with a mission: to make the world a safer, better place. A world-renowned expert in disaster resilience, response, and reconstruction, Dr. Miyamoto is also the foremost expert in the use of seismic energy dissipators to reduce earthquake damage. He has led major recovery efforts around the globe-including the 2010 Haiti earthquake, where he directed damage assessments for over 400,000 buildings and supported the repair of more than 10,000 homes, and the 2025 Los Angeles fires, where he is leading reconstruction efforts. He advises the World Bank, United Nations, national governments, and global corporations, and serves as a California Seismic Safety Commissioner. Dr. Miyamoto holds advanced degrees from the Tokyo Institute of Technology and California State University, where he was named a Distinguished Alumnus. He is a recipient of Engineering News-*Record*'s (ENR) Award of Excellence and the U.S. Presidential "E" Award. His team has earned ENR's Best Global Project award five times. His work has been featured by CNN, CBS, NBC, ABC, AI Jazeera, LA Times, NY Times, and Rolling Stone, and showcased in the National Building Museum's Designing for Disaster exhibit in Washington, D.C.

Panel Discussion Session I: Progress and Challenges for the Final Years of Implementation of the Sendai Framework Agenda



The focus of this panel will be on progress and challenges for the implementation of the Sendai Framework in several or more countries and will focus on the Four Priority Areas of the Sendai Framework Agenda. Held in parallel, the sessions in the form of a four to six-person panel discussion will take place with targeted moderator questions followed by audience Q&A.

- Priority Area 1—Understanding disaster risk: Marginalized Voices in Risk Assessment and Response
- Priority Area 2—Strengthening disaster risk governance to manage disaster risk—Evidence-based Policymaking in DRR
- Priority Area 3—Investing in disaster risk reduction for resilience; Exploring strategies for strengthening global DRR efforts through enhanced networking and collaboration
- Priority Area 4—Enhancing disaster preparedness for effective response and to "Build Back Better"- From Every Day Counts to Lasting Resilience

Priority Area 1—Understanding Disaster Risk: Marginalized Voices in Risk Assessment and Response Session Chair: Dr. Roger Baars, Graduate School of Global Environmental Studies, Kyoto University, Japan

Venue: LSC306

Purpose and objective

This panel explores how disaster risk understandings remain incomplete without centering marginalized voices-Indigenous communities, ethnic minorities, women, and youth-who often face disproportionate disaster impacts yet possess invaluable knowledge and adaptive capacities. The discussion will showcase how, often marginalized voices in DRR, can offer new and valuable insights into disaster risks and adaptive capacities by exploring various examples of research the panelists have been / are involved in.

The objective of this panel is to initiate a wider debate on more inclusive disaster risk frameworks by demonstrating how incorporating marginalized voices enhances community resilience, improves risk assessment accuracy, and creates more equitable disaster preparedness and response strategies overall.

Topics to be discussed:

- Traditional and Indigenous Knowledge Systems How ancestral environmental knowledge and early warning systems can complement scientific risk assessments
- Gendered Disaster Impacts and Women's Leadership -Examining differential vulnerabilities while recognizing women's roles as community resilience builders and decisionmakers
- Youth as Change Agents Leveraging young people's climate activism, technological fluency, and intergenerational perspectives in disaster preparedness
- Intersectionality in Disaster Vulnerability Understanding how overlapping identities (ethnic minority women, Indigenous youth, etc.) create compound risks requiring tailored approaches
- Power Dynamics and Institutional Barriers Analyzing how current governance structures exclude marginalized voices and perpetuate inequitable disaster responses
- Community-Led Risk Assessment Methods Showcasing participatory approaches that center local knowledge and community-defined priorities
- Economic Marginalization and Disaster Recovery Exploring how poverty, informal employment, and limited asset ownership affect disaster resilience and recovery outcomes

Key questions to be addressed:

- How do we move from viewing marginalized communities as "vulnerable populations" to recognizing them as expert knowledge holders in disaster risk management?
- What does meaningful participation look like beyond consultation, and how do we measure authentic inclusion versus tokenism?
- Which institutional structures and decision-making processes • systematically exclude marginalized voices, and what would transformed governance look like?
- How do intersecting identities create unique disaster vulnerabilities that traditional risk assessments miss?
- How can traditional knowledge systems and scientific approaches be integrated as equal partners rather than hierarchical supplements?
- What are the practical barriers preventing communities from leading their own risk assessments, and how can these be dismantled?
- How might centering marginalized perspectives fundamentally change how we define and measure disaster resilience?
- What would disaster risk reduction look like if it were designed by and for the communities most affected by disasters?

Expected Outcomes/recommendations:

The panel will give examples and identify possible pathways for meaningful inclusion, of marginalized voices, moving beyond tokenistic consultation toward collaborative partnerships that recognize diverse expertise. The discussion, thus, aims to illustrate potential starting points for more inclusive disaster risk reduction strategies that enhance both community resilience and the accuracy of risk management strategies.

Session Chair:



Roger C. Baars, Junior Associate Professor, Graduate School of Global Environmental Studies, Kyoto University, Japan

Roger C. Baars is a Jun. Assoc. Prof. at the Graduate School of Global Environmental Studies, Kyoto University, Japan. His interdisciplinary research investigates the relationships between theories of social change and transformative teaching and

Panelists:



 Indigenous people's risk perception. Using participatory rural appraisal methods to evaluate hazard risks, Prof. Peter Sammonds, University College London

Prof. Sammonds works at the interface of natural and social sciences. His research and knowledge exchange are on natural hazard risks, disasters and recovery. He has worked on earthquake mechanics, volcanoes and ice physics in the Arctic. He works on research council, British Academy and Royal Society-funded projects on Increasing Resilience to Environmental Hazards in Border Conflict Zones and Resilience Futures for the Rohingya Refugees. He has advised the UK research councils on the increasing resilience to natural hazards programme; been a member of EEFIT Earthquake Engineering Field Investigation teams, contributing to inter-disciplinary reports on disaster, taken up widely by government for policy advice; and been a Commissioner on the UCL-Lancet Commission on Migration and Health, 2017–18, whose report has been influential. He is currently the Gender and Intersectionality Ambassador for the UKRI network+ GRRIPP project led by the IRDR Centre for Gender and Disaster.



Community participation in post-wildfire recovery: Insights from a couple of Chilean cases, Dr. Marcelo González Galvez, Pontificia Universidad Catolica de Chile

Marcelo Gonzalez Galvez holds a PhD in anthropology from the University of Edinburgh, is an associate professor at the School of Anthropology at Pontificia Universidad Católica de Chile, an associate researcher at the Research Center for Integrated Disaster Risk Management, and a principal researcher at Anillos Center Culture and Climate Crisis. Currently, his research focuses on how local knowledge and community participation are taken into account, considering the various scales and learning, particularly as they relate to social orders, values, and practices. His research agenda is organised along the three interrelated themes of disaster preparedness, climate change education, and sustainable lifestyles and examines the complex processes of societal reproduction and transformation.



Institutionalizing Disaster Risk Reduction in Africa: Traditional Knowledge and Traditional Leaders' Role, Dr. Julia Munsaka, Colorado State University, USA

Julia is a PhD candidate in Political Science and Environmental Policy at Colorado State University. Her research explores the role of traditional leaders and indigenous knowledge in environmental governance, disaster risk reduction, and climate resilience. She aims to bridge the gap between local leadership, scientific research, and policy to promote inclusive, sustainable solutions to climate challenges.

temporalities involved in the notion of wildfire risk.

Abstract:

This presentation explores community participation in postwildfire recovery through two Chilean cases: the 2017 Santa Olga fire and the 2024 Quilpué fire. It examines how local knowledge, governance dynamics, and grassroots initiatives shaped recovery processes, offering insights into challenges and possibilities for inclusive disaster risk governance in wildfire-prone contexts.

Priority Area 2—Strengthening disaster risk governance to manage disaster risk—Evidence-based Policymaking in DRR

Session Chair: Prof. Yuichi Ono, IRIDeS, Tohoku University, Japan

Venue: LSC310

Purpose and objective

The purpose of this discussion session is to foster a deeper understanding of the critical role that effective disaster risk governance plays in reducing vulnerabilities, managing hazards, and enhancing resilience across all sectors of society. As the frequency and intensity of disasters increase due to climate change, urbanization, and environmental degradation, there is an urgent need to ensure that governance systems are robust, inclusive, and adaptive. The session will focus on three key issues in evidence-based policy making in disaster risk reduction. Good practices and challenges will be discussed, providing a way forward for further progress in implementation, particularly in terms of integrating scientific and technical findings into disaster risk reduction policy.

Topics to be discussed:

1. Data Gaps and Inconsistencies

Challenge: Reliable, timely, and disaggregated data on disaster impacts, vulnerabilities, and risk drivers are often lacking—especially in low-resource or disaster-prone areas.

Implication: Without accurate data, risk assessments are incomplete, and policies may be based on assumptions or outdated information.

2. Limited Integration of Science into Policy

Challenge: Scientific research and technological tools (e.g., risk modeling, climate projections) are not always translated into actionable policies or are underutilized by policymakers.

Implication: Disconnect between researchers and policymakers can result in missed opportunities to reduce risk through early warning systems, urban planning, or resilient infrastructure.

3. Political and Institutional Constraints

Challenge: Evidence-based recommendations may conflict with political agendas, short-term development goals, or bureaucratic inertia.

Implication: Even with strong evidence, DRR policies may be poorly implemented or deprioritized in favor of politically visible projects . Key questions to be addressed:

What are challenges and implications in evidence-based policy making in disaster risk reduction with concrete examples? What would be GADRI solutions for them?

Expected Outcomes/recommendations:

- GADRI institutions can address data gaps by conducting standardized, multi-hazard risk assessments and collecting disaggregated disaster loss and damage data. Their academic rigor ensures credibility, while international collaboration facilitates comparative studies and datasets that inform national and local policy decisions.
- GADRI members can actively engage in science-policy dialogues by translating complex research findings into accessible, actionable policy briefs. Participating in policy forums, providing expert advice, and co-developing solutions with decision-makers enhance the practical use of scientific evidence in DRR planning.
- Through workshops, joint projects, and academic programs, GADRI members can train government officials, practitioners, and community leaders in evidence-based DRR approaches. This strengthens institutional understanding and application of scientific tools such as risk modeling, early warning systems, and climate adaptation strategies.
- GADRI institutions often work with local communities and can integrate indigenous knowledge and local observations into scientific research. This contributes to more contextsensitive and socially inclusive policies, which are critical for addressing vulnerabilities effectively.

Session Chair:



Yuichi Ono, Deputy Director and Professor, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Sendai, Japan

Yuichi Ono serves as Deputy Director and Professor, International Research Institute of

Disaster Science, Tohoku University, located in Sendai, Japan. He also serves as Director of the Global Centre for Disaster Statistics, a joint initiative with UNDP and Fujitsu to help monitoring of the

Panelists:



Andrew Collins, Emeritus Professor of Disaster and Development, Department of Geography / Disaster and Development Network (DDN), Northumbria University, United Kingdom

Andrew Collins is Emeritus Professor in Disaster and Development at the Department of Geography and Environmental Sciences. Beyond his Northumbria based roles, he represents integrated disaster, development, health and well-being related research initiatives internationally. He led the establishment of the world's first disaster management and sustainable development postgraduate programme launched in 2000 that remains highly active, and the Disaster and Development Network (DDN) launched 2004. Prior to academic appointments, Andrew also worked internationally including through voluntary support roles to civic organisations in times of conflict. He services his subject area through policy and advisory roles, reviewing and commissioning boards of national and international organisations, conference series, academic journals and support to funding bodies.



Governance and Emergency Management for the Public Good

Lori Peek, Director, Natural Hazards Center (NHC), Institute of Behavioral Science at the University of Colorado Boulder, USA

Lori Peek is director of the Natural Hazards Center and professor in the Department of Sociology at the University of Colorado Boulder. She wrote the award-winning book **Behind the** Backlash: Muslim Americans after 9/11, co-edited Displaced: <u>Life in the Katrina Diaspora</u> and the <u>Handbook of</u> Environmental Sociology, and co-authored Children of Katrina and The Continuing Storm. Peek has conducted field investigations in the aftermath of several major disasters and has testified before members of the U.S. Congress on the topic of Ensuring Equity in Disaster Preparedness, Response, and Recovery. She is the principal investigator for the National Science Foundation-funded <u>CONVERGE</u> facility, which is dedicated to improving research coordination and advancing the ethical conduct and scientific rigor of disaster research. Peek has committed her career to ensuring that research is applied to reduce the harm and suffering from disasters.

Sendai Targets which are linked with SDGs as well as a founder and CEO of the World Bosai Forum Foundation. Yuichi Ono, a specialist in climatology, wind-related disaster risk reduction, and international disaster risk reduction policy making, received his Ph.D. in Geography at Kent State University. While serving at UN organizations, his major achievements were to help draft the Hyogo Framework for Action in the parts of Early Warning System, develop and manage the ISDR Scientific and Technical Committee, develop the Indian Ocean Tsunami Early Warning System, and edit the Asia Pacific Disaster Reports.

Executive Director of the International Consortium on Landslides (ICL) and Chairperson of Japanese National Committee for International Water Resources Association (IWRA) among others. He received his B. Eng. (1979), M. Sc. (1981) and D. Eng. (1990) degrees from Kyoto University and his main research interests have been on hydrological analysis using advanced modeling of river basins and disaster risk governance. He is former Director of the Disaster Prevention Research Institute (DPRI) and Dean of Graduate School of Advanced Integrated Studies in Human Survivability (GSAIS) of Kyoto University. He published series of co-authored books, peer-reviewed papers in academic journals, and articles in annuals, journals and international conferences. He has significantly contributed to promoting international research activities through key initiatives including the UNESCO International Hydrological Programme (IHP), ICL and the Global Alliance of Disaster Research Institutes (GADRI). He had also taken central roles in the establishment of Japan-ASEAN Science, Technology and Innovation Platform (JASTIP) Disaster Prevention Program (WP4) and UNECO Chair on Water, Energy and Disaster Management for Sustainable Development (WENDI) at Kyoto University. As an educator, he has produced 48 doctoral students from Japan, Asia-Pacific countries, and other regions such as Brazil, Croatia, and Tanzania. He received a number of notable accolades, including Long-Term Contribution Award from UNESCO-IHP Regional Steering Committee for Southeast Asia and the Pacific in 2015 and Distinguished Contribution Award from Japan Society of Civil Engineers (JSCE) in 2022.



Informing Planning through Community Engagement and Modeling

John van de Lindt, Co-Director, Center for Risk-Based Community Resilience Planning, Colorado State University, Fort Collins, USA

John W. van de Lindt is the Harold H. Short Endowed Chair Professor in the Department of Civil and Environmental Engineering at Colorado State University. Over the last two decades, van de Lindt's research program has focused on performance-based engineering and test bed applications of buildings and other systems for earthquakes, hurricanes,



Prof. Kaoru Takara, President, National Research Institute for Earth Science and Disaster Resilience (NIED), Japan

TAKARA Kaoru serves as President of National Research Institute for Earth Science and Disaster Resilience (NIED) from 2023. He also holds positions as Professor Emeritus of Kyoto University, Associate Member of Science Council of Japan (SCJ) from 2008, Secretary-General of Asia Pacific Association of Hydrology and Water Resources (APHW), tsunamis, tornadoes and floods. He has led data collection efforts following hurricanes, earthquakes, floods, and tornadoes with the most recent being the December 2021 Midwest tornado outbreak.

Professor van de Lindt is the Co-director for the National Institute of Standards and Technology-funded Center of Excellence (COE) for Risk-Based Community Resilience Planning headquartered at Colorado State University in its tenth year. A major portion of the COE is to develop a computational platform IN-CORE to enable communities to measure their resilience to natural hazards. He has published more than 450 technical articles and reports, including 250 journal articles. He currently serves on a number of journal editorial boards worldwide and is the Editor-in-Chief for the ASCE *Journal of Structural Engineering*. Priority Area 3—Investing in disaster risk reduction for resilience: Exploring strategies for strengthening global DRR efforts through enhanced networking and collaboration

Session Chair: Prof. Hirokazu Tatano, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan

Session Co-Chair: Prof. Katarina Holla, University of Zilina, Slovakia

Venue: LSC322

Purpose and objective

This session, titled "Investing in Disaster Risk Reduction for Resilience," will adopt a "World Café" format within a panel discussion to explore strategies for strengthening global DRR efforts through enhanced networking and collaboration. With GADRI member institutions worldwide, GADRI has the potential to significantly improve communication both within the DRR community and with external stakeholders such as governments, media, NGOs, MDBs, and local communities. The discussion will focus on how to foster meaningful connections among researchers and institutions, expand GADRI's influence and messaging, and leverage innovative engagement approaches to promote resilient societies. Currently, major challenges include limited interaction across sectors, insufficient funding for DRR initiatives, and gaps in translating research into effective policies and actions. By investing in strategic partnerships, knowledge exchange, and stakeholder engagement, GADRI can help address these obstacles and accelerate progress toward more effective, inclusive, and sustainable disaster risk reduction worldwide.

Provisional agenda of the session:

- 1. Introduction and instruction (Hirokazu and Katarina) 5min
- 2. Presentation by the three speakers 40min
- 3. World Café discussion by 3 groups, each moderated by one of the 3 speakers: Two rounds 30min
- 4. Summary from World Café and panel discussion by the four speakers 15min

Topics to be discussed:

Strategies for increasing financial investment in DRR initiatives, including public, private, and international funding sources

The role of innovative technologies, data analytics, and research collaborations in enhancing disaster resilience.

Building effective collaborations among governments, communities, private sector, NGOs, and international agencies.

Strengthening policies, governance frameworks, and institutional arrangements to prioritize DRR investments.

Key questions to be addressed:

How can we measure the impact and the balance between the measures taken and the funds invested in their implementation?

We are aware of several methods that can quantify and compare the economic aspects, but perceptions among the target audience and stakeholders can differ. How can we make compromises in this regard?

What resources and tools could GADRI provide to ensure they are universally applicable and adaptable to diverse cultural contexts?

How might GADRI facilitate knowledge sharing and collaborative research among its members to enhance disaster resilience efforts globally?

Session Chair:



Hirokazu Tatano, Secretary-General, GADRI; and Professor, Kyoto University, Japan

Professor Hirokazu Tatano is a renowned scholar in disaster risk management, economic impact

analysis of infrastructure and disasters. He currently serves as Professor and Head of the Research Centre for Climate Change Adaptation Strategy, Disaster Prevention Research Institute (DPRI), Kyoto University; and is Secretary-General of the Global Alliance of Disaster Research Institutes (GADRI) which is hosted by DPRI, Kyoto University. He has over 150 peer-reviewed papers, 20 books, and more than 100 conference papers to his credit.

Session Co-chair:



Katarína Hollá, Associate Professor, Department of Crisis Management, University of Žilina, Slovakia

Katarína Hollá is an associate professor at the Department of Crisis Management, University of Žilina in Žilina, Slovakia. Her teaching primarily focuses on risk management models and their implementation into practice, disaster risk management (DRM), industrial accident prevention, occupational safety and health (OSH), and innovative technologies in education, delivered in both Slovak and English. In practice, she is primarily involved in the application of risk management in various fields and environments (KIA Automotive, CEMMAC a.s., energy suppliers, etc.), with an emphasis on the prevention of severe industrial accidents.

Panelists:



Strengthening Resilience with Risk Financing: Analyzing the Impact on Disaster Recovery and Mitigation

Prof. Kakuya Matsushima, Kyoto University, Japan

Dr. Kakuya Matsushima is a program-specific professor at Disaster Prevention Research Institute (DPRI), Kyoto University, Japan. He won the JSCE (Japan Societies of Civil Engineers) Best Paper Prize for younger researchers in 2002, JSCE Best Paper Prize in 2017, JSCE International Outstanding Collaboration Award in 2023, and Sakashita Prize from Applied Regional Science Conference in 2009. His interdisciplinary research encompasses engineering and economics, incorporating qualitative and quantitative analyses of the impact of various policies, including disaster prevention measures and infrastructure development on society.

Abstract:

The presentation reports the findings of research that analyzes the impact of pre- and post-disaster measures, both physical and financial, on enhancing the resilience of regions and communities. These findings are based on the results of a questionnaire survey that was conducted among businesses that have been affected by disasters.



DCNA Science Plan 2030+: Shaping the Future of Disaster Risk Reduction in Austria, Dr. Christian Resch, Disaster Competence Network Austria (DCNA)

Christian Resch is a military officer with over 20 years of experience in national and international disaster response operations, within the framework of UNOCHA as well as the EU Civil Protection Mechanism. He is responsible for research and development in the Austrian Ministry of Defence and managing director of Disaster Competence Network Austria, where he is facilitating knowledge and technology transfer in disaster risk reduction. He is a founding member of Austria's first universitybased volunteer fire department and serves as a member of the UNDRR European Science and Technology Advisory Group and several expert groups of the European Commission.

Abstract:

The DCNA Science Plan 2030+ outlines a forward-looking research agenda for disaster risk reduction in Austria. It fosters collaboration between science, policy, and practice, promotes evidence-based decision-making, and defines strategic priorities to strengthen resilience, enhance preparedness, and guide long-term investment in disaster and civil protection research.



Translating DRM knowledge and partnerships into action at the World Bank - Introducing the Japan – World Bank program for mainstreaming DRM in developing countries (Tokyo DRM Hub)

Keiko Saito, The World Bank, GFDRR: Global Facility for Disaster Reduction and Recovery, Tokyo, Japan (ONLINE)

Keiko Saito is a Senior Disaster Risk Management Specialist and Team Lead of the World Bank GFDRR Tokyo DRM Hub. She oversees external partnerships particularly within Japan. She also manages the DRM technical assistance projects portfolio supported by the Government of Japan that serves eight sectors across the World Bank, where the focus is on mainsteraming resilience against natural disasters. She has a wealth of experience working as task team lead in the World Bank's East Asia and Pacific region managing investment projects in South East Asia and the Pacific countries.

Abstract:

This talk will focus on how the Japan-World Bank program for mainstreaming Disaster Risk Management in developing countries is working with World Bank task teams and knowledge partners in Japan in translating DRM knowledge generated especially in Japan into actionable items to inform World Bank investment operations.



Expanding the Range of Benefits of Disaster Risk Reduction

Prof. Adam Rose, Research Professor, University of Southern California Sol Price School of Public Policy,

and Director Emeritus and Senior Research Fellow, USC's Center for Risk and Economic Analysis of Threats and Emergencies (CREATE) (ONLINE)

Adam Rose is a Research Professor in the University of Southern California Sol Price School of Public Policy, and Director Emeritus and Senior Research Fellow of USC's Center for Risk and Economic Analysis of Threats and Emergencies (CREATE). He is also a Faculty Fellow of USC's Schwarzenegger Institute and a Faculty Affiliate of its METRANS Research Center. Previously, he held faculty and department chair positions in applied economics departments at The Pennsylvania State University and West Virginia University, as well as a faculty position in the Department of Economics at the University of California, Riverside. He received his PhD in economics from Cornell University, but has worked on interdisciplinary topics throughout most of his career. https://priceschool.usc.edu/faculty/directory/adam-rose/



Priority Area 4—Enhancing disaster preparedness for Effective Response and to "Build Back Better" in recovery, rehabilitation, and reconstruction: From "Every Day Counts" to Lasting Resilience Session Chair: Prof. Kaushal Keraminiyage, University of Salford, United Kingdom Session Co-Chair: Prof. Paul Kovacs, Institute for Catastrophic Loss Reduction (ICLR), Canada Venue: LSC324

Purpose and objective

The complexity and intensity of global disasters are compounded by climate change, conflict, and economic pressures. Solutions to these challenges demand a renewed commitment to proactive, inclusive, and systemwide preparedness and recovery strategies.

Under the Priority Area 4, the Sendai Framework for Disaster Risk Reduction prioritises the need to enhance disaster preparedness for effective response and to "Build Back Better" (BBB) in recovery, rehabilitation, and reconstruction. Despite the global efforts to address this issue, the Midterm Review (MTR) of the Framework highlighted critical gaps in institutional readiness, financing for recovery, and the integration of risk-informed development, hindering progress towards realising the full benefits of BBB.

Recently concluded Global Platform for Disaster Risk Reduction 2025 also emphasised the urgent need to accelerate the implementation of Sendai framework following its 2023 mid-term review. In particular, the need for Strengthened early warning systems, anticipatory action, and real-time monitoring with specific focus on using data, science and technology, including environmental data, Al-driven damage assessment, and geospatial risk tools have been reemphasised in the view of strengthening BBB efforts. In addition, mobilising inclusive, gender- and diversity-responsive approaches and call for risk-informed investments and financing mechanisms have also been identified as key requirements.

The above backdrop builds and justifies the platform for this session, where the following objectives are expected to be achieved.

- Discuss and reflect upon the progress and persistent challenges in implementing Priority 4 of the Sendai Framework.
- Investigate innovative technologies (e.g. AI, LLMs) and inclusive approaches to disaster preparedness and recovery, particularly to enable and enhance better BBB.
- Promote practical tools, policies, and partnerships that support "Building Back Better."
- Discuss financing mechanisms and governance arrangements to sustain preparedness capacities and resilient recovery.

Session Chair:



Kaushal Keraminiyage, Professor, School of Science, Engineering and Environment,

Topics to be discussed:

- 1. Addressing Poly Crisis & Systemic Risk through BBB
- 2. Financing & Economic Resilience
- 3. Innovations, Data Use, Governance & Technical Capacity
- 4. Infrastructure Resilience & Built Environment
- 5. Inclusivity & Community Engagement
- 6. Governance & Coordination

Key questions to be addressed:

- How can countries institutionalise "Build Back Better" principles in national and local recovery frameworks?
- What financing and risk transfer tools can ensure rapid and resilient recovery, especially for vulnerable and underserved communities?
- How can disaster preparedness be integrated with conflict sensitivity, climate adaptation, and sustainable development?
- What role do local actors, including women, youth, and indigenous peoples, play in effective preparedness and recovery?

Expected Outcomes/recommendations:

- Enhanced understanding of best practices and scalable models for disaster preparedness and resilient recovery.
- Policy recommendations for national governments and partners based on MTR insights.
- Strengthened networks and partnerships to implement community-centred and inclusive recovery approaches.
- Identification of investment and technical support needs for "Building Back Better."

Session Co-Chair:



Paul Kovacs, Chair, Board of Directors of GADRI; and founder and Executive Director, Institute for



University of Salford, Manchester, United Kingdom

Kaushal Keraminiyage is Professor at School of Science, Engineering and Environment, University of Salford, Manchester, United Kingdom where is also obtained his Ph.D. His main areas of specialisations but not limited to include resilient and sustainable communities, disaster risk reduction, disasters and the build environment; and community resilience to digital vulnerabilities. He is an active member of the Board of Directors of GADRI, and a Distinguished Visiting Professor at Kyoto University, Japan; and Editor of the Journal of Financial Management of Property and Construction, Emerald Publishing.

Catastrophic Loss Reduction (ICLR), Western University, Canada

Paul Kovacs is founder and Executive Director of the Institute for Catastrophic Loss Reduction at Western University, and CEO of PACICC. Since 1996, Paul has been a contributing author to the Intergovernmental Panel on Climate Change, the world's leading forum for the study of climate issues. The Panel won the 2007 Nobel Peace Prize "for their efforts to build up and disseminate greater knowledge about man-made climate change". He is Canada's leading authority on insurance and climate change and has been a contributing author to numerous international and Canadian reports on reducing the risk of loss from earthquakes, flood and severe wind. For more than 35 years, Paul has been a popular commentator on insurance, disaster safety and economic policy.

Panelists:



Prof. Paul Kovacs, Chair, Board of Directors of GADRI; and founder and Executive Director, Institute for Catastrophic Loss Reduction, Western University, Canada



Prof. Michinori Hatayama, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan

Michinori Hatayama is Professor at the Research Center for Disaster Reduction Systems/Disaster Information Systems, Disaster Prevention Research

Institute (DPRI), Kyoto University. A PhD graduate from the Tokyo University of Technology in grography, he focusses on disaster response, GIS, ICT, geographic information science, disaster information and spatial temporal information systems. His research areas are social infrastructure (civil Engineering, architecture, disaster prevention) / Disaster prevention engineering / Temporal GIS, Disaster risk management system, Crisis response support system. He holds many memberships among which is the Japan Water Research Center (JWRC).



Disaster Recovery to Resilience

Prof. Md Munsur Rahman, Institute of Water and Flood Management (IWFM), Bangladesh University of Engineering and Technology (BUET)

After having PhD from the River Engineering Laboratory of Kyoto University in 1998, I started working as an Assistant Professor at Institute of Water and Flood Management (IWFM), Bangladesh University of Engineering and Technology (BUET) and became professor in 2008. As a fellow of Japan Society of Promotion of Science at the Disaster Prevention Research Institute (DPRI), Kyoto University during the period of 2002-2004, we explored indigenous techniques for sediment management which is being practiced in Bangladesh as nature-based solution for river management. Since 2010, as a Principal Investigator of a number of large transdisciplinary research projects funded by different international agencies such as DFID/UKAID, JICA, IDRC, UNDP along with the Government of Bangladesh, I had the opportunity to lead big trans-disciplinary team to explore the consequences of climate change on disaster management, ecosystems services and migration and adaptation in the GBM and other deltas. The techniques and system level models (such as Cyclone Classifier Model, Dynamic Flood Risk Model, Dynamic Adaptation Model) developed through these initiatives are being utilized in the

mainstream decision-making processes in relevant sectors of Bangladesh for planning, development, warning and adaptations. I worked as a focal point to guide the formulation team of Bangladesh Delta Plan 2100 through sharing the above scientific results for the policy-planning.

Abstract:

An incomplete disaster recovery may result in secondary disaster, disrupts development gains, increase vulnerability, and create chronic risk conditions. In the short-term, disaster management agencies have succeeded in saving lives through better preparedness engaging dedicated staff and volunteers. However, while the loss of life has been reduced significantly, the economic loss and damage have increased manifolds over the decades, particularly because the rapid development activities and urbanization are falling under a new threat of damages and vulnerability as the disaster events are being amplified. Therefore, complete recovery and even build forward better is very much essential to develop a disaster resilient society where system will have capacity to absorb shocks (to some extent) created by on set disasters.



Integrating Climate Science into Building Back Better: Lessons from Southern Africa, Prof. Desmond Manatsa, President, AADRI; and Dean Bindura University of Science, Zimbabwe

Professor Desmond Manatsa is Full Professor of Climate Science at Bindura University, President of AADRI, and Board Member of GADRI. With a PhD from the University of Tokyo, he specializes in climate adaptation and disaster risk reduction, leading Zimbabwe's National Adaptation Plan and agro-ecological zone redefinition. His extensive research and policy contributions are grounded in robust climate science. He promotes "Building Back Better" by translating climate data into actionable strategies, linking climate drivers to disaster risks in vulnerable African regions. His work includes community-based flood and drought resilience projects, supported by institutions like the British Council, World Bank, and GEF.

Abstract:

Climate change amplifies disaster risks, necessitating a sciencedriven Building Back Better (BBB). This presentation examines how climate science can inform post-disaster recovery in Southern Africa, drawing on case studies from recent climaterelated events. It emphasises the importance of integrating localised climate data into rebuilding efforts to enhance resilience, reduce future risks, and support sustainable development in vulnerable communities.





Poster Session—Research activities/achievements/implementations in support of the Priority Areas of the Sendai Framework

Venue: Ballroom D



No.	Presenter	Affiliation	Title
P01	Freeda Jane Madius	Disaster Prevention Research Institute (DPRI), Kyoto University	Bridging Qualitative and Quantitative Disaster Risk Reduction Assessments: Developing a Weighted Comparison Matrix for the Sendai Framework
P02	Nkongho Ayuketang Arreyndip	Department of Environmental Sciences, Informatics, and Statistics, Ca' Foscari University of Venice, Venice, Italy	The Russia-Ukraine Conflict: A Global Impact Assessmer in the Corn and Wheat Sectors
P03	Julia Choolwe Munsaka	Colorado State University, Department of Political Science	Institutionalizing Disaster Risk Reduction in Africa: Traditional Knowledge and Traditional Leaders' Role
P04	Md. Munsur Rahman	Anisul Haque, Rayhanur Rahman	Pathway towards building community Resilience in the Coastal zone of the Ganges-Brahmaputra-Meghna Delta in Bangladesh
P05	Rubayet Bin Mostafiz	LaHouse Research and Education Center, LSU AgCenter	Louisiana Disaster Reduction Initiative: Advancing Disaster Resilience through Innovation
P06	Toshio Fujimi	Disaster Prevention Research Institute (DPRI), Kyoto University, Japan	Neural basis of emotion for enhancing flood mitigation intention through virtual flood experience
P07	Muhammad Sajjad Rashid	Civil, Environmental & Architectural Engineering, University of Kansas	Analyzing Managed Retreat Needs and Constraints: Insights from Historical MR Programs and FEMA Dataset
P08	Jiate Li	Colorado State University	Climate Adaptation Matrix (CAM) for Long-Term Community Resilience Planning
P09	Malte von Ramin	Fraunhofer Institute for High-Speed Dynamics, Ernst-Mach-Institut, EMI	Strengthening disaster risk management strategies through comprehensive understanding of high-speed dynamic phenomena
P10	Malte von Ramin	Fraunhofer Institute for High-Speed Dynamics, Ernst-Mach-Institut, EMI	Resilience Assessment of Buildings Against Extreme Weather Events
P11	Konstantinos Trevlopoulos	BRGM - French Geological Survey	Post-Seismic Reconstruction in Le Teil: Progress Since the November 11, 2019 Earthquake and Focus on Buildir Rehabilitation
P12	Konstantinos Trevlopoulos	BRGM - French Geological Survey	Developing Damage State-Dependent Fragility Models for Reinforced Concrete Buildings Under Flood and Seismic Hazards

Poster Session—Research activities/achievements/implementations in support of thePriority Areas of the Sendai FrameworkVenue: Ballroom D

No.	Presenter	Affiliation	Title
P13	Yoshihiro Ito	Disaster Prevention Research Institute, Kyoto University, Japan	Establishing a Global Research Hub for Comparative Earthquake and Tsunami Disaster Science: Kyoto University On-Site Laboratory "International Research Laboratory for Earthquake and Tsunami Risk Cognition and Reduction (iLETs)"
P14	Prashanna Mishra	Department of Civil and Environmental Engineering, Colorado State University	Advancing Resilience-Based Design: Insights from Full- Scale Testing of Tall and Midrise Mass Timber Buildings
P15	Afeez Badmus	Department of Civil, Environmental and Architecture and Engineering, University of Kansas	Lifecycle Benefit-Cost Analysis of Wood-frame Residential Buildings to Tornado Hazard
P16	Saba Faghirnejad	Civil, Environmental & Architectural Engineering, University of Kansas	Tornado Sheltering Behavior and Access in Urban and Rural Communities
P17	Katarína Hollá	University of Zilina, Kajoservices, ISCTE	Urban Adaptation and Alert Solutions for a TIMEly (re) Action - RETIME project initial results
P18	Tabassam Raza	Planning and Development Resaerc Foundation Inc. (PLANADES)	Development and Application of a Framework for Assessing Effectiveness of EWS for Flood Resiliency: Comparative Analysis and Solutions for Marikina and Pasig Cities, Philippines
P19	Mohamad Habibnia	Colorado State University	Probabilistic Multi-Scale Hurricane Surge Loss Mapping to Support Resilience Strategies in Coastal Communities
P20	Michio Sanjou	Disaster Prevention Research Institute, Kyoto University	Estimation of Dimensionless Bottom Shear Stress in Tsunami by Model Experiments
P21	Qiushan Li	Sichuan University–The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction, Sichuan University, Chengdu, China	Integrating Local Knowledge and Environmental Simulation in Post-Disaster Recovery: A Convergent Framework for Vernacular Settlements
P22	Kenji Koshiyama	Kansai University, Japan	Preparedness for Build Back Better - Modeling of Recovery scenarios simulation -
P23	Yota Hirono	Disaster Prevention Research Institute, Kyoto University	Development of Business Continuity Planning System Using Recovery Process Estimation from Survey Data

Seed and Needs—Networking with Institutions

Venue: Ballroom D

No.	Presenter	Institute	Title
N01	Malte von Ramin	Fraunhofer Institute for High-Speed Dynamics, Ernst-Mach-Institut, EMI Risk Management and Protective Structures	Transdisciplinary model approach for holistic disaster forecasting
N02	Tabassam Raza	Planning and Development Research Foundation, Inc.	Enhancing Existing International Fellowship Program (IFP) towards its Sustainability
N03	Desmond Manatsa	Bindura University of Science Education	Seeds of Synergy: Cultivating Institutional Networks for Inclusive Disaster Risk Reduction in Africa
N04	Tian-You Yu	Advanced Radar Research Center, University of Oklahoma	Building Partnerships for Advancing Radar Technology and Science
N05	Shohei Matsuura	National Research Institute for Earth Science and Disaster Resilience (NIED)	Development of SMART Area-BCM Planning Tool Based on Flood Monitoring, Prediction and Business Impact Assessment
N06	Rubayet Bin Mostafiz	LSU AgCenter	Bridging Research and Outreach to Improve Resilience and Sustainability of Louisiana Homes and Communities
N07	Genta Nakano	Disaster Prevention Research Institute, Kyoto University	Establishment of the All-phased Earthquake and Tsunami Comparative Science for Disaster Risk Reduction
N08	Delong Zuo	Texas Tech University	Convergent Research for Reducing the Impacts of Tornado Hazard

Oral Presentation Session I: Advancing Global Disaster Risk Reduction and Resilience

18 min /person Presentation 15min, Q&A 3 min

Day 1 : Monday, 21 July 2025

Time	Presenter	Affiliation	Title
	Milad Roohi	University of Nebraska–Lincoln, USA	Post-Event Functional Recovery and Decision Suppor through Hybrid Mechanics-Informed Model-Sensor Fusion
16:30-18:00	Mark M. Morales; and Dina Magnaye	Planning and Development Research Foundation Inc.; and School of Urban and Regional Planning, University of the Philippines	Development and Application of a tool towards Assessing the Feasibility of Permeable Pavement as one of the significant Flood Management Strategy
	Edris Alam	Rabdan Academy, Abu Dhabi	Cyclone disaster resilient community-based housing and shelter plans- a proposal
Session B	—Chair: Prof. Tetsuya Ta	akemi and Prof. Lori Peek Venue	Longs Peak
Time	Presenter	Affiliation	Title
	Rubayet Bin Mostafiz	Louisiana State University, USA	Wind Resilience in Coastal Louisiana: A Social Equity Approach to Enhanced Building Code Practices
16:30-18:00	Rubayet Bin Mostafiz Juel Mia	Louisiana State University, USA Texas State University, USA	
16:30-18:00			Approach to Enhanced Building Code Practices Social, Temporal and Spatial Risk Analysis of Lightnin Fatalities in Bangladesh Using News Media Monitoring

Welcome Reception

Venue: Ballroom D



DAY 2: 22 JULY 2025

MC: Dr. Genta Nakano



- 9:00—10:30 —Group Discussion Session summary of Outcomes and recommendations— Panel Discussion Session I
- 10:30—11:00—Coffee break
- 11:00—12:00—Plenary Session II—Engagement, Partnerships, Communications, and Resulting Policy
- 12:30—13:00—Lunch break—Lunch with speakers
- 13:00—14:30—Session on GADRI Regional Alliances
- 14:30—15:00—Current Status on GADRI Committees
- 15:00—15:30—Coffee break

- 15:30—16:30—Plenary Session III—Underscoring the need for Fundamental Research, and Focus on Advances in Disciplinary and Transdisciplinary Research
- 16:30—18:00—Panel Discussion Session II: Understanding and improving the relationship between science and technology, policy, and community in the context of the elements of the UNDRR Sendai Framework for Disaster Risk Reduction and the UNCC Paris Agreement

The morning will include presentations of outcomes from the Day One Panel Discussion Session I.

This will be followed by two plenary sessions.

Plenary session II on engagement, partnerships, communication, and resulting policy; and

Plenary session III on Underscoring the need for fundamental

research and focuses on advances in disciplinary and transdisciplinary research.

The afternoon will provide an opportunity for GADRI Regional Alliances and GADRI Committees to share their current activities. The day will be concluded with the discussion session of the three parallel tracks focusing on the three subthemes of the Global Summit.

Group discussion session summary of outcomes and recommendations

Panel Discussion Session I: Progress and challenges for the final years of implementation of theSendai Framework in several or more countriesVenue: Ballroom C

- Priority Area 1—Understanding Disaster Risk: Marginalized Voices in Risk Assessment and Response
- Priority Area 2—Strengthening disaster risk governance to manage disaster risk—Evidence-based Policymaking in DRR
- Priority Area 3—Investing in disaster risk reduction for resilience: Exploring strategies for strengthening global DRR efforts through enhanced networking and collaboration
- Priority Area 4—Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction: From "Every Day Counts" to Lasting Resilience

Plenary Session II: Engagement, partnerships, communication, and resulting policy Venue: Ballroom C

Plenary session II focuses on sub-theme two on engagement, partnerships, communication, and resulting policy; underscoring the fact that stakeholder engagement is critical to implementing research and turning it into policy to ensure communities don't just survive but thrive.

Keynote Speakers:

Catalyzing Resilience: Strengthening Global DRR Education & Action through Synergy

Abstract:

In the current changing and dynamic risk landscape, the integration of disaster risk reduction (DRR) into education systems and institutional frameworks has never been more critical. Meanwhile, the international collaboration of science is now vulnerable and fragile.

Collaborations among global networks are crucial for empowering young generation through innovative programs that bridge theoretical knowledge with practical applications in risk reduction. The presentation will explore opportunities for enhanced collaboration focusing on:

- Co-development of global DRR education standards
- Creation of platforms for early-career researcher exchange
- Alignment of research agendas with implementation needs
- Joint capacity-building initiatives for community-level practitioners

By fostering stronger ties among international networks, we can accelerate the translation of risk science into effective policies and actions, ultimately contributing to more resilient future worldwide.



Saini Yang, Director, International Center for Collaborative Research on Disaster Risk Reduction (ICCR-DRR), Beijing Normal University, China (ONLINE)

Saini Yang took the position of Executive Director of Integrated Research on Disaster Risk (IRDR)

co-sponsored by ISC and UNDRR in July 2024. Dr. Saini Yang is a professor at Beijing Normal University. Saini's research interests include risk analysis and climate change adaptation. Saini is the PI of more than twenty research projects and has published more than 100 papers in academic journals, including Nature Climate Change and Nature Communications. Saini is a member expert committee of the of the National Disaster Reduction Commission and a member of the Asia-Pacific Science and Technology Advisory Group of the United Nations Disaster Risk Reduction, and also serves as the editorial board of several international academic journals. Saini got her bachelor and master degree from Southeast University and PhD degree from University of Maryland.

Participatory Convergence: Advancing Science and Reducing Risk Through Community Participation

Abstract:

Traditional approaches to convergence have focused on bringing together researchers across disciplines to address complex realworld challenges. This keynote address will introduce the concept of **participatory convergence**, which is concerned with bringing together researchers and the people affected by the problem the research is trying to solve. Participatory convergence draws on key principles from both participatory research-which is often used by social scientists-as well as convergence researchwhich was pioneered predominantly by engineers and physical scientists. This novel approach to inquiry underscores the need to nurture trust and mutually beneficial relationships within teams involving scientists and non-scientists. It also prioritizes people's agency and emphasizes the need to develop and implement solutions in a democratic manner. This keynote will provide an overview of the key principles undergirding participatory convergence approaches to research. It will also offer a summary and case examples of several techniques that can help teams to advance fundamental science as well as just and sustainable solutions to pressing socio-ecological challenges.



Lori Peek, Director, Natural Hazards Center (NHC), Institute of Behavioral Science at the University of Colorado Boulder, USA

Lori Peek is director of the Natural Hazards Center and professor in the Department of Sociology at the University of Colorado Boulder. She wrote the

award-winning book Behind the Backlash: Muslim Americans after 9/11, co-edited Displaced: Life in the Katrina Diaspora and the Handbook of Environmental Sociology, and co-authored Children of Katrina and The Continuing Storm. Peek has conducted field investigations in the aftermath of several major disasters and has testified before members of the U.S. Congress on the topic of Ensuring Equity in Disaster Preparedness, Response, and Recovery. She is the principal investigator for the National Science Foundationfunded **CONVERGE** facility, which is dedicated to improving research coordination and advancing the ethical conduct and scientific rigor of disaster research. Peek has committed her career to ensuring that research is applied to reduce the harm and suffering from disasters.

Abstract:

Standardized hazard definitions are a key element of the analysis of disasters. Without them, monitoring and reporting of the impacts of the hazards is difficult, and so is the development of effective early warning systems and response plans. To address this gap, in 2019 the UN Office for Disaster Risk Reduction (UNDRR) and the International Science Council (ISC) established a Technical Working Group to identify the full scope of hazards relevant to the Sendai Framework for Disaster Risk Reduction as a basis for countries and other actors to review and strengthen risk reduction policies and risk management practices. The resulting UNDRR/ISC Hazard Information Profiles (HIPs) were published in 2021.Following on from the recommendation in the UNDRR/ISC HIPs for regular review and update, experts from different disciplines, types of organizations (United Nations



agencies, academia, government agencies, intergovernmental

organizations and the private sector) and geographical regions has again worked together since 2023 to review the UNDRR/ ISC HIPs. This process has

systematically reviewed all sections of the 2021 HIPs to identify potential updates in alignment with new scientific information and to address the multi-hazard context. Figure one shows the hazard types, clusters and hazards agreed for the UNDRR-ISC Hazard Information Profiles update 2025 [1]. The UNDRR-ISC HIPs 2025 update are being coded to be machine actionable, to support a broader range of applications when machine readability is extremely useful, for example, for analysis of large databases and datasets. This second review concluded in 2025, with the release of the enhanced UNDRR/ISC Hazard Information Profiles at the Global Platform for Disaster Risk Reduction. The updated document will continue to inform a broad community and support data analysis resulting in better early warning and event forecast and disaster risk management and planning. United Nations Office for Disaster Risk Reduction (UNDRR) and International Science Council (ISC). 2025. UNDRR-ISC Hazard Definition & Classification Review: 2025 Update of the Technical Report. DOI: 10.24948/2025.04 Geneva, Switzerland, United Nations Office for Disaster Risk Reduction, Paris, France, International Science Council.



Virginia Murray, Head, Global disaster Risk Reduction, UK Health Security Agency, United Kingdom

Professor Virginia Murray is a public health doctor committed to improving health emergency and disaster risk management. She was appointed as Head of Global Disaster Risk Reduction for UK Health Security Agency in April 2014. She is currently the chair of the UNDRR/ISC Hazard Information Profile Steering Group 2025 update, having been the Chair of the UNDRR/ISC Hazard Classification and Review Technical Working Group from 2019. She was a member and then vicechair of the UN International Strategy for Disaster Reduction (UNISDR) Scientific and Technical Advisory Group (STAG), 2008 -2017, supporting as required negotiations for the Sendia Framework for Disaster Risk Reduction 2015–2030 by the UN member states. She is a co-chair of the WHO Thematic Platform Health and Disaster Risk Management Research Network, and by working in collaboration with this network, she is one of the editors of the WHO Guidance on Research Methods for Health and Disaster Risk Management, published in October 2021 and updating 2025. She is a visiting/honorary Professor and fellow at several universities.

Applied Academic Research to Prevent Wind Hazard from Becoming Disasters

Abstract:

Severe windstorms such as hurricanes, tornadoes, and other storms cause deaths and injuries, damage to infrastructure including buildings, business interruptions, and along with other societal functions. The ultimate impact is disruption of people's lives. The goals of the researchers are to understand the storms, their impacts on infrastructure, and provide community resilience for safe living. In simple words 'Prevent wind hazards from becoming disasters'. To pursue this goal requires convergent research including the disciplines of meteorology, architecture, engineering, and sociology. However, pursuing research is insufficient to produce resilient community. The results from research need to be implemented through economics and public Stakeholders such as government agencies, policies. construction industry and public need to be involved to achieve results.



Kishor Mehta, Emeritus P. W. Horn Professor, Department of Civil, Environmental and Construction Engineering, Texas Tech, USA

Prof. Kishor Mehta is the Emeritus P. W. Horn Professor of Civil, Environmental, and Construction Engineering at Texas Tech University, where he has served since 1964. A nationally recognized expert in wind engineering, he was elected to the National Academy of Engineering in 2004 and is a Fellow of the National Academy of Inventors. From 2011 to 2015, he served as Program Director for Structural and Architectural Engineering and Co-Program Director for Engineering for Natural Hazards at the National Science Foundation. Prof. Mehta has chaired major international wind engineering conferences, developed foundational professional training programs, and held leadership roles on numerous national advisory committees. His work has had a lasting impact on wind hazard mitigation, structural engineering standards, and engineering education. His research interests include Wind loads, damage analysis, Design for tornadoes and hurricanes, Interdisciplinary research and studies, and Wind engineering.

An example of Wind Hazard and Infrastructure Performance (WHIP) Center illustrates partly a vehicle to achieve community resilience. The Center is a partnership between government providing incentives, companies providing funds, and three academic institutions pursue research that is of interest to companies. Insurance and risk modeling companies want to enhance their business using the results of research. Though the results do not provide change in public policies because it is proprietary. However, over a period the results will be implemented in standard.

GADRI Regional Alliances—Showcasing Collaboration and Research—Workflow and Opportunities Venue: Ballroom C

- African Alliance for Disaster Research Institutes (AADRI) Prof. Desmond Manatsa, President, AADRI; and Executive Dean, Faculty of Science and Engineering, Bindura University of Science, Zimbabwe
- North American Alliance of Hazards and Disaster Research Institutes (NAAHDRI): Empowering Communities to Prevent Natural Hazards from Becoming Disasters Together, Prof. Grace Yan, Chair, NAAHDRI
- South Asia Alliance of Disaster Research Institutes (SAADRI) Prof. Mahua Mukherjee, Secretary-General, SAADRI; and Professor, IIT Roorkee, India
- UK Alliance for Disaster Research (UKADR) Prof. Andrew Collins, Advisor, UKADR; and Emeritus Professor, Disaster and Development Network, Northumbria University Newcastle, UK
- 4th World Bosai Forum, March 2024—Outcomes and Recommendations Prof. Yuichi Ono, Director, IRIDeS, Tohoku University, Japan





Current Status Reports from GADRI Committees

- **Networking with Institutions** Collection World Databases GADRI Member search, Prof. Katarina Holla, University of Zilina, Slovakia; and Dr. Toshio Fujimi, DPRI, Kyoto University, Japan
- Science and Technology Roadmap, Prof. Hirokazu Tatano, Secretary-General, GADRI; and DPRI, Kyoto University, Japan
- Institutional Capacity Building, Prof. Gretchen Kalonji, CBAS, China; and Prof. Desmond Manatsa, President, AADRI; and Dean, Bindura University of Science, Zimbabwe
- Data and Information Sharing, Prof. Andrew Collins, DDN, Northumbria University Newcastle, United Kingdom
- Advocacy, Prof. Paul Kovacs, Chair, Board of Directors of GADRI; and Executive Director, ICLR, Canada



Plenary Session III: Understanding the Need for Fundamental Research; and Focus on Advances in Disciplinary and Transdisciplinary Research Chair: Prof. Mahua Mukherjee and Prof. Hirokazu Tatano



Plenary session III on Underscoring the need for fundamental research and focuses on advances in disciplinary and transdisciplinary research for natural hazards, cascading

hazards, the resulting disasters, and models to reduce adverse impacts.

Keynote Speakers:

Transdisciplinary Research for Natural Hazards

Abstract:

Methodological divisions characterised the emergence of modern scientific disciplines witch resulted in incredible scientific progress. But the drive to solve real-world problems has led to the emergence of transdisciplinarity across different academic disciplines working jointly with practitioners. Transdisciplinary research (Hoffmann-Riem et al. 2008) aims to overcome the mismatch between knowledge production in academia, and knowledge requests for solving societal problems: "In a world characterised by rapid change, uncertainty and increasing interconnectedness there is a growing need for science to contribute to the solution of persistent, complex problems, which



Peter Sammonds, Professor of Geophysics and Climate Risks, Department of Risk and Disaster Reduction, University College London, United Kingdom

Prof. Sammonds works at the interface of natural and social sciences. His research and knowledge exchange are on natural hazard risks, disasters and recovery. He has worked on earthquake mechanics, volcanoes and ice physics in the Arctic. He works on research council, British Academy and Royal Society -funded projects on Increasing Resilience to Environmental Hazards in Border Conflict Zones and Resilience Futures for the Rohingya Refugees. He has advised the UK research councils on the increasing resilience to natural hazards programme; been a member of EEFIT Earthquake Engineering Field Investigation teams, contributing to inter-disciplinary reports on disaster, taken up widely by government for policy advice; and been a Commissioner on the UCL-Lancet Commission on Migration and Health, 2017–18, whose report has been influential. He is currently the Gender and Intersectionality Ambassador for the UKRI network+ GRRIPP project led by the IRDR Centre for Gender and Disaster.

include not only some of the now broadly known environmental issues such as climate change and biodiversity loss, but also related issues such as poverty, security and governance."

Drawing on examples from earthquakes and cyclones hazards and their cascades, the talk addresses the challenges of transdisciplinary research. How to incorporate research inputs from different disciplines, practitioners and from broader society into models, involving different methodologies and data formats are discussed, The talk looks forward to new developments and their potential to contribute to disaster risk reduction.

Venue: Ballroom C

Dance in Harmony with the Twister: One Step Back and Two Steps Forward toward Tornado Resilience

Abstract:

The devastation from recent tornadoes left no doubt as to vulnerability of the Central and Southeastern USA to tornadoes, and prompted an urgent need in enhancing tornado resilience. To address this emerging societal need, we took one step back by conducting fundamental, interdisciplinary research to live in harmony with tornadoes, via three NSF Projects. One is to reveal the long-standing mystery of why some supercell thunderstorms can produce a tornado, while others with similar conditions cannot, by examining whether the vortex tubes are experiencing inverse energy cascade, instead of (forward) energy cascade. The findings will improve our fundamental understanding of tornadogenesis, bettering the NWS practice of tornado warning issuance and thus reducing tornado fatalities. Once a tornado is generated, another project is to find how terrain and land cover affect tornado intensity. This will better NWS's prediction of tornado impact on communities. To reduce property loss, proactive measures of retrofitting existing buildings or designing new buildings against tornadoes are essential. To facilitate the adoption, high-fidelity numerical model of tornado-community interaction has been developed in the third NSF project, and validated in their large-scale tornado simulator. These efforts will help pave the path for communities to THRIVE under worsening tornado hazards.



Guirong (Grace) Yan, Professor, Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, USA

Grace Yan, an ASCE fellow, is a Professor of Missouri S&T. She is the Director of Center for Hazard Mitigation and Community Resilience, and of Wind Hazard Mitigation Laboratory that is home to Sinquefield Missouri Tornado Simulator Twins. She has been leading interdisciplinary research teams in enhancing tornado resilience and coastal resilience, and climate change adaptation. She has published more than 150 refereed journal and conference papers, and secured 38 research grants, with the total amount of \$26M. She hazards simulates different natural numerically and experimentally, investigates their actions on built environment, evaluates vulnerability of communities to natural hazards, and develops innovative approaches mitigate hazard impacts. She is chairing Board of Directors of NAAHDRI; She chaired the 15th Americas Conference on Wind Engineering in 2025; She was elected to serve National Academies of Sciences, Engineering, Medicine Committee on Attribution of Extreme Weather and Climate Events and their Impacts in 2024-2026.

Risk Reduction Beyond Borders: Science-Based Policy and Community Resilience in Mexico

Abstract:

This keynote will present Mexico's experience in integrating disaster risk science into public policy and community action, with a focus on systemic approaches to managing natural hazards and cascading risks. Drawing from 35 years of institutional development, the talk will highlight key strategies implemented by the National Center for Disaster Prevention (CENAPRED), including risk mapping through the National Risk Atlas, multi-level early warning systems, and community-based resilience programs.



Enrique Guevara, General Director, National Disaster Prevention Center (CENAPRED), Federal Government of Mexico

Enrique Guevara Ortiz is a Mechanical and Electrical Engineer from the National Autonomous University of Mexico, with 35 years of experience in disaster risk management, early warning systems, and civil protection. He currently serves as Director General of the National Center for Disaster Prevention (CENAPRED) and is Mexico's national focal point for monitoring and reporting on the Sendai Framework. He has worked as an advisor, international consultant, and teaches in graduate programs. His career combines technical expertise, academic engagement, and institutional leadership.

Special attention will be given to the convergence of scientific evidence, participatory planning, and governance structures under Mexico's National Civil Protection System. The talk will also discuss how Mexico has aligned national efforts with global frameworks such as the Sendai Framework for Disaster Risk Reduction and the Paris Agreement.

Emphasis will be placed on the importance of anticipatory action, cross-sectoral collaboration, and strengthening capacities across institutions and communities to reduce vulnerabilities and transform risk into sustainable development opportunities. Panel Discussion Session II: understanding and improving the relationship between science and technology, policy, and community in the context of the elements of the UNDRR Sendai Framework for Disaster Risk Reduction and the UNCCC Paris Agreement

Convergence approaches in research and implementation

Chair: Prof. Lisa Wang, Old Dominion University, Norfolk, Virginia, USA

Venue: LSC306

Purpose and objective

The purpose of this discussion session is to foster a deeper The discussion will focus on convergence approaches in both research and implementation, including methodological integration—such as combining reconnaissance studies with experimental testing, numerical analysis, or stakeholder engagement. The session will begin by exploring the motivation behind these innovative approaches to address disaster risk reduction challenges and tackle real-world problems.

Here is a provisional agenda for the session:

- 5 minutes: Introduction by the moderator
- 40 minutes: Panelist presentations (~10 minutes each) to provide the audience with orientation and previous convergence research
- 20 minutes: Pre-planned questions from the moderator addressing the broader session topic
- 25 minutes: Open Q&A and discussion with the audience

The moderator will close the panel session.

Topics to be discussed:

Convergence approaches in research and implementation from various perspectives, including motivation, methodological integration and application, barriers and opportunities, training and future directions.

Key questions to be addressed:

1. What are the primary motivations for adopting convergence approaches in hazard and disaster research?

Session Chair:



Lisa Wang, Assistant Professor, Department Civil and Environmental Engineering, Old Dominion University, USA

Lisa Wang is an assistant professor in the Department Civil and Environmental Engineering at Old Dominion University. She earned her Ph.D. and completed a postdoctoral fellowship at Colorado State University and NIST's Center for Risk-Based

- 2. What are some successful examples of integrating reconnaissance studies with experimental testing, numerical modeling, and/or community engagement?
- 3. What are the greatest challenges in aligning data, assumptions, and scales across methods (e.g., field observations vs. computational models), and how can these challenges be addressed?
- 4. What training or skill sets are most essential for preparing the next generation of researchers to engage in convergence research?

Expected Outcomes/recommendations:

- Promote collaborative research: encourage funding agencies and institutions to support long-term convergence-focused research initiatives.
- Develop shared data and tools: create interoperable data formats, validation tools, and open platforms that facilitate integration across different methodologies.
- Support educational training: develop educational programs and workshops to train the next generation of researchers in convergence science, systems thinking, and community collaboration.
- Strengthen stakeholder engagement: actively involve community members, policymakers, and practitioners in the research process to ensure that outcomes are actionable and widely adopted.

Community Resilience Planning. Her research focuses on coastal resilience, hazard mitigation, and disaster reconnaissance, supporting policy development and resilience-informed building standards. Her research work has been recognized by prestigious awards such as the 2021 O.H. Ammann Research Fellowship in Structural Engineering and her research is supported by Institute for Coastal Adaptation and Resilience and Old Dominion University. She is also a licensed California Professional Engineer.

Panelists:



The Value of Localization in Convergence \Research: Lessons from Haiti

Prof. Tracy Kijewski-Correa, University of Notre Dame, Notre Dame, Indiana, USA

Tracy Kijewski-Correa is the William J. Pulte Director of the Pulte Institute for Global Development at the University of Notre Dame's Keough School of Global Affairs. As a professor of Civil Engineering and Global Affairs, her research seeks to enhance the resilience and sustainability of hazard-exposed communities, with particular emphasis on climate adaptation. She currently serves as the inaugural director of the Structural Extreme Event Reconnaissance (StEER) network mobilizing networks of engineers to assess disaster impacts globally. This complements her interdisciplinary work on household recovery from disasters, which most recently focused on compounding disasters along the US Gulf Coast and Haiti.

Abstract:

The topic will explore the benefits and challenges of adopting convergence approaches to enable housing recovery following the 2021 Haiti earthquake. We found that co-production of research with local actors and the integration of computational, reconnaissance, and human subjects research methodologies promoted more resilient and sustainable, locally-led recovery.



The need for convergent research to reduce the impact of tornado hazard

Prof. Delong Zuo, Texas Tech University, Lubbock, Texas, USA

Delong Zuo is a Professor of Civil Engineering at Texas Tech University. He is also the Technical Director of wind engineering of the National Wind Institute at the same university. His research seeks to understand and quantify windstorms and their impact on civil infrastructure. In recent years, his study has been focusing on tornadoes and tornado-loading on buildings of various types. In addition, he has been pursuing convergent research with experts in social science and economics to assess both physical and socioeconomic impacts of tornado hazard.

Abstract:

Tornadoes are among the deadliest and costliest natural hazards, and the devastations caused by these windstorms have not subsided despite the advancements in relevant fields such as atmospheric science and structural wind engineering. This talk seeks to identify some of the critical reasons for the impasse in tornado hazard mitigation and make a case for convergent Dr. Jong Sung Lee, National Center for Supercomputing Applications (NCSA), Univ. of Illinois at Urbana-Champaign, Champaign, Illinois, USA



From Hazards to Recovery: A Network-Based Lens on Community Resilience

Dr. Chia-Fu (Joey) Liu, University of Kansas, Lawrence, Kansas, USA

Chia-Fu (Joey) Liu is a postdoctoral researcher in the Department of Civil, Environmental & Architectural Engineering at the University of Kansas, working with Dr. Elaina Sutley. His research centers on community resilience modeling using data-driven and network-based approaches to capture interdependencies across urban systems. By applying systems thinking, he integrates societal dynamics with infrastructure networks to better understand vulnerabilities and inform disaster recovery and resilience planning.

Abstract:

This presentation explores how data-driven, network-based modeling can uncover hidden vulnerabilities and recovery dynamics in disaster-affected communities. Through case studies on social connectedness and business recovery, it demonstrates how convergence approaches offer new insights into resilience across physical, social, and economic systems.

research for meaningful reduction in tornado hazard impact.

Focus on engagement, partnerships, communication, and resulting policies: Strengthening societal resilience for disasters

Session Chair: Prof. Kaushal Keraminiyage, University of Salford, United Kingdom

Venue: LSC310

Purpose and objective

Disasters in the current global context grow to be more frequent and complex due to climate change, rapid urbanisation, and global instability. To address these challenges effectively, the strategic direction of the Disaster Risk Reduction (DRR) requires looking beyond technical solutions, and it demands careful consideration into inclusive engagement, multi-sector partnerships, strategic communication, and enabling policies. Despite international commitments under the Sendai Framework and recent guidance from the Global Platform for DRR 2025 (GPDRR2025), challenges persist in operationalising these elements at local, regional and global scales.

This session designed to foster a deeper understanding on the critical disconnect between community voices and policymaking, between scientific data and public understanding, and between national commitments and local action. It seeks to unpack why engagement and partnerships often fall short, how communication gaps hinder resilience-building, and what it takes to translate inclusive dialogue into sustainable, risk-informed policy.

Following are the key objectives of this session:

- 1. Examine current challenges for inclusive engagement, equitable partnerships, and integrated risk communication in DRR.
- 2. Share strategies and tools for effective multi-stakeholder (local government, private sector, community, and academia) collaboration.
- 3. Explore how new innovations such as AI and LLM can impact science-policy communication for DRR
- 4. Identify policy enablers and barriers for inclusive, proactive, and legally empowered risk governance
- 5. Produce actionable recommendations for DRR policy frameworks, emphasizing people-centred, risk-informed approaches.

Session Chair:



Kaushal Keraminiyage, Professor, School of Science, Engineering and Environment, University of Salford, Manchester, United Kingdom

Topics to be discussed:

Following are the broad topics to be discussed within the session:

- 1. Effectiveness of partnerships and multi-stakeholder gaps in formulating DRR strategies
- Risk Communication: science to policy divide and new 2. innovations
- 3. Policy integration issues and legal challenges
- 4. Finance and local capacity issues
- 5. Inclusive and informative data for informed policymaking

Key questions to be addressed:

- 1. How can we make DRR engagement more genuinely inclusive and representative, especially of women, youth, Indigenous peoples, and persons with disabilities?
- 2. What are the current gaps in partnerships between sectors (e.g., public-private, academia-local government), and how can we strengthen trust and collaboration?
- 3. In what ways is risk communication failing, and what emerging practices can help bridge science, policy, and public understanding?
- 4. How do current DRR policies fall short of local needs, and what governance innovations could make them more responsive, flexible, and enforceable?

Expected Outcomes/recommendations:

- 1. Clear mapping of key challenges and enablers across the engagement-partnership-communication-policy continuum.
- 2. A list of practical tools and mechanisms to support inclusive and integrated DRR governance.
- 3. Summary policy brief or communiqué with recommendations to feed into post-2025 DRR agenda-setting processes.

Session Co-Chair:



Yuki Matsuoka, Head, UNDRR Kobe Office, Japan

Dr. Matsuoka joined the UNDRR Headquarters (Geneva) in 2004 as a Programme Officer, and then served as Special Assistant to Director,

before assuming the current position.

Kaushal Keraminiyage is Professor at School of Science, Engineering and Environment, University of Salford, Manchester, United Kingdom where is also obtained his Ph.D. His main areas of specialisations but not limited to include resilient and sustainable communities, disaster risk reduction, disasters and the build environment; and community resilience to digital vulnerabilities. He is an active member of the Board of Directors of GADRI, and a Distinguished Visiting Professor at Kyoto University, Japan; and Editor of the Journal of Financial Management of Property and Construction, Emerald Publishing.

She was engaged in the overall coordination of the Second UN World Conference on Disaster Reduction (January 2005 in Kobe) and the Third UN World Conference on Disaster Risk Reduction (March 2015 in Sendai), including the processes to develop the Hyogo Framework for Action 2005-2015 and the Sendai Framework for Disaster Risk Reduction 2015-2030.

Prior to joining UNDRR, she worked as Special Adviser of the Ministry of Foreign Affairs of Japan (at the Permanent Mission of Japan to the International Organizations in Geneva).

In cooperation with stakeholders around the world, she has been working on promoting the implementation of Sendai Framework. She holds PhD in Global Environmental Studies.

Panelists:



A Kaleidoscope of Initiatives in Asia Pacific to navigate dynamic Resilience-scapes and Unpredictable Risk, Prof. Mahua Mukherjee, Indian Institute of Technology (IIT), Roorkee, India

Dr Mahua Mukherjee is Professor and Head of the Department of Architecture and Planning, IIT Roorkee since 2003; a Joint Faculty and Ex-Head of Centre of Excellence in Disaster Mitigation and Management (CoEDMM), IIT Roorkee. Her educational qualifications are B. Arch (Jadavpur University), M. Tech (Building Science and Technology) IIT Roorkee, and PhD in the field of sustainable urban development. She has pursued her career in Architecture Office and NGO before joining Teaching. Mahua is Secretary General to South Asia Alliance for Disaster Resilience Institutes (SAADRI) and UNDRR -APSTAG Board Member. Her graduated research interest includes risk resilience to sustainable urban development, urban climate and climate responsive campus and housing design. Association with international academia like Lund University, Sweden through SIDA Fellowship and Penn State University as a Fulbright Fellow among others, influenced her intellectual pursuit. She was Visiting Associate Professor and Researcher with DPRI, Kyoto University in 2016.



From Scenario Simulation to Policy Dialogue: Enhancing Inclusive Recovery through Evidence -Based Planning, Prof. Kenji Koshiyama, Kansai University, Japan

Kenji Koshiyama ia Professor in the Faculty of Societal Safety Sciences at Kansai University, Japan. His research centers on urban recovery planning in the aftermath of disasters. He has examined various international disaster cases, with a particular focus on Japan, including the Great Hanshin-Awaji Earthquake and the Great East Japan Earthquake. He has published extensively on post-disaster housing reconstruction and the public provision of housing. His latest research involves constructing post-disaster social recovery scenario simulations that integrate quantitative data analysis with expert qualitative knowledge.

Abstract:

Post-disaster recovery requires more than rebuilding—what constitutes "better" varies by perspective. By modeling invisible societal trajectories and integrating time-based uncertainties, AI and LLM technologies can generate plural recovery scenarios. This approach enables shared visioning, dialogue, and policy co-creation for adaptive, inclusive resilience in an uncertain future.



Prof. Jamie Kruse, Co-Director for the NIST Center of Excellence for Risk-Based Community Resilience Planning, Colorado State University, USA

Jamie Brown Kruse

Co-Director for the NIST Center of Excellence for Risk-Based Community Resilience Planning

Jamie Kruse is recognized for her research in economics and decision making under uncertainty especially as it relates to natural hazards. Dr. Kruse has authored seventy published and forthcoming refereed journal articles in addition to books, proceedings, abstracts and reports, appearing in *Econometrica*, RAND Journal of Economics, Southern Economic Journal, Journal of Economic Behavior and Organization, Economic Inquiry, Natural Hazards Review (ASCE), Journal of Wind and Industrial Aerodynamics Engineering (ASCE), Environmetrics, Weather and Forecasting (AMS), Risk Analysis, Journal of Risk and Uncertainty in Engineered Systems (ASCE), Journal of Risk and Insurance, Journal of Insurance Issues, and others. She held faculty positions at the University of Colorado, Texas Tech University, East Carolina University and a visiting position at Eidgenossische Technische Hochschule (ETH) in Zurich, Switzerland. Her work has been supported by National Aeronautics and Space Administration, National Science Foundation, US Geological Survey, US Department of Energy, National Oceanic and Atmospheric Administration, National Institute of Standards and Technology, Federal Emergency Management Agency, Department of Homeland Security, Federal Deposit Insurance Corporation, and others. She has served as an expert reviewer for the National Academies of Science, Engineering and Medicine, US Army Corp of Engineers, Department of Homeland Security, and on more than twenty-five National Science Foundation panels across three directorates. In 2010 she held the position of Chief Economist at National Oceanic and Atmospheric Administration. At the interagency level, she was a member of the Whitehouse Office of Science and Technology Policy (OSTP) Subcommittee on Social, Behavioral and Economic Sciences and OSTP Subcommittee on Ocean Science and Technology.



Virginia Murray, Head, Global disaster Risk Reduction, UK Health Security Agency, United Kingdom

Professor Virginia Murray is a public health doctor committed to improving health emergency and disaster risk management. She was appointed as Head of Global Disaster Risk Reduction for UK Health Security Agency in April 2014. She is currently the chair of the UNDRR/ISC Hazard Information Profile Steering Group 2025 update, having been the Chair of the UNDRR/ISC Hazard Classification and Review Technical Working Group from 2019. She was a member and then vice-chair of the UN International Strategy for Disaster Reduction (UNISDR) Scientific and Technical Advisory Group (STAG), 2008-2017, supporting as required negotiations for the Sendia Framework for Disaster Risk Reduction 2015–2030 by the UN member states. She is a cochair of the WHO Thematic Platform Health and Disaster Risk Management Research Network, and by working in collaboration with this network, she is one of the editors of the WHO Guidance on Research Methods for Health and Disaster Risk Management, published in October 2021 and updating 2025. She is a visiting/ honorary Professor and fellow at several universities.

Underscoring the need for fundamental research and focuses on advances in disciplinary and transdisciplinary research: Need for both disciplinary and transdisciplinary research, associated challenges, GADRI collaboration opportunities, and associated research gaps

Session Chair: Prof. Elaina Sutley, University of Kansas, USA

Venue: LSC322

Session description:

Rising sea levels, intensifying extreme weather events, and growing populations are exacerbating hazard risks for communities across the globe. Reducing risks to acute and chronic natural hazards is an urgent challenge for disaster risk reduction (DRR) and climate change adaptation (CCA). GADRI, with its more than 200-member institutions, bring together researchers with depth in a variety of disciplines and breadth spanning disciplinary boundaries. This session will underscore the need for fundamental research and focus on advances in disciplinary and transdisciplinary research necessary for advancing DRR. Panelists' experiences span earthquakes, windstorms, floods, and other hazards occurring within multi-continental contexts, alongside expertise in structural engineering, sociology, computational methods, and a range of transdisciplinary coverage spanning engineering and social science fields.

The session agenda will include:

- 1. Session Introduction (Sutley), 5 minutes
- 2. Short presentations by the four panelists on their research backgrounds, 30 minutes
- 3. Moderated Q&A with pre-session prepared questions, 25 minutes
- 4. Open Q&A with the audience, 25 minutes
- 5. Closing (Sutley), 5 minutes

The session is moderated by Dr. Elaina Sutley, University of Kansas.

Purpose and Objective:

The purpose of this session is to bring together a group of researchers who advance global disaster resilience knowledge through disciplinary and transdisciplinary efforts to discuss research needs, challenges, and opportunities. The session objectives are to identify disciplinary and transdisciplinary questions that remain unanswered, key challenges, and collaboration opportunities, particularly for GADRI, to best support disaster resilience research and researchers.

Key questions to be addressed:

- What are the fundamental research needs that require disciplinary focus? What are the fundamental research needs that require transdisciplinary focus?
- What are the key challenges and opportunities for disciplinary and transdisciplinary research on disaster resilience?
- How can GADRI be leveraged to create collaboration opportunities to advance these research needs? How can GADRI be leveraged to address the key challenges with doing disaster resilience research?

Expected Outcomes/recommendations:

- Creation of a list of open research questions for disciplinarians and transdisciplinary collaborations for GADRI to foster connection around.
- Recommendations on how GADRI can help address key challenges for disciplinary and transdisciplinary research on disaster resilience.



Elaina Sutley, Associate Dean, Impact and Belonging, Associate Professor, School of Engineering, University of Kansas, USA

Dr. Sutley is an Associate Dean for Impact and Belonging, serves as the Director of the IHAWKe Diversity and Women's Programs, and Director of the Self Engineering Leadership Fellows Program in the School of Engineering at KU. Dr. Sutley is also an Associate Professor in structural engineering. Dr. Sutley's research is at the nexus of

emphasis on community disaster resilience and equitable housing recovery.

Panelists:



Dr. Ali Nejat, Professor, CECE Construction Engineering, Texas Tech University, USA

Dr. Ali Nejat serves as the director of CECREH, overseeing the coordination of projects within the

center and its administration. He is an Associate Professor of Construction Engineering at Texas Tech University, where his research focuses on modeling the dynamics of post-disaster housing and household recovery. Additionally, Dr. Nejat investigates equitable community resilience in the face of extreme natural hazards, such as hurricanes, flooding, and winter storms. His work aims to explore and study resilience from the perspective of communities and their inherent vulnerabilities. Dr. Nejat has received funding from various federal and state agencies, including the National Science Foundation, the Department of Housing and Urban Development, and the Texas Department of Transportation. Notably, his development of an agent-based model of collective housing recovery earned him an NSF CAREER award in 2015. His research has been published in numerous reputable disaster-related social science and engineering journals.



Lessons from the Field: Observing the Need to Advance Resilience Globally, Dr. Remy Lequesne, University of Kansas.

Rémy D. Lequesne, P.E., F.ACI, is Associate Dean for Faculty and Staff Affairs and Professor of Civil,

Environmental, and Architectural Engineering at the University of Kansas. He is an expert in reinforced concrete mechanics and experimental research. His work to improve the robustness of new and existing infrastructure has affected practice, changed building codes, and won awards including the 2016 Wason Medal and the 2022 Mete A. Sozen Award. He is active working to translate research to practice through technical committees at the American Concrete Institute, including ACI 318, the building code for new construction, and ACI Subcommittee 562-G, the building code for Assessment, Repair, and Rehabilitation of Existing Concrete Structures.

Abstract:

ACI Committee 133 led a team of researchers and engineers to survey reinforced concrete buildings damaged in the earthquakes that struck Turkey and Syria in February 2023. The impacts of these earthquakes, in terms of the terrible number of casualties and displaced people, have been widely reported. Likewise, the presence of higher-than-expected demands and pervasive construction quality issues have been well documented.

The ACI team, comprised of ACI members and collaborators from Turkey and the surrounding region, surveyed hundreds of buildings in ten cities in south-central Turkey to document observations that might improve building design. Most buildings surveyed were modern (built since 2000) multi-story apartment buildings with reinforced concrete frame-wall systems, though the survey also included "tunnel-form" buildings that are comprised mostly of reinforced concrete walls and slabs. The team observed design details in damaged members that may prompt changes to building codes. Considerable damage to non-structural elements was also observed – even in well-designed buildings. There is a clear need for widely-applicable design approaches that limit damage to increase post-earthquake functionality.



Dr. Shiling Pei, Professor, Civil and Environmental Engineering Department, Colorado School of Mines

Dr. Pei is a professor in Civil and Environmental Eng. department of Colorado School of Mines. He recently led an NSF funded six-university

collaborative research project to introduce resilient tall mass timber buildings to the U.S. His team completed the test of a 10story full-scale wood building at NHERI@UCSD shake table, representing the world's tallest full-scale building ever tested on a shake table. Dr. Pei currently serves as the Chair of the ASCE Wood Design Committee. He also serves as Associate Editor for ASCE Journal of Structural Engineering and ASCE Journal of Architectural Engineering.



Bridging Disciplines and Supporting Teams: Leveraging the Natural Hazards Center and CONVERGE Facility to Advance Interdisciplinary Disaster Science, Dr. Jennifer Tobin, Natural Hazards Center, University of Colorado Boulder

Jennifer Tobin is the assistant director of the Natural Hazards Center, University of Colorado Boulder. Her research focuses on topics such as children and schools, disaster risk reduction, and community resilience following disasters. Tobin leads the organization and planning of the annual <u>Natural Hazards</u> <u>Workshop</u>, she is a co-administrator of the Natural Hazards Center's Federally-Funded <u>Research Award Programs</u>, and is actively engaged in the NSF-funded <u>CONVERGE</u> facility headquartered at the Natural Hazards Center.

Tobin received her PhD from the Department of Sociology at Colorado State University. Her dissertation research focused on educational continuity following the 2013 Colorado Front Range Floods. She earned her bachelor's in sociology and women's studies in 2005 and a master's in sociology in 2008. Her master's thesis research drew on qualitative interviews with local disaster recovery workers and single mothers who were displaced to Colorado after Hurricane Katrina.

Abstract:

Interdisciplinary collaboration is critical to understanding and addressing the complex, cascading impacts of disasters. The CONVERGE facility and the Natural Hazards Center at the University of Colorado Boulder support interdisciplinary research through a variety of tools, trainings, and funding programs. CONVERGE provides a suite of free, online training modules, research and publication protocols, and extreme events research check sheets designed to support ethical, inclusive, and methodologically rigorous interdisciplinary science.

Complementing these efforts, the Natural Hazards Center supports innovative, community-engaged scholarship through a diverse portfolio of Award Programs. These programs fund rapid response research, public health and weather ready studies, mitigation, and other cross-disciplinary projects that emphasize equity, inclusion, and real-world impact. Together, CONVERGE and the Natural Hazards Center are cultivating a research infrastructure that empowers scholars, practitioners, and students to collaborate across disciplines and generate transformative insights into disaster risk reduction. This presentation will provide attendees with tools, resources, and funding pathways to strengthen their own interdisciplinary research efforts.

DAY 3: 23 JULY 2025

MC: Dr. Toshio Fujimi



- 9:00—10:30 —Group discussion session summary of outcomes and recommendations— Panel Discussion Session II
- 10:30—11:00—Coffee break
- 11:00—12:00—Oral presentations—Advancing Global Disaster Risk Reduction and Resilience
- 12:30—13:00—Lunch break—Lunch with speakers
- 13:00—14:00—Oral presentations—Advancing Global Disaster Risk Reduction and Resilience

14:00—15:00—Wrap-up and Closing session
15:00—15:30—Coffee break
15:30—17:00—4th General Assembly of GADRI
17:00—19:00—Closing reception

Group discussion session summary of outcomes and recommendations

Panel Discussion Session III: Understanding and improving the relationship between science and technology, policy, and community in the context of the elements of the UNDRR Sendai Framework for Disaster Risk Reduction and the UNCC Paris Agreement

Chairs: Prof. Nobuhito Mori and Prof. Virginia Murray

Venue: Ballroom C

- A. Convergence approaches in research and implementation
- B. Focus on engagement, partnerships, communication, and resulting policies: Strengthening societal resilience for disasters
- C. Underscoring the need for fundamental research and focuses on advances in disciplinary and transdisciplinary research

Oral Presentation Session I: Advancing Global Disaster Risk Reduction and Resilience

18 min /person Presentation 15min, Q&A 3 min

Т

Session A—Chair: Prof. Yoshihito Ito and Prof. Desmond Manatsa Venue: Ballroom C					
Time	Presenter	Affiliation	Title		
	Shelley McMullen	University of Colorado Denver, USA	International Frameworks and Local Realities: Land Use Planning and Disaster Risk Management in Rwanda		
11:00-12:00	Katarina Holla	University of Zilina, Slovakia	Enhancing Urban Resilience: Lessons learned from three pilot cities in disaster preparedness and response		
	Mohsen Zaker Esteghamati	Utah State University, USA	A data-driven risk-based design to support community resilience objectives through high- performing buildings		
ession B—Cha	ir: Prof. Amit Dhiman	and Prof. Gretchen Kalonji Venue: L	ongs Peak		
	Rodrigo Cienfuegos	CIGIDEN - P. Universidad Católica de Chile	Innovative Approaches to Disaster Awareness and Risk Reduction: The Role of Art, Technolog and Community Engagement in Chile		
11:00-12:00	Dina Magnaye	University of the Philippines	From Informality to Formality: Resilient Settlement Development Actions for Local Government-Unit Administered Resettled Communities in Highly Urbanized Cities of Metro Manila		
	Jack Puleo	University of Delaware, USA	Total water level prediction for military installatio resilience		
ay 3 : Wedne	esday, 23 July 2025	- Afternoon Session			
ession A— Cha	air: Prof. Kishor Mehta	and Prof. Tomorahu Hori Venue:			
Time	Presenter	Affiliation	Title		
	Qiushan Li	Sichuan University, China	Integrating Local Knowledge and Environmental Simulation in Post-Disaster Recovery: A Convergent Framework for Vernacular Settlements		
13:00-14:00	Munsur Rahman	Bangladesh University of Engineering and Technology (BUET), Bangladesh	Use of Cyclone Classifier Model: A Next Generation Approach for Enhancing Community Resilience against Cyclonic Storm Surges		

	Xu Zhou	Beijing Institute of Technology, China	Research on the Risk Formation Mechanism of Carbon Markets under Major Shocks	
Session B— Chair: Dr. Roger Baars and Prof. Grace Yan Venue: Longs Peak				
13:00-14:00	Jong Sung Lee	National Center for Supercomputing Applications, University of Illinois, USA	IN-CORE Studio: Visual Model Builder for Community Resilience	
	Rosita Junneman	CIGIDEN, Chile	A Platform for Seismic and Tsunami Risk Assessment in Coastal Chile	
	Jagbir Singh	University of Delhi, India	Climate Change and Sustainable Development: A Community Approach in India	

Wrap-up and closing Session Chair: Prof. Paul Kovacs

Draft Resolution and the final outcomes

Presenters:

- Prof. John van de Lindt
- Prof. Andrew Collins
- Prof. Hirokazu Tatano



4th General Assembly of GADRI Chair: Prof. Paul Kovacs and Prof. Hirokazu Tatano

Registration -

At least, one member from GADRI Member institutes to attend this session.

Chairs: Paul Kovacs and Hirokazu Tatano

• Introduction of the GADRI Board of Directors

- Outcomes of the 7th Global Summit of GADRI; and member contributions
- Disaster and Risk Research: GADRI Book Series
- Venue for the 8th Global Summit of GADRI in March 2027 DPRI, Kyoto University, Japan



Members of the Board of Directors of GADRI

Europ	pe and Africa			
1	Prof. Guoyi Han	Senior Research Fellow	Stockholm Environment Institute (SEI), Sweden	Sweden
2	Prof. Andrew Collins	Leader	Disaster and Development Network, Northumbria University, Newcastle, UK	United Kingdom
3	Dr Kaushal Keraminiyage	Programme Director	Reader Programme Director – M.Sc. (Project Management in Construction), Research Centre for Disaster Resilience, School of Science, Engineering and Environment, University of Salford	United Kingdom
Asia a	and Oceania	 		
4	Prof. Amit Dhiman	Head	Centre for Disaster Mitigation and Management, Indian Institute of Technology (IIT), Roorkee, India	India
5	Prof. Chihiro Tanaka Dr. Roger Cloud Baars	Dean	Graduate School of Global Environmental Studies, Kyoto University, Japan	Japan
6	Prof. Yuichi Ono	Director	International Research Institute of Disaster Science (IRIDeS), Tohoku University	Japan
7	Dr. Bill Ho	Programme Officer	Asian Disaster Preparedness Center (ADPC)	Thailand
Amer	icas			
8	Prof. Paul Kovacs	Executive Director Chair of the Board of Directors Since 1 April 2021	Institute for Catastrophic Loss Reduction, Western University	Canada
9	Ms. Ana Milena Prada Dr. Maria Camila Suarez Paba	Director	National Unit for Disaster Risk Management in Colombia (NGRD) (Unidad Nacional para la Gestión del Riesgo de Desastres de Colombia-UNGRD)	
10	Prof. Irasema Alcántara Ayala	Director	Institute of Geography, Universidad Nacional Autónoma de México (UNAM), Mexico	Mexico
11	Prof. James Kendra	Program Director	Disaster Research Center, University of Delaware	USA
GADF	RI Secretariat			
12	Prof. Hirokazu Tatano	Secretary-General	GADRI Secretariat, Disaster Prevention Research Institute (DPRI), Kyoto University, Uji Campus, Gokasho, Uji-shi, Kyoto 611- 0011	Japan

Geographical Distribution of GADRI As of 30 June 2025



Area	Members	Economies
Africa	12	7
Americas	35	8
Asia (Excluding Japan)	87	24
Europe	42	15
Japan	31	1
Oceania	11	2
Total Institutes	218	57

Conference Floor Layout

<u> </u>	0				
Ţ	300 LEVEL				
	VENDORS	399B	Aspen Grille		
	EVENI SPACE	Meeting Rooms 302 350 387 399A	300, 304, 306, 308, 310, 312, 322, 324, 328, 330, 372, 374, 376, 378, 380, 381A, 382, 384, 386, 390, 392, 394, 396, 398 Longs Peak Room Grand Ballroom A-D Never No Summer (<i>Nii-cii-biicei'i</i>) University Ballroom		
	AMENITIES	316 320 326 332 336 337 366 368 388B 399	Paul & Elsie Forsythe Legacy Lounge Duhesa Gallery Study Room Study Room Lactation Room Reflection Room Lactation Room Lactation Room Lactation Room		
0101110	OFFICES	303 315 327 333 335	Executive Director's Office Event Planning Services Native American Cultural Center Asian/Pacific American Cultural Center Black/African American Cultural Center		





LEGEND

RESTROOM

•



LORY STUDENT CENTER COLORADO STATE UNIVERSITY 7th Global Summit— GADRI Secretariat Office

44











Global Allian

Disaster Research Institutes

GADRI Secretariat

Disaster Prevention Research Institute (DPRI)

Kyoto University

Gokasho, Uji-shi

Kyoto 611-0011, Japan

E-mail: secretariat-gadri@dpri.kyoto-u.ac.jp

Tel: +81-774-38-4651

ProgrammeHandbookVenue